

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

B.Sc. DEGREE: BRANCH V. A. PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

SYLLABUS

(Effective from the academic year 2015 – 2016)

ALGAE, FUNGI AND LICHENS

CODE: 15BT/MC/AF14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES

- To enable students to understand the diverse assemblage of lower plants
- To understand the life cycle patterns of lower plants

ALGAE

Unit 1 (6 hrs.)

- 1.1 Classification of Algae (Bold and Wynne, 1978)
- 1.2 Characteristics of Algal Divisions

Unit 2 (20 hrs.)

- Detailed study of the Thallus Organisation, Reproduction and Life Cycle Pattern of the following forms (no development)
- 2.1 Cyanochloronta - *Nostoc*
 - 2.2 Chlorophycophyta - *Volvox*, *Caulerpa* and *Cladophora*
 - 2.3 Charophyta - *Chara*
 - 2.4 Phaeophycophyta - *Sargassum*
 - 2.5 Rhodophycophyta - *Polysiphonia*

FUNGI

Unit 3 (6 hrs.)

- 3.1 Classification of Fungi (Alexopoulos and Mims, 1979)
- 3.2 Characteristics of major Fungal classes

Unit 4 (15 hrs.)

- Detailed Study of the Thallus Organisation, Reproduction and Life Cycle Pattern of the following forms (no development)
- 4.1 Chytridiomycetes - *Synchytrium*
 - 4.2 Plasmodiophoromycetes - *Plasmodiophora*
 - 4.3 Oomycetes - *Albugo*
 - 4.4 Ascomycetes - *Peziza*
 - 4.5 Basidiomycetes - *Puccinia*
 - 4.6 Deuteromycetes - *Cercospora*

LICHENS

Unit 5

(5 hrs.)

5.1 Lichens: Types: Foliose, Crustose and Fruticose, Structure, Reproduction, Ecological and Economic importance

TEXT BOOKS

Sharma, O.P. *Text book of Algae*. New Delhi: Tata McGraw - Hill, 1986.

Sharma, O.P. *Text book of Fungi*. New Delhi: Tata McGraw – Hill, 1986.

BOOKS FOR REFERENCE

Alexopoulos, C. J. *Introductory Mycology*. New York: John Wiley, 1962.

Bhattacharya, Gopal. *Textbook of Mycology*. Agrotech., 2013.

Bold, H. C. and M.J. Wynne. *Introduction to Algae*. New Delhi: Prentice Hall of India, 1979.

Bold, H.C. *Morphology of Plants*. New York: Harper & Row, 1973.

Chapman, V. J. and D. J. Chapman. *The Algae*. London: Macmillan, 1973.

Dube, H.C. *A Text Book of Fungi, Bacteria and Viruses*. New Delhi: Vikas, 1985.

Ingold, C. T. *Biology of Fungi*. London: Hutchinson Educational, 1993.

Misra, A. and A. Agarwal. *Lichens- A Preliminary Text*. London: Oxford and IBH, 1978.

Morris, I. *An Introduction to Algae*. London: Hutchinson University Library, 1967.

Sharma, P.D. *Fungi and Allied Organism*. New Delhi: Narosa, 2005.

Smith, G.M. *Manual of Phycology*. New York: McGraw-Hill, 1955.

Vashista Sinha B.R and V.P. Singh. *Botany for Degree students, Algae* 9th revised ed. New Delhi: S.Chand, 2002.

JOURNALS

Algal Research (Elsevier)

Algal Research (Science direct)

International Journal on Algae

Fungal Biology

Fungal Diversity

WEB RESOURCES

www.journals.elsevier.com

www.sciencedirect.com

www.springer.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – Objective questions 9 x 1 = 9 marks
Short paragraphs 3 x 3 = 9 marks (3 out of 4)

Section B – 2 x 6 = 12 marks (2 out of 3 questions to be answered in 200 words each)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1000 words each)

Third Component:

List of evaluation modes:

Seminars

Quiz

Assignments

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – Objective questions 18 x 1 = 18 marks
Short paragraphs 6 x 3 = 18 marks (6 out of 9)

Section B – 4 x 6 = 24 marks (4 out of 6 questions to be answered in 200 words each)

Section C – 2 x 20 = 40 marks (2 out of 4 questions to be answered in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

B.Sc. DEGREE: BRANCH V. A. PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

SYLLABUS

(Effective from the academic year 2015 – 2016)

PRINCIPLES OF APPLIED BIOTECHNOLOGY

CODE: 15BT/MC/PB14

CREDITS: 4

L T P: 4 0 0

TOTAL HOURS: 52

OBJECTIVES

- To understand the applied aspects of Biotechnology
- To study the fundamental principles and applications of biotechnology in food, health care, and energy

Unit 1

Introduction

(5 hrs.)

- 1.1 Introduction and Scope of Biotechnology
- 1.2 Mass cultivation, Nutraceutical and Pharmaceutical Applications of SCP (*Spirulina*)
- 1.3 Algal Biofertilizers

Unit 2

Mushroom Cultivation

(10 hrs.)

- 2.1 Mushrooms: Morphology, Types - *Pleurotus sp.*, *Agaricus sp.* and *Volvariella sp.*
- 2.2 Identification of edible and poisonous mushrooms, Nutritive value
- 2.3 Cultivation – *Pleurotus sp.* and *Agaricus sp.*-Isolation, Spawn Production, Growth Media, Spawn running, Harvest and Uses

Unit 3

Dairy Technology

(15 hrs.)

- 3.1 Cheese: Principles of Cheese making, Milk, Starter Culture, Coagulant, Knitting of Curds, Salting, Pressing and Ripening
- 3.2 Types of Cheese: Cheddar, Camembert and Roquefort
- 3.3 Yoghurt Manufacture
- 3.4 Demonstration on yoghurt preparation

Unit 4

Bakery

(7 hrs.)

- 4.1 Bread production
- 4.2 Forms and Functions of Yeast in Bread Making
- 4.3 Estimation of Rate of Fermentation Using Yeast (Practicals)

Unit 5

(15 hrs.)

Fermentation Technology

5.1 Media and Equipment

5.2 Antibiotics: Penicillin - Strain Selection, Media, Fermentation, Harvest, Recovery and Uses

5.3 Organic acid: Citric acid - Production, Recovery and

Industrial applications

5.4 Demonstration on Citric Acid Production

Field Visits and Workshops

- Visit to Nallayan Research Centre (Mass Cultivation and Microscopic Studies of *Spirulina*)
- Workshop on Mushroom Cultivation
- Visit to Modern Bakery

BOOKS FOR REFERENCE

Dhawan, V. *Biotechnology for Food and Nutritional Security*. India: TERI, 2004.

Dubey, R.C. *A Text book of Biotechnology*. New Delhi: S.Chand, 1993.

Ignacimuthu, S. *Basic Biotechnology*. New Delhi: Tata-McGraw, Hill, 1996.

Ignacimuthu, S.J. *Biotechnology –An Introduction*. New Delhi: Narosa, 2012.

Kumar, H.D. *A Text book of Biotechnology*. New Delhi: East West, 1993.

Kamal Nayan Joshi. *Biotechnology*. Manglam, Delhi. 2013.

Patel, A.H. *Industrial Microbiology*. New Delhi: Macmillan, 1999.

Prescott and Dunn. *Industrial Microbiology*, USA: The AVI, 1987.

Srivastava H.S. *An Introduction to Biotechnology*. Meerut: Rastogi, 2001.

Trehan, K. *Biotechnology*. New Delhi: Wiley, 1991.

JOURNALS

Algae Biotechnology

Journal of Industrial Microbiology and Biotechnology

World Journal of Microbiology & Biotechnology

Central European Journal of Biology

Journal of Applied Biotechnology

Bioprocess and Biosystems Engineering

WEB RESOURCES

www.ibab.ac.in

www.springer.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – Objective questions 9 x 1 = 9 marks
Short Paragraphs 3 x 3 = 9 marks (3 out of 4)

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Section C – 1x 20 = 20 marks (1 out of 2 questions to be answered in 1000 words each)

Third Component:

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Seminars

Quiz

Assignments

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – Objective questions 18 x 1 = 18 marks
Short Paragraphs 6 x 3 = 18 marks (6 out of 9)

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Section C – 2x 20 = 40 marks (2 out of 4 questions to be answered in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

B.Sc. DEGREE: BRANCH V. A. PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

SYLLABUS

(Effective from the academic year 2015 – 2016)

ALGAE, FUNGI AND LICHENS - PRACTICAL

CODE: 15BT/MC/P112

CREDITS: 2

L T P: 0 0 3

TOTAL HOURS: 39

ALGAE

Study of the forms mentioned in the theory syllabus

Visit to places of Phycological importance - Kovalam

Herbarium - Algal specimens (minimum 3 sheets) to be submitted at the time of examination

FUNGI

Study of the forms mentioned in the theory syllabus

Herbarium – Fungal/Bacterial disease plants (minimum 2 sheets) to be submitted at the time of examination

Visit to Rice Research Station, Chevapet, Thirur

LICHENS

A general study of various types of Lichens – Crustose, Foliose and Fruticose

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Two Tests each of 90 mins. duration (2 X 20 = 40 Marks)

Record

10 Marks

End Semester Examination

Duration: 3 hrs

Marks: 50

- | | |
|--|------------|
| 1. Sectioning, Drawing, Identification with reasons (1 alga, 1 fungus) | 2 x 7 = 14 |
| 2. Spotters (4) (Identification, Diagram, Notes) | 4 x 4 = 16 |
| 3. Algal Mixture(2 forms out of 3, Identification, Diagram) | 5 |
| 4. Spot at sight(Division, Class, Genus and Morphology) | 10 |
| 5. Herbarium (Algae – 3, fungi – 2) | |

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
Allied Core Offered to Students of B.Sc Advanced Zoology and Biotechnology

SYLLABUS
(Effective from the academic year 2015 – 2016)

GENERAL BOTANY – I

CODE: 15BT/AC/GB14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES

- To learn the characteristic features of a few botanical families and to know their economic importance
- To understand the structural details of the lower groups in the plant kingdom

Unit 1 (17 hrs.)

Taxonomy

1.1 A general outline of Bentham and Hooker's Classification

1.2 A study of the salient features of the following families and their Economic Importance

- | | |
|------------------|------------------|
| a. Annonaceae | b. Cucurbitaceae |
| c. Apocynaceae | d. Lamiaceae |
| e. Euphorbiaceae | f. Arecaceae |

Unit 2 (7 hrs.)

Anatomy

2.1 Primary Structure of Dicot Stem and Root

2.2 Secondary Growth in Typical Dicot Stem and Root

2.3 Leaf: Isobilateral and Dorsiventral

Unit 3 (10 hrs.)

Algology

3.1 Salient features of the characteristic features of Algae

3.2 A detailed study of the Life Cycle of the following Algae (no development)

- | | | |
|------------------|-----------------|---------------------|
| a. <i>Nostoc</i> | b. <i>Chara</i> | c. <i>Sargassum</i> |
|------------------|-----------------|---------------------|

Unit 4 (10 hrs.)

Mycology

4.1 Salient features of the characteristic features of Fungi

4.2 A detailed study of the Life Cycle of the following Fungi (no development)

- | | | |
|--------------------|-----------------------|---------------------|
| a. <i>Rhizopus</i> | b. <i>Aspergillus</i> | c. <i>Polyporus</i> |
|--------------------|-----------------------|---------------------|

Unit 5**(8 hrs.)****Plant Pathology**

5.1 A study of the Causal Organism, Symptoms and control measures of the following Plant Diseases: Citrus Canker, Tikka Disease of Groundnut, Red Rot of Sugarcane

TEXT BOOK

Rao, K. N. and R.V.Narayanaswamy. *Ancillary Botany*. Madras: S.Vishwanathan, 1986.

BOOKS FOR REFERENCE

Bhattacharya Gopal, *Textbook of Mycology*. Agrotech, 2013.

Chopra, G.L., *A Text book of Fungi*, Meerut, India: S.Nagin & Co. Pandey B.P., *College Botany*. Vol.I Fungi & Pathology. 1997.

Pandey, B.P. *Text Book of Botany Algae*, New Delhi: S.Chand, 2000.

Sharma, O.P., *Text Book of Algae*, New Delhi: Tata McGraw Hill, 1992.

Sharma, O.P. *Text book of Fungi*, New Delhi: Tata McGraw – Hill, 1986.

Singh, V., Pande P.C and Jain D.K: *Anatomy of Seed Plants*. India: Rastogi, 1996.

Vashista B.R., Sinha P and Singh V., New Delhi: *Botany for Degree students*, Algae, S.Chand, 2002.

Vashista B.R. New Delhi: *Botany for Degree Students – Fungi*, S.Chand. 1982.

JOURNALS

International Journal of Algae

Fungal Biology

Journal of Botany

Natural Areas Journal

WEB RESOURCES

www.springer.com/life+science

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – Objective questions 9 x 1 = 9 marks
Short Paragraphs 3 x 3 = 9 marks (3 out of 4)

Section B – 2 x 6 = 12 marks (2 out of 3 questions to be answered in 200 words each)

Section C – 1x 20 = 20 marks (1 out of 2 questions to be answered in 1000 words each)

Third Component:

List of evaluation modes:

Seminars

Quiz

Assignments

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – Objective questions 18 x 1 = 18 marks
Short Paragraphs 6 x 3 = 18 marks (6 out of 9)

Section B – 4 x 6 = 24 marks (4 out of 6 questions to be answered in 200 words each)

Section C – 2x 20 = 40 marks (2 out of 4 questions to be answered in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

Allied Core Offered Students of Advanced Zoology and Biotechnology

SYLLABUS

(Effective from the academic year 2015 – 2016)

GENERAL BOTANY - I – PRACTICAL

CODE:15 BT/AC/P111

CREDITS: 1

L T P: 0 0 2

TOTAL HOURS: 26

TAXONOMY

Description in Technical Terms of Plants belonging to the Families mentioned in the Syllabus

Dissection of Flowers, Observation and Sketching of Floral Parts, Construction of Floral Diagram and Floral Formula

ANATOMY

Preparation of suitable sections of Angiosperm Material included in the Syllabus and their Interpretation

ALGOLOGY AND MYCOLOGY

Identification, Observation and Sketching of Types Included in the Syllabus

PLANT PATHOLOGY

Identification, Observation and Sketching of Types Included in the Syllabus

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Two Tests each of 90 mins. duration (2 X 20 = 40 Marks)

Record 10 Marks

End Semester Examination

Duration: 3 hrs

Marks: 50

1. Taxonomy – Description (1)	10
2. Anatomy – Sectioning & Identification (1)	10
3. Spotters (5) – 5 x 5	25
4. Pathology specimen	5

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B.Sc. DEGREE: BRANCH V. A. PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

SYLLABUS

(Effective from the academic year 2015 – 2016)

BRYOPHYTES, PTERIDOPHYTES AND GYMNOSPERMS

CODE: 15BT/MC/BP24

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES

- To learn the classification, structure, organization, reproduction and life cycles of lower vascular plants
- To study the primitive and advanced features of living and fossil forms

Unit 1 (10 hrs.)

Classification and Characteristics

- 1.1 Classification of of Bryophyta (Proskauer, 1957) and Characteristic Features of following classes: Hepaticopsida, Anthocerotopsida, Bryopsida
- 1.2 Classification of Pteridophyta (Reimers, 1951) and Characteristic Features of the following classes: Lycopsida, Sphenopsida and Pteropsida
- 1.3 Classification of Gymnospermae (Bierhorst, 1971) and Characteristic Features of the following classes: Cycadopsida and Gnetopsida

Unit 2 (12 hrs.)

Bryophytes

- 2.1A Detailed Study of the Thallus Structure, Anatomy and Reproduction of the following (no development): Hepaticopsida – *Porella*, Anthocerotopsida – *Anthoceros*, Bryopsida - *Polytrichum*

Unit 3 (12 hrs.)

Pteridophytes

- 3.1 A Detailed Study of the Plant Body, Anatomy and Reproduction of the following: (no development): Lycopsida – *Lycopodium*, Sphenopsida – *Equisetum*, Filices - *Marsilea*

Unit 4 (11hrs.)

Gymnosperms

- 4.1 A Detailed Study of the Plant Body, Anatomy and Reproduction of the following (no development): Cycadopsida – *Cycas* and Gnetopsida – *Gnetum*

Unit 5

(7 hrs.)

Fossils

5.1 Table of the Geological Time Scale

5.2 Process of Fossilization

5.3. Fossil forms - Pteridophyta: *Lepidodendron*, *Stigmaria*,
Lepidostrobus and *Lepidocarpon*

Gymnosperms: *Williamsonia*

TEXT BOOK

Pandey, S.N., P.S. Trivedi and A. Misra. *A Textbook of Botany Vol II- Bryophytes, Pteridophytes and Gymnosperms*. New Delhi: Vikas, 1999.

BOOKS FOR REFERENCE

BRYOPHYTES

Prem Puri, *Bryophytes –Morphology, Growth and Differentiation* Delhi.: Atma Ram, 1981.

Smith, G.M. *Cryptogamic Botany* Vol II. London: McGraw Hill, 1995.

Srivastava, H.N. *Bryophytes*. India: Pradeep, 2007.

Watson, E.V. *The structure and Life of Bryophytes*, London: Hutchinson University Library. 1968.

Vashista, P.C., *Botany for Degree Students* Vol. IV, New Delhi: S.Chand, 1967.

PTERIDOPHYTES

Arnold, C.A., *An Introduction to Palaeobotany*, McGraw Hill, 1947.

Eames, A.J. *Morphology of Vascular Plants*. New Delhi: Tata McGraw Hill, 1999.

Smith, G.M. *Cryptogamic Botany*, -Vol.II. London: McGraw Hill, 1999.

Sporne, K.R. *Morphology of Pteridophytes*. New Delhi: B.I, 1980.

Sporne, K.R., *Morphology of Pteridophytes*, B.I, 1976.

Sukla & Mishra, S.P., *Essentials of Palaeobotany*, Vikas, 1982.

GYMNOSPERMS

Chamberlain, C.J. *Gymnosperms - Structure and Evolution*. New Delhi: CBS, 1980.

Coulter, J.M. and C.J. Chamberlain. *Morphology of Gymnosperms*. Allahabad: Central Book Depot, 1960.

Srivastava, H.N. *Gymnosperms*. India: Pradeep, 2004.

Vashista, P.C., *Botany for Degree Students*. Vol. V (Gymnosperms) New Delhi: S. Chand, 1976.

Sporne, K.R., *Morphology of Gymnosperms*. B.I., 1976.

WEB RESOURCES

BRYOPHYTES

www.cpbr.gov.au/bryophyte

www.britannica.com

www.csun.edu

www.scilinks.org

blogs.ubc.ca

PTERIDOPHYTES

www.uwgb.edu

www.hardyferns.org

GYMNOSPERMS

www.conifers.org

Wikipedia.org/wiki/gymnosperms

www.exploringnature.org

JOURNALS

BRYOPHYTES

Annals of Botany

Systematic Botany

Journal of Bryology

Journal of Botany

PTERIDOPHYTES

A Journal of Botanical Nomenclature

Current Biology

American Journal of Plant Sciences

Natural Areas Journals

The British Fern Gazette

American Fern Journal

GYMNOSPERMS

Journal of Botany

Canadian Journal of Botany

Nordic Journal of Botany

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – Objective questions 9 x 1 = 9 marks
Short Paragraphs 3 x 3 = 9 marks (3 out of 4)

Section B – 2 x 6 = 12 marks (2 out of 3 questions to be answered in 200 words each)

Section C – 1x 20 = 20 marks (1 out of 2 questions to be answered in 1000 words each)

Third Component:

List of evaluation modes:

Quiz

Assignments

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – Objective questions 18 x 1 = 18 marks
Short Paragraphs 6 x 3 = 18 marks (6 out of 9)

Section B – 4 x 6 = 24 marks (4 out of 6 questions to be answered in 200 words each)

Section C – 2x 20 = 40 marks (2 out of 4 questions to be answered in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

B.Sc. DEGREE: BRANCH V. A. PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

SYLLABUS

(Effective from the academic year 2015 – 2016)

BRYOPHYTES, PTERIDOPHYTES AND GYMNOSPERMS - PRACTICAL

CODE: 15BT/MC/P221

CREDITS: 1

L T P: 0 0 2

TOTAL HOURS: 26

BRYOPHYTES

- 1 Porella
- 2 Anthoceros (slides only)
- 3 Polytrichum (slides only)

PTERIDOPHYTES

- 1 Lycopodium
- 2 Equisetum (slides only)
- 3 Marsilea

GYMNOSPERMS

- 1 Cycas
- 2 Gnetum (slides only)

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Two Tests each of 90 mins. duration (2 X 20 = 40 Marks)

Record 10 Marks

End Semester Examination:

Total Marks: 50

Duration: 3 hours

- | | |
|---|------------|
| 1 Sectioning, Drawing, Identification with reasons | 3 x 8 = 24 |
| 2 Spotters (4) Drawing, Identification with reasons | 4 x 5 = 20 |
| 3 Spot at sight (3) Division, Class, Genus and Morphology | 3 x 2 = 6 |

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

Allied Core Offered to Students of Advanced Zoology and Biotechnology

SYLLABUS

(Effective from the academic year 2015 – 2016)

GENERAL BOTANY – II

CODE:15 BT/AC/GB24

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES

- To enable students to understand the physiological activities occurring in plants
- To study the structure, organization, reproduction and life cycle of lower plants

Unit 1 (16 hrs.)

Bryophyta , Pteridophyta and Gymnospermas

- 1.1 Salient features of Bryophyta ,Pteridophyta and Gymnospermae
- 1.2 A Detailed Study of the Life Cycle (no development) of *Funaria*
- 1.3 A Detailed Study of the Life-Cycle (no development) of *Adiantum*
- 1.4 A Detailed Study of the Life-Cycle (no development) of *Cycas*

Unit 2 (12hrs.)

Physiology - I

- 1.1 Photosynthesis - Light Reaction: Red Drop, Emerson Enhancement Effect, Pigment System I and II, Phosphorescence, Fluorescence, Cyclic and Non Cyclic Photo Phosphorylation. Dark Reaction: C3 and C4
- 1.2 Respiration – Aerobic: Glycolysis, Krebs Cycle, Organization of the Respiratory Chain, Electron Transport Pathway and Oxidative Phosphorylation. Anaerobic Fermentation

Unit 3 (8 hrs.)

Physiology - II

- 3.1 Plant Growth Regulators - Auxins, Gibberellins, Cytokinins, ABA and Ethylene-Practical Applications
- 3.2 Photoperiodism – Long and Short Day Plants – Phytochrome, Florigen and Vernalisation

Unit 4 (8 hrs.)

Applied Botany I

- 4.1 Bonsai Technique
- 4.2 Cut Flowers, Importance and Methods to Prolong Vase Life
- 4.3 Flower Arrangement - Fresh and Dry

Unit 5 (8 hrs.)

Applied Botany II

- 5.1 Principles of Plant Tissue Culture
- 5.2 Oyster and Button Mushroom: Cultivation and Marketing

TEXT BOOK

Rao, K. N., and R.V.Narayanaswamy, *Outlines of Botany*. Madras: S.Viswanathan, 1986.

BOOKS FOR REFERENCE

Janick, J. *Horticultural Science*. New Delhi: Surgeet.1982.

Kumar, N. *Introduction to Horticulture*. Nagercoil: Rohini, 1980.

Sinha, R.K. *Modern Plant Physiology*. New Delhi: Narosa, 2014.

Verma, V. *Text Book of Plant Physiology*. New Delhi: Emkay, 1989.

Verma, S.K. *Plant Physiology and Biochemistry*. New Delhi: S Chand, 2000.

Vidyarthi, R.D. *Text Book of Botany*. New Delhi: S.Chand, 1992.

WEB RESOURCES

PTERIDOPHYTA

www.uwgb.edu

www.hardyferns.org

GYMNOSPERMS

www.conifers.org

Wikipedia.org/wiki/gymnosperms

www.exploringnature.org

PHYSIOLOGY

www.journals.elsevier.com

www.springer.com

www.academicjournals.org

JOURNALS

Journal of Plant Physiology (Elsevier)

Journal of Plant Physiology (Science Direct)

International Journal of Plant Physiology and Biochemistry

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

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Third Component:

List of evaluation modes:

Quiz

Assignments

End Semester Examination

Total Marks: 100

Duration: 3 hours

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Allied Core Offered to Students of Advanced Zoology and Biotechnology

SYLLABUS

(Effective from the academic year 2015 – 2016)

GENERAL BOTANY –II PRACTICAL

CODE: 15BT/AC/P221

CREDITS: 1

L T P: 0 0 2

TOTAL HOURS: 26

BRYOPHYTA

Identification, Observation and Sketching of Type Included in the Syllabus

PTERIDOPHYTA AND GYMNOSPERMS

Preparation of suitable sections of forms included in the Syllabus and their Interpretation

PHYSIOLOGY

Physiology Experiments included in the Syllabus – Observation and Interpretation

Rate of Photosynthesis with varying Intensity and Quality of Light

Rate of Respiration using Respiroscope

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Two Tests each of 90 mins. duration (2 X 20 = 40 Marks)

Record 10 Marks

End Semester Examination

Duration: 3hrs

Marks: 50

- | | |
|---|----|
| 1. Pteridophyte and Gymnosperm
Sectioning & Identification, Diagram, Reasons (1) | 20 |
| 2. Individual experiment: Physiology – set up, procedure, tabulation, result | 10 |
| 3. Spotters (5) Identification, Diagram, Reasons 5 x 4 | 20 |

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.Sc. DEGREE: BRANCH V. A. PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

SYLLABUS

(Effective from the Academic Year 2015 – 2016)

ENVIRONMENTAL STUDIES

CODE: 15BT/GC/ES22 CREDITS : 2

L T P : 2 0 0

TOTAL TEACHING HOURS : 26

OBJECTIVES OF THE COURSE

- To create an awareness about current environmental issues
- To educate students on conservation and management of natural resources
- To encourage students to be ecosensitive and ecofriendly

Unit 1

Introduction

(6 hrs.)

- 1.1 Components of the Environment – Classification and Characteristics of Resources – Renewable and Non – Renewable Resources
- 1.2 Need for Public Awareness in Conservation of Natural Resources
- 1.3 Energy Flow in Ecosystems – Aquatic and Terrestrial – Food Chain and Food Web

Unit 2

Pollution and Socio Economic Aspects of the Environment

(10 hrs.)

- 2.1 Types of Pollution – Air, Water, Solid Waste, Noise
- 2.2 Problems - Green House Effect – Depletion of the Ozone Layer – Climate Change
- 2.3 Bio Diversity - Definition - Loss of Bio Diversity – Threats to Biodiversity and Conservation of Biodiversity
- 2.4 Human Behaviour: - Population – Urbanization – Poverty (As Cause and Result of Pollution and Degradation)
- 2.5 Technology: Agriculture and Industry – Deforestation. Misuse and Abuse of the Resources
- 2.6 Effects and Consequences of Environmental Problems

Unit 3

Sustainable Development, Remedies and Policy Implications

(10 hrs.)

- 3.1 Environmental Disasters Natural and Human Made – Bhopal Gas Tragedy – Chernobyl Accident – Fukushima Nuclear Crisis – Gulf War – Love Canal Episode – Tsunami – Volcanic Eruptions
- 3.2 Methods Evolved to Measure and Check Environmental Degradation and Pollution – Carbon Footprint, Carbon Credit, Ecological Footprint, and Ecological Shadow
- 3.3 Environmental Movements in India – Chipko Movement, Narmada Bachao Andolan, Sethu Samudram Project

- 3.4 Environmental Acts – Policy Measures with respect to India
- 3.5 International Environmental Agreement – Stockholm Conference – Montreal Protocol – Rio Meet – Kyoto Conference – UN Conference on Climate Change (Copenhagen)

Field visit

Eco initiatives at the campus: Garbage Segregation and Vermicomposting – Greywater Recycling – Rainwater Harvesting – Solar Powered Lights – Biodiversity

TEXT BOOK

Bharucha, E. *Textbook of Environmental Studies*. Hyderabad: Universities Press, 2005.

REFERENCE BOOKS

Ignacimuthu, S. *Environmental Awareness and Protection*. New Delhi: Phoenix House, 1997.

Jadhav, H and V. M. Bhosale. *Environmental Protection and Law*. New Delhi: Himalaya, 1995.

Odum, E.P. *Fundamentals of Ecology*. U.S.A: W.B. Saunders, 1971.

Mies, M and V. Shiva. *Ecofeminism*, London: Zed Books, 1989.

Singh, H.R. *Environmental Biology*. New Delhi: S.Chand, 2005.

PATTERN OF EVALUATION (Internal assessment)

No End Semester Examination

Continuous Assessment:

One Hour Test – 25 Marks

One Component – 25 Marks

STELLA MARISCOLLEGE (AUTONOMOUS), CHENNAI – 600 086

B.Sc. DEGREE: BRANCH V. A. PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

SYLLABUS

(Effective from the academic year 2015 – 2016)

TAXONOMY OF ANGIOSPERMS AND ECONOMIC BOTANY

CODE: 15BT/MC/TE34

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES

- To understand the vegetative and reproductive features of a few families of angiosperms
- To identify some of the common flowering plants of Tamil Nadu

TAXONOMY OF ANGIOSPERMS

Unit 1 (10 hrs.)

Classification and Plant Morphology

- 1.1 Phenetic (Linnaean, Bentham and Hooker), Phylogenetic (Angiosperm Phylogeny Group III (APG III)) Systems of Classification
- 1.2 Detailed study of Bentham and Hooker's Classification (Merits and Demerits)
- 1.3 Overview of Plant Morphology - Habit, Roots, Stems, Buds, and Leaves
- 1.4 Floral Morphology: Flowers, Floral Diagram and Floral Formulae
- 1.5 Fruit Morphology Fruit Types

Unit 2 (10 hrs.)

Nomenclature and Herbaria

- 2.1 Plant nomenclature: Binomial and Polynomial, Author Citation (ICN)
- 2.2 Herbarium Techniques: Collection, Pressing, Drying, Poisoning, Mounting and Preservation of Plant Specimens
- 2.3 Important Botanical Gardens and some Important Herbaria
 - 2.3.1 Acharya JCB Botanical Garden, Kolkata, Sims Park, Coonoor, TN., Experimental Garden, Yercaud. Kew Gardens, UK
 - 2.3.2 Central National Herbarium (BSI), Coimbatore, Rapinat Herbarium, Trichy, TN

Unit 3 (11 hrs.)

Detailed Study of the Diagnostic Characteristics and Economic Importance of the following:

- 3.1 Polypetalae - Annonaceae, Rutaceae, Fabaceae (including the subfamilies), Cucurbitaceae and Apiaceae

Unit 4 (11 hrs.)

Detailed Study of the Diagnostic Characteristics and Economic Importance of the following:

4.1 Gamopetalae - Rubiaceae, Apocynaceae, Solanaceae, and Acanthaceae and Lamiaceae

4.2 Monochlamydeae - Amaranthaceae, Euphorbiaceae

4.3 Monocotyledones - Orchidaceae, Arecaceae and Poaceae

Unit 5 (10 hrs.)

A Brief Study of the Economic Products: Botanical name, Common name, Family, Morphology of the Useful Part and Uses of the following: -

5.1 Fibre and Fibre yielding Plants: Cotton, Jute

5.2 Tannins and Dyes: *Acacia catechu*, *Caesalpinia sappan*, *Haematoxylum campechianum*

5.3 Gums and Resins: Gum Arabic, Resin, Dammar Gum, Guggul, Olibanum

5.4 Spices and Condiments: Cumin, Mustard, Turmeric, Cinnamon, Nutmeg,

5.5 Bay Leaves, Fenugreek and Asafoetida

5.6 Fumitories and Masticatories: Tobacco, Cannabis, Areca Nut and Betel Leaf

TEXT BOOKS

Singh, V. and D.K. Jain. *Taxonomy of Angiosperms*. Meerut: Rastogi, 1989.

Verma, V. *A Text Book of Economic Botany*. London: Cambridge University, 1989.

BOOKS FOR REFERENCE

Antony V.T., *Biodiversity of Flowering Plants*. Sonali, 2011.

Gamble, J.S. *Flora of the Presidency of Madras.*, Vol. II., New Delhi: Jayyed, 1956.

Hill, A.F. *Economic Botany*. New York: Tata McGraw-Hill, 1969.

Jeffrey, C. *An introduction to Plant Taxonomy.*, London: Cambridge University, 1982.

Lawrence, George.H.M., *Taxonomy of Vascular Plants.*, New Delhi: Oxford IBH, 1987.

Maiti R K., *Introduction to Modern Economic Botany*. Agrobios, 2009.

Rendle, A.B. *Classification of Flowering Plants*, Vol. I & II. London: Cambridge University, 1980.

JOURNAL

Angiosperm Phylogeny Group. An update of the Angiosperm Phylogeny Group classification for the orders and families of flowering plants: APG II. *Botanical Journal of the Linnean Society* 141(4): 399-436. doi: 10.1046/j.1095-8339.2003.t01-1-00158. 2003.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – Objective questions 9 x 1 = 9 marks
Short Paragraphs 3 x 3 = 9 marks (3 out of 4)

Section B – 2 x 6 = 12 marks (2 out of 3 questions to be answered in 200 words each)

Section C – 1x 20 = 20 marks (1 out of 2 questions to be answered in 1000 words each)

Third Component:

List of evaluation modes:

Crossword,
Open book test
Quiz
Assignments

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – Objective questions 18 x 1 = 18 marks
Short Paragraphs 6 x 3 = 18 marks (6 out of 9)

Section B – 4 x 6 = 24 marks (4 out of 6 questions to be answered in 200 words each)

Section C – 2x 20 = 40 marks (2 out of 4 questions to be answered in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

B.Sc. DEGREE: BRANCH V(A). PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

SYLLABUS

(Effective from the academic year 2015 – 2016)

PHYTOTHERAPY AND ETHNOBOTANY

CODE: 15BT/MC/PE34

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES

- To create an awareness about indigenous medicinal systems and tribal traditional practices
- To learn the therapeutic property of plants through preparation of herbal medicines

Unit 1 (14 hrs.)

Origin of Herbs in Health Care

1.1 Basic Principles of Ayurveda and Siddha: Panchamahabhutas, Tridoshha Concept, Malas, Agni, Prakruti

1.2 Drug Preparation: Ashwam, Arishtam, Taila, Churnam, Leghyam, Bhasmam, Infusion and Decoction, Poultice: Salves, Compresses, Mouthwash

1.3 Adulteration, Detection and Standardization of Herbal Drugs

1.4 Validation of Herbal Drugs and Good Manufacturing Practices

1.5 Preparation of the following (Practical) Ayurveda / Siddha Medicines for Common Ailments: Infusion and Decoction, Poultice, Salves and Creams, Mouth wash and Herbal Tooth Powder, Tailam, Churnam and Leghyam

1.6 Microscopic and Qualitative Analysis of Herbal Drug (Churnam) (Practical)

Unit 2 (18 hrs.)

Organoleptic Study

Vernacular Name, Binomial, Family, Active Principle and Medicinal Uses of the following:

2.1 Roots: *Asparagus racemosus*, *Rauwolfia serpentina*

2.2 Underground Stem : *Zingiber officinalis*, *Curcuma longa* and *Allium cepa*

2.3 Leaves: *Ocimum sp.*, *Tylophora asthmatica*, *Catharanthus roseus* and *Aloe vera*

2.4 Flowers: *Hibiscus rosa-sinensis* and *Datura stramonium*

2.5 Fruits: *Piper longum*, *Terminalia chebula*, *Myrstica fragrans* and *Emblica officinalis*

2.6 Seeds : *Trigonella foenum – graceum* and *Pongamia glabra*

2.7 Bark : *Cinnamomun zeylanicum*

2.8 Whole Plant : *Azadirachta indica*, *Eclipta alba*, and *Phyllanthus amarus*

Unit 3 (8hrs.)

Ethnobotany

- 3.1 Ethnobotany : Definition and Scope
- 3.2 Methodologies of Ethnobotanical Research: Fieldwork, Literature, Herbaria and Musea
- 3.3 Ethnobotany as a lead to Modern Drug Discovery: Memory plus, Liv 52 Chawanaprash, Pankajakasturi Choornam
- 3.4 Ethnobotanical Studies of Irula Tribes
- 3.5 Bioprospecting and Commercial use of Traditional Knowledge
- 3.6 Traditional knowledge (TK) in relation to Intellectual Property Rights and Biopiracy

Unit 4 (5 hrs.)

Biodiversity

- 4.1 Role of Ethnobotany in Conservation of Biodiversity
- 4.2 Ex situ Conservation & In situ Conservation

Unit 5 (7 hrs.)

Ayurveda and Beauty

- 5.1 Role of Dhatu in Physical Beauty and Daily Routine to Enhance Beauty
- 5.2 Essential Oils & Aroma Therapy
- 5.3 Facial and Hair Care using Herbal Products(Demonstration)

BOOKS FOR REFERENCE

- Das, S.N. *Medicinal Plants for Health and Wealth*. New Delhi: Agrotech. 2006.
- Dash, V.B. *Ayurvedic Treatment for Common Diseases*. New Delhi: Konark, 1978.
- Dash, V.B. *Fundamental of Ayurvedic Medicine*. New Delhi: Konark, 1989.
- Dastur, J.F. *Medicinal plants of India and Pakistan*. New Delhi: D.B. Taraporewala, 1988.
- Dananjay J Deshpande., *Handbook of Medicinal Herbs*. Agrobios, 2010.
- Duke, J.A. *Handbook on Medicinal Herbs*. London: CRC, 2002.
- Froog, S. *Medicinal Plants - Field and Laboratory Manual*. New York: International Book 2005.
- Grewal, R.C. *Medicinal Plants*. Cambridge: Harvard University, 2000.
- Hanson, B.A. *Understanding Medicinal Plants, their chemistry and therapeutic action*. New York: The Haworth, 2005.
- ICMR. *Quality Standards of Indian Medicinal Plants*. (Vols. I, II, III, & IV). New Delhi.: ICMR, 2006.

Jaibala, S. and G.Balakrishnan. *A Hand Book of Common Remedies based on Siddha System of Indian Medicine*. Madras. St. Louis institute, 1975.

Jain, S.K. *Contribution to Ethnobotany*. India: Scientific, 1997.

Kapoor, L.D. *Handbook of Ayurvedic Medicinal Plants*. India: CRC, 2001.

Prajapati, N.D. and S.S.Purohit. *Agro's Color Atlas of Medicinal Plants*. Jodhpur: Agrobios, 2006.

Rastogi, R.P. *Compendium of Indian Medicinal Plants*. Vols. I, II, III and IV. New Delhi: Central Drug Research Institute Publication and Information Directorate, 1988.

Reddy, K.J., B. Bahadur, B. Bhadriah and M.L.N. Rao. *Advances in Medicinal Plants*. Delhi: Universities, 2007.

Roseline A., *Pharmacognosy*. Chennai: MJP, 2011.

Saha, N.N. *Herbal Remedies*. New Delhi: Universal, 1981.

Trivedi, P.C. *Medicinal Plants: Ethnobotanical Approach*. Jodhpur: Agrobios, 2006.

WEB RESOURCES

www.ethnobiology.ch

www.ncbi.nlm.nih.gov

JOURNALS

International Journal of Phytotherapy & Ethnobotany

Journal of Pharmacognosy & Phytotherapy

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – Objective questions 9 x 1 = 9 marks
Short Paragraphs 3 x 3 = 9 marks (3 out of 4)

Section B – 2 x 6 = 12 marks (2 out of 3 questions to be answered in 200 words each)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1000 words each)

Third Component:

List of evaluation modes:

Herbal Medicine preparation and analysis (Histochemical and Microscopic)

Quiz

Assignments

Scrap book and Herbarium of Medicinal plants

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – Objective questions 18 x 1 = 18 marks

Short Paragraphs 6 x 3 = 18 marks (6 out of 9)

Section B – 4 x 6 = 24 marks (4 out of 6 questions to be answered in 200 words each)

Section C – 2x 20 = 40 marks (2 out of 4 questions to be answered in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

B.Sc. DEGREE: BRANCH V. A. PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

SYLLABUS

(Effective from the academic year 2015 – 2016)

TAXONOMY OF ANGIOSPERMS AND ECONOMIC BOTANY - PRACTICAL

CODE: 15BT/MC/P332

CREDITS: 2

L T P: 0 0 3

TOTAL HOURS: 39

TAXONOMY OF ANGIOSPERMS

Laboratory sessions will consist of working with fresh materials to illustrate descriptive terminology, derivation of family and salient features of plant families; floral analysis

A plant collection of 10 plants belonging to at least 10 different families – Herbarium to be submitted for the End semester examination

Use of dichotomous key in the classification of the given specimens

Field Trip to Kolapakkam / Sholinganallur

ECONOMIC BOTANY

Economically important products of families mentioned in Units 3-5 of the theory syllabus

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Two Tests each of 90 mins. duration (2 X 20 = 40 Marks)

Record

10 Marks

End Semester Examination:

Total Marks: 50

Duration: 3 Hours

1 Family Identification	2 x 4 = 8
2 Description, Drawing & Dissection	1 x 12 = 12
3 Key Preparation	5
4 Spot at sight	20
5 Herbarium	5

STELLA MARISCOLLEGE (AUTONOMOUS) CHENNAI- 600 086

B.Sc. DEGREE: BRANCH V(A). PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

SYLLABUS

ANATOMY AND EMBRYOLOGY OF ANGIOSPERMS

CODE: 15BT/MC/AE44

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES

- To study the complex tissue organization of plant bodies
- To provide an understanding of reproduction in angiosperms

Unit 1 (10 hrs.)

Meristems

- 1.1 Meristem: Classification, Organization of Shoot Apex and Root Apex
- 1.2 Lateral meristem: Vascular Cambium - Structure and Formation
- 1.3 Cork Cambium: Periderm: Phellem, Phellogen and Phelloderm,
Development, Location, Morphology of Bark, Commercial Bark,
Protective Tissues of Monocot and Lenticels

Unit 2 (10 hrs.)

Vascular Elements

- 2.1 Secondary Xylem: Vessels, Tracheids, Wood Parenchyma and Rays, Sap Wood, Heartwood, Annual Rings, Dendrochronology
- 2.2 Secondary phloem: Sieve Tubes, Companion Cells, Phloem Parenchyma and Fibres

Unit 3 (10 hrs.)

Secondary Growth

- 3.1 Secondary Growth of Normal Dicot Root and Dicot Stem
- 3.2 Anomalous Growth: Primary and Secondary Structures in Dicots
- 3.3 Primary Thickening Meristem in Monocots
- 3.4 Anomalous Secondary Thickening in Monocot Stem - *Dracaena*

Unit 4 (10 hrs.)

Leaf

- 4.1 Leaf - Internal Structure of Dorsiventral, Isobilateral and Centric, Leaf Abscission
- 4.2 Epidermis – Stomata – Structure and Types
- 4.3 Epidermal Hairs and Appendages

Unit 5**(12 hrs.)****Embryology**

5.1 Microsporangium: Microsporogenesis - Male Gametophyte

5.2 Megasporangium: Megasporogenesis - Female Gametophyte -

Monosporic (*Polygonum*), Bisporic (*Allium*) and Tetrasporic (*Peperomia*)

5.3 Double Fertilization, Apomixis

5.4 Endosperm - Types and Functions; Ruminant Endosperm

5.5 Embryo - Development of Dicot Embryo – *Capsella bursa pastoris*,
Polyembryony**TEXT BOOKS**Bhojwani, S.S and S.P. Bhatnagar. *Embryology of Angiosperms*. New Delhi: Vikas, 1986.Singh, V., P.C. Pande and D.K. Jain. *Anatomy of Seed Plants*. Meerut, India: Rastogi, 1987.**BOOKS FOR REFERENCE**Cutter, E.G., *Plant Anatomy*. London: Part I, The English Language Book Society and Edward Arnold, 1978.Esau K. *Anatomy of Seed Plants*. New York: Wiley Eastern, 1972.Fahn, A. *Plant Anatomy*. London: Oxford Pergamon, 1986.**PATTERN OF EVALUATION****Continuous Assessment:****Total Marks: 50****Duration: 90 mins.****Section A** – Objective questions 9 x 1 = 9 marks

Short Paragraphs 3 x 3 = 9 marks (3 out of 4)

Section B – 2 x 6 = 12 marks (2 out of 3 questions to be answered in 200 words each)**Section C** – 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1000 words each)**Third Component:****List of evaluation modes:**

Seminars

Quiz

Assignments

End Semester Examination**Total Marks: 100****Duration: 3 hours****Section A** – Objective questions 18 x 1 = 18 marks

Short Paragraphs 6 x 3 = 18 marks (6 out of 9)

Section B – 4 x 6 = 24 marks (4 out of 6 questions to be answered in 200 words each)**Section C** – 2 x 20 = 40 marks (2 out of 4 questions to be answered in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

B.Sc. DEGREE: BRANCH V. A. PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

SYLLABUS

(Effective from the academic year 2015 – 2016)

ANATOMY AND EMBRYOLOGY OF ANGIOSPERMS - PRACTICAL

CODE: 15BT/MC/P442

CREDITS: 2

L T P: 0 0 3

TOTAL HOURS: 39

PLANT ANATOMY

A study of the anatomy of the following (any 2 specimens in each category for stem and root):

- 1 Primary structure: Dicot stem
Dicot root
Monocot root
Monocot stem

- 2 Secondary structure: Dicot Stem
Dicot Root

- 3 Leaf: Isobilateral - *Nerium*
Dorsiventral - *Grass*
Centric - *Allium*

- 4 Stomatal types: Dicot

- 5 Anomalous Structure:

Primary: *Nyctanthus*
Boerhaavia
Secondary: *Bignonia*
Bougainvillea
Leptadenia
Dracaena

- 6 Nodal Anatomy: Unilacunar, Trilacunar and Multilacunar nodes (diagrammatic sketch only)

- 7 Histochemistry: Methods to identify cellulose, lignin, protein, sugar, starch, lipids, nucleic acids

- 8 Ergastic substances: Druses, Raphides and Cystolith

EMBRYOLOGY

A study of the following:

- 1 T.S of young anther and mature anther
- 2 Pollen morphology
- 3 Binucleate and tetranucleate embryo sacs
- 4 Stages of Dicot embryo development
- 5 L.S. of mature monocot embryo
- 6 Endosperm - nuclear, cellular and ruminant
- 7 Embryo dissection - *Tridax*

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Two Tests each of 90 mins. duration (2 X 20 = 40 Marks)

Record

10 Marks

End Semester Examination:

Total Marks: 50

Duration: 3 hours

Sectioning, Drawing, Identification with reasons

3 x 8 = 24

Embryo Dissection

6 = 6

Spotters (2 Anatomy, 2 Embryology)

4 x 5 = 20

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

B.Sc. DEGREE: BRANCH V(A). PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

SYLLABUS

(Effective from the academic year 2015 – 2016)

CELL AND MOLECULAR BIOLOGY

CODE: 15BT/MC/CM54

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES

- To provide an overview of the cellular and molecular aspects of the plant cell
- To analyse the structure and function of the cell

Unit 1 (15 hrs.)

Introduction

1.1 Cell Theory: A brief study of the relationship of Cytology with other Biological sciences

1.2 Cell Membrane: Chemical Composition, Molecular Organization of the Cell Membrane, Molecular Models and Biogenesis

1.3 Cell Organelles-Structure, Chemical Composition, Function and Biogenesis of the following: Endoplasmic Reticulum, Golgi Apparatus, Mitochondria, Chloroplast, Microbodies-Peroxisomes, Glyoxysomes

Unit 2 (10 hrs.)

Nucleus

2.1 Nucleus: Nuclear Membrane, Nucleolus, Nucleoplasm

2.2 DNA Structure- Chemistry of Double Helix – Types of DNA (A,B,Z), Chargaff's rule, T_m value, Histones – Nonhistones

2.3 Chromosomes - Structure and Chemistry, Giant Chromosomes- Lampbrush, Polytene

2.4 Cell Cycle - Mitosis and Meiosis

Unit 3 (7 hrs.)

DNA Replication

3.1 Modes of Replication - Conservative and Semiconservative

3.2 DNA Replication - Initiation, Replication forks, Leading Strand and Lagging Strand Synthesis; Proteins involved in Replication

3.3 DNA Repair: Direct Repair – Photoreactivation

Unit 4 (10 hrs.)

Transcription

4.1 Molecular Structure of Three Classes of RNA (mRNA, rRNA, tRNA)

4.2 Central Dogma

4.3 Transcription of Prokaryotic Genes: Initiation, Elongation and Termination

4.4 Processing of Eukaryotic mRNA - Capping, Splicing and Polyadenylation

Unit 5

(10 hrs.)

Translation and Gene Regulation

- 5.1 Genetic Code - Triplet Codon for Protein Synthesis
- 5.2 Mechanism of Translation - Initiation, Elongation and Termination
- 5.3 Prokaryotic Regulation: Operon Concept – lac operon
- 5.4 Eukaryotic Regulation: Genetic Imprinting

TEXT BOOK

Verma P.S and K.Agarwal .*Cytology*, New Delhi: Chand, 1988.

BOOKS FOR REFERENCE

Benjamin, L.*Genes IX*, New York: Oxford University, 2014.

Bruce Alberts. *Essentials of Cell Biology*. New York: Garland Science, 2008.

Chhazllani V. K., *Plant Cell Biology*.Delhi: Manglam,2011.

David P.Clark. *Molecular Biology*, New York: Elsevier, 2005.

De Robertis, E.D.P, andDeRobertis.E.M.F.*Cell and Molecular Biology*, (6th Ed.) Philadelphia: W.B.Saunders College,2007.

Freifelder, D. *Molecular Biology*.(2nd Ed.). Boston: Jones and Barlett, 1987.

Geoffrey, M.Cooper and Robert, E.Hausman. *The Cell*. (4th Ed.), USA :ASM, 2007.

Karp.G. *Cell and Molecular Biology*.New York: John Wiley, 2007.

Polard.F.D.,W.C.Earnshaw and J.L.Schwartz. *Cell Biology*.Philadelphia: Saunders, 2008.

Wolfe, S.L. *Molecular and Cellular Biology*,USA: Wadsworth, 1999.

JOURNALS

Journal of Molecular Biology

European Journal of Cell Biology

International Journal of Cell Biology

WEB RESOURCES

www.ncsu.edu/imse/1/cellbiology.htm

www.nature.com/ncb

www.cellbio.com

www.gvsu.edu/cmb

cellmolbio.bsd.uchicago.edu

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – Objective questions $9 \times 1 = 9$ marks
 Short Paragraphs $3 \times 3 = 9$ marks (3 out of 4)

Section B – $2 \times 6 = 12$ marks (2 out of 3 questions to be answered in 200 words each)

Section C – $1 \times 20 = 20$ marks (1 out of 2 questions to be answered in 1000 words each)

Third Component:

List of evaluation modes:

Seminars

Quiz

Assignments

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – Objective questions $18 \times 1 = 18$ marks
 Short Paragraphs $6 \times 3 = 18$ marks (6 out of 9)

Section B – $4 \times 6 = 24$ marks (4 out of 6 questions to be answered in 200 words each)

Section C – $2 \times 20 = 40$ marks (2 out of 4 questions to be answered in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

B.Sc. DEGREE: BRANCH V(A). PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

SYLLABUS

(Effective from the academic year 2015 – 2016)

MICROBIOLOGY

CODE: 15BT/MC/MB54

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVE

- To provide an understanding of microorganisms and their contributions to everyday processes

Unit 1 (4 hrs.)

History of Microbiology

1.1 Germ Theory of Disease, Vaccination, Koch's Postulates, Whittaker's Five Kingdom Theory

Unit 2 (14 hrs.)

Bacteria

- 2.1 Classification (Bergey's Manual), Outlines of major groups only
- 2.2 Morphology: Cell Wall, Capsule, Flagella, Fimbriae, Nucleus, Plasmids and Storage Granules
- 2.3 Growth: Growth Curve, Factors Affecting Growth, Nutritional Types and Types of Media
- 2.4 Control of Microorganisms: Physical Agents - Temperature (high and low), Dessiccation, Filtration and Radiation, Chemical – Halogens, Alcohols, Preservatives – Natural (Salt & Sugar) Chemical (Sorbates, Benzoate, Sulfur dioxide)
- 2.5 Endospore
- 2.6 Genetic Recombination: Conjugation, Transformation and Transduction

Unit 3 (12 hrs.)

Viruses

- 3.1 General Properties of Viruses
- 3.2 Cultivation, Purification and Assay (Plaque Formation)
- 3.3 Structure: Virion Size, Helical Capsid, Icosahedral Capsid and Viral Envelope
- 3.4 Replication: Bacteriophages (Lytic and Lysogenic Cycles), Plant Virus (Tobacco Mosaic Virus) and Animal Virus (Herpes Simplex Virus and Retro Virus)
- 3.5 Prions, Viroids and Virusoids

Unit 4 (12 hrs.)

Soil Microbiology

- 4.1 Role of Bacteria, Fungi and Actinomycetes in Composting
- 4.2 Biogeochemical Cycle: Nitrogen, Phosphorous and Carbon
- 4.3 Applications of VAM in Forestry and Agriculture
- 4.4 Food Borne Illness: Clostridium and Salmonella
- 4.5 Causal organisms, Symptoms and Control measures of Citrus Canker, Bunchy top of Banana and Little leaf of Brinjal

Unit 5 (10 hrs.)

Microbiology of Water and Air

- 5.1 Microbiology of Domestic Water and Sewage
- 5.2 Purification of Drinking Water
- 5.3 Sewage Treatment and Disposal
- 5.4 Distribution and Sources of Air Borne Organisms
- 5.5 Enumeration of Microorganisms in Air - Sampling Techniques

TEXT BOOK

Powar, C.B, and H.F.Daginawala.*General Microbiology* - Vol. II, Mumbai: Himalaya, 1991.

BOOKS FOR REFERENCE

Atlas, R.M. *Microbial Ecology*. India: KalaikathirAchagam, 1998.

Hogg, S.*Essentials Microbiology*. England: John Wiley, 2005.

Joanne M Willey., *Microbiology*.MC Graw- Hill, 2011.

Maier, R.M., I.L. Pepper and C.P. Gerba.*Environmental Microbiology*.U.S.A: Academic, 2006.

Parry,J.Thelma, Pawsey and K.Rosa.*Principles of Microbiology*.London: Hutchinson, 1984.

Pelczar, J.Michael, (Jr.), D.Reid, Roger, E.C.S.Chan and Kreig, *Microbiology*.New Delhi: Tata McGraw – Hill, 1993.

Panda S.C.*Principles and Practices of Water Management*.Agrobios, 2011.

Presscot, L.M., P.H. John and D.A. Klein, *Microbiology*.U.S.A.: W.M. Brown, 2005.

Tortora, G.J, *Microbiology. An Introduction*,California: Benjamin Cummings, 2004.

Volk, A.Wesley, and M.F.Wheeler, *Basic Microbiology*,USA: J.B.Lippincott, 1980.

WEB RESOURCES

www.abou.com/general+microbiology

JOURNALS

Folia Microbiologia

Microbiology

Indian Journal of Microbiology

Plant Microbes Symbiosis: Applied Facetes

International Microbiology

Journal of Industrial Microbiology and Biotechnology

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – Objective questions 9 x 1 = 9 marks
Short Paragraphs 3 x 3 = 9 marks (3 out of 4)

Section B – 2 x 6 = 12 marks (2 out of 3 questions to be answered in 200 words each)

Section C – 1x 20 = 20 marks (1 out of 2 questions to be answered in 1000 words each)

Third Component:

List of evaluation modes:

Seminar

Group projects

Quiz

Assignments

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – Objective questions 18 x 1 = 18 marks
Short Paragraphs 6 x 3 = 18 marks (6 out of 9)

Section B – 4 x 6 = 24 marks (4 out of 6 questions to be answered in 200 words each)

Section C – 2x 20 = 40 marks (2 out of 4 questions to be answered in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

B.Sc. DEGREE: BRANCH V. A. PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

SYLLABUS

(Effective from the academic year 2015– 2016)

ECOLOGY AND ENVIRONMENTAL BIOTECHNOLOGY

CODE: 15BT/MC/EE54

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES

- To create awareness on ecological issues
- To study the health hazards caused by toxic chemicals released in the environment
- To provide an understanding of the use of biological organisms as agents of monitoring and remedying toxicity

Unit 1 (10 hrs.)

Plant Communities

1.1 Qualitative Analysis - Floristic Composition, Stratification, Periodicity, Life forms - Raunkaier's Biological Spectrum

1.2 Quantitative analysis: Density, Cover, Abundance, Frequency, Index of Dominance, Index of Similarity between 2 samples, Shanon's Index of

General Diversity

1.3 Sampling of Population - Quadrat, Transect, Loop and Point method

Unit 2 (10 hrs.)

Environmental Toxicology

2.1 Biomagnification

2.2 Bioaccumulation

2.3 Biotransformation - DDT

2.4 Testing methods of Toxicity: Acute and Subacute Tests

Unit 3 (10 hrs.)

Biomonitoring

3.1 Biodegradation of PCP using Microbes

3.2 Biosensors

3.3 Bioleaching

3.4 Bioindicators

3.5 Phytoremediation

Unit 4 (11 hrs.)

Risk Assessment

4.1 Hazard Identification

4.2 Dose-Response Assessment

4.3 Exposure Assessment

4.4 Risk Characterization

Unit 5

General Topics

(11 hrs.)

5.1 Environmental Impact Assessment (EIA) – Screening, Scoping, Impact Assessment, Mitigation, Reporting, Reviewing, Decision-Making and Post- Monitoring

5.2 Environmental Quality Monitoring - .Air, Water and Soil Sampling Methods

TEXT BOOK

Sharma P. D. *Environmental Biology and Toxicology*. India: Rastogi, 2003.

BOOKS FOR REFERENCE

Alan Scragg. *Environmental Biotechnology*. New York: Oxford University, 2007.

Bhatia S.C., *Environmental Ecology*. Agrotech., 2013.

Deepender, B. *Environment and Ecology*. Jaipur: Printwell, 1996.

Levinton, J.S. *Marine Biology, Function, Biodiversity and Ecology*. New York: Oxford University, 2001.

Ludwig, J.A., *Statistical Ecology*. New York : John Wiley, 1989.

Puri, G.S., *Forest Ecology*. New Delhi. Oxford and IBH, 1996.

Santra, S.C., *Environmental Science*. India: New Central, 2005.

Verma, P.S., *Environmental Biology and Principles of Ecology*. India: S.Chand, 2000.

JOURNALS

International Journal of Organic Evolution

Journal of Human Evolution

Ecology and Evolution Journal

Molecular Biology and Evolution

Journal of Plant Systematics and Evolution

Journal of Botany

Genetic Resources and Crop Evolution

WEB RESOURCES

www.eattheweeds.com

openfarmtech.org

greenpeace.org

wwf.org

foe.co.uk- Friends of the Earth

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – Objective questions 9 x 1 = 9 marks
Short Paragraphs 3 x 3 = 9 marks (3 out of 4)

Section B – 2 x 6 = 12 marks (2 out of 3 questions to be answered in 200 words each)

Section C – 1x 20 = 20 marks (1 out of 2 questions to be answered in 1000 words each)

Third Component:

List of evaluation modes:

Seminar

Group projects

Quiz

Assignments

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – Objective questions 18 x 1 = 18 marks
Short Paragraphs 6 x 3 = 18 marks (6 out of 9)

Section B – 4 x 6 = 24 marks (4 out of 6 questions to be answered in 200 words each)

Section C – 2x 20 = 40 marks (2 out of 4 questions to be answered in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

B.Sc. DEGREE: BRANCH V(A). PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

SYLLABUS

(Effective from the academic year 2015 – 2016)

**CELL AND MOLECULAR BIOLOGY, MICROBIOLOGY, ECOLOGY AND
ENVIRONMENTAL BIOTECHNOLOGY - PRACTICAL**

CODE: 15BT/MC/P553

CREDITS: 3

L T P: 0 0 6

TOTAL HOURS: 78

CELL AND MOLECULAR BIOLOGY

(26 hrs.)

- 1 Smear and Squash Techniques
- 2 Extraction of DNA from Onion Cells
- 3 Demonstration: Plasmid DNA - Electrophoresis, Restriction Enzyme
- 4 Identification of Various Cell Organelles through Photomicrographs

MICROBIOLOGY

(26 hrs.)

- 1 Demonstration of the working and use of Autoclave, Hot Air Oven, Water Bath and Laminar Air Flow
- 2 Inoculation Techniques to Isolate Bacteria: Slant, Pour Plate, Streak Plate, Stab
- 3 Preparation of Nutrient Media and Broth
- 4 Isolation of Bacteria and Fungi from Soil on Various Media: Enrichment, Selective and Differential Media
- 5 Gram Staining
- 6 Antimicrobial Property using Antibiotic Discs / Turmeric

Demonstration Experiments:

- 1 Effect of Temperature and pH on Bacterial Growth
- 2 Motility Test
- 3 Tests for Coliform
- 4 Estimation of BOD
- 5 Vermitechnology
- 6 Methylene Blue Reductase Test
- 7 Wine Production and Estimation of Lactic Acid

ECOLOGY AND ENVIRONMENTAL BIOTECHNOLOGY

(26 hrs.)

- 1 Construction of Quadrat, Belt and Line Transect - Calculation of Frequency, Percentage, Density and Abundance
- 2 Effect of Toxic Substances (Chemicals) on Mitogenic Property of Onion Root
- 3 Morphological and Structural Adaptations of Hydrophytes, Xerophytes and Halophytes (any two in each category)
 - Hydrophyte: any two
 - Xerophyte : any two
 - Halophyte : any one
 - Mesophyte : any two

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Two Tests each of 90 mins. duration (2 X 20 = 40 Marks)

Record 10 Marks

End Semester Examination:

Total Marks: 50

Duration: 3 hours

1 Cell Biology (Squash) Identification of 2 Stages and Diagram	7
2 Microbiology – Inoculation – Description, Diagram	7
Gram's Staining	7
3 Ecology – Quadrat / Transect - Calculation	7
Sectioning – Identification, Diagram and Reasons	7
4 Spotters (3 x 5) Identification, Diagram and Reasons	15

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

B.Sc. DEGREE: BRANCH V(A). PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

SYLLABUS

(Effective from the academic year 2015 – 2016)

PLANT PHYSIOLOGY

CODE: 15BT/MC/PP64

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES

- To study the physiological and biochemical pathways involved in the functioning of the plant
- To understand the practical application in the field of Agriculture and Horticulture

Unit 1 (12 hrs.)

Water Relations in Plants

- 1.1 Water Potential: Definition and Components, Measurement and Relation of Water Potential in an Idealized, Flaccid and Turgid Cell
- 1.2 Transpiration: Definition, Significance and Mechanism of Stomatal Transpiration, Starch - Sugar Interconversion, Synthesis of Organic Acid in Guard Cells, ATP driven H^+ and K^+ Exchange Pump, Role of ABA in Stomatal opening and closure
- 1.3 Water Movement across the Root and Xylem - Active and Passive Absorption

Unit 2 (10 hrs.)

Mineral Nutrition

- 1.1 Macronutrients and Micronutrients (Manganese, Zinc, Copper, Molybdenum and Boron)
- 1.2 Mechanism of Mineral Salt Absorption: Theories; Donnan Equilibrium; Carrier Concept and Cytochrome Pump Theory
- 1.3 Transport of Organic Solutes: Phloem Loading and Unloading
- 1.4 Sources of Nitrogen, Biochemistry of Nitrogen Fixation, Nitrate and Nitrite Reduction, Assimilation of Nitrite and Ammonium Ions

Unit 3 (10 hrs.)

Photosynthesis

- 3.1 Principles of Light Absorption by Plants, Photosystem I and II: Composition, Function, Location in Thylakoids and Photophosphorylation Reactions
- 3.2 CO_2 assimilation pathway: C_3 , C_4 cycles and CAM, Photorespiration, Factors influencing Photosynthesis

Unit 4 (10 hrs.)

Respiration

- 4.1 Respiratory Quotient, Fermentation and Anaerobic Processes
- 4.2 Glycolysis, Substrate level Phosphorylation, Entner - Doudroff Pathway, Glyoxylate Cycle
- 4.3 Krebs Cycle, Electron Flow Components, Electron Transport Pathway, Oxidative Phosphorylation and Cyanide Resistant Pathway

Unit 5 (10 hrs.)

Growth and Plant Growth Regulators

- 5.1 Growth: Kinetics and Growth Curve
- 5.2 Chemical Nature, Bioassay (one only), Physiological Effect and Practical Applications of the following Plant Growth Regulators: Auxin, ABA, Cytokinin, Giberellic Acid and Ethylene
- 5.3 Photoperiodism, Florigen Concept and Vernalization

TEXT BOOKS

Verma. V. *Text Book of Plant Physiology*. New Delhi: Emkay, 1989.

BOOKS FOR REFERENCE

Bidwell, R.G.S. *Plant Physiology*. New York: Macmillan, 1983.

Devlin.R.M. *Plant Physiology*, New Delhi: Affiliated East, 1983.

MalcomWilkins.B. *Advanced Plant Physiology*.England: ELBS/Longman, 1968.

Mukherji, S. and A.K.Ghosh.*Plant Physiology*,Kolkatta: New Central, 2004.

Noggle, G. Ray and G.J.Fritz.*Introductory Plant Physiology*.New Delhi: CBS, 1998.

Salisbury, F.B and C.Ross.*Plant Physiology*. New Delhi: Prentice Hall. 2004.

Sinha,R.K. *Modern Plant Physiology*. New Delhi: Narosa, 2014.

Taiz,L and E.Zeiger.*Plant Physiology*. New Delhi:Panima, 2004.

Weston, G.D. *Crop Physiology – Biotechnology*. London:Butterworth – Heinemann, 1994.

JOURNALS

Journal of Plant Physiology (Elsevier)

Journal of Plant Physiology (Science Direct)

International Journal of Plant Physiology and Biochemistry

Indian Journal of Plant Physiology

WEB RESOURCES

www.journals.elsevier.com

www.springer.com

www.academicjournals.org

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – Objective questions 9 x 1 = 9 marks
Short Paragraphs 3 x 3 = 9 marks (3 out of 4)

Section B – 2 x 6 = 12 marks (2 out of 3 questions to be answered in 200 words each)

Section C – 1x 20 = 20 marks (1 out of 2 questions to be answered in 1000 words each)

Third Component:

List of evaluation modes:

Seminar

Group projects

Quiz

Assignments

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – Objective questions 18 x 1 = 18 marks
Short Paragraphs 6 x 3 = 18 marks (6 out of 9)

Section B – 4 x 6 = 24 marks (4 out of 6 questions to be answered in 200 words each)

Section C – 2x 20 = 40 marks (2 out of 4 questions to be answered in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

B.Sc. DEGREE: BRANCH V(A). PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

SYLLABUS

(Effective from the academic year 2015 – 2016)

PLANT BIOTECHNOLOGY AND GENETIC ENGINEERING

CODE: 15BT/MC/PG64

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVE

- To study the fundamental principles of tissue culture
- To understand the applied aspects of Biotechnology and Genetic Engineering

Unit 1 (20 hrs.)

Tissue Culture

- 1.1 Totipotency, Culture techniques: Equipment, Media, Explant, Callus Formation, Organogenesis
- 1.2 Root culture, Shoot Culture, Anther and Pollen Culture
- 1.3 Cell culture, Protoplast Culture: Isolation, Culture and Regeneration
- 1.4 Somaclonal Variation
- 1.5 Somatic Hybridization and Cybrid: Spontaneous and Induced Fusion, Identification and Selection of Hybrid Cells
- 1.6 Applications: Horticulture, Pharmaceutical Industry

Unit 2 (10 hrs.)

Biotechnology in Agriculture

- 2.1 Transgenic Plants for Crop Improvement: Herbicide Resistance, Insect Resistance, Resistance against Viral, Bacterial and Fungal Pathogens
- 2.2 Transgenic Plants - Edible Vaccines. Transgenic Plants as Recombinant Protein Production Systems, Choice of Plant Species for Recombinant Vaccine Production
- 2.2 GM Plants: Bt Brinjal, Cotton, Golden Rice
- 2.3 Bioethics and Biosafety

Unit 3 (5 hrs.)

Biofuels

- 3.1 Bioethanol
- 3.2 Biohydrogen and Gobargas
- 3.3 Bio diesel: Petroplants

Unit 4 (9 hrs.)

Genetic Engineering

- 4.1 Introduction to Genetic Engineering
- 4.2 Techniques: Restriction Endonucleases, Ligation

- 4.3 Cloning Vectors: pUC 18, YAC and BAC
- 4.4 Genomic Libraries
- 4.5 Hybridization – Southern and Northern Blotting

Unit 5 **(8 hrs.)**

Genetic Engineering in Plants

- 5.1 Target Cells for Transformation
- 5.2 Gene Transfer Technique using *Agrobacterium*
- 5.3 Physical Delivery Methods: PEG stimulated, Microprojectile (Particle gun), Electroporation

BOOKS FOR REFERENCE

- Anand Prakash., *Plant Tissue Culture*. SBW, 2014.
- Dubey, R.C. *A Text book of Biotechnology*. New Delhi: S.Chand, 1993
- Freifelder, D. *Molecular Biology*. Boston: Jones and Barlett, 1987.
- Glick, B.R., and J.J.Pasternak.*Molecular Biotechnology - Principles and Applications of Recombinant DNA*.New Delhi: Panima, 1994.
- Ignacimuthu, S. *Basic Bio-Technology*. New Delhi: Tata-McGrawHill, 1996.
- Ignacimuthu, S.J. *Biotechnology –An introduction*. New Delhi: Narosa,2012.
- Kalyan Kumar De.*An Introduction to Plant Tissue Culture*. Kokatta: New Central Book Agency, 2000.
- Kumar, H.D. *A Text book of Bio-Technology*. New Delhi: East West, 1993.
- Kamal Nayan joshi.,*Biotechnology*., Delhi: Manglam,.,2013.
- Narayanaswamy, S. *Plant Cell and Tissue Culture*. New Delhi: Tata McGraw Hill, 1994.
- Patel, A.H. *Industrial Microbiology*. New Delhi: Macmillan, 1990.
- Purohit, S, S. and S. K.Mathur. *Biotechnology - Fundamentals and Applications*.Agrobios. 2000.
- Purohit, S.S. *Agricultural Biotechnology*. New Delhi: Agro Botanica, 2000.
- Renuka Sharma., *Transgenic Crops*.Discovery, 2013.
- Sharma H.P., *Plant Tissue Culture*.Agrobios, 2012.
- Trehan, K. *Biotechnology*. New Delhi: Wisley Easter, 1991.

Treven, M.D.S. Baffery, R.H.Goulding and F.Standbury.*Bio-Technology – The biological principles*. New Delhi: .Tata-McGraw, Hill, 2011.

Watson, J.D., M.Gilman, J.Witkowski and M.Zoller.*Recombinant DNA*.New York: Scientific American Books, 1990.

JOURNALS

Plant Biotechnology Journal

Journal of Plant Molecular Biology & Biotechnology

Journal of Genetic Engineering and Biotechnology

International Journal of Genetic Engineering

WEB RESOURCES

www.greenpeace.org

www.genengnews.com

www.sustainabletable.org

www.iari.res.in

www.nipgr.res.in

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – Objective questions 9 x 1 = 9 marks
Short Paragraphs 3 x 3 = 9 marks (3 out of 4)

Section B – 2 x 6 = 12 marks (2 out of 3 questions to be answered in 200 words each)

Section C – 1x 20 = 20 marks (1 out of 2 questions to be answered in 1000 words each)

Third Component:

List of evaluation modes:

Seminars

Quiz

Assignments

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – Objective questions 18 x 1 = 18 marks
Short Paragraphs 6 x 3 = 18 marks (6 out of 9)

Section B – 4 x 6 = 24 marks (4 out of 6 questions to be answered in 200 words each)

Section C – 2x 20 = 40 marks (2 out of 4 questions to be answered in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

B.Sc. DEGREE: BRANCH V.A. PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

SYLLABUS

(Effective from the academic year (2015– 2016))

GENETICS, PLANT BREEDING AND EVOLUTION

CODE: 15BT/MC/GP64

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES

- To understand the importance of hereditary and evolution
- To enable students to think analytically to solve genetic problems
- To provide a basic knowledge of the techniques of plant breeding

Unit 1 (10 hrs.)

Basic Concepts of Genetics

- 1.1 Mendelian Genetics
- 1.2 Gene interactions: Incomplete dominance and Co-dominance, Dominant and Recessive Epistasis, Inhibitory, Complementary, Additive and Duplicate genes.
- 1.2 Multiple Gene Inheritance - Skin colour in man and Ear length in *Maize*
- 1.4 Extra- Chromosomal Inheritance in *Mirabilisjalapa*

Unit 2 (10 hrs.)

Linkage and Crossing Over

- 2.1 Linkage in Maize
- 2.2 Theories of Crossing Over – Classical Theory and Chiasma Theory
- 2.3 Mapping of genes
- 2.4 Sex Determination in Melandrium
- 2.5 Sex Linkage in Man – Colour Blindness and Haemophilia

Unit 3 (10 hrs.)

Human Genetics

- 3.1 Down's Syndrome
- 3.2 Klinefelter's Syndrome
- 3.3 Sickle Cell Anaemia
- 3.4 Genetic Counselling

Unit 4 (11 hrs.)

Plant Breeding

- 4.1 Objectives of Plant Breeding
- 4.2 Selection Methods - Pure line and Clonal
- 4.3 Basic Hybridization Techniques
- 4.4 Induced Polyploidy in Plant Breeding

Unit 5**(11 hrs.)****Evolution**

5.1 Origin of Life – Spontaneous and Chemosynthetic

5.2 Theories of Evolution: Lamarck, Darwin, DeVries and
Modern Synthetic theory

5.3 Isolating Mechanisms – Concept of Species, Allopatric and Sympatric

TEXT BOOK

Verma, P.S and Agarwal, V.K. *Cell Biology, Genetics, Molecular Biology, Evolution and Ecology*. New Delhi: S.Chand, 2007.

BOOKS FOR REFERENCE

Benjamin, L. *Genes IX*. New York: Oxford University, 2014.

Burns, G.W. and P.J. Botline, *The Science of Genetics - An Introduction to Heredity*. USA: Macmillan, 1989.

Chaudhari, *Elementary Principles of Plant Breeding*, New Delhi: Oxford and IBH, 1996.

Chahal, G.S. and Gosal, S.S. *Principles and Procedures of Plant Breeding*, New Delhi: Narosa, 2002.

Dale, Jeremy W., and Malcolm Von Schantz, *From Genes to Genomes, - Concepts, and Applications of DNA Technology*, UK: John Wiley, 2002.

Daniel L Harti., *Essential Genetics*., Jones and Bartlett, 2014.

Kumaresan, V. *Plant Breeding*. Nagercoil: Saras. 2009.

Snustad, D.P. and Simmons M.J., *Principles of Genetics*. USA: John Willey, 2006.

Zingare A. K, *Plant Breeding and Seed Saving*. New Delhi: Satyam, 2013.

WEBSITES

www.genome.gov/12514286

www.dnalc.org

www.kumc.edu/gec

www.mendelweb.org

JOURNALS

Journal of Plant Breeding and Genetics
Indian Journal of Plant Breeding and Genetics
Journal of Plant Breeding and Crop Science
Journal of Plant Science and Molecular Breeding
International Journal of Organic Evolution
Journal of Human Evolution
Ecology and Evolution Journal
Molecular Biology and Evolution
Journal of Plant Systematics and Evolution
Journal of Botany
Genetic Resources and Crop Evolution

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – Objective questions 9 x 1 = 9 marks
Short Paragraph 3 x 3 = 9 marks (3 out of 4)

Section B – 2 x 6 = 12 marks (2 out of 3 questions to be answered in 200 words each)

Section C – 1x 20 = 20 marks (1 out of 2 questions to be answered in 1000 words each)

III Component Tests:

List of evaluation modes:

Seminar
Group projects
Quiz
Assignments

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – Objective questions 18 x 1 = 18 marks
Short Paragraph 6 x 3 = 18 marks (6 out of 9)

Section B – 4 x 6 = 24 marks (4 out of 6 questions to be answered in 200 words each)

Section C – 2x 20 = 40 marks (2 out of 4 questions to be answered in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.Sc. DEGREE: BRANCH V(A). PLANT BIOLOGY AND
PLANT BIOTECHNOLOGY

SYLLABUS

(Effective from the academic year (2015– 2016))

**PLANT PHYSIOLOGY, PLANT BIOTECHNOLOGY AND GENETIC ENGINEERING,
GENETICS, PLANT BREEDING AND EVOLUTION - PRACTICAL**

CODE: 15BT/MC/P662

CREDITS: 2

L T P: 0 0 4

TOTAL HOURS: 52

(26 hrs.)

PLANT PHYSIOLOGY

- 1 Determination of Osmotic Pressure using Plasmolytic Method
- 2 Determination of the Rate of Respiration using Ganong's Respiroscope
- 3 Effect of Quality of Light and CO₂ Concentration on the Rate of Photosynthesis
- 4 Separation of Chlorophyll Pigments by Paper Chromatography
- 5 Demonstration of Peroxidase Activity
- 6 Effect of Environmental Factors on Transpiration - Light and Wind
- 7 Effect of Temperature on Permeability

DEMONSTRATION EXPERIMENTS

- 1 Colorimetric Estimation of Nitrate Reductase
- 2 Effect of Auxin on Root formation
- 3 Demonstration of Hill's Reaction
- 4 Estimation of Oil Content of *Brassica* Seeds by Soxhlet method

**PLANT BIOTECHNOLOGY & GENETIC ENGINEERING, GENETICS, PLANT
BREEDING & EVOLUTION**

(26 hrs.)

- 1 Problems based on interaction of Genes and Gene Mapping
- 2 Life Cycle of *Drosophila* (Culture Studies)
- 3 Tissue Culture Techniques - Apical Meristem, Anther and Embryo Culture
- 4 Photomicrographs in Genetic Engineering
- 5 Plant Breeding Photomicrographs included in the Syllabus

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Two Tests each of 90 mins. duration (2 X 20 = 40 Marks)

Record

10 Marks

End Semester Examination:**Total Marks: 50****Duration: 3 Hours**

1. Physiology – Expt. Set up (individual)	10
2. Genetics – Problems	10
3. Tissue culture – inoculation	10
4. Spotters – Physiology (1)	
Genetic Eng. (1) 4 x 5	20
Applied Biotech (1)	
Plant Breeding (1)	
Total	50

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

B.Sc. DEGREE: BRANCH V(A). PLANT BIOLOGY AND PLANT BIOTECHNOLOGY
offered to Students of B.Sc Advanced Zoology and Biotechnology, Physics and Chemistry

SYLLABUS

(Effective from the academic year (2015– 2016))

BIOINSTRUMENTATION

CODE: 15BT/AE/BI45

CREDITS: 5

L T P:410

TOTAL HOURS: 65

OBJECTIVE

- To introduce students to the working principles of various laboratory instruments and experimental techniques used in biological research

Unit 1 (13 hrs.)

Centrifugation: Principle, Instrument and Application

- 1.1 Bench, Ultracentrifuge, Refrigerated, Continuous flow centrifuge and Microfuge.
- 1.2 Density gradient and differential centrifugation
- 1.3 Isolation of Chloroplast (practical)

Unit 2 (13 hrs.)

Colorimeters: Principle, Instrument and Application

- 2.1 Beer-Lambert's Law
- 2.2 Single Beam Colorimeters
- 2.3 Colorimetric Determination of Vitamin B-12 (practical)

Unit 3 (13 hrs.)

Spectrophotometers: Principle, Instrument and Application

- 3.1 Single and Double Beam Spectrophotometers - (with the help of block diagrams only)
- 3.2 UV - Visible Spectrophotometer
- 3.3 Estimation of protein using Spectrophotometer (practical)

Unit 4 (13 hrs.)

Chromatography - Principles, Instrument and Application

- 4.1 Paper and Thin Layer
- 4.2 Column, Ion Exchange, Affinity Chromatography
- 4.3 GLC, HPLC and RPHPLC
- 4.4 Separation of Chlorophyll Pigment and Amino Acids using Paper Chromatography and Thin Layer Chromatography

Unit 5**(13 hrs.)****Electrophoresis: Principle, Instrument and Application**

5.1 Capillary Electrophoresis (Capillary Zone and Capillary Gel), Gel Electrophoresis – Agarose and Polyacrylamide, Orthogonal-Field-Alternation, Gel Electrophoresis (OFAGE), Field Inversion Gel Electrophoresis (FIGE)

5.2 Immunoelectrophoresis

5.3 Separation of Proteins using Gel Electrophoresis

BOOKS FOR REFERENCE

Beckman Coulter, Daniel, C Liebler. *Introduction to Proteomics: Tools for new biology*, Human, 2002

Herb Schwartz and Andras Guttman. *Separation of DNA by Capillary Electrophoresis*, USA

James P. Landers, *Handbook of Capillary and Microchip Electrophoresis and Associated Microtechniques*, USA: CRC, 2008.

Karp Gerald. *Cell and Molecular Biology: Concepts and Experiments*. USA: Wiley, 2013.

Landers, James P. *Handbook of Capillary Electrophoresis*. USA: CRC, 1996.

Steven, E Ruzin, *Plant Microtechnique and Microscopy*, USA: Oxford University, 1999.

PATTERN OF EVALUATION**Continuous Assessment:****Total Marks: 50****Duration: 90 mins.**

Section A – Objective questions 9 x 1 = 9 marks
Short Paragraphs 3 x 3 = 9 marks (3 out of 4)

Section B – 2 x 6 = 12 marks (2 out of 3 questions to be answered in 200 words each)

Section C – 1x 20 = 20 marks (1 out of 2 questions to be answered in 1000 words each)

Third Component:**List of evaluation modes:**

Seminars

Quiz

Assignments

End Semester Examination**Total Marks: 100****Duration: 3 hours**

Section A – Objective questions 18 x 1 = 18 marks
Short Paragraphs 6 x 3 = 18 marks (6 out of 9)

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Section C – 2x 20 = 40 marks (2 out of 4 questions to be answered in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

B.Sc. DEGREE: BRANCH V. A. PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

SYLLABUS

(Effective from the academic year 2015 – 2016)

FRUIT PRESERVATION AND NUTRITION

CODE: 15BT/ME/FN55

CREDITS: 5

L T P: 41 0

TOTAL HOURS: 65

OBJECTIVES

- To study the principles involved in spoilage and preservation of fruits and vegetables
- To provide practical training in the preservation of fruits and vegetables

Unit 1 (13 hrs.)

Methods of Preservation

- 1.1 High Temperature
- 1.2 Low Temperature
- 1.3 Drying
- 1.4 Radiation
- 1.5 Chemical Preservatives

Unit 2 (13 hrs.)

Nutrition and Health

- 2.1 ICMR Five Food Groups
- 2.2 Nutrition in Fruits and Vegetables: Sources and Functions of Minerals (Ca, Mg, Fe and Zn), Vitamins, Proteins (Soyabean and Cowpea) and Antioxidants (Tomato and Capsicum- Red)
- 2.3 Pigments in Fruits and Vegetables: Chlorophylls, Carotenoids and Flavonoids

Unit 3 (13 hrs.)

Canning

- 3.1 The Process of Canning
- 3.2 Canning of Fruits: Apple, Banana, Mango and Pineapple
- 3.3 Canning of Vegetables: Bean, Carrot, Peas and Tomato

Unit 4 (13 hrs.)

Fermented Beverages

- 4.1 Preparation of Grape wine
- 4.2 Preparation of Cider
- 4.3 Preparation of Vinegar

Unit 5

(13 hrs.)

Practical

Preparation of the following products:

- 5.1 Guava Jelly
- 5.2 Mixed Fruit Jam
- 5.3 Mixed Vegetable Pickle
- 5.4 Lime Syrup
- 5.5 Grape Crush
- 5.6 Pineapple Squash

TEXT BOOK

Srilakshmi, B. *Food Science*. Chennai: New Age International, 2003.

BOOKS FOR REFERENCE

Blank, F.C., *Handbook of Food and Nutrition*, India: Agrobios, 2000.

Frazier, W.C. and D.C. West Hoff. *Food Microbiology*. New Delhi: Tata McGraw Hill, 1995.

Home scale- *Processing and Preservation Fruits and Vegetables*, India: Central Food Technological Research Institute, Mysore, 1996.

Kulshrestha, S. K. *Food Preservation*. New Delhi: Vikas, 1994.

Muller, H.G., *Nutrition and Food Processing*. India: Avi, 1998.

Ramakrishnan, S., *Nutritional Biochemistry*. India: T.R., 1996.

Scenetra, R., *Food Science and Nutrition*. New Delhi: Oxford University, 2007.

Swaminathan, M., *Handbook of Food Science and Experimental Foods*, Bangalore: Bangalore, 1992.

JOURNALS

Journal of Food Science
Journal of Food Science and technology
Journal of Nutrition of Food Science
Food Science Research Journal

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – Objective questions 9 x 1 = 9 marks
Short Paragraphs 3 x 3 = 9 marks (3 out of 4)

Section B – 2 x 6 = 12 marks (2 out of 3 questions to be answered in 200 words each)

Section C – 1x 20 = 20 marks (1 out of 2 questions to be answered in 1000 words each)

Third Component:

List of evaluation modes:

Seminar

Group projects

Quiz

Assignments

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – Objective questions 18 x 1 = 18 marks
Short Paragraphs 6 x 3 = 18 marks (6 out of 9)

Section B – 4 x 6 = 24 marks (4 out of 6 questions to be answered in 200 words each)

Section C – 2x 20 = 40 marks (2 out of 4 questions to be answered in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

B.Sc. DEGREE: BRANCH V. A. PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

SYLLABUS

(Effective from the academic year 2015 – 2016)

PROJECT

CODE: 15BT/ME/PR55

CREDITS: 5

L T P: 0 0 5

TOTAL HOURS: 65

DISSERTATION: 50 Marks

CA :50

Guide lines:

- **Page Limit:** The dissertation shall be within a space about 40-50 pages typed in font size 12, with 1½ line spacing in A4 size paper
- **Each dissertation will contain the following certificate:** “Dissertation submitted to Stella Maris College (Autonomous) Chennai, by name of the candidate, Department of Botany, Place, Month and Year
- **Submission:** Each student will prepare two copies of the dissertation and submit 15 days before the commencement of the End Semester Examination. One copy (hard and soft) to be submitted to the Head of the Department

Guidelines for Evaluation

• Internal	-	50 marks
• Dissertation	-	50 marks
Review of Literature	-	10
Materials and Methods	-	10
Results and Discussion	-	20
Presentation	-	10

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

B.Sc. DEGREE: BRANCH V(A). PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

SYLLABUS

(Effective from the academic year 2015 – 2016)

HORTICULTURE

CODE: 15BT/ME/HC55

CREDITS: 5

L T P: 41 0

TOTAL HOURS: 65

OBJECTIVES

- To enable the students to be self-reliant and to develop their entrepreneurial skills
- To provide practical training in gardening techniques

Unit 1 (15 hrs.)

Introduction

- 1.1 Classification of Horticultural Plants
- 1.2 Garden Implements
- 1.3 Garden and its Components: Fencing Hedge, Borders, Flower Beds, Edging, Lawn, Drives and Paths, Water Garden and Garden Adornments
- 1.4 Vegetative Propagation: Layering, Grafting and Budding
- 1.5 Vegetative Propagating Methods: Cutting/ Layering/ Grafting (Practicals)

Unit 2 (15 hrs.)

Cultural Practices

- 2.1 Propagation, Planting and Harvesting of the following Plants
 - 2.1.1 Fruits: Mango, Banana, and Guava
 - 2.1.2 Vegetable Crops: Onion, Potato, Brinjal and Lady's Finger

Unit 3 (14 hrs.)

Techniques in Gardening

- 3.1 Growing Plants in Pot: Types of Pots, Potting and Repotting
- 3.2 Pot Culture (growing annuals)- Practical
- 3.3 Hanging Basket
- 3.4 Kitchen Garden – Layout: Theory and Practical
- 3.5 Market Garden and Truck Garden
- 3.6 Rock Garden and Terrace Garden
- 3.7 Vegetable Forcing

Unit 4
Landscaping (13 hrs.)

- 4.1 Lawn Making and its Maintenance
- 4.2 Landscape Gardening

Unit 5
General Topics (8 hrs.)

- 5.1 Cut Flowers, Flower Arrangement: Fresh and Dry (Theory and Practical)
- 5.2 Economic Flowers : Rose and Jasmine
- 5.3 Bonsai: Theory and Practical
- 5.4 Terrarium: Theory and Practical

TEXT BOOK

Kumar, N. *Introduction to Horticulture*, Nagercoil: Rohini Agencies, 1980.

BOOKS FOR REFERENCE

Chauhan, D.V.S. *Vegetable Production in India*. Agra: Ram Prasad, 1968.

Edmund, J.B., T.L. Senn, F.S. Andrews and R.G. Halfacre. *Fundamentals of Horticulture*. London: Tata McGraw Hill, 1994.

George Acquaah. *Horticulture Principles and Practices*. London: PHI Learning, 2009.

Gopalswamy Iyengar, K.S. *Complete Gardening in India*. Bangalore: Kalyan, 1970.

Janick, J. *Horticultural Science*. New Delhi: Surjeet, 1962.

Naik, K.C. *South Indian Fruits and their Culture*, Madras: P. Varadharaj, 1968.

Randhawa, G.S. *Ornamental Horticulture in India, Today and Tomorrow*. New Delhi: Indian Council of Agriculture Research, 1980.

Sheela, V. L. *Horticulture*, Chennai: MJP, 2011.

Saini R.S., *Laboratory Manual of Analytical Techniques in Horticulture*, Jodhpur: Agrobios, 2012.

Yawalkar, K.S. *Vegetable Crops of India*. Nagpur: Agri -Horticultural, 1961.

JOURNALS

Indian Journal of Horticulture
International Journal of Horticulture and Crop Science
Journal of Horticultural Sciences

WEB RESOURCES

www.hortportal.org
agritech.trau.ac.in
www.agrihorticultureindia.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – Objective questions 9 x 1 = 9 marks
Short Paragraphs 3 x 3 = 9 marks (3 out of 4)

Section B – 2 x 6 = 12 marks (2 out of 3 questions to be answered in 200 words each)

Section C – 1x 20 = 20 marks (1 out of 2 questions to be answered in 1000 words each)

Third Component:

List of evaluation modes:

Seminars
Quiz
Assignments

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – Objective questions 18 x 1 = 18 marks
Short Paragraphs 6 x 3 = 18 marks (6 out of 9)

Section B – 4 x 6 = 24 marks (4 out of 6 questions to be answered in 200 words each)

Section C – 2x 20 = 40 marks (2 out of 4 questions to be answered in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

B.Sc. DEGREE: BRANCH V(A). PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

SYLLABUS

(Effective from the academic year 2015 – 2016)

ANALYTICAL TECHNIQUES IN PLANT SCIENCES

CODE: 15BT/ME/AT55

CREDITS: 5

L T P:410

TOTAL HOURS: 65

OBJECTIVES

- To provide a basic knowledge of the working principles of the instruments used in biological research
- To understand the process of preparing plant tissues for analysis

Unit 1 (15 hrs.)

Microscopy- Principle, Construction and Application of Light Microscopes

- 1.1 Compound, Stereo, Polarized Light, Phase Contrast, Fluorescence, Differential Interference Contrast, Laser Scanning and Confocal Microscopes
- 1.2 Preparation of Specimen for Light Microscopy: Paraffin Techniques–
Fixatives: FAA, Carnoy's, Dehydration and Infiltration, Embedding and Sectioning (Paraffin Blocks), Staining – Single and Double Stain and Mounting
- 1.3 Micrometry
- 1.4 Microtomes: Rotary, Wood Microtome, Cryotomy, Ultramicrotomy
- 1.5 Maceration, Leaf Clearing

Unit 2 (15 hrs.)

Electron Microscopy-Principle, Construction and Working

- 2.2 Preparation of Specimen for Transmission Electron Microscopy (TEM)
 - 2.2.1 Fixatives - Glutaraldehyde and Osmium Tetraoxide
 - 2.2.2 Embedding - Spurr, Epon
 - 2.2.3 Knives - Glass and Diamond
 - 2.2.4 Specimen Support - Grid
 - 2.2.5 Staining - Positive and Negative Staining
- 2.3 Preparation of Specimen for Scanning Electron Microscope (SEM)
 - 2.3.1 Fixing, Critical Point Drying
 - 2.3.2 Freeze Drying, Freeze Fracture, Freeze Etching
 - 2.3.3 Specimen Coating - Sputter Coating, Shadow Casting

Unit 3 (13 hrs.)

Quantitative Techniques

- 3.1 pH Meter - Construction and Application
- 3.2 Colorimetry: Beer-Lambert's Law, Single Beam
- 3.3 Spectrophotometry - UV-Visible Spectroscopy, Basic Principle, Instrumentation, Single and Double Beam Spectrophotometers (Block diagrams only)
- 3.4 Estimation of Protein using Spectrophotometer (Practical)

Unit 4 (15 hrs.)

Separation Techniques

4.1 Chromatography - Principles, Techniques and Application of Thin Layer Chromatography, Column Chromatography, and High Performance Liquid Chromatography

4.2 Electrophoresis: Principles, Techniques and Applications of Agarose, PAGE

4.3 Separation of Proteins and DNA by Electrophoresis (Practical)

Unit 5 (7 hrs.)

Centrifugation

5.1 Centrifuge: Principle, Unit of Measurement and Instrumentation

5.2 Types: Bench, Ultracentrifuge, Analytical and Microfuge

5.3 Density Gradient and Differential Centrifugation

5.4 Centrifuge-Isolation of Chloroplast and Mitochondria (Practical)

BOOKS FOR REFERENCE

Jensen, W.A. *Botanical Histochemistry*. New Delhi: TataGraw-Hill, 1962.

Karp Gerald, *Cell and Molecular Biology: Concepts and Experiments*. USA: Wiley, 2013.

Sass, J.E. *Botanical Microtechnique*. USA: Ames, 1985.

Steven E Ruzin. *Plant Microtechnique and Microscopy*. USA: Oxford University, 1999.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – Objective questions 9 x 1 = 9 marks
Short Paragraphs 3 x 3 = 9 marks (3 out of 4)

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Section C – 1x 20 = 20 marks (1 out of 2 questions to be answered in 1000 words each)

Third Component:

List of evaluation modes:

Seminars

Quiz

Assignments

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – Objective questions 18 x 1 = 18 marks
Short Paragraphs 6 x 3 = 18 marks (6 out of 9)

Section B – 4 x 6 = 24 marks (4 out of 6 questions to be answered in 200 words each)

Section C – 2x 20 = 40 marks (2 out of 4 questions to be answered in 1000 words each)

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**General Elective Course offered to Students of
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SYLLABUS

(Effective from the academic year 2015 – 2016)

HERBAL THERAPY

CODE: 15BT/GE/HT22

CREDITS: 2

L T P: 2 0 0

TOTAL HOURS: 26

OBJECTIVE

- To enable students to acquire knowledge of common medicinal plants, with special reference to their availability and therapeutic value

Unit 1 (9 hrs.)

Indian Systems of Medicine

- 1.1 Introduction: Ayurveda, Siddha and Unani
- 1.2 Basic Principles of Ayurveda: Panchamahabhutas, Tridhosha Concept and Malas
- 1.2 Preparation of Ayurvedic and Siddha Medicine
 - Ayurveda: Svarasa (Juice); Churna (Powder); Kalka (Paste); Kashaya (Decoction and Infusion) and Bhasma
 - Siddha: Lavanam, Pashanam, Loham, Rasam and Gandhakam

Unit 2 (8 hrs.)

Herbs and Therapeutics

- 2.1 Herbal remedies for some common ailments: Diarrhoea, Ulcer, Cold, Asthma, Fever, Hypertension, Jaundice, Chickenpox, Diabetes, Menstrual Disorders, Bites and Stings
- 2.4 General Health Tonics and Salads
- 2.3 Preparations of Ayurvedic Medicines: Churnam, Decoction, Leghyam, Tailam and Skin Cream (Practical)

Unit 3 (9 hrs.)

Skin and Hair care

- 3.1 Herbal Care for Facial Skin: Herbal Face Pack for Dry, Oily and Normal Skin
- 3.2 Herbal Remedy for Pimples, Acnes, Black Heads, Corns, Warts and Boils
- 3.3 Herbal Remedy for Dandruff, Premature Greying and Loss of Hair
- 3.4 Hair Washes and Herbal Hair Tonics
- 3.5 Demonstration of Facial and Hair Care

BOOKS FOR REFERENCE

Dastur, J.F. *Medicinal plants of India and Pakistan*. New Delhi: D.B. Taraporewala, 1988.

Duke, J.A. *Handbook on Medicinal Herbs*. London: CRC, 2002

Dananjay J Deshpande., *Handbook of Medicinal Herbs*., Jodhpur: Agrobios, 2010.

Hans, R.H. *Ayurveda the Gentle Health System*. New Delhi: Motilal Banarsidass, 1994.

Jaibala, S. and G. Balakrishnan. *A Hand Book of Common Remedies Based on Siddha System of Indian Medicine*. St. Louis Institute, 1994.

Judith H. Morrison. *The Book of Ayurveda, A guide to personal wellbeing*. London: Gaia Books, 1994.

Kapoor, L.D. *Handbook of Ayurvedic Medicinal Plants*, India: CRC, 2001.

Prajapati, N.D. and S.S. Purohit. *Agro's Color Atlas of Medicinal Plants*. Jodhpur: Agrobios, 2006

Reddy, K.J, B. Bahadur, B. Bhadriah and M.L.N. Rao. *Advances in Medicinal Plants*, New Delhi: Universities, 2007

Saha, N.N. *Herbal Remedies*. New Delhi: Universal, 1981.

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment: 25 Marks

One Component – 25 Marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

B.Sc. DEGREE: BRANCH V(A). PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

**General Elective Course offered to Students of
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SYLLABUS

(Effective from the academic year 2015–2016)

FRUIT PRESERVATION

CODE: 15BT/GE/FP22

CREDITS: 2

L T P: 2 0 0

TOTAL HOURS: 26

OBJECTIVES

- To enable students to develop skills related to preservation of fruits
- To train students in the preparation and preservation of different fruit products

Unit 1

Introduction

(4 hrs.)

- 1.1 Principles of Fruit Preservation
- 1.2 Types of Spoilage
- 1.3 Factors Promoting Spoilage

Unit 2

Methods and Techniques of Fruit Preservation

(10 hrs.)

- 2.1 Methods: Refrigeration, Freezing, Canning, Dehydration and Chemical Preservatives
- 2.2 Techniques: Proportion of Ingredients, Selection of Fruits, Estimation Tests, Filling and Bottling of Products and Precautions

Unit 3

Preparation of products preserved in sugar and salt

(12 hrs.)

- 3.1 Sugar: Lime Syrup, Grape Crush, Orange Squash, Mixed Fruit Jam, Guava Jelly,
- 3.2 Salt: Tomato Chutney and Mixed Vegetable Pickle

TEXT BOOK

Srilakshmi, B. Food Science, Chennai:NewAge International,2003.

BOOKS FOR REFERENCE

Blank, F.C. *Handbook of Food and Nutrition*. Jodhpur: Agrobios, 2000.

Frazier, W.C. and West Hoff, D.C. *Food Microbiology*. New Delhi: Tata McGraw Hill, 2001.

Kulshrestha, S. K. *Food Preservation*. New Delhi: Vikas, 1994.

Ramakrishnan, S. *Nutritional Biochemistry*. T.R, 1996.

Scenetra, R. *Food Science and Nutrition*. Oxford University, 1997.

Swaminathan, M. *Handbook of Food Science and Experimental Foods*. Bangalore: Bangalore, 1992.

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment – 25 Marks

One Component – 25 Marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086.

B.Sc. DEGREE: BRANCH V(A), PLANT BIOLOGY AND PLANT BIOTECHNOLOGY
General Elective Course offered to Students of
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SYLLABUS

(Effective from the academic year 2015 – 2016)

FUNDAMENTALS OF HORTICULTURE

CODE: 15BT/GE/FH23

CREDITS: 3

L T P: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES

- To enable students to develop the students to be self-reliant and to develop their entrepreneurial skills
- To enhance practical skills through experiential learning

Unit 1

Introduction

(5 hrs.)

- 1.1 Introduction: Divisions of Horticulture
- 1.2 History of Gardening, Few famous Gardens in India
- 1.3 Types of Gardens: Indoor, Public and Kitchen Garden

Unit 2

Plant Propagation

(10 hrs.)

- 2.1 Pot cultures: Selection of Pots, Potting, Repotting and Potting Mixtures (any two), Demonstration: Potting
- 2.2 Vegetative Propagation: Layering, Cutting, Grafting
- 2.3 Layering, Cutting, Grafting (Demonstration)

Unit 3

Gardening Operations

(5 hrs.)

- 3.1 Planting, Transplanting, Pinching, Disbudding, Defoliation, Staking, Pruning, Watering, Mulching, and Topiary
- 3.2 Ornamental Garden and its parts

Unit 4

Lawn

(11 hrs.)

- 4.1 Lawn and Lawn Making
- 4.2 Rockery
- 4.3 Terrarium: Theory (Practicals)
- 4.4 Bonsai: Theory (Demonstration)

Unit 5

Commercial Floriculture

(8 hrs.)

5.1 Economic Flowers - Jasmine and Rose

5.2 Cut Flowers, Importance and Methods to Prolong Vase Life

5.3 Flower Arrangement - Fresh and Dry

5.4 Flower Arrangement - Fresh and Dry (Practicals)

TEXT BOOK

Kumar, N. *Introduction to Horticulture*. Nagercoil: Rohini, 1980.

BOOKS FOR REFERENCE

Chauhan, D.V.S. *Vegetable Production in India*. Agra: Ram Prasad, 1968.

Edmund, J.B., T.L. Senn, F.S. Andrews and R.G. Halfacre. *Fundamentals of Horticulture*, (4th Ed.). London: Tata McGraw Hill, 1994.

Acquaah, George. *Horticulture Principles and Practices*, (4th Ed.). London: PHI, 2009.

Iyengar, Gopalswamy. K.S. *Complete Gardening in India*. Bangalore: Kalyan, 1970.

Janick, J. *Horticultural Science*, (3rd Ed.). New Delhi: Surjeet, 1962

Naik, K.C. *South Indian Fruits and their Culture*. Madras: P. Varadharaj, 1968

Randhawa, G.S. *Ornamental Horticulture in India, Today and Tomorrow*. New Delhi: Indian Council of Agricultural Research, 1980.

Sheela, V. L. *Horticulture*, Chennai: MJP, 2011.

Saini R.S. *Laboratory Manual of Analytical Techniques in Horticulture*. Jodhpur: Agrobios. 2012.

Yawalkar, K.S. *Vegetable Crops of India*. Nagpur: Agri - Horticultural, 1961.

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 5 x 3 = 15 marks (50 words)

Section B – 3 x 5 = 15 marks (3 out of 4 questions to be answered in 200 words each)

Section C – 1x 20 = 20 marks (1 out of 2 questions to be answered in 1000 words each)

Third Component:

List of evaluation modes:

Water analysis of samples and submission of Results

Quiz

Assignments / Scrap Book

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086.

B.Sc. DEGREE: BRANCH V(A). PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

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SYLLABUS

(Effective from the academic year 2015 – 2016)

WASTE MANAGEMENT

CODE: 15BT/GE/WM23

CREDITS: 3

L T P: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES

- To study management of solid and liquid wastes
- To gain insight to monitoring water quality

Unit 1 (5 hrs.)

Introduction

1.1 Wastes: Solid and Liquid Wastes,

1.2 Waste Generation and Sources - Municipal, Kitchen, Garden,

Agricultural and Industrial

Unit 2 (10 hrs.)

Recycling of Wastes

2.1 Composting - Principles, Process and Factors Affecting Composting.

2.2 Composting - Biodung method (practical)

2.3 Vermiculture Biotechnology: Types of Earthworms, Culturing of Earthworms, Vermibed Maintenance

2.4 Vermicomposting: Principle and Process

2.5 Types of Vermicomposting - Heap Method and Pit Method: Theory and Practical

Unit 3 (10 hrs.)

Sewage Disposal

3.1 Primary Treatment

3.2 Secondary Treatment

3.2.1 Aerobic - Septic Tanks, Trickling Filters and Oxidation Pond

3.2.2 Anaerobic - Sludge Digestion

3.2.3 Tertiary Treatment - Chemical, Ozone and Reverse Osmosis

Unit 4 (10 hrs.)

Biomonitoring of Water Quality and Water Purification

4.1 Test for Water Purity - Coliform Test and Membrane Filter Technique

4.2 Testing for Purity of Water - Coliform Test, Physical Analysis

of Water - pH, Color, Turbidity, TDS, Chemical Analysis of Water - Salinity,

Hardness and Nitrate content (Practical)
4.3 Water Treatment - Steps involved in Water Treatment in typical Water Purification Plant

Unit 5 (4 hrs.)
Transformation of Wastes
5.1 Recycling of Paper
5.2 E-waste

TEXT BOOK

Purohit, S.S. *A Textbook of Environmental Sciences*, Student Edition, 2004.

BOOKS FOR REFERENCE

Gupta, P.K. *Vermicomposting for Sustainable Agriculture*. India: Agrobios. 2004.

Ismail, S.A. *The Earthworm*. Goa: Other India, 2005.

Kumar, H.D. *Environmental Pollution*. M.D, 2004.

NIIR Board. *Modern Technology of Waste Management*, Asia Pacific, 2004.

Rachel, M.A. *Analysis of Waste Water for use in Agriculture*, WHO, 1996.

Sathe, T.V. *Vermiculture and Organic Farming*. Daya, 2004.

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 5 x 3 = 15 marks (50 words)

Section B – 3 x 5 = 15 marks (3 out of 4 questions to be answered in 200 words each)

Section C – 1x 20 = 20 marks (1 out of 2 questions to be answered in 1000 words each)

Third Component:

List of evaluation modes:

Water analysis of samples and submission of Results

Quiz

Assignments

Scrap Book

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086.

B.Sc. DEGREE: BRANCH V(A). PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

**General Elective Course offered to Students of
B A. / B.Sc. / B.Com. Degree Programmes**

SYLLABUS

(Effective from the academic year 2015–2016)

FOOD SCIENCE

CODE: 15BT/GE/FS23

CREDITS: 3

L T P: 3 0 0

TOTAL HOURS: 39

OBJECTIVES

- To enable students gain knowledge and understanding about the nature of food and human nutrition and an appreciation of the importance of food to health
- To facilitate identification of important principles in fermentation

Unit 1 (7 hrs.)

Basic Nutrition

- 1.1 Introduction
- 1.2 ICMR Five Food Groups
- 1.3 Food Pyramid
- 1.4 Balanced Diet
- 1.5 Vitamin Deficiency Diseases

Unit 2 (8 hrs.)

Food Processing

- 2.1 Cereals and Legumes
- 2.2 Fruits and Vegetables
- 2.3 Milk and Milk Products
- 2.4 Fish
- 2.5 Eggs

Unit 3 (8 hrs.)

Nutraceutical Values of Health Foods:

- 3.1 Broken Wheat Khicheri
- 3.2 Ragi Dhal Porridge
- 3.3 Sprouted Salad
- 3.4 Spinach Pongal
- 3.5 Banana Carrot Halwa

Unit 4

Traditional Food

(8hrs.)

4.1 Preparation and Nutraceutical Properties of the following Fermented Foods

4.1.1 Milk: Paneer and Curd

4.1.2 Vegetable: Sauerkraut and Pickle

4.1.3 Cereal: Idly and Neer Agaram

4.1.4 Beverage: Grape Wine and Goosberry Wine

4.1.5 Palm Jaggery

4.2 Food ways specific to Festivals- Diwali and New Year

4.3 Nutritional Requirements during Pregnancy and Infancy

Practicals: Preparation of few Fermented Foods

Unit 5

Ayurvedic Food

(8 hrs.)

5.1 Basic concepts of Vata, Pitta, Kapha and relevance of six Tastes in Food

5.2 Diet regimen for Vata, Pitta, Kapha individuals

5.3 Importance of Navadaniyam

TEXT BOOK

Srilakshmi, B. Food Science. Chennai: New Age International, 2003.

BOOKS FOR REFERENCE

Bamji Mehtab, S. et al. (ed), *Textbook of Human Nutrition*, New Delhi:Oxford & IBH, 1998.

Chakraverty, A.*Postharvest Technology of Cereals, Pulses and oilseeds*. New Delhi: Oxford and IBH, 1988.

Dauthy, M.E. *Fruit and Vegetable Processing*.India:International, 1997.

Garrow, J.S. and W.P.T.James, *Human Nutrition and Dietetics*, Churchill Living Stone, 1993.

Rosenthal, I.*Milk and Milk Products*. New York: VCH, 1991.

Srivastava, R.P. and Kumar, S. *Fruit and Vegetable Preservation: Principles and Practices*.Lucknow: International, 1998.

Haard, N.F. and Salunkhe, D.K. *Postharvest Biology and Handling of Fruits. and Vegetables*, Westport:AVI, 1975.

JOURNALS

Food Technology.:

International journal of food science and nutrition.

Journal of food science and technology (India)

Indian food industry.

Journal of human nutrition and plant foods.

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

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Section B – 3 x 5 = 15 marks (3 out of 4 questions to be answered in 200 words each)

Section C – 1x 20 = 20 marks (1 out of 2 questions to be answered in 1000 words each)

Third Component:

List of evaluation modes:

Water analysis of samples and submission of Results

Quiz

Assignments

Scrap Book

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086.

B.Sc. DEGREE: BRANCH V(A). PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

**General Elective Course offered to Students of
B A. / B.Sc. / B.Com. Degree Programmes**

SYLLABUS

(Effective from the academic year 2015–2016)

FLORICULTURE

CODE: 15BT/GE/FR23

CREDITS: 3

L T P: 3 0 0

TOTAL HOURS:39

OBJECTIVES

- To introduce students to floriculture and to develop their entrepreneurial skills
- To enhance their practical skills through experimental learning

Unit 1 (7hrs.)

Basics of Floriculture

- 1.1 Introduction: Aim and scope of Floriculture
- 1.2 Diversification of Floriculture in India
- 1.3 Common Garden Operations
- 1.4 Soil Types
- 1.5 Manures, Fertilizers, Biofertilizers, Vermicompost and Growth Regulators

Unit 2 (5 hrs.)

Techniques

- 2.1 Techniques of Growing Plants – Preparation of Ground and Beds, Potting and Repotting; Types of Pots and Hanging Baskets
- 2.2 Potting and Repotting – Practicals.
- 2.3 Preparation of Herbal Solutions and Application of Sprays and Dusts to check Pest attack

Unit 3 (5 hrs.)

Vegetative Propagation

- 3.1 Vegetative Propagation Methods: Cutting, Grafting and Layering
- 3.2 Vegetative Propagation Methods: Cutting, Grafting and Layering (Practicals)
- 3.3 Green House-Control of Temperature, Humidity and Light in Covered Structures

Unit 4 (7 hrs.)

Commercial Floriculture I

- 4.1 Ikebana
- 4.2 Study of quality parameters for Cut Flowers - for Domestic Markets and for Exports

4.3 Holding of Cut Flowers-Harvesting, Conditioning and Storage of Cut Flowers, Wrapping and Tying Materials, Packing Cartons and Methods to Prolong Vase- Life

4.4 Visit to Commercial Nurseries

Unit 5 (15hrs.) Commercial Floriculture II

5.1 Commercial uses of Flowers –Jasmines, Chrysanthemums and Crossandra

5.2 Long Stem Cut Flowers - Perennials – Rose, Carnation and Gladiolus, Annuals – Aster, Dianthus and Celosia(Cockscomb), Cut Greens – Ferns, Palms, Cycads and Thuja

5.3 Specific cultural requirements for certain crops(Chrysanthemum,Rose and Carnation) –such as Pinching, Disbudding and Regulation Scheduling/ Forcing of Flowering

5.4. Preparation of Flowers for Display in Flower Shows, Garland, Hair Pieces, Bouquets and Posy

5.5 Flower Arrangement – Fresh and Dry

5.6 Flower Arrangement – Fresh and Dry (Practical)

TEXT BOOK

Sheela, V. L. *Horticulture*, Chennai:MJP, 2011.

BOOKS FOR REFERENCE

Bose.T.R and Yadav, L.P., *Commercial Flowers*. Calcutta: Naya Prakash, 1989.

Bose, T. K.,Maiti R.G., Dhua, R.S and Das,F., *Floriculture and Landscaping*, Calcutta: Naya Prakash, 1999.

Gopalswamy Iyengar, K. S., *Complete Gardening in India*. Bangalore Kalyan, 1970.

Lauria, A. and Ries.V.H.,*Floriculture, Fundamentals and Practices*. Jodhpur:Agrobios, 2001.

Kumar,N., *Introduction to Horticulture*.Nagercoil: Rohini, 1980.

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 5 x 3 = 15 marks (50 words)

Section B – 3 x 5 = 15 marks (3 out of 4 questions to be answered in 200 words each)

Section C – 1x 20 = 20 marks (1 out of 2 questions to be answered in 1000 words each)

Third Component:

List of evaluation modes:

Water analysis of samples and submission of Results

Quiz

Assignments / Scrap Book

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

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**Independent Elective Course offered to Students of
B A. / B.Sc. / B.Com Degree Programmes**

SYLLABUS

(Effective from the academic year 2015 – 2016)

AGRICULTURE

CODE: 15BT/UI/AR23

CREDITS: 3

OBJECTIVES

- To enable students to learn about agricultural practices in India

Unit 1

Introduction

- 1.1 Development of Modern Agriculture
- 1.2 Classification of Soils in India: Mechanical Composition of Soil, Soil Temperature, Soil Moisture and Soil Erosion

Unit 2

Fertilizers and its Uses

- 2.1 Organic Fertilizers - Farm Yard Manure and Biofertilizers
- 2.2 Inorganic Fertilizers – Nitrogenous, Phosphatic, Potassic
- 2.3 Residual Effects of Fertilizers

Unit 3

Weed and Pest Control

- 3.1 Weed Control: Mechanical, Biological and Chemical
- 3.2 Pest Control: Chemicals and Organic
- 3.3 Transgenic Plants for Crop Improvement: Herbicide Resistance, Insect Resistance, Resistance against Viral, Bacterial and Fungal Pathogens

Unit 4

Water Resources and Cropping Patterns

- 4.1 Water resources of Tamilnadu (Rivers, Dams and Monsoons)
- 4.2 Cropping patterns of Tamilnadu: Multiple cropping, Relay cropping, Intercropping, Mixed Cropping and Multi-Tier Cropping

Unit 5

Farm Crops: Economic Importance

- 5.1 Cereals: Rice and Wheat
- 5.2 Pulses: Blackgram and Pigeon Pea
- 5.3 Oil seeds: Groundnut and Sunflower Seed
- 5.4 Sugar crops: Sugar Cane
- 5.5 Tuber: Potato

- 5.6 Spices: Pepper
- 5.7 Fibre: Cotton and Jute
- 5.8 Fruits: Mango and Citrus Fruits

TEXT BOOK

Subbiah Mudaliar, V.T. -*Principles of Agronomy*. Bangalore: Bangalore, 1979.

BOOKS FOR REFERENCE

Edmond, J.B; Senn, T.L., Andrews, F.S. and Halfacre, R.G. -*Fundamentals of Horticulture*. New Delhi: Tata McGraw Hill, 1977.

Kumar, L.L.S.S., Agarwala, A.C. and others – *Agriculture in India*– Vol.I and II. Asia, 2004.

Ochse, J.J., Soule, M.J.; Dijkman, M.J. and Welburg C. – *Tropical and Subtropical Agriculture*, Vol.II. New York: Macmillan, 1961.

Purohit, S.S. and S.K. Mathur. *Biotechnology- Fundamentals and Applications* (3rd Ed.) Jodhpur: Agrobios, 2000.

Shrivastava A.K. *Agriculture Science and Technology*, Agrotech., 2013.

Wrigley Gordon, *Tropical Agriculture – The Development and Production*. ELBS, 1998.

PATTERN OF EVALUATION

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Section A – 10 X 3 = 30 marks (10 out of 13 questions to be answered in 50 words)

Section B – 5x 6 = 30 marks (5 out of 8 questions to be answered in 200 words each)

Section C – 2 x 20 = 40 marks (2 out of 4 questions to be answered in 1000 words each)

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**Independent Elective Course offered to Students of
B A. / B.Sc. / B.Com Degree Programmes**

SYLLABUS

(Effective from the academic year 2015 – 2016)

FORESTRY

CODE: 15BT/UI/FR23

CREDITS: 3

OBJECTIVES

- To understand the value of wealth of forests of India
- To develop and understanding of biodiversity, conservation and agroforestry

Unit 1

Forest Types

- 1.1 Major Forest types in India with special reference to Tamil Nadu
- 1.2 Occurrence and Distribution
- 1.3 Forests as Centers of Biodiversity
- 1.4 Biodiversity Hotspots

Unit 2

Protection Forestry

- 2.1 Conservation- *insitu* and *exsitu*
- 2.2 Natural Forest Policy, Forest Conservation Act
- 2.3 National Sanctuaries, National Parks and Biosphere Reserves
- 2.4 Role of People: Chipko Movement

Unit 3

Commercial Forestry

- 3.1 Forests as Sources of Timber
- 3.2 Nonwood Forest Products: Fodder, Food, Oil, Fiber, Paper and Medicine

Unit 4

Social Forestry

- 4.1 Agroforestry- Afforestation and Reforestation Programmes
- 4.2 Ecological Benefit
- 4.3 Deforestation: Causes and Consequences
- 4.5 Plantation Forestry

Unit 5

Silviculture

5.1 Artificial and Natural Regeneration of some important Forest Plants: Teak and Casuarina

5.2 Forest Education and Management

BOOKS FOR REFERENCE:

Bruce Alan. *Forest products biotechnology*. Taylor & Francois. 2005

Bridger Blackeney., *Handbook of Forestry*. Agrotech., 2013.

Jha, L.K. *Forestry for the people*. New Delhi: Ashish, 1994.

Powell, Baden B.H. *Manual of Forest Law*. New Delhi: Biotech, 2004.

Puri, G S. *Forest Ecology*. New Delhi : Oxford & IBH, 1986.

Raju, R.A. *Forest Wealth of India*. New Delhi: Today & Tomorrow, 1986.

Sharma, P.D. *Ecology and Environment*. Meerut: Rastogi, 1997.

Shukla, R.S. *Forestry for Tribal Development*. New Delhi: Wheeler, 1997.

Vyas, G P D. *Community Forestry*. Jodhpur: Agrobios, 2006.

PATTERN OF EVALUATION

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Section C – 2 x 20 = 40 marks (2 out of 4 questions to be answered in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH IV – CHEMISTRY

SYLLABUS

(Effective from the academic year 2015–16)

GENERAL CHEMISTRY

CODE: 15CH/MC/GC14 CREDITS: 4

L T P:4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To understand the fundamentals of Chemical Bonding, Gaseous state and Thermochemistry
- To create an awareness of Nuclear Chemistry
- To provide an overview of Organic Chemistry

Unit 1

Chemical Bonding (13 hrs.)

- 1.1 Types of Bonds - Ionic, Covalent, Metallic, Co-ordinate Bonds and their Properties. Ionic Bond - Lattice Energy- Born-Landé Equation (No Derivation)- Factors affecting Lattice Energy, Born Haber Cycle and its Applications
- 1.2 Covalent Bond - Lewis Structures of Simple Molecules and Ions, Valence Shell Electron Pair Repulsion Theory { $[\text{BF}_4]^-$, NH_3 , H_2O , PCl_5 , SF_4 , ClF_3 , I_3^- }. Covalent Character in Ionic Compounds- Polarization and Fajan's Rules
- 1.3 Valence Bond Theory (VBT) - Hybridization (BeF_2 , BF_3 , CH_4)
- 1.4 Molecular Orbital Theory (MOT) - Bonding, Antibonding and Nonbonding Orbitals. Application of MOT to He_2 , N_2 , O_2 , O_2^- , O_2^{2-} , CO , NO , HF , Comparison between VBT and MOT

Unit 2

Nuclear Chemistry (8 hrs.)

- 2.1 Elementary Particles - Concept of Nuclides, Representation of Isobars, Isotones, Isotopes with Examples. Nucleus Structure - Liquid Drop and Shell Model. Nuclear Stability - n/p Ratio, Binding Energy, Mass Defect and Magic Numbers
- 2.2 Radioactive Elements, Modes of Decay - Neutron, Positron Theory of α , β and γ emission, Characteristics of α , β and γ particles, K-Electron Capture and Positron emission. Half-Life Period, Geiger-Nuttall Rule. Radioactive Displacement Laws - Soddy, Fajan and Russel. Radioactive Decay Series $4n$, $4n+1$, $4n+2$ and $4n+3$
- 2.3 Detection and Measurement of Radioactivity - Ionization Chamber, Geiger-Muller Counter and Scintillation Counter. Artificial Radioactivity - Artificial Transmutation of Elements
- 2.4 Nuclear Reactions - Nuclear Fusion and Fission, Principles of Nuclear Energy Production

Unit 3

Introductory Organic Chemistry(13 hrs.)

- 3.1 IUPAC Nomenclature of Organic Compounds
- 3.2 Types of Organic Reaction and Reagents: Nature of Bond Fission – Homolytic and Heterolytic. Types of Reagents – Electrophiles and Nucleophiles. Substitution, Addition, Elimination and Rearrangement Reactions (Definition with an example)
- 3.3 Reactive Intermediates with Examples – Carbocations, Carbanions and Free Radicals- Conditions Favouring their Formation, Stability and Structure, their Reactions with Examples. Electron Displacement Effects - Inductive, Electromeric, Mesomeric, Resonance, Hyper-Conjugation and Steric Effects- Tautomerism
- 3.4 Concept of Aromaticity – Definition, Huckel's Rule – Application to Benzenoid and Non-Benzenoid Compounds- Benzene, Naphthalene, Cyclopropenyl Cation, Cyclopentadienyl Anion and Tropylium Cation

Unit 4

Gaseous State

(10 hrs.)

- 4.1 Comparison of Different States of Matter, the Perfect Equation of State, Mixture of Gases (Partial Pressures)
- 4.2 Kinetic Model of Gases, Average Speed of Gas Molecules, Maxwell Distribution of Speeds
- 4.3 Real Gases, Critical Temperature, Compression Factor, Vander Waal's Equation of State, Liquefaction of Gases

Unit 5

Thermochemistry

(8 hrs.)

- 5.1 Thermochemistry: Standard Enthalpy Changes, the Combination of Reaction Enthalpies
- 5.2 Standard Enthalpy of Formation, Variation of Reaction Enthalpy with Temperature

TEXT BOOKS

J.D. Lee. *Concise Inorganic Chemistry*. New Delhi: Oxford University Press, 2008.

Morrison .R.T. Boyd R.N & Bhattacharjee.S.K. *Organic Chemistry*. Pearson, Dorling Kindersley, 2012.

Puri, B.R., L.R. Sharma., Madan S. Pathania. *Principles of Physical Chemistry*. New Delhi: Vishal, 2008.

Puri B.R, Sharma L.R & Kalia K.C. *Principles of Inorganic Chemistry*. New Delhi: Milestone, 2008.

BOOKS FOR REFERENCE

Arinikar H.J. *Essentials of Nuclear Chemistry*. New Delhi: New Age International, 1995.

Madan R.D. *Satyaprakash's Modern Inorganic Chemistry*. New Delhi: Sultan Chand, 2004.

Solomons&Fryhle, *Organic Chemistry*, New Delhi, Wiley India, 2004.

WEB RESOURCES

<http://www.chem1.com/acad/webtext/chembond/cb01.html>

<http://education-portal.com/academy/topic/nuclear-chemistry.html>

<https://www.class-central.com/mooc/437/coursera-introductory-organic-chemistry-part-1>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 15 x 1 = 15 Marks (All questions to be answered) Multiple choice - 5, Fill in the Blanks - 5, T/F or Match the following or single line answer - 5

Section B– 3 x 5 = 15 Marks (3 out of 5 to be answered)

Section C – 2 x 10 = 20 Marks (2 out of 3 to be answered)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

MCQ

Model Preparation

Short Answer Tests

End Semester Examination:

Total Marks: 100

Duration: 3 hours

QUESTION PAPER PATTERN

Section A – 30 x 1 = 30 Marks (All questions to be answered) Multiple choice - 10, Fill in the Blanks - 10, T/F or Match the following - 5, single line answer - 5

Section B – 5 x 6 = 30 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH IV - CHEMISTRY

SYLLABUS

(Effective from the academic year 2015- 2016)

ANALYTICAL CHEMISTRY

CODE: 15CH/MC/AC14

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS : 52

OBJECTIVES OF THE COURSE

- To introduce the key concepts of Analytical Chemistry with a special reference to its applications
- To understand the importance of statistical measures
- To familiarize students with chromatographic and thermoanalytical methods

Unit 1

Stoichiometry, Sampling and Errors (13 hrs.)

- 1.1 Important Units of Measurement – S.I Units, Distinction between Mass and Weight, Concentration of Solutions - Moles, Millimoles, Milliequivalence, Molality, Molarity, Normality, Percentage by Weight and Volume, ppm, ppb. Density and Specific Gravity of Liquids. Stoichiometry Calculations
- 1.2 Sampling Techniques-Sampling and Sample Handling of Liquids and Gases, Particulate Solids, Metals and Alloys. Preparation of a Laboratory Sample
- 1.3 Errors – Types of Errors, Accuracy, Precision, Minimization of Errors. Significant Figures. Methods of Expressing Precision: Mean, Median, Average Deviation, Standard Deviation, Coefficient of Variation, Confidence Limits, Q-test, F-test, T-test. The Least Square Method for Deriving Calibration Plots

Unit 2

Separation Techniques (13 hrs.)

- 2.1 Solvent Extraction– Liquid-Liquid Extraction-Nernst Distribution Law, Factors affecting Solvent Extraction, Soxhlet and Rotovapour Extraction
- 2.2 Chromatography- Column, TLC, Paper, Gas, HPLC and Electrophoresis – Principle, Classification, Choice of Adsorbents, Solvents, Preparation of Column, Elution, Development of Chromatogram and R_f Value

Unit 3

Classical Methods of Analysis (10 hrs.)

- 3.1 Titrimetry– Calibration of Burette, Pipette, Standard Flask, Titrant, Titrand, Indicators, Equivalence Point, End Point. Primary and Secondary Standards- Criteria and Preparation
- 3.2 Types of Titrimetric Analysis- Neutralization, Precipitation, Redox and Complexometric Titrations. Limitations of Volumetric Analysis

- 3.3 Gravimetry: Separation by Precipitation, Types of Filtering Crucible, Drying, Ignition, Incineration of Precipitate, Nucleation, Particle Size, Crystal Growth and Colloidal State
- 3.4 Solubility Product, Principle and its Applications, Factors affecting Solubility, Gravimetric Factor, Purity of Precipitates, Von Weiman Ratio. Co-precipitation and Post Precipitation

Unit 4

Thermoanalytical Methods (8 hrs.)

- 4.1 TGA/DTA-Principle and Instrumentation, Thermal Analysis of Silver Nitrate, Calcium Oxalate and Calcium Acetate, Methods of obtaining Thermograms, Factors affecting TGA/DTA
- 4.2 DSC- Principle and Applications
- 4.3 Thermometric Titrations: Principle, Instrumentation and Applications

Unit 5

Dipole Moment and Magnetic Susceptibility (8 hrs.)

- 5.1 Dipole Moment - Definition - Units - Significance - Factors influencing Dipole Moment - Clausius-Mosotti Equation - Determination of Dipole Moment by Temperature Method
- 5.2 Magnetic Susceptibility - Origin of Magnetic Properties - Types of Magnetic Properties - Magnetic Susceptibility - Definition - Curie Weiss Law - Temperature and Magnetic Susceptibility - Determination of Magnetic Moment by Guoy's and VSM Method - Applications of Magnetic Moment

TEXT BOOKS

Gopalan, R, Subramanian, P.S and Rengarajan, K. *Elements of Analytical Chemistry*. New Delhi: Sultan Chand, 2004.

Skoog, D.A, West, D.M. *Fundamentals of Analytical Chemistry*. Thomson Asia, 2004.

Vogel, A.I. *Vogel's Textbook of Quantitative Chemical Analysis*. Prentice Hall, Science, 2000.

BOOKS FOR REFERENCE

Day R.A. Jr. & A.L. Underwood. *Quantitative Analysis*. New Delhi: Prentice Hall of India, 1988.

Skoog, Douglas A, James F. Holler & Timothy A. Nieman. *Principles of Instrumental Analysis*. Singapore: Haracourt Asia, 2000.

Srivastava T.N & P.C. Kamboj. *Systematic Analytical Chemistry*. New Delhi: Shobanlal Nagin Chand, 1999.

Usharani, S. *Analytical Chemistry*. New Delhi: Macmillan, 2006.

WEB RESOURCES

<http://www.epa.gov/rpdweb00/docs/marlap/402-b-04-001b-14-final.pdf>

<http://eric.ed.gov/?id=EJ386287>

<http://www.sjsu.edu/faculty/watkins/diamag.htm>

<http://www.britannica.com/EBchecked/topic/108875/separation-and-purification>

<http://www.chemistry.co.nz/stoichiometry.htm>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $15 \times 1 = 15$ Marks (All questions to be answered) Multiple choice - 5, Fill in the
Blanks - 5, T/F or Match the following or single line answer - 5

Section B – $3 \times 5 = 15$ Marks (3 out of 5 to be answered)

Section C – $2 \times 10 = 20$ Marks (2 out of 3 to be answered)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

MCQ

Model Preparation

Short Answer Tests

End Semester Examination:

Total Marks: 100 Duration: 3 hours

Section A – $30 \times 1 = 30$ Marks (All questions to be answered) Multiple choice - 10, Fill in the
Blanks - 10, T/F or Match the following - 5, single line answer - 5

Section B – $5 \times 6 = 30$ Marks (5 out of 7 to be answered)

Section C – $2 \times 20 = 40$ Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH IV – CHEMISTRY

SYLLABUS

(Effective from the academic year 2015- 2016)

VOLUMETRIC ANALYSIS – PRACTICAL

CODE:15CH/MC/P112

CREDITS : 2

L T P: 0 0 3

TOTAL HOURS: 39

Unit 1

Calibration

1.1 Calibration of Burettes / Pipettes

Unit 2

Theory of Volumetric Estimations

2.1 Theory and Principles behind the Experiments, Equivalent Weight Calculations to be tested in every class

Unit 3

Volumetric Estimation

3.1 Estimation of Na_2CO_3 / HCl

3.2 Estimation of Oxalic Acid (Permanganimetry)

3.3 Estimation of Dichromate (Iodometry)

3.4 Estimation of Iron (Dichrometry /Permanganimetry)

3.5 Estimation of Magnesium / Zinc (Complexometry)

3.6 Estimation of Chloride (Argentometry)

3.7 Estimation of Hardness of the given Water Sample

Testing of Principles in the CA tests and also End Semester Examination for a maximum of five marks.

Combination of two types of titration also to be tried out.

TEXT BOOKS

Sathian Jesurietta. *Volumetric Estimations – Lab Manual*. 2010.

Vogel, A.I., *Vogel's Textbook of Quantitative Chemical Analysis*. Prentice Hall, Science, 2000.

Continuous Assessment:

Total Marks: 50

Duration: 3 hours

Equations and short Procedure (10 minutes) 10 marks
Experiment 40 marks

End Semester Examination:

Total Marks: 50

Duration: 3 hours

Equations and short Procedure (10 minutes) 10 marks
Experiment 40 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH IV – CHEMISTRY

SYLLABUS

(Effective from the academic year 2015-16)

ORGANIC CHEMISTRY – I

CODE: 15CH/MC/OC24

CREDITS: 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To enable a comprehensive understanding of mechanisms and stereochemistry of organic reactions
- To understand the chemistry of carbonyl compounds

Unit 1

Stereochemistry (12 hrs.)

- 1.1 Stereoisomerism-Definition and Types, Geometrical Isomerism - E-Z Notation. Optical Isomerism – Definition, Conditions for Optical Activity and its Measurement, Specific Rotation, Asymmetric Centre, and Chirality. Enantiomers, Diastereomers, Racemic and Meso Compounds (Definition and Examples)
- 1.2 Notations for Optical Isomers with one and two Asymmetric Carbon Atoms. Specification of Configuration - D-L and R-S Notations (Cahn-Ingold-Prelog Rules), Erythro and Threo Representations
- 1.3 Conformational Isomerism-Conformations of Molecules- Newman Projection, Fischer, Flying Wedge and Sawhorse Projections. Conformational Analysis of Ethane, n-Butane and Cyclohexane
- 1.4 Stereospecific and Stereoselective Reactions of Addition of Halogens to Alkenes- Syn and Anti Addition

Unit 2

Electrophilic and Nucleophilic Substitution Reactions (15 hrs.)

- 2.1 Aliphatic Nucleophilic Substitution Reaction Mechanism - S_N1 , S_N2 , S_Ni . Factors governing S_N1 , S_N2 Reactions - Effects of Structure, Solvent, Nature of entering and leaving group. Kinetics, Stereochemistry of Nucleophilic Aliphatic Substitution, Duality of Mechanism. - Walden Inversion. S_N1 vs S_N2
- 2.2 Aromatic Nucleophilic Substitution Reaction S_NAr Mechanism-Benzyne Intermediate Formation and Evidences. Aromatic Electrophilic Substitution Reaction - General Mechanism- Sulphonation, Nitration, Halogenation, Friedel Crafts Alkylation and Acylation Reaction, Effect of Substituent already present in the Ring, Ortho /Para Ratio, Orientation in Di Substituted Compounds

Unit 3

Elimination and Addition Reactions (12 hrs.)

- 3.1 Elimination: $E1$, $E2$ and $E1cB$ Mechanisms, Orientation and Reactivity (Hoffmann and Saytzeff Rule) and Evidences. Stereochemistry of $E2$ Reaction., Syn- and Anti-Elimination, Elimination vs Substitution

- 3.2 Addition: Electrophilic Addition- Orientation and Reactivity, Markownikoff and Anti-Markownikoff Rule. Examples of Addition Reaction- Addition of Hydrogen, Halogen, Hydrogen Halide Hypohalous Acid, Sulphuric Acid, Water, Hydroxylation, Epoxidation, Hydroboration (with Propene and Propyne as Examples), Ozonolysis, Mechanism of the Peroxide initiated Addition of HBr. Electrophilic Addition to Conjugated Dienes-1, 2 and 1, 4 Addition

Unit 4

Aliphatic, Aromatic and Unsaturated Carbonyl Compounds (8 hrs.)

- 4.1 Structure of Carbonyl Group, Acidity of Alpha Hydrogen, Keto-Enol Tautomerism – Evidence for the Two Forms. Nucleophilic Addition Reaction-Acid and Base Catalyzed. Relative Reactivity of Aldehydes and Ketones. A Comparison of Reactivity with Aromatic Carbonyls and its Derivatives
- 4.2 Addition of Carbanions: Aldol Condensation, Cannizzaro, Crossed Cannizzaro, Claisen-Schmidt Reactions – their use in Synthesis
- 4.3 Houben-Hoesch Synthesis of Phenolic Ketone
- 4.4 Benzoin Condensation, Reimer-Tiemann, Haloform, Knoevenagel, Reformatsky and Perkin Reactions
- 4.5 Acrolein, Crotonaldehyde, Cinnamaldehyde – Preparation and Reactions

Unit 5

Oxidation and Reduction Reactions of Carbonyl Compounds (5 hrs.)

- 5.1 Reagents for Oxidation and Reduction of Carbonyl Compounds and their Corresponding Products. Meerwein-Ponndorf-Verley, Clemmensen, Oppenauer, Baeyer-Villiger, Wolff-Kishner, LiAlH_4 and NaBH_4 Reductions

TEXT BOOKS

Ahluwalia V K. *Organic Reaction Mechanisms*. New Delhi: Narosa, 2011.

Francis A. Carey, Richard A. Sundberg. *Advanced Organic Chemistry*. Springer, 2007.

Michael B. Smith, Jerry March. *March's Advanced Organic Chemistry: Reactions, Mechanisms, and Structure*. Wiley, 2007.

Morrison R.T. Boyd R.N & Bhattacharjee S.K. *Organic Chemistry*. Pearson, Dorling Kindersley, 2012.

BOOKS FOR REFERENCE

Jonathan Clayden., Nick Greeves, Stuart Warren. *Organic Chemistry*. Oxford University Press, 2012.

Paula Y. Bruice. *Organic Chemistry*. Prentice Hall, 2010.

Reinhard Brückner. *Organic Mechanisms - Reactions, Stereochemistry and Synthesis*. Springer, 2010.

WEB RESOURCES

<http://www.organic-chemistry.org/>

<http://www.chemguide.co.uk/orgmenu.html>

<http://www2.chemistry.msu.edu/faculty/reusch/VirtTxtJml/intro1.htm>

PATTERN OF EVALUATION

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Short Answer Tests

End Semester Examination:

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Section B – 5 x 6 = 30 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH IV – CHEMISTRY

SYLLABUS

(Effective from the academic year 2015- 2016)

SEMI MICRO QUALITATIVE ANALYSIS PRACTICAL-I

CODE:15CH/MC/P221

CREDIT: 1

L T P: 0 0 2

TOTAL HOURS: 26

Unit 1

- 1.1 Reactions of the Following Acid Radicals: Carbonate, Sulfate, Sulphide, Nitrate, Chloride, Bromide, Fluoride, Oxalate, Phosphate, Arsenite, Arsenate, Chromate and Borate
- 1.2 Elimination of Interfering Radicals -Oxalate, Phosphate, Chromate and Borate
- 1.3 Reactions of the Following Basic Radicals and its Group Separations. Lead, Copper, Bismuth, Cadmium, Antimony, Iron, Chromium, Aluminum, Cobalt, Nickel, Manganese, Zinc Barium, Strontium, Calcium, Ammonium and Magnesium

Unit 2

Analysis of a given Salt Containing one Cation and one Anion (Interfering Ion)

TEXT BOOKS

Sathian Jesurietta, *Semi Micro Qualitative Analysis*. 2008.

Svehla, G. *Vogel's Qualitative Inorganic Analysis*. Prentice Hall, 2008.

Continuous Assessment:

Total Marks: 50

Duration: 3 hours

General Procedure

15 marks

Acid Radical (1x15)

15 marks

Elimination Procedure

5 marks

Basic Radical (1x15)

15 marks

End Semester Examination:

Total Marks: 50

Duration: 3 hours

General Procedure

15 marks

Acid Radical (1x15)

15 marks

Elimination Procedure

5 marks

Basic Radical (1x15)

15 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.Sc. DEGREE: BRANCH IV – CHEMISTRY

SYLLABUS

(Effective from the Academic Year 2015 – 2016)

ENVIRONMENTAL STUDIES

CODE: 15CH/GC/ES22 CREDITS : 2

L T P : 2 0 0

TOTAL TEACHING HOURS : 26

OBJECTIVES OF THE COURSE

- To create an awareness about current environmental issues
- To educate students on conservation and management of natural resources
- To encourage students to beecosensitive and ecofriendly

Unit 1

Introduction

(6 hrs.)

- 1.1 Components ofthe Environment – Classification and Characteristics of Resources – Renewable and Non – Renewable Resources
- 1.2 Need forPublic Awareness in Conservation of Natural Resources
- 1.3 Energy Flow in Ecosystems – Aquatic andTerrestirial – Food Chain and Food Web

Unit 2

Pollution and Socio Economic Aspects of the Environment

(10 hrs.)

- 2.1 Types of Pollution – Air, Water, Solid Waste, Noise
- 2.2 Problems - Green House Effect – Depletion ofthe Ozone Layer – Climate Change
- 2.3 Bio Diversity - Definition - Loss of Bio Diversity – Threats to Biodiversity andConservation of Biodiversity
- 2.4 Human Behaviour: - Population – Urbanization – Poverty (As Cause and Result of Pollution and Degradation)
- 2.5 Technology: Agriculture and Industry – Deforestation. Misuse andAbuse of the Resources
- 2.6 Effects and Consequences of Environmental Problems

Unit 3

Sustainable Development, Remedies and Policy Implications

(10 hrs.)

- 3.1 Environmental Disasters Natural and Human Made – Bhopal Gas Tragedy – Chernobyl Accident – Fukushima Nuclear Crisis - Gulf War – Love Canal Episode – Tsunami – Volcanic Eruptions
- 3.2 Methods Evolved to Measure and Check Environmental Degradation and Pollution – Carbon Footprint, Carbon Credit, Ecological Footprint, and Ecological Shadow
- 3.3 Environmental Movements in India – Chipko Movement, Narmada BachaoAndolan, SethuSamudram Project
- 3.4 Environmental Acts – Policy Measures withrespect to India
- 3.5 International Environmental Agreement – Stockholm Conference – Montreal Protocol – Rio Meet – Kyoto Conference – UN Conference on Climate Change (Copenhagen)

Field visit

Eco initiatives at the campus: Garbage Segregation and Vermicomposting – Greywater Recycling – Rainwater Harvesting – Solar Powered Lights – Biodiversity

TEXT BOOK

Bharucha, E. *Textbook of Environmental Studies*. Hyderabad: Universities Press, 2005.

REFERENCE BOOKS

Ignacimuthu, S. *Environmental Awareness and Protection*. New Delhi: Phoenic House, 1997.

Jadhav, H and V. M. Bhosale. *Environmental Protection and Law*. New Delhi: Himalaya, 1995.

Odum, E.P. *Fundamentals of Ecology*. U.S.A: W.B. Saunders, 1971.

Mies, M and V. Shiva. *Ecofeminism*, London: Zed Books, 1989.

Singh, H.R. *Environmental Biology*. New Delhi: S.Chand, 2005.

PATTERN OF EVALUATION (Internal assessment)**Continuous Assessment:**

One Hour Test – 25 Marks

One Component – 25 Marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH IV – CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 – 16)

INORGANIC CHEMISTRY – I

CODE: 15CH/MC/IC34

CREDITS: 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVE OF THE COURSE

- To give an overview of concepts in comparative studies of s and p block elements

Unit 1

Periodicity of Properties and the Hydrides (12 hrs.)

- 1.1 Periodic Table, Horizontal, Vertical and Diagonal Relationships in the Periodic Table
- 1.2 Periodicity of Properties of s, p and d – Block Elements with respect to Atomic Radii, Ionic Radii, Covalent Radii, Ionization Energy, Electronegativity, Electron Affinity
- 1.3 Inert Pair Effect, Effective Nuclear Charge – Screening Effect, Slater Rules
- 1.4 Hydrides – Classification as Saline, Metallic, Molecular and Polymeric Hydrides - One Method of Preparation and Important Properties, Hydrogen Bonding and its Consequences
- 1.5 Acids and Bases: Bronsted-Lowry, Lux-Flood, Solvent System and Lewis Concepts of Acids and Bases, Factors affecting Strengths of Lewis Acids and Bases, HSAB Principle and its Applications

Unit 2

Chemistry of s-Block Elements (8hrs.)

- 2.1 Group 1 Alkali Metals: Position of Alkali Metals in the Periodic Table, Discussion of Alkali Metal Group with respect to their Oxides, Halides and Hydroxides. Extraction of Lithium from Spodumene. Importance of Cryptates and Crown Ethers
- 2.2 Group 2 Alkaline Earth Metals: Similarities and Gradations in Physical and Chemical Properties with respect to Oxides, Hydroxides, Halides and Sulphates. Extraction of Beryllium

Unit 3

Chemistry of p-Block Elements – Groups 13 & 14 (8 hrs.)

- 3.1 Boron Family: Periodicity in the Properties of Boron Group with respect to their Oxides, Hydroxides and Halides. Preparation and Bonding of B_2H_6 . Preparation, Properties, Structure and uses of Boron Nitride and Borazole
- 3.2 Carbon Family: Comparison of Carbon Group Elements - Hydrides, Oxides and Halides. Silicates: Classification and Structure. Silicones - Preparation, Properties and uses

Unit 4

Chemistry of p-Block Elements—Groups 15, 16 & 17 (18 hrs.)

- 4.1 Nitrogen Family: Comparison of Nitrogen Group Elements with respect to Oxides, Hydrides and Halides. Preparation, Properties and Structure of Hydrazine, Hydroxylamine, Hydrazoic Acid. Oxyacids of Nitrogen and Phosphorus—Preparation, Properties and Structure. Structure and Applications of Phosphonitrilic Compounds
- 4.2 Oxygen Family: Comparison of Oxygen Group Elements with respect to Hydrides, Halides, Oxides. Preparation, Properties and Structure of Oxyacids and Peroxides of Sulphur. Thionic Acids
- 4.3 Halogen Family: Comparison of Halogens with respect to the Elements, Hydrides and Oxides. Preparation and Structure of OF_2 , Cl_2O , I_2O_5 and Cl_2O_7 , HClO_4 .
- 4.4 Interhalogen Compounds: Preparation and Structure of ICl , BrF_3 , IF_3 , IF_5 and IF_7 . Basic Nature of Iodine. Pseudohalogenes and Polyhalides

Unit 5

Chemistry of Group 18 elements (6 hrs)

- 5.1 Occurrence, Position of Noble Gases in the Periodic Table. Preparation, Properties and Structure of Compounds of Xenon - XeF_2 , XeF_6 , XeO_3 , XeOF_2 as per VSEPR Theory
- 5.2 Clathrate Compounds and its Applications

TEXT BOOKS

- Gopalan. R. *Inorganic Chemistry for Undergraduates*. Hyderabad: Universities Press, 2009.
- Puri. B.R., L.R Shama, & C.I. Kalia. *Principles of Inorganic Chemistry*. New Delhi: Milestone, 2008.
- Soni. P.L. and Katyal. Mohan. *Text Book of Inorganic Chemistry*. New Delhi: Sultan Chand, 2008.

BOOKS FOR REFERENCE

- Cotton, F.A. and G. Wilkinson. *Advanced Inorganic Chemistry*. New Delhi: Wiley Eastern, 2008.
- Emeleus, H.J. & A.G. Sharpe. *Modern Aspects of Inorganic Chemistry*. London: ELBS, 1973,
- Shriver, O and Atkins, P.W. *Inorganic Chemistry*. San Francisco: W.H. Freeman, 2006.
- Jayashree Ghosh. *Fundamental Concepts of Applied Chemistry*. New Delhi. S.Chand, 2008.
- Lee J.D. *Concise Inorganic Chemistry*. New Delhi: Oxford University Press, 2008.

WEBSITES

<http://www.chemicool.com/>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $15 \times 1 = 15$ Marks (All questions to be answered) Multiple choice - 5, Fill in the

Blanks - 5, T/F or Match the following or single line answer - 5

Section B– $3 \times 5 = 15$ Marks (3 out of 5 to be answered)

Section C – $2 \times 10 = 20$ Marks (2 out of 3 to be answered)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

MCQ

Model Preparation

Short Answer Tests

END SEMESTER EXAMINATION:

Total Marks: 100 Duration: 3 hours

QUESTION PAPER PATTERN

Section A – $30 \times 1 = 30$ Marks (All questions to be answered) Multiple choice - 10, Fill in the

Blanks - 10, T/F or Match the following - 5, single line answer - 5

Section B – $5 \times 6 = 30$ Marks (5 out of 7 to be answered)

Section C – $2 \times 20 = 40$ Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH IV – CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 – 16)

PHYSICAL CHEMISTRY – I

CODE: 15CH/MC/PC34

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To introduce students to basic concepts of Quantum Chemistry
- To provide an understanding of the principles of Solid State Chemistry
- To give an overview of the field of Catalysis

Unit 1

Basics of Quantum Mechanics (10 hrs.)

- 1.1 Black Body Radiation, Photoelectric Effect, Diffraction of Electrons, Debroglie Relation
- 1.2 Theory of Wave Motion, Classical Wave and the Wave Equation, Stationary Waves in a Clamped String, Classical Equation and Schrodinger Wave Equation (Derivation not expected)
- 1.3 Operator Concept in Quantum Mechanics, Properties of Operators
- 1.4 Postulates of Quantum Mechanics, Eigen Value, and Eigen Functions

Unit 2

Solid State (13 hrs.)

- 2.1 Crystalline and Amorphous Solids, Isotropy and Anisotropy, Interfacial Angles,
- 2.2 Symmetry in Crystal Systems, Elements of Symmetry
- 2.3 Space Lattice and Unit Cell, Bravais Lattices, Seven Crystal Systems, Lattice Energy
- 2.4 Law of Rational Indices, Miller Indices, X-Ray Diffraction, Bragg Law, Derivation of Bragg's Equation, Representation of Planes, Space Lattice, Reciprocal Lattice
- 2.5 Bragg Equation, Experimental Technique-Powder Method, X-Ray Diffraction Patterns of a Cubic System- Primitive, Body Centered and Face Centered Cubic Lattice
- 2.6 Electron and Neutron Diffraction- An Introduction and their Applications

Unit 3

Closed Packed Structures of Ionic Crystals (13 hrs.)

- 3.1 Closed Packed Structures- CCP & HCP, Percentage Void, Packing Efficiency, Radius Ratio Rule
- 3.2 Simple Type Structures AX (NaCl, ZnS, NiAs), AX₂(CaF₂, TiO₂ and CdCl₂ and CdI₂)
- 3.3 Pauling's Rule for Structures adopted by Ionic Compounds, Point Defects – Schottky and Frenkel Defects, Non-Stoichiometric Defects
- 3.4 Liquid Crystals – Types, Structures, Textures and Applications

Unit 4**Surface Chemistry(6 hrs.)**

4.1 Physisorption and Chemisorption-Types of Adsorption Isotherms

4.2 Freundlich Adsorption Isotherm-Limitations. Derivation of Langmuir Adsorption Isotherm; BET Adsorption Isotherm - Postulates and Equation. Determination of Surface Area, Applications

Unit 5**Catalysis(10 hrs.)**

5.1 Catalytic Reactions-Characteristics, Homogenous Catalysis- Acid-Base Catalysis, Enzyme Catalysis- Michaelis-Menten Mechanism, Effect of Temperature

5.2 Heterogenous Catalysis- Kinetics of Surface Reactions, Unimolecular and Bimolecular Surface Reactions, Effect of pH on Catalysed Reactions

TEXT BOOKS

Adamson Arthur W, Alice P. G. *Physical Chemistry of Surfaces*. India: Pearson, 2007.

Atkins, P.W. *Physical Chemistry*. Oxford University, 2013.

Barrow, Gordon, M. *Physical Chemistry*. The McGraw Hill companies, 2008.

Smart L.E and Moore, E.A. *Solid State Chemistry: An Introduction*. CRC Press, 2012.

BOOKS FOR REFERENCE

Donald Allan McQuarrie, John Douglas Simon. *Physical Chemistry: A Molecular Approach*. University Science Books, 2013.

Moore, W.J. *Physical Chemistry*. Orient Longman, 2004.

WEB RESOURCES

<http://www.jce.acs.in>

<http://chemwiki.ucdavis.edu>

<http://www.amazon.com/Elements-Physical-Chemistry-Peter-Atkins>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – $15 \times 1 = 15$ Marks (All questions to be answered) Multiple choice - 5, Fill in the Blanks - 5, T/F or Match the following or single line answer - 5

Section B – $3 \times 5 = 15$ Marks (3 out of 5 to be answered)

Section C – $2 \times 10 = 20$ Marks (2 out of 3 to be answered)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

MCQ

Model Preparation

Short Answer Tests

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – $30 \times 1 = 30$ Marks (All questions to be answered) Multiple choice - 10, Fill in the Blanks - 10, T/F or Match the following - 5, single line answer - 5

Section B – $5 \times 6 = 30$ Marks (5 out of 7 to be answered)

Section C – $2 \times 20 = 40$ Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH IV – CHEMISTRY

SYLLABUS

(Effective from the academic year 2015- 2016)

SEMI MICRO QUALITATIVE ANALYSIS PRACTICAL-II

CODE: 15CH/MC/P332 CREDITS : 2

L T P : 0 0 3
TOTAL HOURS : 39

Unit 1

Preparation of Inorganic Complexes:

1.1 Tetraamminecopper(II)Sulphatehydrate

1.2 Tris(Thiourea)Copper(II)SulphateDiydrate /Hexaamminecobalt(III) Chloride

Unit 2

2.1 Analysis of a Salt Mixture Containing two Cations and two Anions

2.2 Principles and Techniques in Semi Micro Analysis of Acid and Basic Radicals: Solubility Product Principle, Common Ion Effect, use of Organic and Inorganic Reagents in Spot Tests (EquationsRelating to Reactions and Confirmatory Tests)

Theory, Principles and Equations involved behind the reactions. (To be tested periodically & along with the CA tests and also end semester exam)

TEXT BOOKS

SathianJesurietta,*Semimicro Qualitative Analysis*.2008.

Svehla.G, *Vogel's. Qualitative Inorganic Analysis*.Prentice Hall, 2008.

Continuous Assessment:

Total Marks: 50

Duration: 3 hours

General Procedure:

6 marks

Acid radicals:

20 (2x10)marks

Elimination procedure:

3 marks

Basic radicals:

16 (2x8)marks

Two/three questions involved in analysis (10min):5 marks

End Semester Examination:

Total Marks: 50

Duration: 3 hours

General Procedure:

6 marks

Acid radicals:

20 (2x10)marks

Elimination procedure:

3 marks

Basic radicals:

16 (2x8)marks

Two/three questions involved in analysis (10min): 5 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
Allied Core Offered to the Departments of Plant Biology & Plant Biotechnology and
Advanced Zoology & Biotechnology

SYLLABUS

(Effective from the academic year 2015- 2016)

FUNDAMENTALS OF BIOCHEMISTRY - I

CODE: 15CH/AC/FB33

CREDITS: 3

L T P: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To introduce the basics of Biochemistry
- To understand the metabolic concepts and disease conditions
- To study the thermodynamic parameters involved in biological reactions

Unit 1

Introduction to Biochemistry

(10 hrs.)

1.1 Molecular Logic of Living Organisms

1.2 Water – Physical Properties and Hydrogen Bonding of Water-Solvent Properties of Water, Hydrophobic Interactions; the Ionic Product of Water; the pH Scale. Acid – Base Indicators- Phenolphthalein and Methyl Orange

1.3 Techniques used in Biochemistry- SDS-PAGE, Sedimentation and Dialysis

Unit 2

Blood

(5 hrs.)

2.1 Blood - Composition of Blood, Blood Coagulation – Mechanism. Hemophilia and Sickle Cell Anaemia

2.2 Maintenance of pH of Blood, Bicarbonate Buffers, Acidosis and Alkalosis, Buffers and Electrolytes in the body

Unit 3

Bioenergetics

(4 hrs.)

3.1 Free Energy, Enthalpy, Entropy, Standard Free Energy, Spontaneous and Non-Spontaneous Exergonic and Endergonic Reactions, Steady State Principle

3.2 High Energy Compounds ATP and ADP, Structural Basis for the Role of ATP as the Currency of the Cell

Unit 4

Carbohydrates

(15 hrs.)

4.1 Classification of Carbohydrates

4.2 Haworth's Structure and Reactions of Glucose, Fructose, Maltose and Sucrose Polysaccharides - Homopolysaccharides - Cellulose, Starch (Amylose and Amylopectin) (Structural Elucidation not necessary), Heteropolysaccharides Chondroitin Sulphate and Hyaluronic Acid

4.3 Digestion of Di and Polysaccharides in the Body, Maintenance of Glucose Level in Blood

4.4 Carbohydrate Metabolism - Metabolism of Glucose - Glycolysis, TCA Cycle, Glycogenesis, Glycogenolysis, Glyconeogenesis. Oxidative Phosphorylation, Electron Transport Chain

Unit 5

Enzymes

(5 hrs.)

5.1 Definition of Enzymes, Coenzymes and Apoenzymes

5.2 Classification of Enzymes

5.3 Enzyme Specificity - Factors affecting Enzyme Action

5.4 Mechanism of Enzyme Action - Michaelis-Menten Theory (No Derivation) –

Fischer's Lock and Key Model, Koshland's Induced Fit Model

TEXT BOOKS

Berry, A.K. *Textbook of Biochemistry*. Emkay, 2001.

Jain, J.L. *Fundamentals of Biochemistry*. New Delhi: S. Chand, 2007.

Doraiswamy Yesodha, Geetha Swaminathan and V. Radhakrishnan. *Allied Biochemistry*. Chennai: Margham, 2010.

BOOKS FOR REFERENCE

Lehninger A.L. *Principles of Biochemistry*. Delhi: CBS, 2006.

Stryer, Lubert. *Biochemistry*. New York: W.H. Freeman, 2007.

WEB RESOURCES

<https://www.rpi.edu/dept/bcbp/molbiochem/MBWeb/mb1/part2/bioener.htm>

<http://www.rsc.org/Education/Teachers/Resources/cfb/enzymes.htm>

<http://www.rsc.org/Education/Teachers/Resources/cfb/carbohydrates.htm>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $15 \times 1 = 15$ Marks (All questions to be answered) Multiple choice - 5, Fill in the
Blanks - 5, T/F or Match the following or single line answer - 5

Section B– $3 \times 5 = 15$ Marks (3 out of 5 to be answered)

Section C– $2 \times 10 = 20$ Marks (2 out of 3 to be answered)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

MCQ

Model Preparation

Short Answer Tests

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – $30 \times 1 = 30$ Marks (All questions to be answered) Multiple choice - 10, Fill in the
Blanks–10, T/F or Match the following- 5, single line answer - 5

Section B– $5 \times 6 = 30$ Marks (5 out of 7 to be answered)

Section C – $2 \times 20 = 40$ Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
Allied Core Offered to the Departmentsof Plant Biology & Plant Biotechnology and
Advanced Zoology & Biotechnology

SYLLABUS
(Effective from the academic year 2015 - 2016)

BIOCHEMISTRY PRACTICAL– I

CODE: 15CH/AC/P132

CREDITS :2
L T P : 0 0 3
TOTAL HOURS :39

Unit 1

1. Reactions of Carbohydrates – Glucose, Fructose, Maltose, Sucrose and Starch
2. Reactions of Amino Acids - Reactions of Tryptophan, Tyrosine, Arginine and Cysteine
3. Reactions of Proteins - Reactions of Casein and Egg Albumin
4. Identification of Unknown Organic Compound

TEXT BOOK

SwaminathanGeetha and Mary George.*Laboratory Chemical Methods in FoodAnalysis*.
Chennai:Margham, 2010.

Continuous Assessment:

Total Marks: 50

Duration: 3 hours

Analysis -	50 marks
Preliminary reaction -	15 marks
Confirmatory tests with all colour tests -	30marks
Final report -	5 marks

End Semester Examination:

Total Marks: 50

Duration: 3 hours

Analysis -	50 marks
Preliminary reaction -	15 marks
Confirmatory tests with all colour tests -	30marks
Final report -	5 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

Allied Core Offered to the Department of Physics

SYLLABUS

(Effective from the academic year 2015-2016)

FUNDAMENTALS OF CHEMISTRY - I

CODE:15CH/AC/FC33

CREDITS: 3

L T P: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVE OF THE COURSE

- To enable an understanding of the fundamental concepts of Chemistry

Unit 1

Polymer Materials (8 hrs.)

- 1.1 Types of Polymerisation – Addition and Condensation. Mechanism of Free Radical Polymerisation
- 1.2 Liquid Crystalline Polymers and Conducting Polymers
- 1.3 Structure and Application- Polyethylene, PVC, Nylon, Phenol Formaldehyde Resin, Bakelite, Rubber- Vulcanization
- 1.4 Biodegradable and Non-Biodegradable Polymers

Unit 2

Chemistry in Living System (12 hrs.)

- 2.1 Carbohydrates – Classification, Haworth Structure of Glucose, Fructose, Sucrose, Starch, Cellulose. Colour Tests for the above. Hypo and Hyper Glycemia
- 2.2 Amino acids- Zwitter Ion, Isoelectric Point, Ninhydrin Test
- 2.3 Proteins - Formation of Peptides, Importance of Amino acid Sequence, Denaturation and Renaturation of Proteins
- 2.4 Biological Role of Haemoglobin, Vitamin B₁₂ & Chlorophyll with their Structure (Figurative Representation only)

Unit 3

Ionic Equilibrium (7 hrs.)

- 3.1 Acid-Base Concept - Arrhenius, Lowry-Bronsted and Lewis Concepts
- 3.2 Ionic Product of Water, pH, pOH, Strengths of Acids and Bases, K_a and K_b, PK_a and PK_b, Buffer Solution (Elementary Idea only)
- 3.3 Solvation, Solubility, Solubility Product, Common Ion Effect, Application

Unit 4

Electrochemistry (6 hrs.)

- 4.1 Definition of Specific, Equivalent and Molar Conductance, their Determination, Effect of Dilution on Conductance
- 4.2 Ostwald Dilution Law, Debye-Huckel Theory, Kohlrausch's Law
- 4.3 Transport Number, Conductivity Determination of Acidity Constant, Conductometric Titration

Unit 5

Thermoanalytical Methods

(6 hrs.)

5.1 Principle - Thermal Analysis of Silver Nitrate, Calcium Oxalate and Calcium Acetate – Methods of obtaining Thermograms, Factors affecting TGA/DTA and DSC

5.2 TGA and DTA - Instrumentation and Applications

5.3 Thermometric Titrations, Principle, Instrumentation and Applications

TEXT BOOKS

Bajpai.S.*Physical Chemistry*.New Delhi: S. Chand, 2006.

Jain.J.L,Sunjay Jain,Nitin Jain.*Fundamentals of Biochemistry*.New Delhi: S. Chand, 2006.

Subramanian, P.S, R.Gopalan, K.Rengarajan.*Elements of Analytical Chemistry*.New Delhi:Sultan Chand,2007.

Doraiswamy Yesodha,GeethaSwaminathan and V. Radhakrishnan.*Allied Biochemistry*, Chennai: Margham, 2010.

BOOKS FOR REFERENCE

Furnisset al.*Vogel's Text Book of Practical Organic Chemistry*. London: ELBS, 2006.

Morrison.R.T,R.N.Boyd &S.K.Bhattacharjee.*Organic Chemistry*.India: Pearson-Dorling Kindersley,2012.

WEB RESOURCES

<http://chemed.chem.purdue.edu/genchem/topicreview/bp/ch20/electro.php>

<http://www.cliffsnotes.com/sciences/biology/biochemistry-i/the-importance-of-weak-interactions/acid-base-reactions-in-living-systems>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 15 x 1 = 15 Marks (All questions to be answered) Multiple choice - 5, Fill in the Blanks - 5, T/F or Match the following or single line answer - 5

Section B – 3 x 5 = 15 Marks (3 out of 5 to be answered)

Section C – 2 x 10 = 20 Marks (2 out of 3 to be answered)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

MCQ

Model Preparation

Short Answer Tests

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 30 x 1 = 30 Marks (All questions to be answered) Multiple choice - 10, Fill in the Blanks - 10, T/F or Match the following - 5, single line answer - 5

Section B – 5 x 6 = 30 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
Allied Core Offered to the Department of Physics

SYLLABUS

(Effective from the academic year 2015- 2016)

ORGANIC ANALYSIS PRACTICAL

CODE: 15CH/AC/P232

CREDITS: 2

L T P: 0 0 3

TOTAL HOURS: 39

Unit 1

- 1.1 Identification of Polymers by simple tests- Solubility, Flame test, Aromaticity,
Detection of Cl, N, S and OH

Unit 2

- 2.1 Reactions of Carbohydrates - Glucose, Fructose, Maltose, Sucrose and Starch
2.2 Reactions of Amino Acids - Tryptophan, Tyrosine, Arginine and Cysteine
2.3 Reactions of Proteins - Casein and Egg Albumin
2.4 Identification of Unknown Organic Compound

TEXT BOOK

Swaminathan Geetha and Mary George. *Laboratory Chemical Methods in Food Analysis*.
Chennai: Margham, 2010.

Continuous Assessment:

Total Marks: 50

Duration: 3 hours

Preliminary reaction - 15 marks

Confirmatory tests with all colour tests – 30 marks

Final report – 5 marks

End Semester Examination:

Total Marks: 50

Duration: 3 hours

Preliminary reaction - 15 marks

Confirmatory tests with all colour test - 30 marks

Final report - 5 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH IV – CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 onwards)

ORGANIC CHEMISTRY - II

CODE: 15CH/MC/OC44

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To understand the Chemistry of phenols and carboxylic acids
- To learn the synthesis of nitrogen containing organic compounds
- To introduce the classification and preparation of dyes

Unit 1

Alcohols, Phenols and Ethers

(12 hrs.)

- 1.1 Aliphatic Alcohols: Reactions with reference to C-OH Bond Cleavage and O-H Bond Cleavage. Di and Trihydric Alcohols, Action of HIO_4 , Uses
- 1.2 Phenols: Nomenclature, Acidity of Phenols- Effects of Substituents – Comparison of Acidity with Alcohols, Hydrogen Bonding
- 1.3 Reactions: Acid Character, Ether Formation, Ester Formation, Reactions involving Benzene Ring, Nitration, Sulphonation, Halogenation, Friedel-Craft's Reaction, Nitrosation, Coupling Reactions, Kolbe's Reaction and Reimer-Tiemann Reaction
- 1.4 Cleavage of Ether Linkages by HI- Ziesels Method of Estimation of Groups. Reactions of Ethers and Epoxides

Unit 2

Carboxylic Acids and their Derivatives

(13 hrs.)

- 2.1 Nomenclature and Classification of Aliphatic and Aromatic Carboxylic Acids, Preparation and Reactions. Acidity (Effect of Substituents on Acidity) and Salt Formation, Mechanism of Reduction, Substitution in Alkyl or Aryl Group
- 2.2 Preparation and Properties of Dicarboxylic Acids - Oxalic, Malonic, Succinic, Glutaric, Adipic and Phthalic Acids and Unsaturated Carboxylic Acids- Acrylic, Crotonic and Cinnamic Acids. Action of Heat on Hydroxy, Amino Acids and Saturated Dicarboxylic Acids. Stereospecific addition to Maleic and Fumaric Acids
- 2.3 Preparation and Reactions of Acid Chlorides, Acid Anhydrides, Amides and Esters. Acid and Alkaline Hydrolysis of Esters, Trans-Esterification

Unit 3

Nitro and Amino Compounds

(13 hrs.)

- 3.1 Aliphatic and Aromatic Nitro Compounds, Classification, General Properties, Preparation by Nitration. Nitro Alkanes - Tautomerism, Reactions, Distinction From Alkyl Nitrite
- 3.2 Aromatic Nitro Compounds - Reduction Products of Nitrobenzene in Acidic, Neutral and Alkaline Media, Electrolytic Reduction
- 3.3 Aromatic Amines – Preparation, Reactions- Basicity of Amines, Effect of Substituents on Basicity of Aromatic Amines. Separation of Mixture of Amines by Hinsberg and Hofmann Method

- 3.4 Methods of Preparation of Primary, Secondary and Tertiary Amines. Distinguishing Primary, Secondary and Tertiary Amines. Ascent and Descent of Series in Aliphatic Amines
- 3.5 Diazonium Salts-Preparation, Diazotisation Reactions, Replacement Reactions (Sandmeyer, Gatterman and Gomberg Reactions), Coupling Reactions

Unit 4

Synthesis involving Active Methylene Group (7 hrs.)

- 4.1 Malonic and Acetoacetic Esters: Characteristic Reactions of Active Methylene group, Synthetic uses of Malonic, Acetoacetic and Cyanoacetic Ester
- 4.2 Diazomethane and Diazoacetic Ester: Preparation, Structure and Synthetic Applications

Unit 5

Colors and Dyes (7 hrs.)

- 5.1 Complementary Colors and Photochemistry of Vision
- 5.2 Classification of Dyes Based on Chemical Structure and Application
- 5.3 Preparation and uses of Azo Dye - Methyl Orange and Bismark Brown; Triphenyl Methane Dye - Malachite Green, Para Rosaniline and Crystal Violet; Phthalein Dye - Phenolphthalein and Fluorescein; Vat Dye - Indigo; Anthraquinone Dye - Alizarin

TEXT BOOKS

- Ahluwalia V K. *Organic Reaction Mechanisms*. New Delhi: Narosa, 2011.
- Francis A. Carey, Richard A. Sundberg. *Advanced Organic Chemistry*. Springer, 2007.
- Michael B. Smith, Jerry March. *March's Advanced Organic Chemistry Reactions, Mechanisms, and Structure*. Wiley, 2007.
- Morrison R.T. Boyd R.N & Bhattacharjee.S.K. *Organic Chemistry*. Pearson, Dorling Kindersley, 2012.

BOOKS FOR REFERENCE

- Finar I.L. *Organic Chemistry Vol. I & II* London: ELBS, 2002.
- Paula Y. Bruice. *Organic Chemistry*. Prentice Hall, 2010.
- Jonathan Clayden, Nick Greeves, Stuart Warren. *Organic Chemistry*. Oxford University Press, 2012.
- Reinhard Brückner. *Organic Mechanisms - Reactions, Stereochemistry and Synthesis*. Springer, 2010.

WEB RESOURCES

- <http://www.organic-chemistry.org/>
- <http://www.chemguide.co.uk/orgmenu.html>
- <http://www2.chemistry.msu.edu/faculty/reusch/VirtTxtJml/intro1.htm>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 15 x 1 = 15 Marks (All questions to be answered) Multiple choice - 5, Fill in the Blanks -5, T/F or Match the following or single line answer - 5

Section B – 3 x 5 = 15 Marks (3 out of 5 to be answered)

Section C – 2 x 10 = 20 Marks (2 out of 3 to be answered)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

MCQ

Model Preparation

Short Answer Tests

End Semester Examination:

Total Marks: 100 Duration: 3 hours

QUESTION PAPER PATTERN

Section A – 30 x 1 = 30 Marks (All questions to be answered) Multiple choice - 10, Fill in the Blanks - 10, T/F or Match the following - 5, single line answer - 5

Section B – 5 x 6 = 30 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH IV - CHEMISTRY
SYLLABUS

(Effective from the academic year 2015-16 onwards)

ORGANIC CHEMISTRY PRACTICAL - I

CODE :15CH/MC/P442

CREDITS: 2

L T P : 0 0 3

TOTAL HOURS: 39

Unit 1

Analysis of Organic Compounds:

Acids, Phenols, Carbohydrates, Aldehydes, Ketones, Esters, Amines, Amides, Nitro Compounds, Anilides, Halo Compounds, Sulphur Compounds (Thiourea). Preparation of Derivatives of Organic Compounds

Unit 2

Preparations involving Oxidation, Nitration, Hydrolysis and Bromination

Unit 3

Determination of Melting Point and Boiling Point

TEXT BOOKS

Sathian Jesurietta, *Organic Chemistry Practicals – Lab Manual*. 2010.

Vogel.A. *Vogel's Textbook of Practical Organic Chemistry* India: Pearson, 2005.

Theory and principles behind the experiments concerned to be tested periodically (equations involved) and along with the CA tests and end semester exam for a maximum of five marks

Continuous Assessment and End Semester Examination:

Total Marks: 50

Duration: 3 hours

A ANALYSIS OF ORGANIC COMPOUNDS

- Aliphatic/Aromatic : 3 marks
- Saturated/Unsaturated : 3 marks
- Special Elements : 6 marks
- General Procedure : 8 marks
- Derivative : 2 marks
- Functional Group test and relevant confirmatory test and Report 8 marks

Answer two questions in Organic Analysis 5marks

B PREPARATION OF ORGANIC COMPOUNDS

- Crude sample 7 marks
- Recrystallised sample 3 marks
- Procedure for Organic Preparation 5 marks



Mary George

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
Allied Core Offered by the Department of Chemistry to students of Plant Biology and Plant
Biotechnology and Advanced Zoology and Biotechnology

SYLLABUS

(Effective from the academic year 2015 - 2016)

FUNDAMENTALS OF BIOCHEMISTRY - II

CODE: 15CH/AC/FB43

CREDITS : 3

L T P : 3 0 0

TOTAL TEACHING HOURS :39

OBJECTIVES OF THE COURSE

- To provide an understanding of the biochemical importance of lipids proteins hormones and nuclei acids
- To enable students to acquire skills in simple laboratory testing of blood samples

Unit 1

Lipids

(8 hrs.)

- 1.1 Classification of Lipids and Fats
- 1.2 Definitions and Significance of Iodine Value, Acid Value, Saponification Value, RM Value, Acetyl Value
- 1.3 Digestion and Absorption of Lipids
- 1.4 Lipid Metabolism - Oxidation of Fatty Acids, Biosynthesis of Fatty Acids, Ketone Bodies, Ketosis

Unit 2

Proteins

(13 hrs.)

- 2.1 Amino Acids - Classification based on R Groups and based on their Metabolism
- 2.2 Chemical Reactions of Amino Acids - with Mineral Acid, Formaldehyde, FDNB and CO₂, Ninhydrin Test, Action of Heat on α , β and γ - Aminoacids
- 2.3 Peptide Bond, Primary, Secondary and Tertiary Structure of Proteins. Ramachandran Plot. Properties of Proteins - Denaturation, Amphoteric Nature, Ion Binding Capacity, Solubility
- 2.4 Classification of Proteins based on Shape, Composition and Solubility
- 2.5 Digestion and Absorption of Proteins and Protein Metabolism, Transamination, Oxidative Deamination and Urea Cycle

Unit 3

Hormones

(5 hrs.)

- 3.1 Definition, Classification of Hormones (Steroid and Non-Steroid Only)
- 3.2 Mechanism of Hormone Action
- 3.3 Functions of Insulin and Thyroxin

Unit 4**Nucleic Acids****(8 hrs.)**

- 4.1 Nucleosides, Nucleotides, DNA – Structure (Watson and Crick model) and Functions
- 4.2 RNA – Structure, Types and Functions
- 4.3 DNA as Genetic Material, DNA Replication and Protein Synthesis
- 4.4 Comparison of DNA and RNA with reference to Occurrence, Composition, Structure and Functions

Unit 5**Laboratory Techniques****(5 hrs.)**

- 5.1 HBA1c, TSH, RBC, WBC, Platelet Count, T₃ and T₄
- 5.2 Risk Factor of HDL, LDL and Total Cholesterol

TEXT BOOKS

Berry, A.K. *Textbook of Biochemistry*. Emkay, 2001.

Doraiswamy Yesodha, Geetha Swaminathan and V. Radhakrishnan. *Allied Biochemistry*. Chennai: Margham, 2010.

BOOKS FOR REFERENCE

Lehninger A.L. *Principles of Biochemistry*. New Delhi: CBS, 2006.

Stryer Lubert, *Biochemistry*. New York: W.H. Freeman, 2007.

WEB RESOURCES

<http://www.hsph.harvard.edu/nutritionsource/what-should-you-eat/protein/>

<http://e.hormone.tulane.edu/learning/types-of-hormones.html>

<https://www2.chemistry.msu.edu/faculty/reusch/virttxtjml/nucacids.htm>

PATTERN OF EVALUATION**Continuous Assessment:****Total Marks: 50****Duration: 90 mins.**

Section A – 15 x 1 = 15 Marks (All questions to be answered) Multiple choice - 5, Fill in the Blanks - 5, T/F or Match the following or single line answer - 5

Section B – 3 x 5 = 15 Marks (3 out of 5 to be answered)

Section C – 2 x 10 = 20 Marks (2 out of 3 to be answered)

Third Component:**List of evaluation modes:**

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

MCQ

Model Preparation
Short Answer Tests

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 30 x 1 = 30 Marks (All questions to be answered) Multiple choice - 10, Fill in the Blanks - 10, T/F or Match the following - 5, single line answer - 5

Section B – 5 x 6 = 30 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**Allied Core Offered by the Department of Chemistry to students of Plant Biology and Plant
Biotechnology and Advanced Zoology and Biotechnology**

SYLLABUS

(Effective from the academic year 2015- 2016)

BIOCHEMISTRY PRACTICAL– II

CODE: 15CH/AC/P342

CREDITS : 2

L T P : 0 0 3

TOTAL HOURS : 39

Unit 1

Estimations

1. Estimation of Oxalic Acid / Fe^{2+} (Permanganimetry)
2. Estimation of Glucose
3. Estimation of Glycine by Sorrensen's Titration
4. Estimation of Ascorbic Acid
5. Estimation of Acid Value / Saponification Value / Iodine Value of Edible Oil
6. Estimation of the Enzyme Catalase in Chowchow/ Radish

Unit 2

Group Experiments

1. Estimation of Phosphorus by Colorimetry
2. Estimation of DNA/RNA by Colorimetry
3. Separation of Amino Acids by Paper Chromatography

TEXT BOOKS

Sathian Jesurietta. *Volumetric Estimations – Lab Manual*. 2010.

Vogel A.I. *Vogel's Textbook of Quantitative Chemical Analysis*. Prentice Hall, 2000.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 3 hours

Short Procedure (10 Minutes) - 10 marks
Experiment - 40 marks

End Semester Examination:

Total Marks: 50

Duration: 3 hours

Short Procedure (10 Minutes) - 10 marks
Experiment - 40 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
Allied Core Offered by the Department of Chemistry to students of Physics

SYLLABUS

(Effective from the academic year 2015-2016)

FUNDAMENTALS OF CHEMISTRY - II

CODE:15CH/AC/FC43

CREDITS: 3

L T P: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To learn the concepts of kinetics and phase rule.
- To provide an understanding of the applications of electrochemistry photochemistry and catalysis

Unit 1

Chemical Kinetics

(10 hrs.)

- 1.1 Rate of Reaction, Order of Reaction, Molecularity
- 1.2 First Order Reactions, Radiodating, Pseudo-Unimolecular Reactions, Second Order and Zeroorder Reaction Rates, Measurement of Reaction Rates
- 1.3 Determination of Order – Graphical Method, Half - Life Method, Integrated Rate Equation Method, Ostwald's Isolation Method
- 1.4 Factors affecting the Rate of Reaction and Energy of Activation

Unit 2

Electrochemical Cells and its Application(10 hrs.)

- 2.1 Galvanic Cells (Electrodes, Cell, E.M.F.), Electrochemical Cells, Nernst Equation. Standard Electrode Potential and its Measurement, Electrochemical Series
- 2.2 Liquid Junction Potential, Commercial Cells – the Primary and Secondary Cells. Fuel Cells-Hydrogen-Oxygen; Polarization, Decomposition Potential and Over-Voltage
- 2.3 Batteries- Laclanche Cell, Alkaline Battery, Nickel-Cadmium Battery, Mercury Battery, Lead Storage Battery, Solar Battery; Corrosion and Prevention

Unit 3

Phase Rule(8 hrs.)

- 3.1 Definition of Phase, Component, Degree of Freedom Derivation of Phase Rule
- 3.2 Application of Phase Rule to One Component Systems (Water and Sulphur)
- 3.3 Two Component Systems: Simple Eutectic (Ag, Pb) Solid Solution (Ni, Cu)

Unit 4

Photochemistry(6 hrs.)

- 4.1 Photochemical Rate Laws, Quantum Yield, Kinetics of Hydrogen-Chlorine and Hydrogen-Bromine Reactions
- 4.2 Photosensitization, Florescence, Phosphorescence and Chemiluminisence

Unit 5

Catalysis(5 hrs.)

- 5.1 Homogenous and Heterogeneous Catalysis – Acid Base Catalysis and Enzyme Catalysis
- 5.2 Examples of Catalysis- Hydrogenation, Oxidation, and Cracking/Pyrolysis

TEXT BOOKS

Adamson Arthur W, Alice P. G.*Physical Chemistry of Surfaces*.India:Pearson, 2007

Atkins, P.W. *Physical Chemistry*. Oxford University press, 2013.

Bajpai.S.*Physical Chemistry*.New Delhi: S.Chand, 2006.

Jain and Jain, *Engineering Chemistry*.DhanpatRai, 2012.

BOOKS FOR REFERENCE

Barrow, Gordon, M.*Physical Chemistry*.McGraw Hill, 2008.

Castellan G.W.*Physical Chemistry*.Narosa, 2004.

WEB RESOURCES

http://gibbs.uio.no/phase_rule.html

<http://www.chem1.com/acad/webtext/elchem/ec2.html>

<http://chemed.chem.purdue.edu/genchem/topicreview/bp/ch22/rate.php>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 15 x 1 = 15 Marks (All questions to be answered) Multiple choice - 5, Fill in the Blanks - 5, T/F or Match in the following or single line answer - 5

Section B – 3 x 5 = 15 Marks (3 out of 5 to be answered)

Section C – 2 x 10 = 20 Marks (2 out of 3 to be answered)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

MCQ

Model Preparation

Short Answer Tests

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 30 x 1 = 30 Marks (All questions to be answered) Multiple choice - 10, Fill in the Blanks - 10, T/F or Match the following - 5, single line answer - 5

Section B – 5 x 6 = 30 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
Allied Core Offered by the Department of Chemistry to students of Physics

SYLLABUS

(Effective from the academic year 2015 - 2016)

GENERAL CHEMISTRY PRACTICAL

CODE: 15CH/AC/P442

CREDITS: 2

L T P : 0 0 3

TOTAL HOURS :39

Unit 1

Phase Equilibria and Kinetics

- 1.1 Kinetics Study of Acid Hydrolysis of an Ester
- 1.2 Determination of Molecular Weight by RastMethod

Unit 2

Conductometry and Potentiometry

- 2.1 Determination of Strength of Weak Acid Conductometrically
- 2.2 Determination of Fe^{2+} in the given sample using Potassium Dichromate Potentiometrically

Unit 3

Volumetric Estimations

- 3.1 Estimation of Oxalic Acid (Permanganimetry)
- 3.2 Estimation of Magnesium (Complexometry)
- 3.3 Estimation of Ferrous Ion (Permanganimetry)
- 3.4 Estimation of Glycine

TEXT BOOKS

- Venkateswaran, V. R.Veerawamy, and A.R.Kulandaivelu.*Basic Principles of Practical Chemistry*.New Delhi: Sultan Chand, 1993.
- Sundaram.S, P.Krishnan, and P.S. Raghavan.*Practical Chemistry*.Chennai:S.Viswanathan, 1993.
- SwaminathanGeetha and Mary George.*Laboratory Chemical Methods in Food Analysis*. Chennai:Margham, 2010.

REFERENCE BOOK

- Vogel, A.I.A *Text Book of Quantitative Inorganic Analysis Including Elementary Instrumental Analysis*.London: ELBS, 1989.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 3 hours

Short Procedure (10 Minutes) -
Experiment- 40 marks

10 marks

End Semester Examination:

Total Marks: 50

Duration: 3 hours

Short Procedure (10 Minutes) -
Experiment -

10 marks
40 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH IV – CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 - 2016)

ORGANIC CHEMISTRY - III

CODE: 15CH/MC/OC54

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To study the structure, synthesis and properties of heterocyclic compounds and their application as intermediates of industrial importance
- To learn the structural determination of natural products
- To provide a better understanding of the mechanisms involved in various rearrangements and organic syntheses

Unit 1

Heterocyclic Compounds

(10 hrs.)

- 1.1 Classification, Preparation of Furan, Pyrrole, Thiophene and Pyridine. Reactions - Electrophilic and Nucleophilic Substitutions, Oxidation and Reduction Reactions.
- 1.2 Porphyrin and Corrin Ring Structure - Haemoglobin, Vitamin B₁₂, Chlorophyll.
- 1.3 Condensed Ring Systems - Indole, Quinoline, Isoquinoline - Comparison of Reactions. Preparation of Quinoline by Skraup's Synthesis and Isoquinoline by Bischler-Napieralsky Synthesis. Mechanism of Electrophilic and Nucleophilic Substitutions, Oxidation and Reduction Reactions. Relationship between Indole, Isatin and Indigo

Unit 2

Carbohydrates

(10 hrs.)

- 2.1 Classification by various methods. Explanation of Diastereomer, Enantiomer, Anomer, Epimer, Building of Carbohydrates from D-Glyceraldehyde, D and L Sugars
- 2.2 Monosaccharides - HIO₄ Oxidation, Mechanism of Mutarotation, Osazone Formation. Haworth Structure, Structural Elucidation of Glucose and Fructose, Determination of Configuration and Ring Size. Interconversion of Glucose and Fructose. Ascending and Descending the Sugar Series
- 2.3 Disaccharides - Formation of Glycosidic Bond: Haworth's Structure of Sucrose, Maltose, Lactose. Difference between Maltose and Cellobiose. Polysaccharides - Structure and Reactions of Starch and Cellulose

Unit 3

Natural Products

(13 hrs.)

- 3.1 Occurrence and Extraction of Terpenoids, Carotenoids, Steroids and Alkaloids in Nature
- 3.2 Alkaloids - Definition and Classification, General Properties, Determination of the Chemical Constitution of the Alkaloids, Functional Group Analysis, Estimation of Groups, Degradation and Synthesis. Structural Elucidation

- of Piperine, Nicotine
- 3.3 Terpenoids- Classification, Isoprene Rule, General Properties, Structure Determination of the following Monoterpenoids – Citral, α -Terpeneol, α - Pinene

Unit 4

Molecular Rearrangements

(10 hrs.)

- 4.1 Classification as Anionotropic, Cationotropic, Free Radical, Inter and Intramolecular
- 4.2 Pinacol-Pinacolone Rearrangement (Mechanism, Evidence for Carbonium Ion Intermediate Formation- Migratory Aptitude)
- 4.3 Beckmann, Hoffmann, Curtius and Benzylic Acid Rearrangements
- 4.4 Claisen Rearrangement (Sigmatropic-Evidence for Intramolecular Nature and Allylic Carbon Attachment)-Cope and Oxy-Cope Rearrangements and Fries Rearrangement

Unit 5

Functional Group interconversion and Designing Organic Synthesis (9 hrs.)

- 5.1 Protection of Functional Groups – Need for and Methods of Protection of $-\text{NH}_2$, $-\text{OH}$, $>\text{C}=\text{O}$, $>\text{C}=\text{C}$, $-\text{COOH}$ Groups
- 5.2 Functional Group Modifications by Reduction, Oxidation, Addition, Elimination, Displacement and Addition – Elimination Processes

TEXT BOOKS

Agarwal O. P. *Chemistry of Organic Natural Products Vol 1 and 2*. Goel Publishing house, 2002.

Ahluwalia V K. *Organic Reaction Mechanisms*. New Delhi: Narosa Publishing House, 2011.

Gurdeep Chatwal. *Chemistry of Organic Natural Products Vol 1 and 2*, Goel Pub. House, 2002.

Michael B. Smith, Jerry March. *March's Advanced Organic Chemistry Reactions, Mechanisms, and Structure*. Wiley, 2007.

Morrison R.T, Boyd R.N & Bhattacharjee S.K. *Organic Chemistry*. Pearson, Dorling Kindersley, 2012.

BOOKS FOR REFERENCE

Finar I.L. *Organic Chemistry Vol. I & II*. London: ELBS, 2002.

Jonathan Clayden, Nick Greeves, Stuart Warren. *Organic Chemistry*. Oxford University, 2012.

Paula Y. Bruice. *Organic Chemistry*. Prentice Hall, 2010.

Reinhard Brückner. *Organic Mechanisms - Reactions, Stereochemistry and Synthesis*. Springer, 2010.

WEB RESOURCES

<http://www.organic-chemistry.org/>

<http://www.chemguide.co.uk/orgmenu.html>

<http://www2.chemistry.msu.edu/faculty/reusch/VirtTxtJml/intro1.htm>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 15 x 1 = 15 Marks (All questions to be answered) Multiple choice - 5, Fill in the Blanks – 5, T/F or Match the following or single line answer - 5

Section B – 3 x 5 = 15 Marks (3 out of 5 to be answered)

Section C – 2 x 10 = 20 Marks (2 out of 3 to be answered)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

MCQ

Model Preparation

Short Answer Tests

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 30 x 1 = 30 Marks (All questions to be answered) Multiple choice - 10, Fill in the Blanks - 10, T/F or Match - 5, single line answer - 5

Section B – 5 x 6 = 30 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE : BRANCH IV – CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 - 2016)

PHYSICAL CHEMISTRY - II

CODE: 15CH/MC/PC54

CREDITS: 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To study Thermodynamics and its applications in real life
- To provide an understanding of phase equilibria

Unit 1

Thermodynamics - an Introduction

(13 hrs.)

- 1.1 Types of Systems, Extensive and Intensive Properties, Different Forms of Energy. First Law-Statements. Internal Energy and Enthalpy, State and Path Functions. Complete Differentials
- 1.2 Isothermal and Adiabatic Changes, Work Done, Internal Energy Changes, Difference between Heat Capacities of Ideal Gases
- 1.3 Thermodynamics of Real Gases Obeying Van der Waal's Equation of State, Joule-Thomson Effect, Inversion Temperature
- 1.4 Work Done in Isothermal and Adiabatic Changes for Real Gases, Internal Energy Changes, Difference between Heat Capacities at Constant Pressure and Volume for Real Gases

Unit 2

Second Law of Thermodynamics

(13 hrs.)

- 2.1 Need for Second Law, Different Forms of Stating the Law, Carnot's Cycle and Carnot's Theorem, Thermodynamic Scale of Temperature
- 2.2 Concept of Entropy, Sasa Function of T&P, P&V and T&V. Entropy Changes in a Phase State (Trouton's Rule), Entropy Change for Irreversible Processes (Inequality of Clausius) Comparison of ΔS for Reversible and Irreversible Processes, Criteria for Spontaneity of Process in Terms of ΔS , Entropy of Mixing and Entropy as a Measure of Disorder, Third Law Statement
- 2.3 Helmholtz and Gibbs's Energies, Maximum and Network Done, Variation in A&G in Terms of P, V and T, Condition for Equilibrium and Spontaneity, Maxwell's Relations
- 2.4 Standard Free Energies, Gibbs-Helmholtz Equation and its Application in Chemistry

Unit3

Introduction to Phase Equilibria(8 hrs.)

- 3.1 Phase Diagrams, Phase Boundaries, Phase Diagrams of Water, Carbon Dioxide and Helium. Clausius-Clapeyron Equation
- 3.2 Measures of Concentration- Molality and Mole Fraction Partial Molal Properties, Concept of Chemical Potential, Gibbs Duhem's Equation
- 3.3 Raoult's Law and Henry's Law, Real Solutions, Concept of Activity and Activity Coefficient

Unit 4

Phase Equilibria in Real System (10 hrs.)

- 4.1 Colligative Properties – Depression in Freezing Point, Elevation in Boiling Point and Osmosis Vant Hoff Factor, Abnormal Molar Mass, Degree of Dissociation and Association
- 4.2 Phase Diagrams of Mixtures of Volatile Liquids (Fractional Distillation, Low and High Boiling Azeotrope) Liquid-Liquid Phase Diagram (Nitrobenzene & Hexane and Water & Triethylamine), Lever Rule and Liquid-Solid Phase Diagram (Antimony - Bismuth)
- 4.3 Nernst Distribution Law, Conditions, Derivation, Applications

Unit5

Chemical Equilibrium (8 hrs.)

- 5.1 Law of Mass Action, Equilibrium Constant and Free Energy
- 5.2 Equilibrium in Ideal Gases, Significance of K
- 5.3 Application of Law Mass Action to Homogenous, Heterogeneous Equilibria
- 5.4 Le Chatelier's Principle, Vant Hoff Equation (Reaction Isochore) and Vant Hoff's Reaction Isotherm

TEXT BOOKS

Atkins, P.W. *The Elements of Physical Chemistry*. Oxford University, 2001.

Barrow, Gordon, M. *Physical Chemistry*. McGraw Hill, 2008.

Rajaram, J & Kuriakose, J. C. *Chemical Thermodynamics - Classical, Statistical and Irreversible Thermodynamics*. Pearson, 2013.

BOOKS FOR REFERENCE

Atkins, P.W and Paula Jones. *Physical Chemistry*. Oxford University, 2012.

Klotz, I.M. *Introduction to Chemical Thermodynamics*. New York: W.A. Benjamin, 2000.

Rastogi, R.P. & R.R. Misra. *An Introduction to Chemical Thermodynamics*. New Delhi: Vikas, 1990.

WEB RESOURCES

<http://www.chem.uci.edu>

http://serc.carleton.edu/research_education/equilibria/phaserule.html

<http://www.chem1.com/acad/webtext/thermeq/>

<http://www.jce.acs.in>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 15 x 1 = 15 Marks (All questions to be answered) Multiple choice - 5, Fill in the Blanks - 5, T/F or Match the following or single line answer - 5

Section B – 3 x 5 = 15 Marks (3 out of 5 to be answered)

Section C – 2 x 10 = 20 Marks (2 out of 3 to be answered)

Third Component:

List of evaluation modes:

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MCQ

Model Preparation

Short Answer Tests

End Semester Examination:

Total Marks: 100

Duration: 3 hours

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Section C – 2 x 20 = 40 Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH IV – CHEMISTRY

SYLLABUS

(Effective from the academic year 2015-2016)

BIOCHEMISTRY

CODE: 15CH/MC/BC54

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS :52

OBJECTIVES OF THE COURSE

- To provide knowledge on concepts of Biochemistry
- To enable an understanding of Bio molecules and metabolism

Unit 1

Introductory Biochemistry (8 hrs.)

- 1.1 Molecular Logic of Living Organisms
- 1.2 Relationship of Biochemistry and Medicine
- 1.3 Blood - Composition of Blood, Blood Coagulation – Mechanism. Hemophilia and Sickle Cell Anaemia
- 1.4 Maintenance of pH of Blood – Bicarbonate Buffer, Acidosis, Alkalosis

Unit 2

Structure of Biomolecules (13 hrs.)

- 2.1 Amino Acids – Classification Based on R Groups and Based on Their Metabolism, Chemical Reactions - with Mineral Acid, Formaldehyde, FDNB, and CO₂, Ninhydrin Test, Action of Heat on α , β and γ -Amino acids
- 2.2 Proteins - Primary, Secondary, Tertiary and Quaternary Structures. Sequencing of Proteins - N Terminal and C Terminal Determination. Ramachandran Plot
- 2.3 Lipids – Classification of Lipids as Saponifiable and Non-Saponifiable Definitions and Significance of Iodine Value, Acid Value, Saponification Value, RM Value and Acetyl Value
- 2.4 Nucleic Acids – Structure and Functions. Nucleosides, Nucleotides, Structure of DNA, RNA - Types and their Differences. DNA Replication and Protein Synthesis

Unit 3

Metabolism (13 hrs.)

- 3.1 Carbohydrate Metabolism - Glycolysis, TCA Cycle, Glycogenesis, Glycogenolysis, Gluconeogenesis, Oxidative Phosphorylation, Electron Transport Chain
- 3.2 Proteins - Transamination, Oxidative Deamination and Urea Cycle. Inborn Errors of Amino Acid Catabolism – Albinism, Alkaptonuria and Phenyl Ketonuria
- 3.3 Amino Acids: Reactions of Amino Acids, Zwitterions, Isoelectric Point, Peptide Bond Formation. Action of Heat, Reaction with HNO₂, HCHO, Cu²⁺ and Ninhydrin. Gabriel's Synthesis, Strecker's Synthesis. Preparation of Tryptophan from Indole
- 3.4 Lipids - Oxidation of Fatty Acids, Biosynthesis of Fatty Acids, Ketone Bodies

Unit 4

Enzymes

(12 hrs.)

- 4.1 Definition of Enzymes and Coenzymes (TPP,NAD, NADP,FAD,ATP)Cofactors-Prosthetic Group of Enzymes
- 4.2 Classification of Enzymes (with Examples)
- 4.3 Enzyme Specificity - Factors affecting Enzyme Action
- 4.4 General Mechanism of Enzyme Catalysis - Michaelis - Menten Theory – Fischer's Lock andKey Model, Koshland's Induced Fit Model
- 4.5 Mechanism of Inhibition (Competitive, Non-Competitive, Allosteric)
- 4.6 Structure and Function of Carboxypeptidase A

Unit 5

Hormones

(6 hrs.)

- 5.1 Definition, Classification of Hormones (Steroid and Non-Steroid Only)
- 5.2 Source and Functions of Insulin, Thyroxin and Sex Hormones
- 5.3 Mechanism of Hormone Action

TEXT BOOKS

Jain J.L.*Fundamentals of Biochemistry*. New Delhi: S. Chand, 2001.

Doraiswamy Yesodha, Swaminathan Geetha and V. Radhakrishnan.*Allied Biochemistry*. Chennai: Margham, 2002.

BOOKS FOR REFERENCE

Berry, A.K.*Textbook of Biochemistry*. Emkay, 2001.

Lehninger A.L. *Principles of Biochemistry*. New Delhi: CBS Publishers, 2006.

Satyanarayana, U, U. Chakrapani.*Biochemistry*. Delhi: New Central Book Agency, 2006.

Stryer Lubert.*Biochemistry*. New York: W.H. Freeman, 2007.

WEB RESOURCES

<https://www.rpi.edu/dept/bcbp/molbiochem/MBWeb/mb1/part2/bioener.htm>

<http://www.rsc.org/Education/Teachers/Resources/cfb/enzymes.htm>

<http://www.rsc.org/Education/Teachers/Resources/cfb/carbohydrates.htm>

<http://www.hsph.harvard.edu/nutritionsource/what-should-you-eat/protein/>

<http://e.hormone.tulane.edu/learning/types-of-hormones.html>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 15 x 1 = 15 Marks (All questions to be answered) Multiple choice - 5, Fill in the Blanks- 5, T/F or Match the following or single line answer - 5

Section B– 3 x 5 = 15 Marks (3 out of 5 to be answered)

Section C – 2 x 10 = 20 Marks (2 out of 3 to be answered)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

MCQ

Model Preparation

Short Answer Tests

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 30 x 1 = 30 Marks (All questions to be answered) Multiple choice - 10, Fill in the Blanks- 10, T/F or Match the following- 5, single line answer - 5

Section B – 5 x 6 = 30 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

B.Sc. DEGREE : BRANCH IV - CHEMISTRY

(Effective from the academic year 2015-2016)

SYLLABUS

(Effective from

ORGANIC CHEMISTRY PRACTICAL – II

CODE: 15CH/MC/P551

CREDIT: 1

L T P : 0 0 2

TOTAL HOURS: 26

Unit 1

Estimations of Vitamins, Glucose and Organic Molecules

- 1.1 Estimation of Vitamin C by 2, 6-Dichlorophenol Indophenol Dye Method
- 1.2 Quantitative Estimation of Glucose using Fehling's Solution Method
- 1.3 Estimation of Phenol/Aniline

Unit 2

Estimation of Amino Acid, Enzyme and Lipids

- 2.1 Estimation of Glycine by Sorrensen's Titration
- 2.2 Estimation of Acid Value
- 2.3 Estimation of the Enzyme Catalase in Chowchow/ Radish
- 2.4 Estimation of Ketones

TEXT BOOKS

Swaminathan Geetha and Mary George. *Laboratory Chemical Methods in Food Analysis*. Chennai: Margham, 2010.

Vogel, A.I. *Textbook of Practical Organic Chemistry*. Longman, 2002.

REFERENCE BOOKS

Ahluwalia V.K and Dhingra S. *Comprehensive Practical Organic Chemistry*. Universities Press, 2004.

Mann F. G and Saunders B.C. *Practical Organic Chemistry*. Pearson, 2009.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 3 hours

Equations and short Procedure (10 minutes) 10 marks

Experiment 40 marks

End Semester Examination:

Total Marks: 50

Duration: 3 hours

Equations and short Procedure (10 minutes) 10 marks

Experiment

40 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH IV – CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 - 2016)

PHYSICAL CHEMISTRY PRACTICAL– I

CODE: 15CH/MC/P652CREDITS: 2

L T P : 0 0 3

TOTAL HOURS: 39

Unit 1

Partition Coefficient

1.1 Distribution Coefficient of I₂ between CCl₄&H₂O

Unit 2

Chemical Kinetics

2.1 Determination of Rate Constant Reaction- Acid Catalyzed Hydrolysis of Ester

Unit 3

Phase Equilibria

3.1 Determination of Molecular Weight by Rast Method

3.2 Determination of Critical Solution Temperature (CST) for Phenol-Water System

3.3 Tracing the Phase Diagram, CST, CSC

3.4 Given the Phase Diagram, Determine the Concentration of the Unknown Mixture of Phenol and Water

Unit 4

Conductometry

4.1 Determination of equivalent conductance at infinite dilution for strong electrolytes

4.2 To verify Oswald's dilution law

Unit 5

Potentiometry

5.1 Determination of Fe²⁺ in the given sample potentiometrically using potassium dichromate

5.2 Determination of strength of the given acid using quinhydrone potentiometrically

Theory and principles behind the experiments concerned to be tested periodically and along with the CA tests for a maximum of five marks.

TEXT BOOK

Viswanathan, B. and Raghavan, P.S., *Practical Physical Chemistry*, New Delhi, Viva Books 2005.

Continuous Assessment:**Total Marks: 50****Duration: 3 hours****Procedure with principle 10 marks****Practical work 40 marks**

Experiment 25 Marks

Execution 15 Marks (includes tabulation, attestation, calculation and graph)

END SEMESTER EXAMINATION:**Total Marks: 50****Duration: 3 hours****QUESTION PAPER PATTERN****Procedure with principle 10 marks****Practical work 40 marks**

Experiment 25 Marks

Execution 15 Marks (includes tabulation, attestation, calculation and graph)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH IV – CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 – 2016)

INORGANIC CHEMISTRY – II

CODE: 15CH/MC/IC64

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVE OF THE COURSE

- To understand the nature of bonding in coordination compounds and their application in biological system and industry

Unit 1

Transition Elements

(10 hrs.)

- 1.1 General Properties of Transition Metals
- 1.2 Ti, V, Cr, Mn Groups, Fe, Co, Ni Groups - A Comparative Study with respect to the Oxidation States, Oxides and Complexes
- 1.3 Biological Importance of Transition Metals - Biological Roles of Mo, Fe, Co, Cu, Zn (Metal Containing Proteins and Enzymes and their Biological Roles)

Unit 2

Chemistry of Coordination Compounds

(8 hrs.)

- 2.1 Introduction – Ligands - Monodentate, Bidentate and Polydentate Ligands, Coordination Sphere, Coordination Number, Chelate Effect, Nomenclature of Coordination Compounds
- 2.2 Isomerism – Linkage, Ionization, Hydrate, Coordination, Coordination Position Isomerism Geometrical and Optical Isomerism of 4 and 6 – Coordinate Complexes

Unit 3

Theories and Applications of Coordination Compounds (18 hrs.)

- 3.1 Sidgwick's Effective Atomic Number Rule (EAN), 18 Electron Rule, Valence Bond Theory (VBT), Hybridization, Geometry and Magnetic Properties of Coordination Compounds, Drawbacks of VBT
- 3.2 Crystal Field Theory - Crystal Field Splitting in Octahedral, Tetrahedral and Square Planar Complexes, Crystal Field Stabilization Energy, Spectrochemical Series, Low and High Spin Complexes, factors influencing the magnitude of Crystal Field Splitting, Jahn Teller Effect
- 3.3 Applications of Coordination Compounds in Qualitative and Quantitative Analyses Potassium Ferrocyanide, Potassium Ferricyanide, Alizarin, Ferrioxin, DMG, Oxine, Cupferron and EDTA

Unit 4

Inner Transition Elements

(8 hrs.)

- 4.1 Lanthanides – Lanthanide Series, their Position in the Periodic Table, Properties of Lanthanides, Lanthanide Contraction and its Consequences
- 4.2 Isolation of Lanthanides - Ion Exchange Chromatography
- 4.3 Actinide – Actinide Series, Position in the Periodic Table, Properties of Actinides. Comparison between Lanthanides and Actinides

4.4 Extraction of Thorium from Monazite and Uranium from Pitch Blende

Unit 5

Organometallic Compounds (8 hrs.)

5.1 Metal Carbonyls - Preparation, Properties and Structure of Ni and Fe Carbonyls

5.2 Preparation and Structure of Metal Alkyls and Aryls of Li, Al and Ti. Structure of Metal Alkene Complexes

5.3 Ferrocene- Preparation, Properties and Structure

TEXT BOOKS

Gopalan R, V. Ramalingam. *Concise Coordination Chemistry*. New Delhi: Vikas, 2001.

Lee J.D. *Concise Inorganic Chemistry*. London: ELBS, 2008.

Puri.B.R., L.R. Sharma., & C.I. Kalia *Principles of Inorganic Chemistry*. New Delhi: Milestone, 2008.

BOOKS FOR REFERENCE

Atkins, P.W., Fraser Armstrong, Jonathan Rourke, Mark Weller & Tina Overton. *Inorganic Chemistry*. Oxford Press, 2010

Cotton, F.A., and G. Wilkinson. *Advanced Inorganic Chemistry*. New Delhi: Wiley Eastern, 2008.

James, E., Huheey & Ellen A. Keiter. *Principles of Structure and Reactivity*. Pearson, India, 2011.

WEB RESOURCES

<http://www.chem1.com/acad/webtext/chembond/cb09.html>

<http://www.britannica.com/EBchecked/topic/602775/transition-element/81116/Biological-functions-of-transition-metals>

<https://www2.chemistry.msu.edu/faculty/reusch/virttxtjml/orgmetal.htm>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 15 x 1 = 15 Marks (All questions to be answered) Multiple choice - 5, Fill in the Blanks - 5, T/F or Match the following or single line answer - 5

Section B – 3 x 5 = 15 Marks (3 out of 5 to be answered)

Section C – 2 x 10 = 20 Marks (2 out of 3 to be answered)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

MCQ

Model Preparation

Short Answer Tests

End Semester Examination:

Total Marks: 100

Duration: 3 hours

QUESTION PAPER PATTERN

Section A – 30 x 1 = 30 Marks (All questions to be answered) Multiple choice - 10, Fill in the Blanks - 10, T/F or Match the following - 5, single line answer - 5

Section B – 5 x 6 = 30 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE : BRANCH IV – CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 onwards)

PHYSICAL CHEMISTRY – III

CODE : 15CH/MC/PC64 CREDITS: 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVE OF THE COURSE

- To develop an understanding of the fundamentals of Kinetics, Ionic equilibria and Electrochemistry

Unit 1

Ionic Equilibria (12 hrs.)

- 1.1 Proton Transfer Equilibria- Bronsted Lowry Theory, Protonation and Deprotonation K_a , (pK_b , pH, pOH, K_w and pK_w), Polyprotic Acids, Amphiprotic Systems, Henderson-Hasselbalch Equation, Buffer Action, Solubility Equilibria, Solubility Product, Common Ion Effect and Solubility
- 1.2 Hydrolysis of Salts, Hydrolysis Constant, Relation between K_b , K_a and K_w , Degree of Hydrolysis, Salts of Weak Bases and Strong Acid and Degree of Acid Base Indicators
- 1.3 Migration of Ions- Conductivity, Ostwald's Dilution Law, Variation of Conductance with Dilution, Kohlrausch's Law, Ion Mobility, Transport Number & Ionic Conductance, Transport Number - Determination by Hittorf's and Moving Boundary Methods
- 1.4 Debye Huckel Theory of Strong Electrolytes, Activity Coefficient, Mean Activity Coefficient and Ionic Strength

Unit 2

Electrochemistry (15 hrs.)

- 2.1 Concept Of Electrochemical Cell, Galvanic Cell, Reversible and Irreversible Cells, Half Cells, Electrode and Cell Reactions, Nernst Single Electrode Potential, Cell Representation, Terminology and Conventions
- 2.2 Reversible Electrodes, Standard Hydrogen Electrode, Calomel Electrode, and Equation of Emf of Cells- Standard Electrode Potentials, Sign Convention, Electrochemical Series, Significance, Applications. Weston Cadmium Cell, Emf – Measurement Poggendorff's Compensation Method, Redox Potential
- 2.3 Applications of Emf Measurements: Application of Gibbs - Helmholtz Equation in the Calculation of ΔG , ΔH , ΔS , Temperature Coefficient of EMF of Galvanic Cells, Equilibrium Constant, Determination of pH using Glass, Hydrogen and Quinhydrone Electrodes, Potentiometric Titration
- 2.4 Types of Reversible Cells, Concentration Cells with and without Transference. Liquid Junction Potential Derivation- Significance of Salt Bridge

Unit 3**Chemical Kinetics (8 hrs.)**

- 3.1 The Rate Equation, Order and Molecularity of Reactions with Examples
- 3.2 Derivation of Rate Constants for Zero, First, Second (Equimolar and Non-Equimolar Reactant Concentrations) and n^{th} Order Reactions, Characteristics of Fractional Order Reactions, Half Life Time
- 3.3 Methods of Determination of Order of Reaction
- 3.4 Collisions and Encounters, Effect of Temperature on Reaction Rate, Concept of Activation Energy, Energy Barrier, Effect of Catalyst, Arrhenius Equation, Calculation of Arrhenius Parameters

Unit 4**Theories of Reaction Rates (9 hrs.)**

- 4.1 Theories of Reaction Rates, Collision Theory of Bimolecular Reaction, Limitations of Collision Theory
- 4.2 Activated Complex Theory of Bimolecular Reactions, Transition State Theory – Thermodynamic Derivation of Rate Constant for TS, Eyring's Equation (No Derivation), Significance of ΔH^* , ΔG^* & ΔS^* , Lindemann Theory of Unimolecular Reactions
- 4.3 Photochemical Rate Law, Kinetics of Hydrogen-Chlorine, Photosensitization and Quenching of Fluorescence, Chemiluminescence

Unit 5**Electroanalytical Techniques (8 hrs.)**

- 5.1 Polarography - Basic Principles, Dropping Mercury Electrode - Advantages and Disadvantages, Ilkovic Equation (Derivation not Required) and its Significance - Experimental Assembly, Current – Voltage Curve, Polarographic Maxima, Oxygen Interference, Polarography as an Analytical Tool in Qualitative and Quantitative Analysis
- 5.2 Amperometry- Basic Principles and Applications

TEXT BOOKS

Atkins, P.W. *Elements of Physical Chemistry*. Oxford University, 2013.

Bajpai, S. *Physical Chemistry*. New Delhi: Shobanlal Nagin Chand, 2006.

BOOKS FOR REFERENCE

Donald Allan McQuarrie, John Douglas Simon. *Physical Chemistry. A Molecular Approach*. University Science Books, 2013.

Moore, W.J. *Physical Chemistry*. Orient Longman, 2004.

Samuel H. Maron & Jerome B. Lando. *Fundamentals of Physical Chemistry*. New York: Macmillan, 2004.

WEB RESOURCES

<http://bouman.chem.georgetown.edu/S02/lect25/lect25.htm>

<http://www.tau.ac.il/~advanal/Polarography.htm>

<http://www.chm.davidson.edu/vce/Kinetics/ReactionRates.html>

<http://www.chem1.com/acad/webtext/elchem/ec2.html>

<http://www.wwnorton.com/college/chemistry/chemistry3/ch/15/chemtours.aspx>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 15 x 1 = 15 Marks (All questions to be answered) Multiple choice - 5, Fill in the Blanks- 5, T/F or Match the following or single line answer - 5

Section B – 3 x 5 = 15 Marks (3 out of 5 to be answered)

Section C – 2 x 10 = 20 Marks (2 out of 3 to be answered)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

MCQ

Model Preparation

Short Answer Tests

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 30 x 1 = 30 Marks (All questions to be answered) Multiple choice - 10, Fill in the Blanks - 10, T/F or Match the following - 5, single line answer - 5

Section B – 5 x 6 = 30 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE : BRANCH IV – CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 - 2016)

SPECTROSCOPY

CODE:15CH/MC/SP64

CREDITS: 4

L T P : 4 0 0

TOTAL TEACHING HOURS : 52

OBJECTIVES OF THE COURSE

- To enable the students to understand the basics of spectroscopy and its approach in characterization of compounds
- To give an overview of the various spectral and instrumentation techniques

Unit 1

Introduction (7 hrs.)

- 1.1 Electromagnetic Spectrum
- 1.2 Microwave Spectroscopy: Rotational Transitions, Theory of Rotational Spectroscopy, Rotation of Homonuclear and Heteronuclear Diatomic Molecules, Selection Rule, Forbidden Transitions, Instrumentation
- 1.3 Problems Involving Calculation of Moment of Inertia and Reduced Mass

Unit 2

Vibrational Transitions: FTIR and Raman Spectroscopy(10hrs.)

- 2.1 Principle, Instrumentation, Modes of Vibration, Conditions of Sensitivity to IR
- 2.2 Characteristic Frequencies of Functional Groups and Aromatic Compounds
- 2.3 IR Pattern of Simple Organic Compounds
- 2.4 Theory of Raman Spectroscopy, Instrumentation, Comparison with IR, Mutual Exclusion Principle

Unit 3

Electronic Transitions: UV Visible Spectroscopy (10hrs.)

- 3.1 Theory of Electronic Spectroscopy, Instrumentation, Laws of Light Absorption- Beer and Lambert's Law, Franck Condon Principle, Block Diagram of Double Beam Spectrophotometer
- 3.2 Factors Affecting UV Absorption, Solvents, Parameters of UV Plot
- 3.3 Woodward - Fieser Rules as Applied to Aliphatic Dienes and α,β -Unsaturated Aldehydes and Ketones
- 3.4 UV Spectra of Simple Organic Compounds -Toluene and Cresol

Unit 4

Nuclear Magnetic Resonance Spectroscopy (15 hrs.)

- 4.1 Theory of NMR Absorption- Magnetic Properties of Nuclei (Magnetic Moment, gFactor) and Theory of Nuclear Resonance. Larmor Precession Frequency, Resonance Condition and Relaxation Processes
- 4.2 Standards Employed in NMR, Factors Affecting Chemical Shift – Electronegativity, Hybridization, Shielding and Deshielding, Vander Waals Deshielding, H-Bonding, Diamagnetic and Paramagnetic Anisotropies
- 4.3 Spin-Spin Coupling, (n+1) Rule and its Origin, Pascal's Diagram, Chemical Shift Values
- 4.4 Instrumentation and Sample Handling. Factors Influencing Spin Coupling Constants, Vicinal and Geminal Coupling.
- 4.5 C_{13} NMR Spectra, Spin Decoupling Techniques – Advantages
- 4.6 NMR Spectra of Simple Organic Compounds – CH_3Cl , CH_3CH_2OH , $C_6H_5CH_3$, CH_3CHO , CH_3COOH , Diborane

Unit 5

Mass Spectrometry (10 hrs.)

- 5.1 Theory and Rules of Fragmentation, Molecular Ion, Base Peak, Nitrogen Rule, Isotope Peaks and Metastable Peaks, Instrumentation
- 5.2 McLafferty Rearrangement, Retro-Diels Alder Rearrangement
- 5.3 Fragmentation Patterns of Various Functional Groups in Simple Organic Compounds

Visit to R&D labs

TEXT BOOKS

Banwell, C.N. *Fundamentals in Molecular Spectroscopy*. New Delhi: Tata McGraw Hill, 2007.

Pavia D. L., Lampman G.M., Kriz G. S. *Spectroscopy*. Pearson, 2010.

REFERENCE BOOKS

Dudley H Williams and Ian Fleming. *Spectroscopic Methods in Organic Chemistry*. Tata McGraw-Hill, 2005.

Kemp W. *Organic Spectroscopy*. India Macmillan, 2007.

Sathyanarayana, D.N. *Vibrational spectroscopy*. New Age International Publishers, 2007.

Silverstein, Morrill Bassler. *Spectrometric Identification of Organic Compounds*. India John Wiley, 2008.

WEB RESOURCES

<http://www2.chemistry.msu.edu/faculty/reusch/VirtTxtJml/Spectrpy/nmr/nmr1.htm>

<http://www2.chemistry.msu.edu/faculty/reusch/VirtTxtJml/Spectrpy/InfraRed/infrared.htm>

<http://www2.chemistry.msu.edu/faculty/reusch/VirtTxtJml/Spectrpy/UV-Vis/spectrum.htm>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 15 x 1 = 15 Marks (All questions to be answered) Multiple choice - 5, Fill in the Blanks - 5, T/F or Match the following or single line answer - 5

Section B – 3 x 5 = 15 Marks (3 out of 5 to be answered)

Section C – 2 x 10 = 20 Marks (2 out of 3 to be answered)

Third Component Tests:

List of evaluation modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

MCQ

Model Preparations

Short Answer Tests

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 30 x 1 = 30 Marks (All questions to be answered) Multiple choice - 10, Fill in the Blanks - 10, T/F or Match the following - 5, single line answer - 5

Section B – 5 x 6 = 30 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH IV – CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 - 2016)

PHYSICAL CHEMISTRY PRACTICAL – II

CODE: 15CH/MC/P762

CREDITS: 2

L T P : 0 0 3

TOTAL HOURS: 39

Unit 1

Distribution Law

1.1 Determination of Equilibrium Constant of the Reaction. $I_2 + I^- = I_3^-$

1.2 Determination of Concentration of the Given KI

Unit 2

Chemical Kinetics

2.1 Determination of Rate Constant of Iodide - Persulphate Reaction

Unit 3

Phase Equilibria

3.1 To Study the Effect of Added Impurity on UCST and Determination of the Unknown Concentration of the Impurity NaCl / Succinic Acid

3.2 Determination of Eutectic Composition and Eutectic Temperature of Biphenyl & Naphthalene

Unit 4

Conductometry & pH metry

4.1 Conductometric Acid-Base Titration (Weak Acid vs Strong Base / Mixture Weak & Strong Acid vs Strong Base)

4.2 Verification of Henderson's Equation

Unit 5

Spectrophotometry & Flame Photometry

5.1 Estimation of Iron as Iron Thiocyanate Spectrophotometrically

5.2 Determination of Concentrations of Na/K using Flame Photometer

Note : Theory and principles behind the experiments concerned to be tested periodically and along with the CA tests for a maximum of five marks.

TEXT BOOK

Viswanathan, B and Raghavan, P.S. *Practical Physical Chemistry*. New Delhi: Viva Books, 2005.

Continuous Assessment:

Total Marks: 50

Duration: 3 hours

Procedure with principle 10 marks

Practical work 40 marks

Experimental value : 25 marks

Execution : 15 marks (includes tabulation, attestation, calculation, and graph)

End Semester Examination:

Total Marks: 50

Duration: 3 hours

Procedure with principle 10 marks

Practical work 40 marks

Experimental value : 25 marks

Execution : 15 marks (includes tabulation, attestation, calculation, and graph)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
Allied Elective Course Offered by the Department of Chemistry for
students of Physics/ Plant Biology and Plant Biotechnology /Advanced
Zoology and Biotechnology

SYLLABUS

(Effective from the academic year 2015 - 2016)

APPLIED CHEMISTRY

CODE: 15CH/AE/AP45

CREDITS: 5

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To understand the chemistry of materials used in everyday life
- To provide an overview of the practical applications of Chemistry

Unit I

Chemical Concentrations (10 hrs.)

- 1.1 Concept of Mass and Weight, Concentration of Solutions - Moles, Millimoles, Milliequivalence, Molality, Molarity, Normality, Percentage by Weight and Volume, ppm, ppb. Density and Specific Gravity of Liquids. Stoichiometry Calculations Volume Ratios for Dilution Procedures, Buffer Solutions
- 1.2 Standard Solutions, Primary and Secondary Standards

Unit 2

Basics of Nanochemistry(15 hrs.)

- 2.1 Classification of Nanomaterials, Properties and Applications
- 2.2 Self Assembly – Materials and Molecules, Self Assembled Monolayers (SAM)
- 2.3 Types of Nanoparticles – Preparation, Properties and uses of Gold, Silver and Nanoparticles
- 2.4 Techniques to Synthesise Nanoparticles – Top Down and Bottom Up Approaches, Green Synthesis, Applications and Toxic Effects of Nanomaterials
- 2.5 Characterisation of Nanomaterials – Principle and Applications - Scanning Electron Microscopy (SEM), Transmission Electron Microscopy (TEM), Scanning Probe Microscopy, Atomic Force Microscopy (AFM), Scanning Tunneling Electron Microscope (STEM)

Unit 3

Adsorption and Catalysis (10 hrs.)

- 3.1 Adsorption - Physisorption and Chemisorption; Factors affecting Adsorption of Gases on Solids
- 3.2 Catalysis - General Principles and Properties of Catalysts; Homogenous and Heterogeneous Catalysis, Enzyme Catalysis
- 3.3 Application of Zeolites as Catalysts

Unit 4

Chemicals used in Daily Life(15 hrs.)

- 4.1 Polymers: Natural and Synthetic Polymers and their Applications - Starch, Cellulose, Collagen, Silk Fibroin, Clays, Rubber, PE, PVC, PVA and Silicones
- 4.2 Dyes- Classification Based on Structure and Application. Synthesis of Congo Red and Malachite Green. Dyes Used in Foods
- 4.3 Pharmaceuticals- Analgesics - Narcotics (Morphine, Codeine), Non- Narcotics (Aspirin, Ibuprofen); Antipyretic (Phenacetin, Paracetamol) Antiseptics and Disinfectants (Dettol, Salol), Antibiotics (Penicillin, Chloramphenicol), Antacids, Antihistamines
- 4.4 Chemicals as Food Preservatives, Artificial Sweetening Agents
- 4.5 Leather Processing-Process before Tanning - Vegetable Tanning and Chrome Tanning, Tannery Effluent and by product

Unit 5

Practicals (to be tested internally) (15 hrs.)

- 5.1 Measurement of pH of different solutions like Aerated Drinks, Fruit Juices, Shampoos and Soaps using pH -Meter/ pH Paper
- 5.2 Green Synthesis of Zinc Oxide / Iron Oxide Nanoparticles
- 5.3 Synthesis of Azo Dye Methyl Orange - Congo Red
- 5.4 Determination of Dissolved Oxygen, Biochemical Oxygen Demand (BOD)
- 5.5 Synthesis of Aspirin

TEXT BOOKS

Gem Mathew G.D. *Chemistry in Everyday Life*. Jalandhar-Delhi: Vishal, 2009.

Jayashree Ghosh. *Fundamental Concepts of Applied Chemistry*. New Delhi: S. Chand, 2008.

Pradeep T. *Nano: The Essentials*. New Delhi: McGraw Hill, 2007.

REFERENCE BOOKS

Muraleedharan V. S and Subramania A. *Nanoscience and Nanotechnology*. New Delhi: AneBooks, 2009.

Rao C. N. R and Govindraj A. *Nanotubes and Nanowires*. Royal Society of Chemistry, 2005.

WEB RESOURCES

<http://crescentok.com/staff/jaskew/isr/chemistry/class14.htm>

http://water.me.vccs.edu/courses/env211/lesson8_3.htm

http://nanoyou.eu/attachments/188_Module-1-chapter-1.pdf

<http://nanoyou.eu/>

<http://chemistry.about.com/od/everydaychemistry/>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 15 x 1 = 15 Marks (All questions to be answered) Multiple choice - 5,
Fill in the Blanks - 5, T/F or Match the following or single line answer - 5

Section B – 3 x 5 = 15 Marks (3 out of 5 to be answered)

Section C – 2 x 10 = 20 Marks (2 out of 3 to be answered)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

MCQ

Model Preparation

Short Answer Tests

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 30 x 1 = 30 Marks (All questions to be answered) Multiple choice - 10,
Fill in the Blanks - 10, T/F or Match the following - 5, single line answer - 5

Section B – 5 x 6 = 30 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH IV – CHEMISTRY

SYLLABUS

(Effective from the academic year 2015-2016)

COMPUTERS IN CHEMISTRY

CODE: 15CH/ME/CC55

CREDITS : 5

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVE OF THE COURSE

- To apply computing techniques and software to solve problems in Chemistry

Unit 1

Data Processing and Analysis (15 hrs.)

- 1.1 Elements of Computer Architecture - Creating, Editing, Naming, Renaming and Locating Files, Folders, Directory
- 1.2 Components of Excel - Spreadsheets, Database, Chart & Building Workbooks
- 1.3 Building Formulae, User Made and Statistical Functions, Formatting Cells
- 1.4 Managing and Organizing Data - Creating Link, Analyzing Data
- 1.5 Solving Problems from Physical and Analytical Chemistry (Precision and Accuracy), Standard Deviation using Spectral Data

Unit 2

Introduction to Graphs (15hrs.)

- 2.1 Introduction to Charts-Types, Creating Charts from a Table, Reviewing Graphs
- 2.2 Solving Problems in Chemistry
- 2.3 Plotting Graphs using Theoretical and Experimental Data. Trend Line Addition and Determining the Slope and Intercept

Unit 3

Introduction to MathCad(10hrs.)

- 3.1 Eigen Values and Eigen Vectors of Matrices
- 3.2 Differential and Integral Calculus
- 3.3 Histograms, Extrapolation and Interpolation in Graphs, Curve Cutting Integration Methods
- 3.4 Regression Analysis of Experimental Data and its Related Techniques
- 3.5 Solutions for Simultaneous Equations by Matrix Methods

Unit 4

CHEM Draw & CHEM 3D Pro (15 hrs.)

- 4.1 Using CHEM DRAW for Writing Chemical Equations and Representing Schemes of Reaction Mechanisms, Editing, Transporting as Picture to Word Document

- 4.2 Using CHEM 3D PRO for Building Molecules and for Measurement of Bond Angles, Bond Energy, Energy Minimization
4.3 Use of Internet in Chemical Research- XRD, IR, NMR Data

Unit 5

Computer Programmes(10 hrs.)

- 5.1 Fundamentals – Introduction to C Language, C Characters, Constants and Variables
5.2 C-Statements – Conditional Statement – Simple C Programs - Calculation of Molecular Mass of Organic Compounds - Calculation of Normality, Molality and Molarity - Factorial of a Number - Determination of Half Life and Average Life of Radioactive Element- Determination of pH

TEXT BOOK

Ramesh Kumari. *Computers and applications to Chemistry*. New Delhi: Narosa, 2005.

BOOK FOR REFERENCE

Raman K.V. *Computers in Chemistry*. Tata McGraw-Hill, 2002.

WEB RESOURCES

https://www.cambridgesoft.com/Ensemble_for_Chemistry/ChemDraw/

<http://www.sciencesoftware.se/en/>

<http://www.analytictech.com/networks/graphtheory.htm>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 15 x 1 = 15 Marks (All questions to be answered) Multiple choice - 5, Fill in the Blanks – 5, T/F or Match the following or single line answer - 5

Section B – 3 x 5 = 15 Marks (3 out of 5 to be answered)

Section C – 2 x 10 = 20 Marks (2 out of 3 to be answered)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

MCQ

Model Preparation

Short Answer Tests

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 30 x 1 = 30 Marks (All questions to be answered) Multiple choice - 10, Fill in the Blanks - 10, T/F or Match the following - 5, single line answer - 5

Section B – 5 x 6 = 30 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH IV – CHEMISTRY

SYLLABUS

(Effective from the academic year 2015–16)

PROJECT

CODE :15CH/ME/PR55

CREDITS : 5

L T P : 005

TOTAL HOURS : 65

GUIDELINES FOR PROJECT

Project should be done individually. Each student will choose a topic of her interest and the student will be assigned to a supervisor

The project will require practical work with the submission of a project report. It should include experimental lab work. The duration of the project work is one semester

The project report should be submitted in the prescribed format containing a minimum of 30 pages. The report should be enhanced with graphs, spectra, tables and or photographs

Each candidate has to give three periodical reviews to the internal guide on the scheduled dates prescribed by the Department

Each candidate will submit 3 hard copies of the project thesis and submit on the scheduled date. The student will appear for Viva-voce before a panel comprising External Examiner, supervisor and Head of the Department

Guidelines for Evaluation

The maximum marks for the dissertation is 100 and this will be converted to 50marks by Controller of Examination

Internal evaluation: 50 marks

* Attendance, log book, experimental work and project report

External evaluation: 50 marks

* Project report and *viva voce*

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI-600086.
B.Sc DEGREE: BRANCH IV- CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 - 2016)

PHARMACEUTICAL CHEMISTRY

CODE: 15CH/ME/PH55

CREDITS: 5

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVE OF THE COURSE

- To provide an understanding of the fundamentals of Pharmaceutical Chemistry

Unit 1

Introduction to Pharmaceutical Chemistry (13 hrs.)

- 1.1 Definitions - Pharmacy, Pharmacology, Pharmacodynamics, Pharmacokinetics, Antimetabolites, Bacteria, Virus, Fungi, Mutation, Pharmacognosy, Toxicology, Pharmacotherapeutics, Chemotherapy, Therapeutic Index. Classification of Drugs
1.2 Diseases: Malaria, Plague, Whooping Cough, Measles, Common Cold, TB, Cholera,
1.3 Typhoid and Dysentery-Cause, Symptoms, Treatment, Prevention
1.4 Biological Role of Trace Elements-K, Ca, I₂, Cu, Zn

Unit 2

Blood and Hematological Agents(12 hrs.)

- 2.1 Composition of Blood, Blood Grouping, Clotting of Blood - Mechanism, Haematological Agents- Anaemia –Causes and Control- Antianaemic Drugs
2.2 Role of Blood as Oxygen Carrier, Blood Pressure, Hypo and Hypertension-Cause, Prevention and Treatment; Antihypertensive Agents - Aldomet, Reserpine
2.3 Cardiovascular Drugs: Cardiac Glycosides - Digoxin; Antiarrhythmic Drugs- Quinidine-Structure, Dosage and Therapeutic Uses; Antagonists of Calcium
2.4 Antianginal Agents- Nitriles; Vasodilators-Sodium Nitroprusside, Papaverine and Nicotinic Acid

Unit 3

Drugs of Importance (16 hrs.)

- 3.1 Analgesics: Narcotic- Morphine- Source, Structure-Activity Relationship and Uses (Pethidine) and Non-Narcotic Drugs, Antipyretic and Anti-Inflammatory Agents – (Aspirin, Paracetamol, Phenylbutazone, Ibuprofen)
3.2 Anaesthetics- Conditions of an Ideal Anesthetic Agent, Types-General (Ether, CHCl₃, Halothane, Nitrous Oxide), Local (Cocaine) and Intravenous (Barbiturates)
3.3 Antibiotics: Therapeutic uses of Penicillin, Streptomycin, Tetracycline, Chloramphenicol
3.4 Diabetes- Types and Causes, Hypoglycemic Agents
3.5 Types and Treatments of Cancer, Antineoplastic Drugs-Antimetabolites, Plant Products, Hormone Therapy and Radioactive Isotopes
3.6 HIV – Causes, Prevention and Treatment

Unit4

Pharmacological Aids

(10 hrs.)

- 4.1 Preservatives -Sodium Benzoate; Antioxidants-Esters of Gallic Acid; Sequestrants- Calcium Complex of EDTA; Emulsifying Agents-SorbitanMonolaurate; ColouringAgents- Caramel, Amaranth (Permitted Colours); FlavouringAgents- Vanillin,(Permitted Flavors); Sweetening Agents-Sucrose, Sorbitol, Saccharin; Stabilisingand Suspending Agents- Gelatin, Pectin
- 4.2 Ointment Bases-Hydrocarbon Bases, Absorption Bases – Emulsions

Unit 5

Practicals (to be tested internally)

(14 hrs.)

- 5.1 Synthesis of Aspirin
- 5.2 Estimation of Iron/ Vitamin Aby Colorimetry / Spectrophotometry
- 5.3 Separationof Analgesics (Ibuprofen, Paracetamol, Aspirin) by Thin Layer Chromatography (TLC)
- 5.4 Identification of Blood Group
- 5.5 Estimationof Blood Glucose by O-Toluidine Method

TEXT BOOKS

Chatwal.G.R. *Pharmaceutical Chemistry Inorganic (Volume 1)*. New Delhi: Himalaya, 2006.

JayasreeGhosh. *A text book of Pharmaceutical Chemistry*.New Delhi: S.Chand, 2014.

BOOK FOR REFERENCE

Craig, Robert, R. E. Stitzel.*Modern Pharmacology*.Boston: Little Brown, 2000.

WEB RESOURCES

<http://www.oocities.org/srn251/weng.htm>

http://www.rightdiagnosis.com/medical/hematologic_agent.htm

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – $15 \times 1 = 15$ Marks (All questions to be answered) Multiple choice - 5, Fill in the
Blanks- 5, T/F or Match the following or single line answer - 5

Section B – $3 \times 5 = 15$ Marks (3 out of 5 to be answered)

Section C – $2 \times 10 = 20$ Marks (2 out of 3 to be answered)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

MCQ

Model Preparation

Short Answer Tests

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – $30 \times 1 = 30$ Marks (All questions to be answered) Multiple choice - 10, Fill in the
Blanks - 10, T/F or Match the following - 5, single line answer - 5

Section B – $5 \times 6 = 30$ Marks (5 out of 7 to be answered)

Section C – $2 \times 20 = 40$ Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

B.Sc. DEGREE: BRANCH IV - CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 - 2016)

POLYMER CHEMISTRY

CODE:15CH/ME/PL55

CREDITS: 5

L T P : 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To learn the basic techniques and mechanisms of polymerisation
- To understand the chemistry of industrially important polymers and their manufacturing techniques

Unit 1

Introduction to Polymers (10 hrs.)

- 1.1 Classification of Polymers Based on Origin/Occurrence, Chemical Structure, Physical Properties, Mechanical Behavior, Polymerization Process, Arrangement of Monomers and Thermal Properties
- 1.2 Natural and Synthetic Fibers: Types, Regenerated Cellulose Acetate Fibers, Nylon
- 1.3 Structure, Properties and Applications of PU, PVC, Poly Acrylates, PMMA, Silicones, Plastics, Emulsions, Resins

Unit 2

Chemistry of Polymerisation (16 hrs.)

- 2.1 Types and Mechanism of Addition, Condensation, Free Radical, Ionic and Coordination Polymerisation
- 2.2 Kinetics of Free Radical and Ionic Polymerisation – Kinetic Chain Length
- 2.3 Synthesis of Graft and Block Co-Polymers
- 2.4 Techniques of Polymerisation- Bulk, Solution, Suspension, Emulsion, Melt Polycondensation, Solution Polycondensation, Interfacial Condensation, Solid and Gas Phase Polymerisation
- 2.5 Stereospecificity in Polymers, Tacticity

Unit 3

Molecular Weight and Properties of Polymers (16 hrs.)

- 3.1 Molecular Weight of Polymers-Number Average and Weight Average, Molecular Weight Distribution, Determination of Molecular Weight
- 3.2 Glass Transition Temperature-State of Aggregation and State of Phase Transitions, Factors Influencing Glass Transition Temperature, Importance of Glass Transition Temperature, Heat Distortion Temperature
- 3.3 Crystallinity of Polymers: Crystalline Behaviour, Degree of Crystallinity

3.4 Reactions of Polymers-Hydrolysis, Acidolysis, Aminolysis, Addition and Substitution Reactions (One Example Each)

3.5 Cyclisation, Cross-Linking and Reactions of Specific Groups in the Polymer

Unit 4

Polymer Degradation (10 hrs.)

4.1 Types of Degradation - Thermal, Mechanical, Ultra Sound, Photo Radiation and Chemical Degradation Methods

4.2 Rubber-Natural and Synthetic-Structure, Mechanism of Vulcanisation

4.3 Biodegradable and Non-Biodegradable Polymers

Unit 5

Practicals (To be assessed internally) (10 hrs.)

5.1 Synthesis of Phenol-Formaldehyde Resin

5.2 Synthesis of Polymethyl Methacrylate (PMMA)/Polystyrene (PS)

5.3 Synthesis of Nylon 66

5.4 Synthesis of Polyester

5.5 Determination of the Molecular Weight of Polyvinyl Alcohol (PVA)/Polyvinyl Chloride (PVC)

Industrial visit: Visit to polymer industry / CLRI

TEXT BOOKS

Gowariker V.R, N.V. Viswanthan and Jayadev Sreedhar. *Polymer Science*.

New Delhi: New Age International, 2014.

Misra G.S. *Introductory Polymer Chemistry*. New Delhi: Wiley Eastern, 2010.

BOOKS FOR REFERENCE

Billmeyer, F.W. *Polymer Science*. India: Wiley-Interscience, 2007.

Joel Fried. *Polymer Science and Technology*. New Delhi: Prentice hall, 2005.

WEB RESOURCES

<http://amrita.vlab.co.in/?sub=2&brch=190&sim=603&cnt=1>

<http://www.chem.tamu.edu/class/majors/tutorialnotefiles/polymer.htm>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – $15 \times 1 = 15$ Marks (All questions to be answered) Multiple choice - 5, Fill in the
Blanks - 5, T/F or Match the following or single line answer - 5

Section B – $3 \times 5 = 15$ Marks (3 out of 5 to be answered)

Section C – $2 \times 10 = 20$ Marks (2 out of 3 to be answered)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

MCQ

Model Preparation

Short Answer Tests

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – $30 \times 1 = 30$ Marks (All questions to be answered) Multiple choice - 10, Fill in the
Blanks - 10, T/F or Match the following - 5, single line answer - 5

Section B – $5 \times 6 = 30$ Marks (5 out of 7 to be answered)

Section C – $2 \times 20 = 40$ Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
General Elective Course Offered by Department of Chemistry for
B A. / B.Sc. / B.Com./B.S.W. / B.V.A Degree Programmes

SYLLABUS

(Effective from the academic year 2015- 2016)

COSMETICS AND PERSONAL CARE

CODE: 15CH/GE/CP22

CREDITS: 2

L T P:2 0 0

TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE

- To introduce the concept of cosmetology
- To understand the importance of personal care

Unit 1

Skin Care(8 hrs.)

- 1.1 Skin- Structure and Functions- pH and Moisture Balance, Maintenance of Skin
- 1.2 Types of Skin: Dry Skin, Oily Skin, Wrinkle Skin
- 1.3 Cleansing of the Skin, Creams and Lotions, Astringent and Skin Tonics, Skin Lighteners, Depilatories, Food Habits Related to Skin Care

Unit 2

Scalp and Hair Treatments

(8 hrs.)

- 2.1 Structure of Hair, Growth and Type of Hair
- 2.2 Shampoos and Conditioners, Hair Styling Products, Hair Ironing and Methods of Colouring/Dyeing- Precautionary Measures
- 2.3 Personal Care and Cleanliness of Hair

Unit 3

Beauty Treatments

(10 hrs.)

- 3.1 Facials-Types-Advantages and Disadvantages
- 3.2 Lipstick, Eyeliner, Mascara, Eye Shadow - Chemical Composition
- 3.3 AHA Exfoliation, Facial Galvanic, High Frequency, Aroma Therapy
- 3.4 Toxicology of Cosmetics
- 3.5 Demonstration by Experts in the Field of Cosmetology

TEXT BOOKS

Gem Mathew, G.D.*Chemistry in Everyday Life*. Vishal, 2014

Wilkinson J B E and Moore R J.*Harry's Cosmetology*. London: Chemical Publishers,2000.

WEB RESOURCES

http://www.abpischools.org.uk/page/modules/skin/.cfm?coSiteNavigation_allTopic=1

<http://health.howstuffworks.com/skin-care/nail-care>

http://www.chemistryviews.org/details/ezone/4007741/Shampoo_Science.html

http://www.webhealthcentre.com/HealthyLiving/personal_hygiene_index.aspx

PATTERN OF EVALUATION (Totally Internal)

Total marks: 25

Duration:90 mins.

No End Semester Examination

Continuous Assessment:

Section A 5 x 1 =5 marks (All questions to be answered)

Section B 2 x 5 =10 marks (2 out of 3 to be answered)

Section C 1 x 10 = 10 marks (1 out of 2 to be answered)

Third Component: 25 marks

List of Evaluation modes:

Seminars

Quiz

Assignments

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI-600 086

B.Sc DEGREE: BRANCH IV- CHEMISTRY

**General Elective Course Offered by Department of Chemistry for
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SYLLABUS

(Effective from the academic year 2015-2016)

NUTRACEUTICALS AND HEALTH CARE

CODE: 15CH/GE/NH22

CREDITS : 2

L T P : 2 0 0

TOTAL TEACHING HOURS : 26

OBJECTIVES OF THE COURSE

- To provide an understanding of Food Science and Human Nutrition
- To develop functional foods for market

Unit 1

Introduction

(8 hrs.)

1.1 Definition and Classification of Nutraceuticals

1.2 Relationship between Nutraceuticals, Food and Medicine

1.3 Prebiotics: Definition, Sources, Bioavailability, Effects on Human Health and Applications-Non-Digestible (Carbohydrates/Oligosaccharides), Dietary Fibre and Resistant Starch

1.4 Probiotics: Probiotic Microorganisms, Foods - Fermented Milk Products, Non-Milk Products, Quality Assurance of Probiotics and Safety

Unit 2

Phytonutrients

(10 hrs.)

2.1 Role of Isoprenoids, Flavonoids, Carotenoids and Polyunsaturated Fatty Acids.

2.2 Functional Foods – Vegetables, Cereals, Milk and Dairy Products

2.3 Nutraceutical Rich Supplements – Caffeine, Green Tea, Mushroom Extract, Chlorophyll and Spirulina

2.4 Nutraceutical Remedies – Bronchitis, Circulatory Problems, Hypoglycemia, Nephrological Disorders, Liver Disorders, Psoriasis and Ulcers

Unit 3

Diet Therapy and Health Care

(8 hrs.)

3.1 Basic Concepts of Diet Therapy –Principles and Classification of Therapeutic Diets

3.2 Nutritional Care for Weight Management –Etiological Factors Contributing to Obesity, Low Energy Diets, Balanced Energy Reduction and Behavioral Modification. underweight– Etiology and Assessment, High Energy Diets For Weight Gain

TEXT BOOK

Robert E.C. Wildman, Robert Wildman, Taylor C. Wallace. *Handbook of Nutraceuticals and Functional Foods*. Boca Raton: CRC, 2012.

BOOK FOR REFERENCE

Aluko, Rotimi E. *Functional Foods and Nutraceuticals*. Boca Raton: CRC, 2012.

WEB RESOURCES

<http://www.ijppsjournal.com/Vol2Issue3/599.pdf>

<http://www.ajpcr.com/Vol3Issue1/265.pdf>

http://sphinx.sai.com/Vol.3No.1/pharm_jan-mar11/pdf/JM11%28PT=74%29%20pp%20442-448.pdf

PATTERN OF EVALUATION (Totally Internal)

Total marks: 25

Duration: 90 mins.

No End Semester Examination

Continuous Assessment:

Section A 5 x 1 = 5 marks (All questions to be answered)

Section B 2 x 5 = 10 marks (2 out of 3 to be answered)

Section C 1 x 10 = 10 marks (1 out of 2 to be answered)

Third Component: 25 marks

List of Evaluation modes:

Seminars

Quiz

Assignments

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**General Elective Course Offered by Department of Chemistry for B A. / B.Sc. /
B.Com. B.S.W. / B.V.A Degree Programmes**

SYLLABUS

(Effective from the academic year 2015- 2016)

FOOD QUALITY AND DETECTION OF FOOD ADULTERATION

CODE: 15CH/GE/FA23

CREDITS : 3

L T P: 2 0 1

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To study common food adulterants and their health hazards
- To Learn methods of detecting food adulteration
- To provide an understanding of the legislative aspects and the role and functions of regulatory agencies in India

Unit 1

Quality Control (5 hrs.)

- 1.1 Quality Control and its importance, Quality Assurance
- 1.2 Food Laws: Prevention of Food Adulteration Act, BIS Act, FPO Act, Essential Commodities Act, Consumer Protection Act, Agricultural Produce Act (AGMARK), FSSAI, Drug License and WHO Standards
- 1.3 Salient Features of P.F.A., Misbranded Food, Brief Outline of Labeling Provisions Under P.F.A
- 1.4 Role and Functions of Implementing Agencies with references to Indian Scenario
- 1.5 Tips to Consumers for Buying Safety Food

Unit 2

Food Adulteration and Food Toxins

(8 hrs.)

- 2.1 Definition of Food Adulteration, Adulterants in various Food Commodities, Health Hazards of Adulterants and Contaminants
- 2.2 Adulteration in Fruits, Vegetables, Meat and Dairy Products
- 2.3 Detection of Adulteration in Coffee, Tea, Milk, Oil, Food Grains, Dhals, Sugar, Ghee, Supari, Turmeric Powder, Kesari Powder, Chilli Powder, Spices, Jaggery, Sweets, Jam, Jelly, Honey - Laboratory Tests Only
- 2.4 Food Toxins- Natural Toxins, Environmental Toxins-Pesticides and Heavy Metal Contamination in Foods

Unit 3

Food Additives

(5 hrs.)

- 3.1 Artificial Sweeteners – Saccharin, Cyclamate, Aspartame, Food Flavours – MSG, Esters, Aldehydes and Heterocyclic Compounds, Antioxidants, Food Colours – Permitted and Non Permitted Colours, Emulsifying Agents, Preservatives, Leavening Agents- Baking Powder and Yeast

Unit 4

Assessment of Food Quality - Sensory Evaluation(8 hrs.)

- 4.1 Sensory Characteristics of Food, Factors affecting Food Acceptance- Sensory and Psychological
- 4.2 Requirements for conducting Sensory Tests-Trained Panel Members, Testing Area, Sample Preparation and Presentation, Testing Time, Temperature, Design of the Experiment
- 4.3 Types of Tests- Difference Tests, Paired Difference Tests, Duo-Trio Test, Triangle Test, Rating Test –Ranking and Hedonic Rating Test, Numerical Scoring Test. Sensitivity Tests- Threshold Test and Dilution Test; Descriptive Tests – Flavour Profile
- 4.4 Objective Method of Sensory Evaluation – Chemical, Physico- Chemical, Physical Methods and Microscopic Examination

Unit 5

(13 hrs.)

Practicals (to be tested internally)

- 5.1 Assessment of Food Quality -Sensory Evaluation: Threshold Test, Dilution Test- Colour Comparison, Scoring Test, Difference Test – Paired Difference Test, Duo-Trio Test, Triangle Test. Rating Test – Hedonic, Numerical Scoring Test, Descriptive Test – Flavour Profile
- 5.2 Detection of Adulterants: Chicory and Tamarind Seed Powder in Coffee Powder, Non Permitted Colours in Tea and Dhal, Metanil Yellow in Turmeric Powder, Kesari Dhal and Thoor Dhal, Castor Oil in Coconut Oil, Papaya Seeds and Rotten Pepper in Pepper, Brick Powder in Chilli Powder, Washing Soda in Jaggery, Vanaspathi in Ghee, Chalk Powder in Salt and Sugar, Non Permitted Colours in Jams, Jelly, Juices and Saccharin in Supari

TEXT BOOK

Swaminathan Geetha and Mary George. *Laboratory Chemical Methods in Food Analysis*. Chennai: Margham, 2010.

REFERENCE BOOKS

Lilian Hoagland Meyer. *Food Chemistry*. CBS Publishers & Distributors, 2004.

Mudambi, R, Sumathi and Raja Gopal, M.V. *Fundamentals of Foods and Nutrition*. India: Wiley Eastern, 2004.

Sri Lakshmi, B. *Food Science*. New Age International, 2005.

Swaminathan, M. *Handbook of Food and Nutrition*. Bangalore: Bangalore Printing and Pub, 2001.

WEB RESOURCES

<http://agmarknet.nic.in/adulterants.htm>

<http://www.fssai.gov.in/>

<http://www.foodafactoflife.org.uk/sheet.aspx?siteId=19§ionId=83&contentId=308>

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 15 x 1 = 15 Marks (All questions to be answered) Multiple choice - 5, Fill in the blank up - 5, T/F or Match the following or single line answer - 5

Section B – 3 x 5 = 15 Marks (3 out of 5 to be answered)

Section C – 2 x 10 = 20 Marks (2 out of 3 to be answered)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open Book Tests

Assignments

MCQ

Short Answer Tests

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

General Elective Course Offered by Department of Chemistry for B A. / B.Sc. / B.Com.

B.S.W. / B.V.A Degree Programmes

SYLLABUS

(Effective from the academic year 2015 - 2016)

BASIC NUTRITIONAL CHEMISTRY

CODE: 15CH/GE/BN23

CREDITS: 3

L T P: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVE OF THE COURSE

To educate students on the fundamental aspects of nutrition and its importance for a healthy living.

Unit 1

Nutrition and Health(8 hrs.)

- 1.1 Definition- Nutrition, Health and Disease; Nutrients – Macronutrients - Carbohydrate, Protein, Fat, Water- Micronutrients - Vitamins and Minerals
- 1.2 Under Nutrition, Over Nutrition, and Malnutrition; Diet Recommendations for Optimal Health
- 1.3 Daily Reference Intakes- Estimated Average Requirements (EAR), Recommended Dietary Allowances (RDA), Adequate Intakes (AI), Tolerable Upper Intake Levels (UL)
- 1.4 Mandatory and Optional Inclusions on Nutrition Labels, Claims on Labels, Allergy Warnings

Unit 2

Nutrient and Human Body(5 hrs.)

- 2.1 Cell, Tissues, Organs, Organ Systems, and Organisms, Nutrient and Energy Flow
- 2.2 Digestion and Absorption of Food

Unit 3

Indicators of Health(6 hrs.)

- 3.1 Body Mass Index [BMI] – Calculation, Limitations; Body Fat and its Distribution
- 3.2 Energy Balance, Factors Affecting Energy Intake- Physiology, Genetic Influences, Societal Influences
- 3.3 Health Risk – Obesity, Underweight-Anorexia Nervosa, Bulimia, Binge-Eating Disorder
- 3.4 Recommendations for Weight Management -Dietary, Behavioral, and Physical Activity

Unit4

Nutrition through Life

(10 hrs.)

- 4.1 Pregnancy to the Toddler Years
- 4.2 From Childhood to the Elderly Years
- 4.3 Dietary Food Trends- Functional Foods, Conventional Foods, Modified Foods and Medical Foods
- 4.4 Popular Diets- GM Diet, DASH Diet, Gluten-Free Diet, Low-Carb Diets, The Macrobiotic Diet, the Mediterranean Diet, Vegetarian and Vegan Diets

Unit 5

Food and Diseases(10 hrs.)

- 5.1 Benefits of Physical Activity, Mental and Emotional Benefits
- 5.2 Anaemia, Hypertension, Cardiovascular Disease, Cancer, Diabetes and their Prevention
- 5.3 Causes of Food Contamination – Bacteria, Virus, Parasitic Protozoa, Mold Toxins, Poisonous Mushrooms, Pesticides, Pollutants

TEXT BOOKS

- Maureen Zimmerman and Beth Snow. *An introduction to Nutrition*. Creative Commons, 2012.
- Srilakshmi, B. *Nutrition Science*. New Delhi: New Age International, 2014.
- Swaminathan, M. *Textbook on Food Chemistry*. Bangalore: Printing and Publishing, 2006.

BOOKS FOR REFERENCE

- William Hogeland Mayer. *Food Chemistry*. New Delhi: CBS Publishers and Distributors, 2002
- Owen R. Fennema. *Food Chemistry*. New York: Marcel Decker Inc, 2000.

WEB RESOURCES

- <http://videos.howstuffworks.com/discovery-health/36937-bob-greene-manon-the-streets-nutrition-quiz-video.htm>
- <http://www.who.int/dietphysicalactivity/publications/trs916/summary/en/>

PATTERN OF EVALUATION

No End Semester Examination.

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 15 x 1 = 15 Marks (All questions to be answered) Multiple choice - 5, Fill in the Blanks - 5, T/F or Match the following or single line answer - 5

Section B – 3 x 5 = 15 Marks (3 out of 5 to be answered)

Section C – 2 x 10 = 20 Marks (2 out of 3 to be answered)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open Book Tests

Assignments

MCQ

Short Answer Tests

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
General Elective Course Offered by Department of Chemistry for B A. / B.Sc. / B.Com.
B.S.W. / B.V.A Degree Programmes

SYLLABUS

(Effective from the academic year 2015 - 2016)

FORENSIC CHEMISTRY

CODE: 15CH/GE/FC23

CREDITS: 3

L T P: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To introduce the fundamentals concepts of Forensic Chemistry
- To encourage the students to work in the field of Forensic Chemistry

Unit 1

Introduction to Criminalistics (8 hrs.)

- 1.1 Investigating the Crime Scene - Documenting the Scene and the Evidence, Recognition of Physical Evidence Collection, Preservation, Inventory, and Transportation of Physical Evidence
- 1.2 Investigating and Processing Physical Evidence- Types of Evidence, the Modern Crime Lab, Functions of a Forensic Scientist, Characteristics of Physical Evidence

Unit 2

Trace and Pattern Evidence (10 hrs.)

- 2.1 Physical Properties-Forensic Characterization of Soil
- 2.2 Forensic Identification of Hair, Fibers and Paint
- 2.3 Forensic Analysis of Glass
- 2.4 Fingerprints -Characteristics of Fingerprints, Methods for Developing Fingerprints, Preservation of Fingerprints, Handwriting, Typed and Word-Processed Documents, Photocopied Documents

Unit 3

(8hrs.)

Chemical and Biological Evidence

- 3.1 Forensic Methods for Determination of Metals and Gunshot Residue, Techniques for the Analysis of Inorganic Materials, Drugs of Abuse
- 3.2 Forensic Toxicology- Measurement of Blood, Alcohol Breath Test for Alcohol
- 3.3 Biological Fluids- Blood, Semen, Saliva. Forensic DNA Typing

Unit 4

Fire-Arson and Explosives (8 hrs.)

- 4.1 Firearms - Ammunition, Ballistics, Laboratory Examination of Firearm Evidence
- 4.2 Arson-Evidence from Fire affected Area –Combustible Burning Characteristics – Nature of Combustion
- 4.3 Explosives – Classification, Evidence from the Scene of Explosion to detect the Cause of Explosion

Unit 5

Cybercrime

(5 hrs.)

5.1 Cybercrime and Laws – Introduction to IT Laws

5.2 Cybercrimes – Internet, Hacking, Viruses, Virus Attacks, Software Piracy, Intellectual Property, Legal System of Information Technology, Mail Bombs, Bug Exploits and Cyber Security

TEXT BOOKS

Bapuly, A.K. *Forensic Science – Its Applications in Crime Investigation*. Hyderabad: Paramedical Publisher, 2006.

Sharma B.R. *Forensic Science in Criminal Investigation and Trials*. New Delhi: Universal law publication, 2006.

BOOKS FOR REFERENCE

Henry C. Lee, Timothy Palmbach and Marilyn C. Miller. *Henry Lee's Crime Scene Handbook*. Amsterdam: Elsevier Academic Press, 2001.

Russel Max M Houck and Jay A Siegel. *Fundamentals of Forensic Science*. Amsterdam: Elsevier Academic Press, 2006.

WEB RESOURCES

http://www.remondini.net/newsite/?q=system/files/forensic%20chemistry_0.pdf

<http://www.legalindia.in/cyber-crimes-and-the-law/>

PATTERN OF EVALUATION

No End Semester Examination.

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 15 x 1 = 15 Marks (All questions to be answered) Multiple choice - 5, Fill in the Blanks - 5, T/F or Match the following or single line answer - 5

Section B – 3 x 5 = 15 Marks (3 out of 5 to be answered)

Section C – 2 x 10 = 20 Marks (2 out of 3 to be answered)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open Book Tests

Assignments

MCQ

Short Answer Tests

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 600 086.
General Elective Course Offered by Department of Chemistry for B A./ B.Sc. /
B.Com. B.S.W. / B.V.A Degree Programmes

SYLLABUS

(Effective from the academic year 2015 – 2016)

CHEMISTRY IN EVERYDAY LIFE

CODE:15CH/GE/CE23

CREDITS: 3

L T P: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVE OF THE COURSE

- To understand applications of Chemistry in everyday life

Unit 1

Food Additives

(7 hrs.)

- 1.1 Food Colours - Permitted and Non Permitted, Artificial Sweeteners – Aspartame, Saccharin and Cyclamate, Preservatives - Natural and Synthetic, Flavours– Mono Sodium Glutamate. Stabilising and Suspending Agents - Gelatin, Pectin. Toxic Effects of Food Additives

Unit 2

Pharmaceuticals

(8 hrs.)

- 2.1 Antimalarials, Antipyretics, Analgesics, Antiseptics, Antibiotics-Antacids, Antihistamines, Chemotherapy –Definition and Therapeutic Uses. Diabetes-Types and Causes
2.2 Nutraceuticals– Vitamins-Water and Fat Soluble, Minerals and Trace Elements, Antioxidants. Role of Nutraceuticals in Disease Prevention-Diabetes and Cancer

Unit 3

Cosmetics

(8 hrs.)

- 3.1 Shampoo, Hair Dyes, Skin Products – Creams and Lotions, Lipstick, Perfume – General Formulation
3.2 Deodorants and Antiperspirants
3.3 Toxicology of Cosmetics

Unit 4

Polymers and Dyes

(8 hrs.)

- 4.1 Classification and applications of polymer, Natural- rubber, cellulose, rayon and leather. Synthetic – Bakelite, polyester, nylon and polypropylene
4.2 Environmental hazards of polymers
4.3 Different types of plastics, recycling of plastics
4.4 Types of paper- environmental impact of paper, applications of paper- thickness, weight and size of paper
4.5 Classification of dyes -natural (indigo, alizarin) and synthetic (azo and triphenylmethane) dyes

Unit 5**Soaps and Detergents****(8 hrs.)**

5.1 Soaps –Types, Composition and Cleansing Action of Soap

5.2 Detergents –Classification, Detergent Action, Enzymes used in Commercial Detergents. Biodegradable Detergents. Detergents and Environment

TEXT BOOKGem Mathew G.D. *Chemistry in Everyday Life*. Jalandhar-Delhi: Vishal, 2009**BOOKS FOR REFERENCE**Chakrabarty, B.N. *Industrial Chemistry*. New Delhi: Shiv Narain, 2002.Sharma B. K. *Industrial Chemistry*. Meerut: GOEL Publishing House, 2000.**WEB RESOURCES**<http://chemistry.about.com/od/everydaychemistry/><http://dwb4.unl.edu/Chem/CHEM869A/CHEM869ALinks/www.sdahq.org/sdalatest/html/soapchemistry1.htm>**PATTERN OF EVALUATION****No End Semester Examination.****Continuous Assessment:****Total Marks: 50****Duration: 90 mins.**

Section A – 15 x 1 = 15 Marks (All questions to be answered) Multiple choice - 5, Fill in the Blanks - 5, T/F or Match the following or single line answer - 5

Section B – 3 x 5 = 15 Marks (3 out of 5 to be answered)

Section C – 2 x 10 = 20 Marks (2 out of 3 to be answered)

Third Component:**List of evaluation modes:**

Seminars

Quiz

Open Book Tests

Assignments

MCQ

Short Answer Tests

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI-600 086

B.Sc DEGREE: BRANCH IV- CHEMISTRY

SYLLABUS

(Effective from the academic year 2015-2016)

INDUSTRIAL CHEMISTRY

CODE : 15CH/UI/IC23

CREDITS: 3

OBJECTIVES OF THE COURSE

- To enable an understanding of the process of development, optimization and monitoring of fundamental chemical processes in industries
- To study the generation of energy from various sources

Unit 1

Fuels and Combustion

- 1.1 Introduction - Classification of Fuels -Characteristics of a Good Fuel. Calorific Value, Theoretical Calculation Value of a Fuel-Solid Fuels-Wood
- 1.2 Coal - Classification of Coal, Analysis of Coal and Its Significance
- 1.3 Liquid Fuels: Petroleum - Cracking - Advantages of Catalytic Cracking Over Thermal Cracking - Synthetic Petrol

Unit 2

Industrial Waste and Treatment Process

- 2.1 Types of Industrial Waste, Treatment of Disposal of Industrial Waste or Effluent with Organic and Inorganic Impurities.
- 2.2 Characterization of Waste Water by Physical and Chemical Characteristics
- 2.3 Primary Treatment - Sedimentation, Neutralization, Coagulation, Equalization, Grid Removal Secondary Treatment: Aerobic Treatment, Oxidation Ponds, Oxidation Ditches, Trickling Filters, Activated Sludge Process, Aerated Lagoons, Anaerobic Treatment Tertiary Treatment: Reverse Osmosis, Electro Dialysis, Desalination
- 2.4 Industrial Effluents: Characteristics and Treatment Options for Effluents from Various Industries: Textiles and Dyes, Paper and Pulp, Leather, Food and Dairy, Fertilizers, Electroplating Industries, Distilleries
- 2.5 Sewage Treatment
- 2.6 Water Conservation, Recycling of Waste Water and Rain Water Harvesting

Unit 3

Synthetic Polymers

- 3.1 Requirement of a Fibre, Difference between Natural Fiber and Synthetic Fiber, Properties
- 3.2 Applications Of Synthetic Fiber – Nitro Cellulose, Rayon, Cuprammonium Acetate , Rayon, Viscose Rayon, Nylon 66 and Terylene.
- 3.3 Different Types of Plastics, Recycling of Plastics

Unit 4

Oils, Fats, Waxes and Soaps

- 4.1 Distinction between Oils and Fats. Classification and Properties of Animal Fats and Oils. Difference Between Animal, Vegetable and Mineral Oil, Essential Oils and Classification of Waxes
- 4.2 Soaps and Detergents- Classification, Cleansing Action of Soaps and Detergents. Enzymatic Detergents, Non-Degradable and Bio Degradable Detergents

Unit 5

Papers and Dyes

- 5.1 Types of Paper- Paper Stability, Environmental Impact of Paper, Applications of Paper- Thickness, Weight and Size of Paper
- 5.2 Classification of Dyes, General Methods of Applications of Dyes on Fibre
- 5.3 Dyes as Food Colours- Yellow Aniline Dyes, Metanil Yellow, Beta-Oxalyl-Amino Alanine and Lead Chromate

TEXT BOOKS

- Gem Mathew G.D. *Chemistry in Everyday Life*. Jalandhar-Delhi: Vishal, 2009.
Sharma B. K. *Industrial Chemistry*. Meerut: GOEL, 2013.

REFERENCE BOOKS

- Norris Shreve, R and Joseph A. Brink, Jr. *Chemical Process Industries*. Kogakusha: McGraw Hill, 2002.
Jain, P. C and Jain M. *Engineering Chemistry*. Delhi: Dhanpat Rai, 2001.

WEB RESOURCES

- <http://www.ignou.ac.in/upload/unit-3.pdf>
<http://www.epa.gov/waste/nonhaz/industrial/guide/index.htm>
<http://www.epa.gov/osw/conserve/materials/plastics.htm>

PATTERN OF EVALUATION

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 30 x 1 = 30 Marks (All questions to be answered) Multiple choice - 10, Fill in the Blanks - 10, T/F or Match the following - 5, single line answer - 5

Section B – 5 x 6 = 30 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS).CHENNAI-600 086.

B.Sc DEGREE: BRANCH IV- CHEMISTRY

SYLLABUS

(Effective from the Academic Year 2015-2016)

DRUGS AND DISEASES

CODE: 15CH/UI/DD23

CREDITS:3

OBJECTIVES OF THE COURSE

- To give an overview of medicines in day to day life
- To enlighten students on the application of chemistry to keep good health

Unit 1

General Introduction to Drugs

- 1.1 Definitions: Pharmacy, Pharmacology, Pharmacodynamics, Pharmacokinetics, Antimetabolites, Bacteria, Virus, Fungi, Mutation, Pharmacognosy, Toxicology, Pharmacotherapeutics, Chemotherapy, Therapeutic Index
- 1.2 Classification of Drugs-Biological, Chemical and Commercial Classification, Prescribed Drugs and over-the Counter-Drugs. Side Effects and Contra Indications

Unit 2

Common Diseases and their Treatment by Drugs

- 2.1 Some Common Diseases: Insect Borne –Malaria; Air Borne Diseases- Whooping Cough, Measles, Common Cold and TB; Waterborne Diseases-Cholera, Typhoid, Dysentery-Etiology, Symptoms, Prevention and Remedy
- 2.2 Some Common Disorders of the Digestive System –Jaundice; Respiratory System- Asthma; Nervous System- Epilepsy - Prevention and Treatment
- 2.3 Aids – Causes, Prevention and Treatment

Unit 3

Blood and Hematological agents

- 3.1 Blood Pressure, Hypertension-Cause, Prevention and Treatment, Antihypertensive Agents –Aldomet and Reserpine
- 3.2 Clotting of Blood- Mechanism, Haematological Agents, Anaemia –Causes and Control, Antianaemic Drugs
- 3.3 Cardiovascular Diseases- Cardiac Glycosides-Digoxin Antiarrhythmic Drugs- Quinidine- Dosage and Therapeutic uses, Calcium Blockers

Unit 4

Drugs of Importance – I

- 4.1 Anesthetics: Types-General – Nitrous Oxide, Ether, CHCl₃, Halothane; Local - Cocaine, Intravenous - Advantages and Disadvantages

- 4.2 Antiseptics and Disinfectants- (Phenols, Chloramines, Bleaching Powder, Boric Acid, Iodine, Zinc Oxide, Dyes-Crystal Violet)
- 4.3 Analgesics, Anti Pyretic and Anti-Inflammatory Agents- Narcotic and Non-Narcotic Drugs—Morphine. Source, Activity and uses of Pethadine, Aspirin, Paracetamol, Phenyl Butazone and Ibuprofen

Unit 5

Drugs of Importance – II

- 5.1 Antibiotics-Classification - Therapeutic uses of Chloramphenicol, Penicillin - Streptomycin, Tetracyclines, Erythromycin, Amoxycillin, Ciproflaxin
- 5.2 Antidepressants-Sedatives and Hypnotics- (Barbiturates); Hypoglycemic Drugs: Types of Diabetes, Hypoglycemic Agents, Sugar Substitutes
- 5.3 Antineoplastic Drugs- Types, Common Causes and Treatment of Cancer - Antineoplastic Agents; Antihistamines

TEXT BOOKS

Jayasree Ghosh. *A Text Book of Pharmaceutical Chemistry*. New Delhi: S. Chand, 2014.

Chatwal, G.R. *Pharmaceutical Chemistry* (Volume 1). New Delhi: Himalaya, 2006.

REFERENCE BOOKS

David A., Williams, Thomas L. Lemke. Foye's *Principles of Medicinal Chemistry*. Lippincott: Williams & Wilkins, 2005.

Graham Patrick. *An Introduction to Medicinal Chemistry*. Oxford University, 2001.

John H. Block, John M. Beale, Jr. *Organic Medicinal and Pharmaceutical Chemistry*. Lippincott: Williams & Wilkins, 2004.

WEB RESOURCES

http://www.rightdiagnosis.com/medical/hematologic_agent.htm

<http://www.drugs.com/forum/alternative-medicine/importance-drugs-29012.html>

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 30 x 1 = 30 Marks (All questions to be answered) Multiple choice - 10, Fill in the Blanks - 10, T/F or Match the following - 5, single line answer - 5

Section B – 5 x 6 = 30 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Com (A & F) DEGREE: ACCOUNTING AND FINANCE

SYLLABUS
(Effective from the academic year 2015 -2016)

ACCOUNTING - I

CODE: 15CM/MC/AG15

CREDITS : 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To enable the students to acquire conceptual knowledge about Accounting Standards.
- To enable the students to gain working knowledge of the principles and procedures of accounting and their applications
- To familiarize students with the fundamentals of computerized system of accountings

Unit 1

Accounting Standards

(10 hrs.)

- 1.1 Accounting Standards- Concepts, Benefits, Procedures for Issue of Accounting Standards.
- 1.2 AS-1 Disclosure of accounting policies
 - 1.2.1 Purpose, Areas and Disclosure of Policies
 - 1.2.2 Disclosure of Change in Policies
- 1.3 AS-2 Valuation of Inventories(Stock)
 - 1.3.1 Meaning, Definition and Applicability
 - 1.3.2 Measurement of Inventory
 - 1.3.3 Disclosure in Final accounts
- 1.4 AS-9 Revenue Recognition
 - 1.4.1 Meaning and Scope
 - 1.4.2 Transactions Excluded, Sale of Goods
 - 1.4.3 Rendering of Services, Effects of Uncertainties
 - 1.4.4 Disclosure

Unit 2

(15 hrs.)

- 2.1 **Final Accounts**
 - 2.1 1 Preparation of final accounts of Proprietary firms and Manufacturing concerns
 - 2.1. 2 Adjustment and Closing Entries.
- 2.2 **Bank Reconciliation Statement**
 - 2.2.1 Adjustment of cash book
 - 2.2.2 Preparation of Bank Reconciliation Statement

Unit 3

Accounting from Incomplete Records

(15 hrs.)

- 3.1 Introduction
- 3.2 Problems on Preparation of Final Accounts of Proprietary Trading Concern(Conversion Method)

Unit 4
Insurance Claims for Loss of Stock and Loss of Profit (10 hrs.)

- 4.1 Insurance claim for loss of stock
- 4.2 Insurance claim for loss of profit

Unit 5
Accounting in Computerised Environment (15 hrs.)

- 5.1 An overview of Computerised Accounting System
- 5.2 Features and Significance of Accounting Software
- 5.3 Concept of Grouping of Accounts
- 5.4 Maintaining the Hierarchy of Ledger
- 5.5 Generating Accounting Reports

BOOKS FOR STUDY

Gupta R.L and Radhaswamy.M, Advanced Accountancy (Vol.1), New Delhi, Sultan Chand & Sons, 2007

Reddy T.S and Murthy A, Financial Accounting, Chennai, Margham Publications, 2007.

BOOKS FOR REFERENCE

Goyal V.K. Financial Accounting, 2nd edition, Anuraj Jain forExcel Books, 2010

Jain S.P and Narang k.L, Advanced Accountancy (Part1), NewDelhi, Kalyani Publishers, 2007

Maheshwari S.N, Advanced Accountancy (Part1), New Delhi,Vikas PublishingHouse, 2007

JOURNALS

Journal of Accounting & Finance: Research Development Association, Jaipur.”
The Chartered Accountant: Journal of the Institute of Chartered Accountants of India.
Indian Journal of Finance

WEB RESOURCES

www.emeraldgrouppublishing.com

www.icaai.org

www.journals.elsevier.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50 Duration: 90Mins

Section A 3 x 2 = 6 (no choice)

Section B 3 x 8 = 24 (from a choice of four)

Section C 1 x20= 20 (from choice of two)

Third Component Tests

Open book test
Problem solving
Assignment

End Semester Examination:

Total Marks:100

Duration: 3 Hours

Section A – short answers (max. 50 words) - $10 \times 2 = 20$ Marks

5 Questions theory and 5 Problems

Section B – Problems $5 \times 8 = 40$ Marks (From a choice of 7)

Section C – Problems $2 \times 20 = 40$ Marks (From a choice of 4)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.Com (A & F) DEGREE: ACCOUNTING AND FINANCE

SYLLABUS
(Effective from the academic year 2015 – 2016)

BUSINESS ORGANISATION AND MANAGEMENT

CODE: 15CM/MC/BO14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS:52

OBJECTIVES OF THE COURSE

- To provide a comprehensive understanding of the principles of management
- To emphasize the need for competence, trust and team work, in the organization
- To familiarize students with the current management practices

Unit 1 (10 hrs.)

Introduction

- 1.1 Nature and Scope of Business system
- 1.2 Objectives of Business and Social Responsibilities of Business
- 1.3 Forms of Business Organizations – Sole Proprietorship, HUF, Self-Help Group, Family Business, Partnership Firms, Limited Partnership, Small Venture Enterprise, One Person Company and Joint Stock Companies
- 1.4 Business Combinations, Mergers and Acquisitions, Networking, Franchising, BPOs and KPOs

Unit 2 (9 hrs.)

2.1 Management Thought

- 2.1.1 Classical and Neo classical systems -Contingency and Contemporary Approach to Management – Fayol, Taylor, Elton Mayo, Drucker, Porter, Senge, Prahalad, Hammer, and Tom Peters.

2.2. Functions of Management

- 2.2.1 Planning – Meaning, Importance, Process and Types of Plan

2.3 Organizing –

- 2.3.1 Nature, Importance and types
- 2.3.2 Departmentation, Delegation and De-centralization

Unit 3 (12 hrs.)

3.1 Staffing

- 3.1.1 Recruitment and Selection
- 3.1.2 Training – Need, Types of Employee Training
- 3.1.3 Motivation – Meaning and Maslow’s Theory of Motivation
- 3.1.4 Leadership – Qualities, Types of leaders, Span of Control

Unit 4 (11 hrs.)

4.1 Directing

4.1.1 Communication – Meaning, Process and Importance of Communication

4.1.2 Leadership – Importance and Styles

4.2 Control

4.2.1 Meaning, Importance and Process

Unit 5

Trends in Management: (10 hrs.)

5.1 Social Responsibility of Management – Environment Friendly Management

5.2 Management in future – Management of Challenges and meeting Challenges

5.3 Management of Change- Concept, Nature and Process of Change

5.4 Ethics in Business – Nature, Purpose and Morals of Ethics for organizational Interests, Ethical and Social Implications of Business Policies and Decisions and Ethical Issues in Corporate Governance

BOOK FOR STUDY

Gupta, C. B., Business organization and Management, New Delhi, Sultan Chand and Sons, 2007.

BOOKS FOR REFERENCE

Dinakar Pagare, Business organisation and Management, 5th edition, New Delhi, Sultan Chand, 2008

Gupta, N.S. and Alka Gupta, Essentials of Management, New Delhi, Anmol, 2010

Harold Koontz, Hein Wehrich, Essentials of Management, 6th edition, New Delhi, Tata Mc Graw Hill, 2006

Manmohan Prasad, Management Concepts and Practices, Mumbai, Himalaya, 2006

Prasad L.M., Principles and Practice of Management, New Delhi, Sultan Chand, 2008

Sivarethnamohan R. & Aranganathan.P, Principles of Management , Chennai, CBA, 2008

JOURNALS

European Journal of Business Management

International Journal of Management Reviews

WEB RESOURCES

www.exed.hbs.edu

www.hbr.org

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50 Duration: 90 Mins

Section A – Answer all Questions 7 x 2 = 14 Marks

Section B – Answer any Two Questions from a choice of Three 2 x 8 = 16 Marks

Section C – Answer any One Question from a choice of Two 1 x 20 = 20 Marks

Third Component Tests:

List of evaluation modes:

Seminars

Quiz

Group discussion

Assignments

Class Presentation

End Semester Examination:

Total Marks:100 Duration: 3 Hours

Section A – short answers (max. 30 words) - 10 x 2 = 20 Marks

Section B – Essay answers (Max.500 words) 5 x 8 = 40 Marks (From a choice of 7)

Section C – Essay answers (Max 1200 words) 2 x 20 =40 Marks (From a choice of 4)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.Com (A & F) DEGREE: ACCOUNTING AND FINANCE

SYLLABUS
(Effective from the academic year 2015– 2016)

COST AND MANAGEMENT ACCOUNTING

CODE: 15CM/MC/CM25

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide an understanding of the basic concepts of Cost Accounting
- To analyse and interpret financial statements for managerial decision making
- To expose the students to the practical applicability of Cost Accounting

Unit 1

(15 hrs.)

1.1 Introduction to Cost Accounting

- 1.1.1 Concept of Cost, Costing, Cost Accounting
- 1.1.2 Origin and Objectives of Cost Accounting, Difference between Cost and Financial Accounting
- 1.1.3 Cost Centre and Cost Units, Methods of Costing
- 1.1.4 Elements of Cost and Classification of Cost.

1.2 Unit and Output Costing

- 1.2.1 Meaning and Components of Cost Sheet
- 1.2.2 Computation of Total Cost and Profit
- 1.2.3 Preparation of Quotation

1.3 Reconciliation of Cost and Financial Accounts

- 1.3.1 Need and Objectives of Reconciliation
- 1.3.2 Reasons for Difference in Profits
- 1.3.3 Preparation of Reconciliation Statement

Unit 2

2.1 Material Cost and Material Control

(15 hrs.)

- 2.1.1 Material Control – Meaning, Objectives
- 2.1.2 Computation of Material Cost and Accounting treatment for Normal Loss, Abnormal Loss and Scrap
- 2.1.3 Scope of Material Control - Purchase control – Purchase Procedure
- 2.1.4 Stores control -Techniques of Inventory control, Economic Order Quantity, Level setting, Perpetual Inventory Systems and Stock Control according to Value- ABC Analysis, JIT
- 2.1.5 Issue control - Stores and Material Records, Methods of Material Issue – First in First Out, Last in First Out, Average Cost- Simple and weighted Average

2.2 Labour Cost

- 2.1.1 Computation of Labour Cost , Treatment of Overtime and Idle time
- 2.1.2 Labor Turnover - Causes and Effects, Methods of computation
- 2.1.3 Methods of Remuneration- Time Rate System, Piece Rate System- Taylor's and Merrick's Differential Piece rate System, Incentive Schemes – Halsey and Rowan Premium Plans

Unit 3

(10 hrs.)

Overheads

- 3.1 Classification of Overhead costs
- 3.2 Apportionment and Allocation of Overheads
 - 3.2.1 Primary Distribution of Overheads
 - 3.2.2 Secondary Distribution of Overheads- Direct Distribution , Reciprocal and Non Reciprocal Methods
- 3.3 Methods of Absorption of Overheads
 - 3.3.1 Direct Labour Hour Rate
 - 3.3.2 Machine Hour Rate
 - 3.3.3 Activity based Costing

Unit 4

(10 hrs.)

4.1 Introduction to Management Accounting

- 4.1.1 Meaning and Emergence of Management Accounting
- 4.1.2 Definition, Need , Importance and Objectives of Management Accounting
- 4.1.3 Difference between Management Accounting and Cost Accounting

4.2 Analysis and Interpretation of Financial Statements

- 4.2.1 Types of Financial Statements
- 4.2.2 Meaning and Importance of Interpretation
- 4.2.3 Types of Financial Analysis

4.3 Methods of Financial Analysis and Interpretation

- 4.2.1 Comparative Statements
- 4.2.2 Common-size Statements
- 4.2.3 Trend Analysis
- 4.2.4 Ratio Analysis - Significance and Limitations of Ratio Analysis, Computation and Interpretation of Ratios - Liquidity, Profitability Solvency and Leverage ratios

Unit 5

5.1 Fund Flow Analysis

(15 hrs.)

- 5.1.1 Concept of Fund and Flow of Funds
- 5.1.2 Meaning and Significance of Fund Flow Statement
- 5.1.3 Preparation of Fund Flow Statement

5.2 Cash Flow Analysis

5.1.1 Concept of Cash Flow, Difference between Cash and Fund

5.1.2 Significance and Limitation of Cash Flow Statement

5.1.3 Preparation of Cash Flow Statement as per AS 3 (ICAI)

TEXT BOOKS

Jain S.P. and Narang K.L., Cost Accounting, NewDelhi, Kalyan, 2006

Reddy T.S and Murthy A, Cost Accounting, Chennai, Margham, 2007

Maheshwari S.N., Principles of Management Accounting, New Delhi, Sultan Chand, 2007

BOOKS FOR REFERENCE

Khanna B.S., Pandey I.M., Ahuja G.K., Arora M.N., Practical Costing, New Delhi, Sultan Chand, 2006

Maheshwari S.N., Problems and solutions in Cost Accounting, 12th edition, Sultan Chand, 2010

Ravi M. Kishore, Cost Accounting, 4th edition, Taxmann's, 2010

Atkinson A. Anthony, Robert S. Kaplan, S. Mark Young, Management Accounting, Pearson, 2008

Indian Institute of Banker, Management Accounting, Macmillan, 2008

Man Mohan, Goyal. S.N., Principles of Management Accounting, Agra, Sahitya Shawan, 2005

JOURNALS

Cost Accounting Standards - The ICWA of India,
Indian Journal of Finance
Management Accountant - The ICWA of India,

WEB RESOURCES

www.accaglobal.com

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PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50 Duration: 90 Mins

Section A $3 \times 2 = 6$ (no choice)

Section B $3 \times 8 = 24$ (from a choice of four)

Section C $1 \times 20 = 20$ (from choice of two)

Third Component Tests

Open book test

Problem solving

Assignment

End Semester Examination:

Total Marks: 100 Duration: 3 Hours

Section A – short answers (max. 50 words) - $10 \times 2 = 20$ Marks

5 Questions theory and 5 Problems

Section B – Problems $5 \times 8 = 40$ Marks (From a choice of 7)

Section C – Problems $2 \times 20 = 40$ Marks (From a choice of 4)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Com (A & F) DEGREE: ACCOUNTING AND FINANCE

SYLLABUS
(Effective from the academic year 2015 -2016)

ESSENTIALS IN MARKETING

CODE: 15CM/MC/EM24

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS : 52

OBJECTIVES OF THE COURSE

- To enable students to understand the intricacies of marketing, focusing on its macro role in society and micro role in business
- To expose students to various concepts, tools and principles of marketing

Unit 1

Introduction

(12 hrs.)

- 1.1 Meaning, Nature and Scope of Marketing
- 1.2 Modern Marketing Concept, Marketing Mix
- 1.3 Overview of Marketing Management Process, Consumer Driven Marketing Strategies and Relationship Building

Unit 2

(10 hrs.)

Developing the marketing mix: Product and Pricing Strategies

- 2.1 Concept of Product, Product Life Cycle Strategy
- 2.2 New Product Development
- 2.3 Pricing- Factors to consider for Pricing, General Pricing Approaches or Strategies

Unit 3

(10 hrs.)

Communication Strategies -Integrated Marketing Communications

- 3.1 Integrated Marketing Communication- Meaning, Modes and Purposes
- 3.2 Tools for IMC - Advertising, Public Relations, Sales Promotion and Personal Selling
- 3.3 IMC Planning process - Review of Market plan, Situational analysis, Communication process analysis, Budget determination and Evaluation

Unit 4

(10 hrs.)

Advertising and Branding Decisions

- 4.1 Advertising - Meaning, Objectives and Significance
- 4.2 Methods of Traditional and Modern Advertising- Online Advertising- Banner Ads, Pop ups, Interstitials, Superstitials, Sponsorships, Email Advertising and Classified Advertising
- 4.3 Concept of Brand and Brand Management, Branding Decisions and Strategies

Unit 5

(10 hrs.)

Contemporary Issues

- 5.1 Interactive Marketing – Role of Social Media
- 5.2 E-CRM in Business, Customer relationship Management a Changing Perspective and Advantages of E-CRM
- 5.3 Marketing Ethics, Need and Importance of Socially Responsible Marketing

TEXT BOOK

Rajan Nair and Sanjith Nair, **Marketing**, Eleventh Edition, New Delhi, Sultan Chand & Sons, 2013.

BOOKS FOR REFERENCE

Dr. R.L. Varshney, Dr. S.L. Gupta, **Marketing Management**, Himalaya

Gandhi J.C. **Marketing**, New Delhi, Tata McGraw Hill, 2009

Jonathan Groucutt, Peter Leadley, Patrick Forsyth, **Marketing Essential Principles, New Realities**, Kogan Page, 2004

Philip Kotler, **Marketing**, 12th edition, New Delhi, Prentice Hall of India, 2008

Steven J Skinner, **Marketing**, Houghton Mifflin, 1994

William J. Stanton, Micheal J. Etzel, Bruce J. Walker, **Fundamentals of Marketing**, New Delhi, Mc Graw Hill, 2009

Xavier, M. J., **Marketing in the New Millenium**, New Delhi, Vikas, 2009

Mark Godson, Relationship Marketing, 2008 edition, Oxford University Press.

Philip Kotler and Gary Armstrong, Principles of Marketing, Prentice Hall of India, New Delhi

Roberts Graham-Phelps, 2006, 1st edition, Customer Relationship Management, Pvt. Ltd., New Delhi.

George Belch, Michael Belch, Advertising and Promotion

Jaiswal, M.P., Anjali Kaushik, e-CRM: Business and System Frontiers, 1st edition New Delhi, Asian Books Pvt. Ltd., 2002.

McCarthy and Perault; Basic Marketing, McGraw Hill

JOURNALS

Indian Journal of Marketing
International Journal of Marketing Studies
International Journal of Research in Marketing
International Journals of Marketing and Technology
Journal of Consumer Marketing
Journal of Marketing - American Marketing Association
Journal of Marketing Education

WEB RESOURCES

<http://www.yourarticlelibrary.com>
<https://www.boundless.com>
<http://www.marketingsherpa.com>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50 Duration: 90 Mins

Section A – Answer all Questions $7 \times 2 = 14$ Marks
Section B – Answer any Two Questions from a choice of Three $2 \times 8 = 16$ Marks
Section C – Answer any One Question from a choice of Two $1 \times 20 = 20$ Marks

Third Component Tests:

List of evaluation modes:

Seminars
Quiz
Group discussion
Assignments
Class Presentation

End Semester Examination:

Total Marks:100 Duration: 3 Hours

Section A – short answers (max. 30 words) - $10 \times 2 = 20$ Marks
Section B – Essay answers (Max.500 words) $5 \times 8 = 40$ Marks (From a choice of 7)
Section C – Essay answers (Max.1200 words) $2 \times 20 = 40$ Marks (From a choice of 4)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Com (A & F) DEGREE: ACCOUNTING AND FINANCE

SYLLABUS
(Effective from the academic year 2015 -2016)

REGULATORY ASPECTS OF BUSINESS

CODE: 15CM/MC/RB34

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To familiarize the students with the principles of law that is essential to manage complex business transactions
- To sensitize on the legal rights, duties and obligations arising out of business transactions

Unit 1

Contract Act (12 hrs.)

- 1.1 Meaning and Types of Contract
- 1.2 Essentials of a Valid Contract, Offer and Acceptance, Consideration, Capacity of Parties, Legality of Object
- 1.3 Performance of Contract
- 1.4 Discharge of Contract, Remedies for Breach of Contract

Unit 2

2.1 Contract of Indemnity and Guarantee (7 hrs.)

- 2.1.1 Meaning, Difference between Indemnity and Guarantee
- 2.1.2 Rights, Liabilities and Discharge of Surety

2.2 Bailment and Pledge

- 2.2.1 Rights and Duties of Bailor and Bailee, Pledger and Pledge
- 2.2.2 Termination of Bailment

2.3 Sale of Goods Act

- 2.3.1 Essentials of a Contract of Sale
- 2.3.2 Conditions and Warranties
- 2.3.3 Transfer of Ownership and Delivery of Goods
- 2.3.4 Rights of an Unpaid seller

Unit 3

Negotiable Instruments Act (10 hrs.)

- 3.1 Meaning and Characteristics of Promissory note, Bill of Exchange and Cheque
- 3.2 Crossing and Endorsement of Cheques
- 3.3 Payment and Collection of Cheques

- Unit 4**
Limited Liability Partnership Act, 2008 (LLP) (13 hrs.)
- 4.1 Salient Features of LLP
 - 4.2 Difference Between LLP, Partnership and a Company
 - 4.3 Incorporation - Incorporation by Registration, Registered Office of LLP and Change of Name, Partners and their Relations
 - 4.4 Extent and Limitation of Liability of LLP and Partners
 - 4.5 Conversion to LLP, Winding Up and Dissolution

- Unit 5**
Law Relating to Intellectual Property (10 hrs.)
- 5.1 Provisions Relating to Patents, Trademarks and Copyrights
 - 5.2 Overview of Laws Relating to other Intellectual Property Rights
 - 5.3 Enforcement of Intellectual Property Rights

BOOKS FOR STUDY

Kapoor N.D. *Elements of Mercantile Law*. New Delhi: Sultan Chand, 2010.
Pillai N.P.N., Bhagavathy, Legal Aspects of Business, New Delhi, S.Chand, 2013

BOOKS FOR REFERENCE

Balachandran, V and Thothadri. *Business Law*. Tata McGraw Hill, 2007.
Chadha P.R. *Business Law*. 7th Edition, New Delhi: Galgotia, 2005.
Gogna P.P.S. *Mercantile Law*. 3rd Edition, New Delhi: Sultan Chand, 2005.
Pandit M.S. and Shoba Pandit. *Business Law*. Mumbai: Himalaya, 2010.

JOURNALS

Indian Business Law Journal
A.P.L.J. Andhra Pradesh Law Journal

WEB RESOURCES

www.indilaw.com
www.amritt.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component

List of Evaluation modes:

Seminars
Quiz,
Group discussion
Assignments
Class Presentation

End Semester Examination:

Total Marks:100

Duration: 3 Hours

Section A – short answers (max. 30 words) - $10 \times 2 = 20$ Marks

Section B – Essay answers (Max.500 words) $5 \times 8 = 40$ Marks (From a choice of 7)

Section C – Essay answers (Max.1200 words) $2 \times 20 = 40$ Marks (From a choice of 4)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Com (A & F) DEGREE: ACCOUNTING AND FINANCE

SYLLABUS
(Effective from the academic year 2015 -2016)

CORPORATE LAW

CODE: 15CM/MC/CR34

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To introduce students to the fundamental principles of corporate law
- To expose students to the statutory provisions relating to the formation and management of a company

Unit 1

1.1 Introduction (10 hrs)

- 1.1.1 Definition and Characteristics of a Company
- 1.1.2 Types of Companies including One person Company, Small Company
Producer Company
- 1.1.3 Lifting of Corporate veil
- 1.2 Formation of Company**
 - 1.2.1 Promoters – their Legal Position
 - 1.2.2 Pre-incorporation and Provisional Contract
 - 1.2.3 Registration and Re-registration of a Company including Online
Registration

Unit 2

(12 hrs)

Documents

- 2.1 Memorandum of Association**
 - 2.1.1 Contents and Alteration of Memorandum
 - 2.1.2 Doctrine of Ultra Vires
- 2.2 Articles of Association**
 - 2.2.1 Contents and Alterations of Articles
 - 2.2.2 Doctrine of Indoor Management
- 2.3 Prospectus**
 - 2.3.1 Definition, Meaning and Contents of Prospectus
 - 2.3.2 Misstatement in Prospectus

Unit 3

(10 hrs)

Financial Structure

- 3.1 Concept of Capital and Financing of Companies - Sources and Alteration of
Share Capital
- 3.2 Share - Meaning, Nature and Ttypes of Shares, Application and Allotment,
Transfer and Transmission of Shares
- 3.4 Debentures-Nature and Classes of Debentures

Unit 4

Management and Administration

- 4.1 Board of Directors – Appointment, Removal, Powers, Duties and Liabilities
- 4.2 Managing Director,
- 4.3 Company Secretary – Appointment, Role and Responsibilities
- 4.4 **Meetings** **(10 Hours)**
 - 4.4.1 Annual General Meeting
 - 4.4.2 Extraordinary General Meeting and Electronic Voting
 - 4.4.3 Board Meetings – Video Conferencing and other Audio Visual Aids
 - 4.4.4 Requisites for a valid meeting
- 4.5 **Resolutions - Types**

Unit 5

Dividend **(10 Hours)**

- 5.1 Profit and Ascertainment of Divisible Profit
- 5.2 Declaration and Payment of Dividend
- 5.3 Treatment of Unpaid and Unclaimed Dividend

TEXT BOOK

Kapoor N.D., _Company Law, 24th edition, New Delhi, Sultan Chand, 2013

BOOKS FOR REFERENCE

Bharat, Manual of Companies Act, Corporate Laws and SEBI Guidelines, Law Publishers, 2001

Dalal, Gaggar, and Kshir Sagar, 2013, Guide to notes on Company Accounting and Reports - Law Publishers

Gogna P.P.S, 2013, A Text book of Company Law, Sultan Chand, New Delhi

Gulshan S. S, G.K Kapoor., 2004, 9th edition, Corporate and other Laws, New Age, New Delhi.

Pandab S.K., 2013, Company Law & Practice, Bharat, New Delhi

JOURNALS

Company and Securities Law Journal
Company law journal
Company news and reports

WEB RESOURCES

www.business.gov.in
www.cdslindia.com
www.geebeevee.org

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $7 \times 2 = 14$ Marks (no choice)

Section B – $2 \times 8 = 16$ Marks (from a choice of three)

Section C – $1 \times 20 = 20$ Marks (from a choice of two)

Third Component

List of Evaluation modes:

Seminars

Quiz,

Group discussion

Assignments

Class Presentation

End Semester Examination:

Total Marks:100

Duration: 3 Hours

Section A – short answers (max. 30 words) - $10 \times 2 = 20$ Marks

Section B – Essay answers (Max.500 words) $5 \times 8 = 40$ Marks (From a choice of 7)

Section C – Essay answers (Max.1200 words) $2 \times 20 = 40$ Marks (From a choice of 4)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Com (A & F) DEGREE: ACCOUNTING AND FINANCE

SYLLABUS
(Effective from the academic year 2015 -2016)

ACCOUNTING- II

CODE: 15CM/MC/AG35

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To emphasize the need for analyzing the financial data for internal reporting, cost control and effective decision-making
- To analyze and interpret the financial statements for managerial decision making
- To focus on the applications of cost control concepts and techniques for effective planning and forecasting

Unit 1

1.1 Branch Accounts (10 hrs)

- 1.1.1 Meaning and Classification of Branches
- 1.1.2 Dependent Branch – Features, Methods of Accounting – Debtors System, Stock and Debtors System
- 1.1.3 Independent Branches – Features, Adjustment Entries in the Books of Head office and Branch.

1.2 Departmental Accounts

- 1.2.1 Meaning, Objectives and Allocation of Receipts and Expenses.
- 1.2.2 Inter-departmental Transfer at Cost price and at Invoice price.
- 1.2.3 Calculation of Net profit of Various Departments, Treatment of Unrealized Profit
- 1.2.4 Preparation of General Profit and Loss Account and Balance Sheet

Unit 2

Accounting for Depreciation and Fixed Assets (10 hrs)

- 2.1 Meaning and Objectives of providing Depreciation
- 2.2 Acquisition of Fixed Assets – Determination of Cost, Accounting for Intangible Assets, Difference between Intangible and Fixed Asset – Accounting treatment as per the IFRS
- 2.3 Depreciation Method as per Indian AS 16 and IFRS – Straight line Method, Written down Value Method
- 2.4 Accounting Treatment for Disposal of Assets

Unit 3

Accounting for Hire Purchase and Installment Purchase Systems (15 hrs)

- 3.1 Meaning – Features of Hire Purchase Agreement, Difference between Hire Purchase and Installment Purchase Systems
 - 3.1.1 Calculation of Interest
 - 3.1.2 Recording transactions in the Books of the Hire Purchaser and Hire Vendor
 - 3.1.3 Default and Repossession – Partial and Complete
- 3.2 Installment System – Features, Accounting for Installment Purchase in the Books of Buyer and Seller.

Unit 4

Conversion/Sale of Partnership firm into a Limited Company (15hrs)

- 2.1 Accounting for Dissolution of firm - Realisation method
- 2.2 Calculation of New Purchase Consideration
- 2.3 Accounting Entries in the Books of the Firm
- 2.4 Accounting in the Books of the Company – Preparation of Balance sheet in the Books of the New Company

Unit 5

5.1 Self-Balancing Systems (15 hrs)

- 5.1.1 Meaning, Working and Advantages of Sectional Balancing System
- 5.1.2 Ledgers to be maintained – General Ledger, Subsidiary Ledgers and Control Accounts.

5.2 Average Due Date and Account Current

- 5.2.1 Computation of Average Due Date
- 5.2.2 Account Current –Methods of Computation – Forward, Backward and Daily Balance Method including Red Ink Interest

TEXT BOOKS

Gupta R.L and Radhaswamy.M, Advanced Accountancy (Vol.1), New Delhi, Sultan Chand & Sons, 2007

Reddy T.S and Murthy A, Financial Accounting, Chennai, Margham Publications, 2007.

BOOKS FOR REFERENCE

Goyal V.K. Financial Accounting, 2nd edition, Anuraj Jain for Excel Books, 2010

Jain S.P and Narang k.L, Advanced Accountancy (Part1), New Delhi, Kalyani Publishers, 2007

Maheshwari S.N, Advanced Accountancy (Part1), New Delhi, Vikas Publishing House, 2007

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50 Duration: 90Mins

Section A $3 \times 2 = 6$ (no choice)

Section B $3 \times 8 = 24$ (from a choice of four)

Section C $1 \times 20 = 20$ (from choice of two)

Third Component Tests

Open book test

Problem solving

Assignment

End Semester Examination:

Total Marks:100 Duration: 3 Hours

Section A – short answers (max. 50 words) - $10 \times 2 = 20$ Marks

5 Questions theory and 5 Problems

Section B – Problems $5 \times 8 = 40$ Marks (From a choice of 7)

Section C – Problems $2 \times 20 = 40$ Marks (From a choice of 4)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.Com (A & F) DEGREE: ACCOUNTING AND FINANCE

SYLLABUS
(Effective from the academic year 2015 – 2016)

FINANCIAL MARKETS AND FINANCIAL INSTITUTIONS

CODE: 15CM/MC/FI34

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To provide students a comprehensive knowledge of the functions and elements of the financial market.
- To familiarize them with trading in the stock exchange

Unit 1

Introduction (10 hrs)

- 1.1 Definition and Overview of Financial Markets and Institutions
- 1.2 Meaning, Functions and Constituents of Financial Markets and Institutions
- 1.3 Role of Financial Institutions
- 1.4 Types of Financial Markets
- 1.5 Overview of the Indian Financial System including Financial Sector Reforms and other Contemporary Issues in Finance

Unit 2

(10 hrs)

- 2.1. Money Market
 - 2.1.1 Definition, Objectives and Features of a Developed Money Market
 - 2.1.2 Composition of Money Market
- 2.2. Money Market Instruments
- 2.3. Indian Money Market
- 2.4. Global Money Market
- 2.5. Bond Market

Unit 3

(10 hrs)

- 3.1 Capital Market
 - 3.1.1 Meaning, Characteristics and Functions of Primary and Secondary Markets
 - 3.2.1 Instruments of Issue
 - 3.2.2 Intermediaries in the New Issue Market
 - 3.2.3 SEBI Guidelines for Listed and Unlisted Companies
Debt Market, Equity Market
- 3.2 Derivatives Market- Stock Derivatives, Forex Derivatives - Futures, Forward, Swaps, Credit Derivatives.
- 3.3 Commodity Markets - Structure, Operations and Trends

Unit 4

Secondary Markets (10 hrs)

- 4.1 Stock Exchange – Services, Role and Organization of Stock Exchange in India
- 4.2 Listing of Securities – Requirements and Procedures
- 4.3 Types of Brokers
- 4.4 Methods of trading in Stock Exchange – Carry over or Badla, Genuine Vs. Speculative Trading, Kinds of Speculators
- 4.5 Regulations and Regulatory Agencies for Primary and Secondary Markets
Stock holding Corporation of India-Share Trading

Unit 5

(12 hrs)

- 5.1 **Financial Institutions**
 - 5.1.1 Depository Institutions – Commercial Banks, Investment Banks, Mutual Funds and Insurance firm
 - 5.1.2 Non-depository Institutions – Types and Functions
- 5.2 **Over-the-Counter-Exchange of India, National Stock Exchange and Depository Systems**
 - 5.2.1 OTCEI – Features, Promoters, Participants, Listing
 - 5.2.2 NSE – Features, NSE Vs. OTCEI
- 5.3 **Depository System – Meaning, Definition, Objectives of Interacting Institutions**
 - 5.3.1 Trading in Depository Systems
 - 5.3.2 Depository System in India
 - 5.3.3 National Securities Depository Limited

TEXT BOOKS

Avadhani, V.A., Capital Market Management, 1st edition, New Delhi, Himalaya, 2005

Gordon E., Natarajan K., Capital Market in India, New Delhi, Himalaya, 2006

Gurusamy S, Capital Markets, 1st edition, Chennai, Vijay Nicole, 2006

BOOKS FOR REFERENCE

Bhole, L.M., Financial Institutions and Markets: Structure, Growth and Innovations, McGrawHill, New Delhi, Fourth edition, 2008

Khan M. Y., Indian Financial System, New Delhi, Tata McGraw Hill, 2005

MachiRaju H.R., Indian Financial System, Mumbai, Vikas, 2006

Saunders, Anthony and Cornett, Marcia Millon, Financial Markets and Institutions: An Introduction to the Risk Management Approach, McGrawHill, Irwin, New York, 2007

Sundaram and Varshney, Banking and Financial System, New Delhi, Sultan Chand, 2005

JOURNALS

Financial Markets, Institutions & Instruments
Journal of Financial Management, Markets & Institutions
Journal of International Financial Markets, Institutions & Money

WEB RESOURCES

www.bloomberg.com
www.nse-india.com
www.rbi.org.in

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50 Duration: 90 Mins

Section A – Answer all Questions	7 x 2 = 14 Marks
Section B – Answer any Two Questions from a choice of Three	2 x 8 = 16 Marks
Section C – Answer any One Question from a choice of Two	1 x 20 = 20 Marks

Third Component Tests:

List of evaluation modes:

Seminars
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Group discussion
Assignments
Class Presentation

End Semester Examination:

Total Marks: 100 Duration: 3 Hours

Section A – short answers (max. 30 words) - 10 x 2 = 20 Marks
Section B – Essay answers (Max.500 words) 5 x 8 = 40 Marks (From a choice of 7)
Section C – Essay answers (Max.1200 words) 2 x 20 =40 Marks (From a choice of 4)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI- 600 086
B.Com (A & F) DEGREE: ACCOUNTING AND FINANCE

SYLLABUS
(Effective from the academic year 2015 -2016)

PRINCIPLES OF FINANCIAL MANAGEMENT

CODE: 15CM/MC/PF44

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS : 52

OBJECTIVES OF THE COURSE

- To acquaint the students with the basic tools and principles of financial management concept
- To provide a sound conceptual frame work for financial decision-making

Unit 1 (10 hrs.)

1.1 Scope and Objectives of Financial Management

- 1.1.1 Meaning ,Importance and Objectives
- 1.1.2 Conflicts in Profit Vs Value maximization Principles
- 1.1.3 Significance of Financial Management
- 1.1.4 Role of chief Financial Officer

1.2 Time value of Money

- 1.2.1 Meaning and Significance of Time value of Money in Financial Decisions
- 1.2.2 Computation of Time value of Money
Compounding Techniques
Présent value Techniques
- 1.2.4 Computation of Time value of Money using Excel

Unit 2 (10 hrs)

Leverages

- 2.1 Definition, Meaning and Measures of Financial Leverage
- 2.2 Financial Leverage and Shareholder Return
- 2.3 Combining Financial and Operating Leverages
- 2.4 Financial Leverage and Shareholders Risk

Unit 3 (10hrs.)

Cost of Capital

- 3.1 Meaning and Significance
- 3.2 Cost of Equity and Retained Earnings
- 3.3 Cost of Debt- Redeemable and Irredeemable
- 3.4 Cost of Preference - Redeemable and Irredeemable
- 3.5 Computation of Overall Cost of Capital - Book Value and Market Value

Unit 4 (12 hrs.)

Capital Budgeting

- 4.1 Nature of Capital Budgeting
- 4.2 Evaluating Techniques - Pay Back Period, Average Rate of Return, Net Present Value, Internal Rate of Return and Profitability Index
- 4.3 Computation of Pay Back Period, ARR, NPV, IRR and PI using Excel

Unit 5 (10 hrs)

Working Capital Management

- 5.1 Need for Working Capital Management
- 5.2 Determinants of Working Capital Management
- 5.3 Computation of Working Capital

TEXT BOOK

Khan M.Y. and Jain P.K. Basic Financial Management, New Delhi, Tata Mc Graw Hill, 1999

BOOKS FOR REFERENCE

Ashish Kalra, Financial Management ,2011, IGP, New Delhi

James C. Van Horne, , Financial Management and Policy, 1991, Prentice Hall of India, New Delhi

Khan M.Y. and Jain P.K. Basic Financial Management, 1999, Tata Mc Graw Hill, New Delhi

Maheshwari S. N., Financial Management, 1999, Vikas, New Delhi

Pandey I. M., Financial Management, 2000, Vikas, New Delhi

Prasanna Chandra, Fundamentals of Financial Management, 1999, Tata Mc Graw Hill, New Delhi

Ravi M. Kishore, Taxmann's Financial Management, 2006, K. L., Taxmann, New Delhi

JOURNALS

Indian journal of finance
Journal on risk and financial management

WEB RESOURCES

www.managementstudyguide.com
www.wikipedia.org

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50 Duration: 90Mins

Section A $3 \times 2 = 6$ (no choice)

Section B $3 \times 8 = 24$ (from a choice of four)

Section C $1 \times 20 = 20$ (from choice of two)

Third Component Tests

Open book test

Problem solving

Assignment

End Semester Examination:

Total Marks:100 Duration: 3 Hours

Section A – short answers (max. 50 words) - $10 \times 2 = 20$ Marks

5 Questions theory and 5 Problems

Section B – Problems $5 \times 8 = 40$ Marks (From a choice of 7)

Section C – Problems $2 \times 20 = 40$ Marks (From a choice of 4)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Com (A & F) DEGREE: ACCOUNTING AND FINANCE

SYLLABUS
(Effective from the academic year 2015 -2016)

ADVANCED COST AND MANAGEMENT ACCOUNTING

CODE: 15CM/MC/AM45

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To emphasize the need for analyzing the financial data for internal reporting, cost control and effective decision-making
- To analyze and interpret the financial statements for managerial decision making
- To focus on the applications of cost control concepts and techniques for effective planning and forecasting

Unit 1 (10 hrs)

Process and Operating Costing

- 1.1 Process Costing
 - 1.1.1 Meaning and Features of Process Costing
 - 1.1.2 Process Losses and Gains – Accounting Treatment of Normal and Abnormal Wastage and Abnormal Gain
 - 1.1.3 Inter-Process Profit
- 1.2 Joint and By Product Costing

Unit 2 (10 hrs)

2.1 Operating Costing

- 2.1.1 Introduction to Operating Costing, Cost Unit in Operating Costing
- 2.1.1 Transport Costing, Cinema House Costing and Hotel Costing
- 2.2 Contract Costing
 - 2.2.1 Features of Contract Costing
 - 2.2.2 Procedure of Contract Costing
- 2.3 Job Costing
 - 2.3.1 Features of Job Costing
 - 2.3.2 Accounting for Job Costing

Unit 3 (15 hrs)

Budgets and Budgetary Control

- 3.1 Concepts of Budgets and Budgetary Control
- 3.2 Objectives and Advantages of Budgetary Control
- 3.3 Classification of Budgets and its Preparation – Sales Budget, Purchases Budget, Cost of Production Budget, Cash Budget and Flexible Budget

Unit 4 (15 hrs)

Marginal Costing and its Applications

- 4.1 Definition, Meaning and Features of Marginal Costing
- 4.2 Marginal Costing and its Applications
- 4.3 Cost Volume Profit Analysis – Break-Even Point
- 4.4 Make or Buy, Product Mix and Key Factors

Unit 5 (15 hrs)

Standard costing and variance analysis

- 5.1 Meaning - Standard Costing as a management tool - Limitations
- 5.2 Variance Analysis - Material, Labour., Overheads and Sales Variances

TEXT BOOKS

Maheshwari S.N., Principles of Management Accounting, New Delhi, Sultan Chand, 2007

Reddy T.S and Murthy A, Management Accounting, Chennai, Margham, 2007.

Reddy T.S and Murthy A, Cost Accounting, Chennai, Margham, 2007

BOOKS FOR REFERENCE

Atkinson A. Anthony, Robert S. Kaplan, S. Mark Young, Management Accounting, Pearson, 2008

Indian Institute of Banker, Management Accounting, Macmillan, 2008

Man Mohan, Goyal. S.N., Principles of Management Accounting, Agra, Sahitya Shawan, 2005

Khanna B.S., Pandey I.M., Ahuja G.K., Arora M.N., Practical Costing, New Delhi, Sultan Chand, 2006

Maheswari S.N., Problems and solutions in Cost Accounting, 12th edition, Sultan Chand, 2010

Ravi M. Kishore, Cost Accounting, 4th edition, Taxmann's, 2010

JOURNALS

Indian Journal of Finance
International Journal of research in Commerce and Management
Management Accountant - The ICWA of India,

WEB RESOURCES

www.icaai.org
www.cimaglobal.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50 Duration: 90Mins
Section A $3 \times 2 = 6$ (no choice)
Section B $3 \times 8 = 24$ (from a choice of four)
Section C $1 \times 20 = 20$ (from choice of two)

Third Component Tests

Open book test
Problem solving
Assignment

End Semester Examination:

Total Marks:100 Duration: 3 Hours
Section A – short answers (max. 50 words) - $10 \times 2 = 20$ Marks
5 Questions theory and 5 Problems
Section B – Problems $5 \times 8 = 40$ Marks (From a choice of 7)
Section C – Problems $2 \times 20 = 40$ Marks (From a choice of 4)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.Com (A & F) DEGREE: ACCOUNTING AND FINANCE

SYLLABUS
(Effective from the academic year 2015 – 2016)

STATISTICAL TECHNIQUES FOR BUSINESS

CODE: 15CM/AC/ST45

CREDITS: 5

L T P : 5 0 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To give a practical exposure on the various statistical methods and to arrive at rational decision through systematic analysis and interpretation
- To educate on the effective and efficient application of various statistical tools associated with research in business fields

Unit 1 (10 Hrs)

1.1 Correlation

- 1.1 Karl Pearson's Co-efficient of Correlation
- 1.2 Partial Correlation of First Order and Second Order Co-efficient
Co-efficient of Multiple Correlations
- 1.3 Multiple Regression Analysis

Unit 2 (15 Hrs)

Analysis of Time Series

- 2.1 Utility and Components of Time Series
- 2.2 Methods of Measuring Trend
- 2.3 Measurement of Seasonal Variations

Unit 3 (15 Hrs)

Test of Hypothesis

- 3.1 Procedure for testing Hypothesis
- 3.2 Test of Significance
- 3.3 For Large Samples
- 3.4 For Small Samples
- 3.5 Limitations of Test of Significance

Unit 4 (15 Hrs)

Chi-square Test and Analysis of Variance

- 4.1 Meaning and Conditions for applying Chi-square Test
- 4.2 Application of Chi square Test - Test of Goodness of fit and Test of Independence - Yates Correction
- 4.3 Variance Ratio Test
 - 4.3.1 One-way Classification Model
 - 4.3.2 Two-way Classification Model

Unit 5

Application of SPSS in Statistics

(10 Hrs)

- 5.1 Univariate and Bivariate Analysis
- 5.2 Analysis of Time Series
- 5.3 Test of Hypothesis
- 5.4 Analysis of Variance

TEXT BOOK

Gupta S.P., Statistical Methods, New Delhi, Sultan Chand, 2007

BOOKS FOR REFERENCE

Agarwal Y.P., Statistical Methods, Concepts, Applications and Computations, New Delhi, Sterling, 2006.

Beri, G.C., Business Statistics, New Delhi, Tata Mc Graw Hill , 2007

Pillai, R.S.N. & Bagavathy, V., Statistics, 13th edition, New Delhi, Sultan Chand, 2007

Sanchetti, V.C., & Kapoor, Business Statistics, 7th edition, New Delhi, Sultan Chand, 2006

Sharma J.K., Business Statistics, New Delhi, 1st edition, Pearson Education, 2006

JOURNALS

Aligarh Journal of Statistics
Journal of Applied Statistics

WEBSITE

www.ststatisticsofindia.com

www.indiastat.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins

Section A – Answer all Questions

7 x 2 = 14 Marks

Section B – Answer any Two Questions from a choice of Three 2 x 8 = 16 Marks

Section C – Answer any One Question from a choice of Two 1 x 20 = 20 Marks

Third Component Tests:

Open book tests

Assignments- Problem solving

End Semester Examination:

Total Marks:100

Duration: 3 Hours

Section A – short answers (max. 50 words) - $10 \times 2 = 20$ Marks

5 Questions theory and 5 Problems

Section B – Problems $5 \times 8 = 40$ Marks (From a choice of 7)

Section C – Problems $2 \times 20 = 40$ Marks (From a choice of 4)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Com (A & F) DEGREE: ACCOUNTING AND FINANCE

SYLLABUS

(Effective from the academic year 2015 -2016)

ENVIRONMENTAL STUDIES

CODE: 15CM/GC/ES42

CREDITS : 2

L T P : 2 0 0

TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE

- To provide a fundamental knowledge of the environment
- To create an awareness about environmental issues

Unit 1

Introduction (4 hrs.)

- 1.1 Components of the Environment – Technological, Social, Natural. Classification and Characteristics of Resources – K_N, K_M, K_H , Renewable and Non-Renewable
- 1.2 Material Balance Approach
- 1.3 Energy Flow under Ecosystems

Unit 2

Pollution and Socio Economic Aspects of the Environment (11 hrs.)

- 2.1 Types of Pollution – Air, Water, Solid Waste, Noise
- 2.2 Sources, Effects and Consequences of Pollution
- 2.3 Policy Measures with respect to India
- 2.4 Human Behaviour- Population- Urbanization- Poverty (as Cause and Result of Pollution and Degradation
- 2.5 Technology- Agriculture and industry – Deforestation. Use, Misuse and Abuse of the Resources
- 2.6 Religion, Tradition and Culture

Unit 3

Sustainable Development, Remedies and Policy Implications (11 hrs.)

- 3.4 Problems – Greenhouse Effect – Depletion of the Ozone Layer – Climate Change
- 3.5 Loss of Biodiversity – Impact on Women – Ecofeminism
- 3.6 Impact on Livelihood and Health – Environmental Disasters – Natural and Manmade - Bhopal Gas Tragedy – Chernobyl Accident - Gulf War - Love Canal Episode – Tsunami
- 3.7 Methods Evolved to Measure and Check Environmental Degradation and Pollution – Carbon Footprint, Carbon Credit, Ecological Footprint, and Ecological Shadow

- 3.8 Environmental movements in India –Chipko movement, Narmada Bachao Andolan, Sethu Samudram Project
- 3.9 International Environmental agreement – Stockholm Conference –Montreal Protocol –RIO Meet –Kyoto Conference

BOOKS FOR REFERENCE

Igancimuthu, S. *Environmental Awareness and Protection*. New Delhi: Phoenic, 1997.

Jadhav, H. and V.M. Bhosale. *Environmental Protection and Laws*. New Delhi: Himalaya, 1995.

Odum, E.P. *Fundamentals of Ecology*, USA: W.B Saunders, 1971.

Mies, M. and V. Shiva. *Ecofeminism*, London: Zed Books, 1989.

JOURNALS

The National Geographic

International Journal of Environmental Studies

WEB RESOURCES

http://collegesat.du.ac.in/UG/Envinromental%20Studies_ebook.pdf

<http://www.slideshare.net/ruchispandey/introduction-to-environmental-studies>

PATTERN OF EVALUATION

Third Component:

List of Evaluation modes:

Seminars

Quiz

Group discussion

Assignments

Case studies

No End Semester Examination

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Com (A & F) DEGREE: ACCOUNTING AND FINANCE

SYLLABUS
(Effective from the academic year 2015 -2016)

RECENT TRENDS IN MARKETING

CODE: 15CM/AE/RT45

CREDITS : 5

L T P : 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To acquaint the students about the recent trends in marketing.
- To provide an understanding of the application of marketing trends to discover and meet consumer needs.

Unit 1

(10 hrs)

Emerging Trends in Marketing – An Overview

- 1.1 Meaning, Nature and Scope of Marketing
- 1.2 Modern Marketing Concepts
- 1.3 Emerging Trends – An Indian Perspective
- 1.4 Challenges for Marketers in the New Economy

Unit 2

Technology Driven Marketing

(12 hrs)

- 2.1 **Cloud/Online Marketing**
 - 2.1.1 Meaning, Reasons for Growth of Online Marketing
 - 2.1.2 Introduction to Online Marketing Companies
- 2.2 **Mobile Marketing**
 - 2.2.1 Meaning, Reasons for Growth of Mobile Marketing,
 - 2.2.2 Introduction to Mobile Marketing Companies

Unit 3

Socially Responsible Marketing

(15 hrs)

- 3.1 **Green Marketing**
 - 3.1.1 Meaning and Characteristics
 - 3.1.2 Reasons for Growth of Green Marketing
 - 3.1.3 Introduction to Green Marketing Companies in India

- 3.2 **Social Marketing**
 - 3.2.1 Meaning & Characteristics
 - 3.2.2 Reasons for growth of Social Marketing
 - 3.2.3 Introduction to Social Marketing Companies in India

Unit 4 **Miscellaneous Marketing** **(15 hrs)**

- 4.1 Rural Marketing
 - 4.1.1 Meaning, Characteristics of Rural Market
 - 4.1.2 Reasons for Growth of Rural Market
- 4.2 **Viral Marketing**
 - 4.2.1 Meaning and Characteristics
 - 4.2.2 Reasons for Growth of Viral Marketing
 - 4.2.3 Introduction to Viral Marketing Campaigns in India

Unit 5 **(15 hrs)**

Recognising Emerging Trends: Management & Technological Tools

- 5.1 MIS: Meaning and Components of MIS, Benefits of MIS
- 5.2 CRM: Meaning of Customer Relationship, Customer Dissatisfaction and Delight, Strategies for Building Customer Relations.

TEXT BOOK

Kotler, Philip, Marketing Management, Prentice Hall, New Delhi.

BOOKS FOR REFERENCE

Damian Ryan, Understanding Digital Marketing: Marketing Strategies for Engaging the Digital Generation, Kogan Page, 2014

Jacquelyn A. Ottman, The New Rules of Green Marketing: Strategies, Tools, and Inspiration for Sustainable Branding Paperback, Berrett-Koehler, 2011

Jaiswal, M.P., Anjali Kaushik, e-CRM: Business and System Frontiers, 1st edition New Delhi, Asian Books, 2002

Pradeep Kashap, Rural Marketing, Prentice Hall, Delhi

JOURNALS

Indian Journal Of Marketing
International Journal of Research in Marketing
Journal of Marketing Theory and Practice

WEB RESOURCES

www.forbes.com

www.nielsen.com

www.marketing-trends-congress.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50 Duration: 90Mins

Section A 3 x 2 = 6 (no choice)

Section B 3 x 8 = 24 (from a choice of four)

Section C 1 x 20 = 20 (from choice of two)

Third Component Tests

Seminars

Quiz

Group discussion

Assignments

End Semester Examination:

Total Marks: 100 Duration: 3 Hours

Section A – short answers (max. 30 words) - 10 x 2 = 20 Marks

Section B – Essay answers (Max. 500 words) 5 x 8 = 40 Marks (From a choice of 7)

Section C – Essay answers (Max. 1200 words) 2 x 20 = 40 Marks (From a choice of 4)

**STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI 600 086.
B.Com (A & F) DEGREE: ACCOUNTING AND FINANCE**

**SYLLABUS
(Effective from the academic year 2015-16)**

INCOME TAX LAW AND PRACTICE

CODE: 15CM/MC/IT55

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE:

- To provide a broad conceptual framework for determining the tax liability for an individual
- To expose students to the significance and constitutional provisions relevant to indirect tax laws

Unit 1

Introduction to Taxation (5 Hrs)

- 1.1 Meaning of Tax , Importance and Features of Taxation
- 1.2 Types of Tax –
 - 1.2.1 Direct Taxes – Meaning and Significance - Brief Introduction to Income Tax and Wealth Tax

Unit 2

(15 Hrs)

2.1 Basic concepts in Income tax

- 2.1.1 Person, Assessee, Assessment Year, Previous Year, Total Income, Taxable Income
- 2.1.2 Residential Status and Incidence of Tax

2.2 Computation of Salary income

- 2.2.1 Definition, Meaning, Basis of Charge,
- 2.2.2 Allowances – Taxable and Exempted
- 2.2.3 Perquisites
- 2.2.4 Other Receipts and Treatment of Provident fund
- 2.2.5 Deductions

2.3 Computation of Income from House Property

- 2.3.1 Basis of Charge
- 2.3.2 Computation of House Property Income
- 2.3.3 Deductions

Unit 3

(15 Hrs)

Computation of Other Heads of Income

3.1 Profits and gains of Business or Profession

- 3.1.1. Computation of Professional Income
- 3.1.2. Depreciation – Meaning and Relevance - Computation
- 3.1.3 Computation of Business Income

3.2. Capital Gains –

- 3.2.1 Meaning of Capital Asset - Types of Capital Assets
- 3.2.2 Computation of Short Term and Long Term Capital Gains
- 3.2.3 Exempted Capital Gains

3.3. Income from Other Sources

- 3.3.1 Basis of Charge, Casual and Other Income,
- 3.3.2 Computation of Taxable Income from Other Sources

Unit 4 (15 Hrs)

Computation of Total Income

- 4.1 Set-off and Carry Forward of Losses
- 4.2 Clubbing of Income
- 4.3 Deductions - Individual

Unit 5 (15 Hrs)

Return of Income and Assessment

- 5.1 Basic concepts in assessment procedure,- TDS, Advance payment of tax
- 5.2 Filing of Returns,- E - filing, Refiling, PAN,TAN
- 5.3 Types of Assessment – Self assessment, Assessment in response to notice, Best judgment assessment
- 5.4 Refund of tax
- 5.5 Income tax authorities – jurisdiction and powers
- 5.6 Tax Reforms in Direct and Indirect Taxes: Issues & Challenges, Value Added Tax, Goods & Service Tax, Direct Tax Code

TEXT BOOK

Gaur V.P. and Narang D.B., Income Tax Law and Practice, New Delhi, Kalyani

BOOKS FOR REFERENCE

Dinkar Pagare, Law and Practice of Income Tax, , Sultan Chand, New Delhi

Lal B.B., Income Tax Law and Practice, Konark, New Delhi

Manoharan T. N. Income Tax Law, Mumbai, Snow White

Mehrothra, H.C., Income Tax Law and Practicum, Sahithya Bhavan, Agra

Vinod K., Singhania, Taxman's Students Guide to Income Tax, Taxman's, New Delhi

Vinod K., Singhania, Indirect tax, 2014-15 Taxman's, New Delhi

Note: Latest edition of the readings may be used

JOURNALS

Journal of taxation
National tax journal

WEB RESOURCES

www.ntanet.org/tax
www.aicpa.org
www.icaew.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50 Duration: 90 MINS

Section A – Answer all Questions 7 x 2 = 14 Marks

Section B – Answer any Two Questions from a choice of Three 2 x 8 = 16 Marks

Section C – Answer any One Question from a choice of Two 1 x 20 = 20 Marks

Third Component Tests:

Open book tests
Assignments- Problem solving

End Semester Examination:

Total Marks: 100 Duration: 3 Hours

Section A – short answers (max. 50 words) - 10 x 2 = 20 Marks

5 Questions theory and 5 Problems

Section B – Problems 5 x 8 = 40 Marks (From a choice of 7)

Section C – Problems 2 x 20 = 40 Marks (From a choice of 4)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Com (A & F) DEGREE: ACCOUNTING AND FINANCE

SYLLABUS
(Effective from the academic year 2015 -2016)

AUDITING TECHNIQUES

CODE: 15CM/MC/AT54

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS. : 52

OBJECTIVES OF THE COURSE

- To provide an understanding of the objective and concepts of auditing
- To provide a working knowledge of generally accepted auditing procedures and techniques

Unit 1 (10 hrs.)

1.1 Introduction

- 1.1.1 Auditing – Meaning, Definition and Objective
- 1.1.2 Basic Principles Governing an Audit
- 1.1.3 Ethical Principles and Concept of Auditors Independence
- 1.2 Auditing and Assurance Standards
- 1.3 Auditing Engagements- Audit Planning, Audit Programme
- 1.4 Documentation
 - 1.4.1 Audit Working Papers
 - 1.4.2 Audit Files – Permanent and Current Files
- 1.5 Audit Evidence
 - 1.5.1 Audit Procedure for obtaining Evidence
 - 1.5.2 Sources of Evidence
 - 1.5.3 Methods of obtaining Evidence

Unit 2 (10 hrs.)

2.1 Internal Control

- 2.1.1 Elements of Internal Control
- 2.1.2 Review and Documentation
- 2.1.3 Evaluation of Internal Control System
- 2.1.4 Internal Control and Computerized Environment
- 2.2 Audit Sampling
 - 2.2.1 Types of Sampling
 - 2.2.2 Test Checking
 - 2.2.3 Techniques of test Check

Unit 3 (10 hrs.)

3.1 Audit of Ledger

- 3.1.1 Audit of Payments – General consideration – Wages, Capital Expenditure and Other Payments
- 3.1.2 Audit of Receipts – Cash Sales, Receipts from Debtors and Other Receipts

- 3.1.3 Audit of purchases – Vouching cash and credit purchases
- 3.1.4 Audit of Sales – Vouching of Cash and Credit Sales
- 3.1.5 Audit of Suppliers Ledger and Debtors Ledger
- 3.1.6 Audit of Impersonal Ledger
- 3.1.7 Audit of Assets and Liabilities

Unit 4

Company Audit

(12 hrs.)

- 4.1 Appointment and Removal of Auditor
- 4.2 Rights, Duties and Liabilities as per Companies Act 2013
- 4.3 Audit Report - Method of Reporting - Reporting of Fraud under Companies Act 2013

Unit 5

- 5.1 Audit Report **(10 hrs.)**
- 5.2 Audit of Different Types of Undertaking – Educational Institution, Hotels and Hospitals
- 5.3 Government audit – Features and Basic Principles

BOOK FOR STUDY

Tandon, B. N. *Handbook of Practical Auditing*. New Delhi: S.Chand, 2012.

BOOKS FOR REFERENCE

De Paula, F.R.M. *Principles of Auditing: A practical manual for student and practitioners*. London: E.L.B.S., 2005.

Gupta, Kamal. *Contemporary Auditing*. New Delhi: Tata McGraw Hill, 2006.

Kumar, Pradeep, Sachdeva, Baldev and Singh Jagwant. *Auditing Theory and Practice*. New Delhi: Kalyani, 2007.

Pagare, Dinakar. *Basics of Auditing*. New Delhi: Sultan Chand, 2007.

Saxena, R. G. *Principles and Practices of Auditing*. Mumbai: Himalaya, 2004.

JOURNALS

International Journal of Auditing

Auditing: A journal of Practice and Theory

Journal of Accounting, Auditing and Finance

Accounting, Auditing and Accountability Journal

Journal of International Accounting, Auditing and Taxation

International Journal of Auditing Technology

WEB RESOURCES

www.neoxen.com/neoxen/methodology/docs/intro_auditing_online.pdf

www.academia.edu/7505528/VERIFICATION_AND_VALUATION

www.e-economic.co.uk/accountingsystem/glossary/auditors-report

accountlearning.blogspot.in/2012/02/advantages-of-audit-program.html

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminar

Group Discussion

Assignments

Class Presentations

End Semester Examination:

Total Marks:100

Duration: 3 Hours

Section A – short answers (max. 30 words) - 10 x 2 = 20 Marks

Section B – Essay answers (Max.500 words) 5 x 8 = 40 Marks (From a choice of 7)

Section C – Essay answers (Max.1200 words) 2 x 20 =40 Marks (From a choice of 4)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Com (A & F) DEGREE: ACCOUNTING AND FINANCE

SYLLABUS
(Effective from the academic year 2015 -2016)

CORPORATE FINANCE

CODE: 15CM/MC/CF55

CREDITS : 5

L T P : 5 0 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To introduce the concepts, assumptions and mechanics involving financial decisions
- To familiarize the students with the analytical techniques used in decision making
- To expose the students to methods of corporate restructuring.

Unit 1 (12 hrs)

An overview of Corporate Finance

- 1.1 Patterns of Corporate Financing
- 1.2 Internal Vs. External Funds
Common Stock- Preference and Equity Shares
Types of Debt
- 1.3 Issue of Securities in Corporations
Venture Capital, Initial Public Offering, New Issue Procedures, Private Placement Vs. Public Issue

Unit 2 (15 hrs)

Capital Structure

- 2.1 Capital Structure Theories
- 2.2 Net Income, Net Operating Income. MM Theories
- 2.3 Taxation and Capital Structure Trade off theory and signalling theory

Unit 3 (15 hrs)

Investment Decisions

- 3.1 Theories in Capital Budgeting
- 3.2 Problems in Capital Budgeting
Project with different Life, Investment Timing and Duration
Replacement of Assets, Investment Decision under Capital Rationing
- 3.3 Risk Analysis in Capital Budgeting (only theory)
Introduction, nature of Risk
Technique for Risk Analysis – Sensitivity, Simulation, Decision Tree, Utility Theory and Capital Budgeting

Unit 4 (12 hrs)

Corporate Restructuring

- 4.1 Reasons for Merger, Cost and Benefits, Terms of Merger
- 4.2 Types of Merger – Purchase, Takeover, Business Alliance, Acquisition
Divestiture, Ownership Restructuring and Privatisation
- 4.3 Mechanics of Merger

Unit 5 (11 hrs)

Payout policy and Theory

- 5.1 Reasons for Payment of Dividends
- 5.2 Dimensions of Dividend Policy , Corporate Dividend Behaviour, Legal and
Procedural Aspects
- 5.3 Bonus Shares, Stock Split and Share Buy Backs
- 5.4 Objectives and Practical Considerations in Determining Dividend Policy,
- 5.5 Dividend Relevance – Walter and Gordon Models

TEXT BOOKS

Pandey I. M., Financial Management, New Delhi Vikas, 2005

Prasanna Chandra, Fundamentals of Financial Management, New Delhi, Tata Mc
Graw Hill, 2010

BOOKS FOR REFERENCE

James C. Van Horne, Financial Management and Policy, New Delhi. Prentice
Hall of India, 1991

Khan M.Y. and Jain P.K. Basic Financial Management, New Delhi. Tata Mc
Graw Hill, 2005

Maheshwari S. N., Financial Management, New Delhi. Vikas, 1999

Ravi M. Kishore, Taxmann's Financial Management, New Delhi. K. L., Taxmann,
2006

JOURNALS

Journal of Banking and Finance
Journal of Finance
Journal of Financial Economics

WEB RESOURCES

www.cfainstitute.org/cfaprogram
www.icaai.org
www.icsi.edu
www.icwai.org

Unit 5

(10 hrs)

Techniques of Portfolio Management

- 5.1 Efficient Market Hypothesis
- 5.2 Asset Allocation Framework – Strategic and Tactical
- 5.3 Passive and Active Management Strategies
- 5.4 Portfolio Evaluation – Treynor Measure, Sharpe Measure, Jensen Measure

TEXT BOOKS

Bhalla V.K, Investment Management, New Delhi, S. Chand & Co Ltd, 2005

Chandra, Prasanna, Investment Analysis and Portfolio Management, New Delhi, Tata McGraw – Hill, 2007

Rustagi R.P , Investment Analysis and Portfolio Management, New Delhi, Sultan Chand, 2007

BOOKS FOR REFERENCE

Bhalla, V.K. Tuteja, S.K., Investment Management , Sultan Chand, New Delhi, 2005

Fisher, Donald, E. & Jordan, Ronald, J., Security Analysis of Portfolio Management, Prentice Hall, New Delhi, 2006

Grinold, Richard, Khan, Ronald, N., Active Portfolio Management – Quantitative Theory and Applications, , S. Chand, New Delhi, 2006

Ibbotson, Roger, G., Investment Markets, Tata McGraw Hill, New Delhi, 2006

Shah, Kishor & Others, How to Invest Well – A Guide to the Share Market and Personal Investments, Tata McGraw Hill, New Delhi, 2006

Singhi, Preethi, Investment Management – Security Analysis and Portfolio Management, Himalaya, Mumbai, 2005

JOURNAL

Sprinjer- Journal of Financial Market and Portfolio Management
Stretwise –The Journal of Portfolio Management
The Journal of Portfolio Management

WEB RESOURCES

www.bloomberg.in
www.innotas.com

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600086
B.Com (A & F) DEGREE: ACCOUNTING AND FINANCE

SYLLABUS
(Effective from the academic year 2015-2016)

FINANCIAL CONCEPTS AND PRACTICES

CODE: 15CM/ME/FC55

CREDIT:5
L T P : 4 1 0
TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To enable students to learn the practical aspect of financial concepts
- To provide an insight in to financial aspects and help to attain lucrative job opportunities in finance industries

Unit 1

Basic Financial Concepts (13 hrs)

- 1.1 Meaning of Finance, Money, Income, Expenditure, Savings
- 1.2 Terms- Accounts, Book-Keeping, Transactions, Journal and Ledger
- 1.3 Introduction to Trading, Profit and Loss Account and Balance Sheet

Unit 2

Banking (12 hrs)

- 2.1 Banking Terms – Deposit, Clearing, Credit, Debit, Passbook, Tenure, Maturity
- 2.2 Types of Accounts
 - 2.2.1 Savings Bank Account-Facilities
 - 2.2.2 Fixed Deposit Account-Meaning, Features and Method of Operation,
 - 2.2.3 Recurring Deposit Account- Meaning, Features and Method of Operation
- 2.3 Crossing of Cheque
- 2.4 Demand Draft- Meaning, Procedure for getting Payment and Receipt through Banks

Unit 3

Electronic Money (10 hrs)

- 3.1 Net Banking applying for Credit Card, Usage- Online Payments, Cash Withdrawals, Credit Card Bills
- 3.2 Debit Cards
- 3.3 ATM Cards – Working, Usage, and Charges
- 3.4 Mobile Money

Unit 4

Loans and Investments

(15 hrs)

- 4.1 Type of Loans and Repayment
- 4.2 Investment Common Terms- Stock, Shares/Stock/Equity, SENSEX, NIFTY, Dividends, IPO, DEMAT Account, Investing through Mutual Funds, Stocks

UNIT 5

(15 hrs)

- 5.1 Time Value of Money – Meaning and Importance, Compounding, Power of Compounding, Interest
- 5.2 Insurance – Common Terms – Insurer, Insured, Risk, Premium, Sum Assured, Sum Insured, Claim, Insurance Policy, Types of Insurance-Working of Insurance
- 5.3 Taxation- Meaning and Importance
Types of tax – Direct, Indirect, VAT, Method of Collection/Payment, Terms – PAN, TDS, Returns, Rights and Obligation of a Tax Payer

TEXT BOOKS

Prof D.K. Chatterjee Basic Accounts & Finance for Non-Accountants, Himalaya Publishing House, 4th edition, 2011.

Dr. Arjun Saini, How to Read Balancesheet and other Financial Statements, Himalaya Publishing House, 1st edition 2013.

JOURNALS

1. The Chartered Accountant: Journal of the Institute of Chartered Accountants of India.
2. Indian Journal of Finance.
3. Journal of Accounting & Finance: **Research Development Association, Jaipur.**

WEBSITES

www.bloomberg.in

www.innotas.com

PATTERN OF EVALUATION

Continuous Assessment

Total Marks : 50

Duration : 90 mins.

Section A - 3 x 2 = 6 (no choice)

Section B - 3 x 8 = 24 (from a choice of four questions)

Section C - 1 x 20 = 20 (from choice of two questions)

III Component Tests:

Seminars

Quiz

Group discussion

Assignments

Class Presentation

End Semester Examination:

Total Marks:100

Duration: 3 Hours

Section A – short answers (max. 30 words) - $10 \times 2 = 20$ Marks

Section B – Essay answers (Max.500 words) $5 \times 8 = 40$ Marks (From a choice of 7)

Section C – Essay answers (Max.1200 words) $2 \times 20 = 40$ Marks (From a choice of 4)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Com (A & F) DEGREE: ACCOUNTING AND FINANCE

SYLLABUS

(Effective from the academic year 2015 -2016)

CORPORATE SOCIAL RESPONSIBILITY

CODE: 15CM/ME/CR55

CREDITS : 5

L T P : 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To familiarize students with the understanding of issues and practices of corporate governance and corporate social responsibility in the global and Indian context
- To analyse and examine corporate social responsibility

Unit 1

Introduction (10 hrs.)

- 1.1 Meaning, Scope and Objectives of CSR
- 1.2 Need and Importance of CSR
- 1.3 Corporate Sustainability in CSR

Unit 2

Business and Ethical Environment (15 hrs.)

- 2.1 Ethical Issues in Finance - Issues related to Financial Services, Insider Trading and Takeovers
- 2.2 Ethical Issues in Marketing and Advertising

Unit 3

Corporate Governance (15 hrs.)

- 3.1 Meaning and Concepts of Corporate Governance
- 3.2 Management Structure of Corporate Governance
- 3.3 Board Committees - Functions

Unit 4

Corporate and Natural Environment (15 hrs.)

- 4.1 Impact of Environmental Issues on Corporate Sector
- 4.2 Managing Issues relating to Corporate Environment

Unit 5

Responding to Stakeholders (10 hrs.)

- 5.1 Stockholders, Employees, Community - Corporate Philanthropy and Community Volunteering
- 5.2 Case Studies – Socially Responsible Business Practices

BOOKS FOR STUDY

Andrew Crane Dirk Matten. *Business Ethics*. New Delhi: Oxford University Press.
Fernando, A.C. *Corporate Governance – Principles, Policies & Practice*. Pearson.
Joan R. Boatright. *Ethics and the Conduct of Business*. 7th edition. Pearson.

BOOKS FOR REFERENCE

Bhanu Murthy, K. V. and Usha Krishna, *Politics Ethics and Social Responsibilities of Business*. New Delhi: Pearson Education.
Christine, A Mallin. *Corporate Governance* (Indian Edition). New Delhi: Oxford University Press.
Geeta Rani, D & R K Mishra. *Corporate Governance-Theory and Practice*. New Delhi: Excel.
Kotler, Philip and Nancy Lee. *Corporate Social Responsibility – Doing the Most Good for Your Company and Your Cause*. Wiley – India, 2008.
Mathur, U.C. *Corporate Governance & Business Ethics*. Macmillan, 2005.
Sharma, J. P. *Corporate Governance Business Ethics & CSR*. New Delhi: Ane Books
Subhash Chandra Das, *Corporate Governance in India*. PHI, 2008.

JOURNALS

International Journal of Management Reviews
International Journal on Corporate Strategy and Social Responsibility
SSRN – E Journal

WEB RESOURCES

www.ibscdc.org
www.exed.hbs.edu
www.hbr.org

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminar

Group Discussion

Assignments

Class Presentations

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.Com (A & F) DEGREE: ACCOUNTING AND FINANCE

SYLLABUS
(Effective from the academic year 2015 – 2016)

ENTREPRENEURSHIP DEVELOPMENT

CODE: 15CM/ME/EP55

CREDITS : 5

L T P : 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To provide a comprehensive knowledge on the various aspects related to entrepreneurial development
- To familiarize students with the practical knowledge of establishing a business

Unit 1

Introduction (10 hrs.)

- 1.1 Concept of Entrepreneurship - Meaning, Definition, Characteristics and Need for Entrepreneurship
- 1.2 Entrepreneur - Meaning, Definition, Scope, Need, Function and Types of Entrepreneurs
- 1.3 Factors that contribute to the growth of Entrepreneurship – Internal and External factors
- 1.4 Entrepreneur vs Entrepreneurship, Entrepreneur vs Manager, Entrepreneur vs. Intrapreneur

Unit 2

Enterprise Launching (15 hrs.)

- 2.1 Opportunity Identification and Selection
- 2.2 Idea Generation and Screening of Business Idea, Sources of Business Idea, Evaluation of Business Idea, Selection of Business Idea
- 2.3 Business Plan – Meaning, Contents and Significance of Business Plan
- 2.4 Business Plan Process, Advantages of Business Planning
- 2.5 Environmental Analysis - Scanning, SWOT Analysis

Unit 3

Project Formulation and Identification (15 hrs.)

- 3.1 Project Identification and Classification
- 3.2 Meaning, Contents and Significance of Project Report
- 3.3 Project Cost Analysis
- 3.4 Meaning of Project Formulation - Meaning, Concept, Elements and Stages in Project Formulation

Unit 4**Preparation for Entrepreneurial Ventures (15 hrs.)**

- 4.1 Financing of Enterprise – Meaning, Need, Sources and Structure of Financial Planning
- 4.2 Legal aspects – Identifying Legal Constraints, Handling Legal Issues
- 4.3 Institutions assisting Enterprise
 - 4.3.1 Need for Institutional Finance
 - 4.3.2 National level and State level Institutions – IFCI, ICICI, IDBI, SIDBI, SFC, SIPCOT, SIDCO
 - 4.3.3 Lease Financing and Venture Capital

Unit 5**(10 hrs.)****Selection of Form of Business Ownership**

- 5.1 Choice of Organization - Meaning, Importance of Choosing the Form of Organization and Functions
- 5.2 Factors Determining the Choice of Ownership
- 5.3 E-Commerce and Small Enterprises
- 5.4 Role of Central and State Government in promoting Entrepreneurship – Incentives, Subsidies and Grants offered by Central and State Government

BOOK FOR STUDY

Course Texts S.S.Khanka. *Entrepreneurial Development*. New Delhi: S. Chand, 1997.

REFERENCES BOOKS

Balu, V. *Entrepreneurial Development*. Sri Venkateswara, 1998.

Charantimath. *Entrepreneurship development & Small business enterprise*. New Delhi: Pearson.

Gupta C.B. & Srinivasan N. P. *Entrepreneurial Development*. New Delhi: Sultan Chand, 1998.

Jayashree Suresh. *Entrepreneurial Development*. New Delhi: Margham, 1999.

JOURNALS

Journal of Business venturing

Journal of development entrepreneurship

Journal of entrepreneurship education

WEB RESOURCES

www.entrepreneur.com

www.businessesforsale.com

www.sba.gov

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminar

Group Discussion

Assignments

Class Presentations

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Com (A & F) DEGREE: ACCOUNTING AND FINANCE

SYLLABUS
(Effective from the academic year 2015 -2016)

PROJECT

CODE: 15CM/ME/PR55

CREDITS: 5
L T P: 0 0 5

GUIDELINES FOR PROJECT

Project should be the independent work of the student. Each student will choose a topic of her interest and the student will be assigned to a supervisor.

The student can use Quantitative or Qualitative/Descriptive or both methods.

➤ **Page Limit :**

The project report should be submitted in the prescribed format having a maximum of 100 pages, typed in font Times New Roman -size 12, with 1 ½ line spacing on A4 Size paper.

➤ **Contents of the Project:**

- Contents Page
 - The Project Copy will include Certificate of the Supervisor, Declaration, and Acknowledgement
 - Four or five chapters
 - Presentation of the Project Report – format
 - Chapter 1 Introduction - to include background of the study, objectives , Methodology, limitation of the study and chapter scheme
 - Chapter 2 – Review of literature
 - Chapter 3 – Theoretical aspects of the study
 - Chapter 4 – Data analysis
 - Chapter 5 – Suggestion and conclusion
- At the end of the project ‘Bibliography’ must be given in Alphabetical/chronological order and necessary appendix may be added.

➤ **Submission:**

Each student may prepare two soft bound copies of the project, one for her and one copy to be submitted to the Head of the Department duly signed by the supervisor, on the scheduled date.

➤ **Guidelines for Evaluation:**

There will be double valuation for the project by the supervisor and an external examiner. The student will appear for viva -voce before a panel comprising External Examiner, Supervisor and Head of the Department.

The maximum marks for the project is 100 – 75 marks for the project report and 25 marks for the viva- voce.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI-600086

B.Com (A & F) DEGREE: ACCOUNTING AND FINANCE

SYLLABUS

(Effective from the academic year 2015-2016)

MANAGERIAL ECONOMICS

CODE: 15CM/ME/ME55

CREDIT: 5

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To understand the application of economic theory in modern business practices
- To anticipate the demand, cost, profit variables of the firm

Unit 1

Introduction to Managerial Economics (10 hrs)

- 1.1 Meaning and Definition
- 1.2 Nature, Scope and Importance of Managerial Economics
- 1.3 Role of Managerial Economist
- 1.4 Basic Tools of Managerial Economics

Unit 2

Demand Analysis and demand forecasting (15 hrs)

- 2.1 Meaning and Determinants of Demand
- 2.2 Elasticity of Demand
 - 2.2.1 Price Elasticity of Demand
 - 2.2.2 Income Elasticity of Demand
 - 2.2.3 Cross Elasticity of Demand
- 2.3 Demand Forecasting
 - 2.3.1 Meaning and Levels of Demand Forecasting
 - 2.3.2 Categories by Time Period and Nature of Goods
 - 2.3.3 Techniques of Demand Forecasting

Unit 3

Production Analyses (15 hrs)

- 3.1 Production function – Law of Variable Proportions
 - 3.1.1 Production Function with One Variable Input
 - 3.1.2 Production Function with Two Variable Inputs
 - 3.2.3 Marginal Rate of Technical Substitution
- 3.2 Returns to scale - Increasing returns to scale

Unit 4

Cost Analyses

(15 hrs)

4.1 Cost Concepts

4.2 Cost output relationship in the Long run and Short run

4.3 Economies and Diseconomies of Scale

Unit 5

Profit Management

(10 hrs)

5.1 Profit –Meaning and Nature

5.2 Profit Policies

5.3 Profit Planning and Forecasting

BOOKS FOR STUDY

Geetika, Piyali Ghosh and Purba Roy Choudary, “Managerial Economics”, Sultanchand, 2012.

R.L. Varshney & K.L. Maheswari, “Managerial Economics”, Tata Mcgraw Hill, 2011.

G.S. Gupta, “Managerial Economics”, Tata Mcgraw Hill, 2009.

D.N. Dwivedi, Managerial Economics, Vikas Publishing House Private, 1995.

JOURNALS

The IUP journal of Managerial Economics.

The International Journal of Economic and Management.

SS International Journal of Economics and Management.

WEB RESOURCES

www.indianjournalofeconomicsandresearch.com

www.indianjournals.com

www.ssirn.com

PATTERN OF EVALUATION

Total Marks: 50

Section A – 7 x 2 = 14 Marks

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 7 x 2 = 14 Marks (from a choice of two)

Third Component

List of Evaluation modes:

Seminars

Quiz

Group discussion

Assignments

Class Presentation

End Semester Examination:

Total Marks: 100 Duration: 3 Hours

Section A – short answers (max. 50 words) -10 x 2 = 20 Marks

Section B – 5 x 8 = 40 Marks (from a choice of 7 – Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of 4 -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.Com (A & F) DEGREE: ACCOUNTING AND FINANCE

SYLLABUS
(Effective from the academic year 2015 – 2016)

HUMAN RESOURCE PRACTICES

CODE: 15CM/ME/HR55

CREDITS: 5

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES

- To provide an understanding of the importance and practices of Human Resource Management
- To educate on the managerial operative and maintenance aspects of the human resources in an organization

Unit 1

(10 hrs)

Introduction

- 1.1 Concept, Scope and Significance of HRM
- 1.2 Functions and Objectives of HRM
- 1.3 Changing role of HRM , Human Resource vs Human Capital/Asset

Unit 2

(10 hrs)

Manpower Planning

- 2.1 Assessing Human resource requirement
- 2.2 Objectives and Process of Manpower Planning
- 2.3 Work load analysis, Job analysis, Job Description and Specification

Unit 3

Recruitment, Selection and Training and Development

(15 hrs)

- 3.1 Factors affecting Recruitment, Sources of Recruitment, Basic selection Model
- 3.2 Selection Process, Interviewing, Placement and Induction
- 3.3 Training and Development – Employee and Executive Development Programme

Unit 4

Compensation Management, Performance Appraisal

(15 hrs)

- 4.1 Determination of Wages and Salary – Factors
- 4.2 Incentive – Financial, Non-Financial and Fringe Benefits
- 4.3 Innovations in Compensation Management
- 4.4 Performance Appraisal -Methods, Promotion- Factors, Basis of Promotion- Seniority vs Merit Based

Unit 5

Contemporary Issues in HRM

(15 hrs)

- 5.1 Ethical issues in HR
- 5.2 Managing Diversity at Work
- 5.3 Career Planning and Succession Concepts
- 5.4 Human Resource Information Systems

BOOK FOR STUDY

Aswathappa, K., Human Resource Management, New Delhi, Tata Mc Graw Hill Publishing Company, 2007.

BOOKS FOR REFERENCE

Flippo V. Edwin, Personnel Management, New Delhi, Mc Graw Hill International Relations, 2004.

Gupta C.B., Human Resource management, New Delhi, Sultan Chand and Sons, 2007.

Khanka S.S., Human Resource management, New Delhi, Sultan Chand and Sons, 2007.

Prasad L.M., Human Resource management, New Delhi, Sultan Chand and Sons, 2007.

Mamoria C.B., Personnel Management, Mumbai, Himalaya Publishing House, 2004.

JOURNALS

International Journal of Human Resource Management
The Human Resource Management Review
Human Resource Management International Digest
Human Resource Management Journal

WEB RESOURCES

www.hrwall.com
www.hrcouncil.ca.in

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50 Duration: 90 MINS

Section A – Answer all Questions	7 x 2 = 14 Marks
Section B – Answer any Two Questions from a choice of Three	2 x 8 = 16 Marks
Section C – Answer any One Question from a choice of Two	1 x 20 = 20 Marks

Third Component Tests:

List of evaluation modes:

- Seminars
- Quiz
- Group discussion
- Assignments
- Class Presentation

End Semester Examination:

Total Marks:100 Duration: 3 Hours

Section A – short answers (max. 30 words) - 10 x 2 = 20 Marks
Section B – Essay answers (Max.500 words) 5 x 8 = 40 Marks (From a choice of 7)
Section C – Essay answers (Max.1200 words) 2 x 20 =40 Marks (From a choice of 4)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
General Elective Course Offered by Department of Commerce to students for
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SYLLABUS

(Effective from the academic year 2015 -2016)

CONTEMPORARY ADVERTISING

CODE: 15CM/GE/CA23

CREDITS : 3

L T P : 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To introduce the concept and types of Contemporary advertising
- To enable students to meet the growing demands and challenges of the promotional aspects of advertising

Unit 1		
	Scope of Advertising	(7 hrs.)
	1.1 Introduction - Definition and Meaning	
	1.2 Role of Advertising	
Unit 2		
	Advertising Copy	(8 hrs.)
	2.1 Elements of an Ad. Copy	
	2.2 Ad. Layout - Principles of Ad. Layout	
Unit 3		
	Modern Advertising	(9 hrs.)
	3.1 Types of Modern Advertising	
	3.2 Comparison - Indoor and Outdoor Advertising	
Unit 4		
	Online Advertising	(7 hrs.)
	4.1 Introduction - the Internet as an Advertising Medium	
	4.2 Types of Online Advertising - Alternative Offline Advertising Media and Mass Online Advertising Web Resources, Banner Ads, Pop Ups, Interstitials, Superstitials and Sponsorships	
Unit 5		
	Challenges and trends of Online Media	(8 hrs.)
	5.1 Reasons for Failure of Online Advertising	
	5.2 Changing Trends in Online Advertising.	

BOOK FOR STUDY

Jefkins, Frank. *Advertising*. New Delhi: Pearson Education 2007.

BOOKS FOR REFERENCE

David W.Schumann and Esther Thorson. *Internet Advertising Theory and research*. Psychology Press, 2007.

Joseph, Plummer., Steve Rappaport, Teddy Hall and Robert Borocci. *The online Advertising play Book. Proven Strategies and tested tactics from the advertising research foundation*. John Wiley, 2006.

Terence A. Shimp. *Advertising, Promotion and supplemental Aspects of Intergrated Marketing Communications*. USA: Thomson Learning, 2003

Wilmshurs, John and Adrian Mackay. *The fundamentals of Advertising*. Reed Educational and Professional, 1999.

JOURNALS

Journal of Advertising Research

International Journal of Advertising

International Journal of Internet Marketing and Research

Journal of Advertising

Journal of Advertising Education

WEB RESOURCES

www.mu.ac.in/myweb_test/sybcom-avtg-eng.pdf

advertising.knoji.com/what-are-the-different-roles-of-advertising/

techcrunch.com/2009/03/22/why-advertising-is-failing-on-the-internet/

www.networkadvertising.org/understanding-online-advertising/

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 =16 Marks (from a choice of three)

Section C –1 x 20 =20 Marks (from a choice of two)

Third Component:

List of evaluation modes:

Seminars

Assignments

Submission of AD Copy

No End Semester Examination

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
General Elective Course Offered by Department of Commerce to students for
B.A. / B.Sc. / B.Com. / B.C.A. / B.S.W. / B.V.A. Degree Programmes

SYLLABUS
(Effective from the academic year 2015-2016)

PERSONNEL MANAGEMENT

CODE: 15CM/GE/PM23

CREDITS: 3

L T P: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To expose the students to the managerial, operative and maintenance aspects of Human Resources
- To provide an insight into Human resources as an asset to the organization

Unit 1

Introduction (8 hrs.)

- 1.1 Definition – Characteristics, Objectives and Importance of Personnel Management
- 1.2 Functions of Personnel Management

Unit 2

Staffing (8 hrs.)

- 2.1 Nature, Elements and Importance of Staffing
- 2.2 Recruitment and Selection
- 2.3 Promotion – Types and Basis of Promotion

Unit 3

3.1 Training and Development (8 hrs.)

- 3.1.1 Training – Importance, Need and Types
- 3.1.2 Training Methods – On-the Job, Off-the Job and Vestibule Training.
- 3.2 Performance Appraisal – Concept, Objectives and Methods of Performance Appraisal

Unit 4

Components of Compensation (8 hrs.)

- 4.1 Factors to be Considered for Determination of Wages and Salaries
- 4.2 Incentives and Perquisites
- 4.3 Fringe Benefits – Meaning and Types

Unit 5

Leadership and Communication (7 hrs.)

- 5.1 Leadership – Qualities of a Leader, Types of Leaders, Trait and Situational Approach to Leadership, Leadership Grid
- 5.2 Communication – Meaning, Nature, Importance and Types of Communication

BOOK FOR STUDY

Gupta, C.B. *Human Resource Management*. New Delhi: Sultan Chand, 2014

BOOKS FOR REFERENCE

Aswathappa, K. *Human Resource Management*. New Delhi: Tata McGraw Hill, 2007.

Flippo V. Edwin. *Personnel Management*. New Delhi: McGraw Hill, 2008

Khanka, S.S, *Human Resource Management*. New Delhi: Sultan Chand, 2007.

Mamoria, C.B, *Personnel Management*. New Delhi: Himalaya, 2004

Prasad, L.M., *Human Resource Management*. New Delhi: Sultan Chand, 2007

JOURNALS

International Journal of Management Reviews

European Journal of Business Management

WEB RESOURCES

www.exed.hbs.edu

www.hbr.org

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of evaluation modes:

Seminars

Assignments

No End Semester Examination

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
General Elective Course Offered by Department of Commerce to students for
B.A. / B.Sc. / B.Com. / B.C.A. / B.S.W. / B.V.A. Degree Programmes

SYLLABUS

(Effective from the academic year 2015-2016)

BUSINESS LEADERSHIP

CODE: 15CM/GE/BL22

CREDITS: 2

L T P : 2 0 0

TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE

- To introduce the concept and theories of leadership management
- To understand the essentials of leadership traits and approaches

Unit 1

Introduction

(6 hrs.)

- 1.1 Definition and Characteristics of Leadership
- 1.2 Differences Between Leadership and Management
- 1.3 Role of a Leader- Group Task Roles, Group Building and Maintenance Roles

Unit 2

Functions and Responsibilities

(10 hrs.)

- 2.1 Functions and Responsibilities of a Leader
- 2.2 Qualities of a Leader
- 2.3 Leadership Patterns - Autocratic, Democratic, Free Rein, Bureaucratic, Manipulative and Expert Leadership

Unit 3

Leadership Styles

(10 hrs.)

- 3.1 Degrees of Leadership- Blake and Mouton's Managerial Grid
- 3.2 Facets of Leadership-Factors affecting Choice of Leadership
- 3.3 Different Approaches to Leadership- Trait Oriented, Situational Approach and Functional Approach

BOOKS FOR STUDY

Mamoria, C.B. and S.V.Gankar. *Personnel Management*. Mumbai: Himalaya, 2004

BOOKS FOR REFERENCE

Aswathappa, K. *Organisational Behaviour Text, Cases and Games*. Mumbai: Himalaya, 2007.

Edwin B. Flipppo, *Personnel Management*. Mumbai: Tata McGrawHill, 2004.

Peter F. Drucker. *Principles of Management*. Sultan Chand, 2003.

Prasad, L.M. *Human Resource Management*, New Delhi: Sultan Chand, 2004.

JOURNALS

International Journal of Management Reviews
International Journal of Business Management and Leadership
International Journal of Complexity in Leadership

WEB RESOURCES

www.insead.edu/library/rankings/journal_rankings.cfm
www.hbr.org
www.inderscience.com

PATTERN OF EVALUATION

No End Semester Examination, Only Internal Assessment

Average of CA and Component will be taken as Internal Assessment

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminars

Assignments

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Com (A & F) DEGREE: ACCOUNTING AND FINANCE

SYLLABUS
(Effective from the academic year 2015 -2016)

INVESTMENT PLANNING

CODE: 15CM/UI/IP23

CREDITS: 3

OBJECTIVES OF THE COURSE

- To enable the students to acquire conceptual knowledge about investment
- To familiarize students with the process of personal investment planning

Unit 1

Introduction to Investment

- 1.1 Meaning and Need for Savings and Investment
- 1.2 Investment Decision Process
- 1.3 Types of Investments
- 1.4 Steps involved in Investment

Unit 2

Investment Environment

- 2.1 Overview of Indian Financial System – Money Market and Capital Market
- 2.2 Investment Avenues, Asset Classes and Financial Instruments
- 2.3 Security Pricing Influencing Factors and Valuation
- 2.4 Regulations governing Investment

Unit 3

Risk and Return

- 3.1 Meaning of Risk and Return
- 3.2 Types of Risk and Return
- 3.3 Measure of Risk and Return

Unit 4

Investment Performance and Evaluation

- 4.1 Diversification – Meaning and Techniques
- 4.3 Active and Passive Investment Strategies
- 4.4 Portfolio Appraisal and Revision

Unit 5

Investor Protection

- 5.1 SEBI and Role of Stock Exchange in Investor Protection
- 5.2 Investor Grievances and Redressal
- 5.3 Awareness and Activism

BOOKS FOR STUDY

Bhalla V.K, 2008, 19th edition, Investment Management, S. Chand & Co Ltd, New Delhi

Chandra, Prasanna, 3rd edition, Investment Analysis and Portfolio Management, Tata McGraw-Hill Publishing Company Limited, New Delhi

Rustagi R.P , 2013, 4th edition, Investment Analysis and Portfolio Management, Sultan Chand & Sons, New Delhi

BOOKS FOR REFERENCE

Avadhani, VA, 2011, Investments and Securities Markets in India, Himalaya Publishing House, New Delhi

Chandra, Prasanna, 2012, Investment Game How to Win, Tata Mcgraw Hill Publishing Co Ltd, New Delhi

Pandian, P., 2009, Security Analysis and Portfolio Management, Vikas Publishing House, New Delhi

JOURNALS

The Journal of Investment Strategies
The Journal of Investment Management
The Journal of Investment Consulting

WEB RESOURCES

www.investmentmanagementinstitute.com
ocw.mit.edu

PATTERN OF EVALUATION

End Semester Examination:

Total Marks:100

Duration: 3 Hours

Section A – short answers (max. 50 words) - 10 x 2 = 20 Marks

Section B – Essay answers 5 x 8 = 40 Marks (From a choice of 7)

Section C – Essay answers 2 x 20 =40 Marks (From a choice of 4)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Com (A & F) DEGREE: ACCOUNTING AND FINANCE

SYLLABUS
(Effective from the academic year 2015 -2016)

PERFORMANCE APPRAISAL

CODE: 15CM/UI/PA23

CREDITS:3

OBJECTIVES OF THE COURSE

- To expose the students to the managerial, operative and maintenance aspects of Human Resources
- To provide an insight into the assessment of Human resources

Unit 1

Introduction

- 1.1 Performance Appraisal – Concept, Objectives, Importance and Uses
- 1.2 Reward- Meaning, Objectives, Principles ,Importance and Types

Unit 2

Appraising for Recognition and Reward

- 2.1 Process of Appraisal
- 2.2 Methods of Appraisal – Traditional and Modern Methods
- 2.3 Problem in Appraisal
- 2.4 Tools and Techniques of Performance Appraisal

Unit 3

Wages and Salary Administration

- 3.1 Concepts of Wages
- 3.2 Minimum Wage, Fair Wage, Living Wage
- 3.3 Essentials of Sound Wage and Salary Structure
- 3.4 Factors affecting Wages and Methods of Wage Payments

Unit 4

Incentives

- 4.1 Meaning and Essential of Sound Incentives Plans
- 4.2 Types of Incentive Plans
- 4.3 Concept of Profit Sharing

Unit 5

Fringe Benefits

- 5.1 Need and Importance of Fringe Benefits
- 5.2 Types of Fringe Benefits
- 5.3 Perquisites – Need and Types

BOOK FOR STUDY

Human Resource Management – C.B.Gupta

BOOKS FOR REFERENCE

Human Resource Management – Aswathappa

Performance Appraisal And Compensation Management – D.Geol

Performance Management And Appraisal System – T.D.Roa

JOURNALS

www.moodle.baskent.edu

www.managementstudyguide.com

www.hrware.com

PATTERN OF EVALUATION

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A – short answers (max. 50 words) - 10 x 2 = 20 Marks

Section B – Essay answers 5 x 8 = 40 Marks (From a choice of 7)

Section C – Essay answers 2 x 20 = 40 Marks (From a choice of 4)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Com (A & F) DEGREE: ACCOUNTING AND FINANCE

SYLLABUS

(Effective from the academic year 2015 -2016)
(revised 2017 – 2018)

BUSINESS TAXATION

CODE: 15CM/MC/BX64

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HRS. : 52

OBJECTIVES OF THE COURSE

- To give an insight into the complexity of corporate taxation and its impact on decision making
- To enable students to compute the taxable income and tax liability of a company
- To provide and understanding of Goods and Services Tax Laws (GST) and its computation

Unit 1 **(10 hrs.)**

Computation of Corporate Tax

- 1.1 Computation of Taxable Income
- 1.2 Carry Forward and Set Off of Losses in the case of Certain Companies Under Sec. 79 of Income-Tax Act, 1961
- 1.3 Computation of Corporate Tax Liability – Minimum Alternate Tax, Tax on Distributed Profits of Domestic Companies, Tax on Income Distributed to Unit Holders

Unit 2 **(12 hrs.)**

Implications of Tax Concessions and Incentives

- 2.1 For Corporate Decisions in respect of Setting up a New Business, Location of Business and Nature of Business
- 2.2 Tax Planning with Reference to Financial Management Decisions – Capital Structure Decision, Dividend Policy, Bonus Shares, Investments and Capital Gains
- 2.3 Tax Planning with Reference to Managerial Decisions – Owning or Leasing of and Asset, Purchase of Assets by Installment and Hire Purchase System, Purchase of an Asset out of Own Funds or Borrowed Capital

Unit 3 **(10 hrs.)**

3.1 Customs Duty

- 3.1.1 Definition and Basic Concepts in Customs Duty
- 3.1.2 Levy, Collection and Exemption of Customs Duty
- 3.1.3 Demand of Duties and Refund
- 3.1.4 Duty Drawback

3.2 Accounting for Indirect Taxes

- 3.2.1 Preparation of Sales and Purchase Register for the Purpose of Computing Customs Duty
- 3.2.2 Entries and Ledger accounts in respect of Customs Duty

Unit 4 (10 hrs.)

Goods and Services Tax – Introduction

- 4.1 CGST, IGST & SGST / UGST
- 4.2 Concept of Destination Based Consumption Tax, IGST Model
- 4.3 Levy of GST, Registration of Dealer
- 4.4 Supply – Meaning and Scope, Place of Supply, Time of Supply, Valuation
- 4.5 Input Tax Credit

Unit 5 (10 hrs.)

Goods and Services Tax – Administration

- 5.1 GST Records and Returns – Tax Invoice Rules, Filing of Returns, Types of Returns, Matching of Input Tax Credit
- 5.2 GSTN – Overview of Technology Framework Enabling GST

BOOKS FOR STUDY

Singhania, Vinod K. and Monica Singhania, *Corporate Tax Planning*. New Delhi: Taxmann.

Chaudhar, Vashistha, Dalmia, Ashu, Girdhawwal, Shaifaly, *GST-A Practical Approach*. New Delhi: Taxmann.

Sareen, V.K., Sharma, Aja, *GST Goods and Service Tax*. Kalyani

GST Manual (A Comprehensive Book on GST Law), Gurukripa, 2017

BOOKS FOR REFERENCE

Ahuja, Girish and Gupta Ravi. *Corporate Tax Planning and Management*. Bharat Law House.

Datey, V.S., *GST Ready Reckoner*. New Delhi: Taxmann

Singhania, Vinod K., Singhania, Monica, *Students' Guide to Income Tax*. New Delhi: Taxmann

JOURNALS

Income Tax Reports, Company Law Institute of India Pvt. Ltd., Chennai

Taxmann, Taxman Allied Services Pvt. Ltd., New Delhi

Current Tax Reporter, Current Tax Reporter, Jodhpur

WEB RESOURCES

www.icai.org

www.icsi.edu

www.taxjournal.com

www.taxlawsonline.com

PATTERN OF EVALUATION

Continuous Assessment

Total Marks : 50

Duration : 90 mins.

Section A - $3 \times 2 = 6$ (no choice)

Section B - $3 \times 8 = 24$ (from a choice of four questions)

Section C - $1 \times 20 = 20$ (from choice of two questions)

Third Component

List of Evaluation modes:

Seminar

Problem Solving

Quiz

End Semester Examination:

Total Marks:100

Duration: 3 Hours

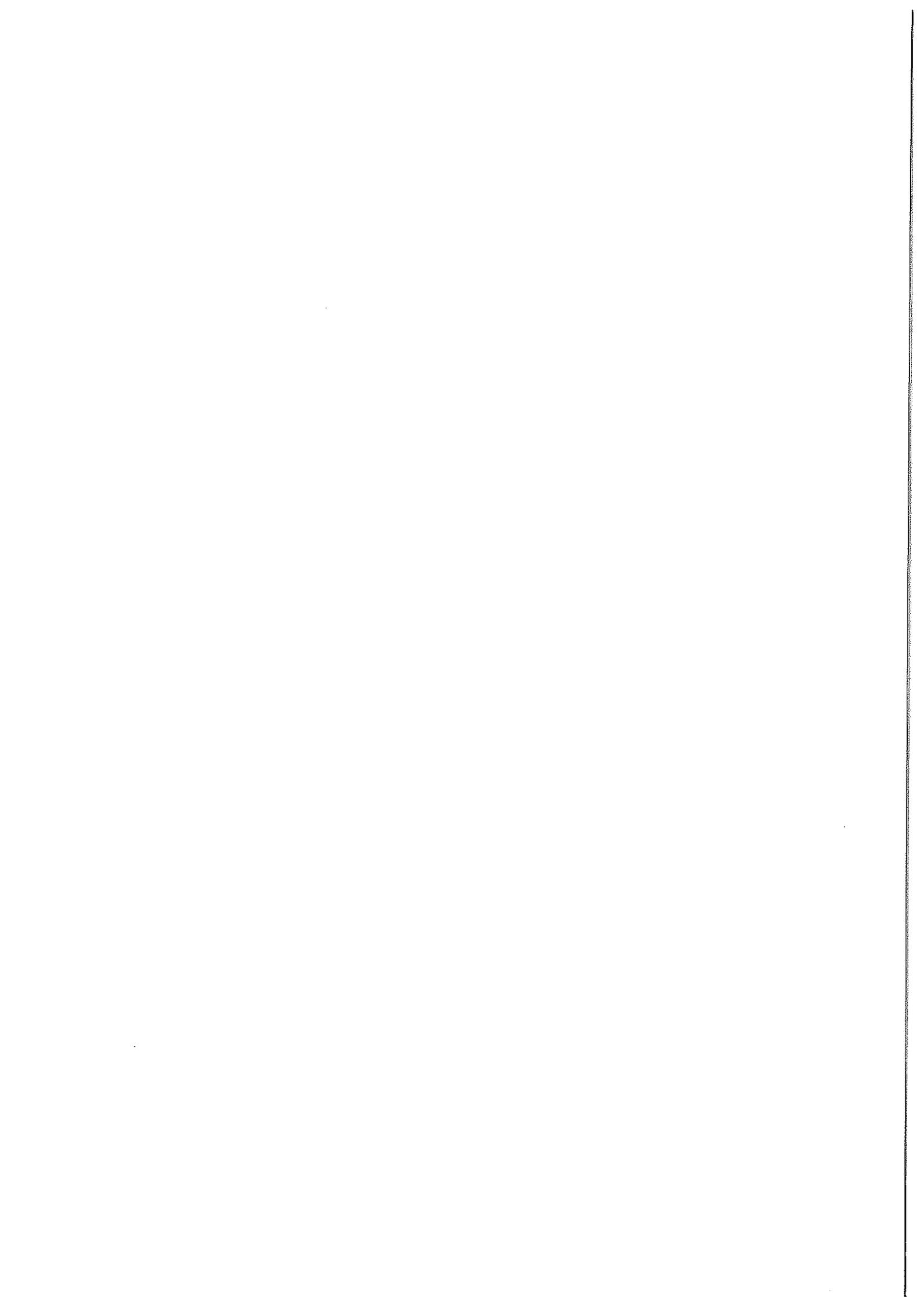
Section A – $10 \times 2 = 20$ Marks (no choice) 6 theory and 4 Problems

Section B – $5 \times 8 = 40$ Marks (From a choice of 7) 4 theory and 3 problems

Section C – $2 \times 20 = 40$ Marks (From a choice of 4) 3 theory and 1 problem

Done by
20/2/18.

Vidya Suresan



STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.Com (A & F) DEGREE: ACCOUNTING AND FINANCE

SYLLABUS
(Effective from the academic year 2015 – 2016)

ADVANCED CORPORATE ACCOUNTING

CODE: 15CM/MC/CO65

CREDITS : 5

L T P : 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To enable the students to acquire a conceptual knowledge of the fundamentals of the corporate accounting and the techniques of preparing the financial statements
- To give an exposure to the different methods for valuation of goodwill and shares

Unit 1

Accounting standards and Final accounts of a company (10 hrs)

- 1.1 Indian Accounting Standards (IND ASs):- Detailed Study of Ind As: 3,5 6, 10.
- 1.2 Final Accounts of a Company- Preparation of Final Accounts- Forms and contents as per Provisions of Companies Act 2013 as per Schedule- III

Unit 2

Redemption of Preference Shares (15 hrs)

- 2.1 legal provisions for redemption
- 2.2 Sources of Redemption
- 2.3 Journal entries relating to redemption and Preparation Of Balance Sheet
- 2.4 **Issue and redemption of Debentures**
 - 2.4.1 Issue of Debentures at Par, Premium and Discount
 - 2.4.2 Redemption of Debentures at Par, Premium and Discount
 - 2.4.3 Methods of Redemption – Debenture Redemption and Reserve
 - 2.4.4 Conversion into new class of Shares or Debentures
 - 2.4.5 Buy back of own Debentures – including ex and cum interest

Unit 3

3.1 Amalgamation, Absorption and External Reconstruction (15 hrs)

- 3.1.1 Meaning and Difference
- 3.1.2 Calculation of Purchase Consideration for Amalgamation in the Nature of Merger and Purchase
- 3.1.3 Accounting Treatment in the Books of the Purchasing Company and Vender Company

- 3.2 Alteration of Share Capital and Internal Reconstruction**
- 3.1 Alteration of Share Capital – Types – Accounting Procedure
 - 3.2 Internal Reconstruction – Types and Legal provisions
 - 3.3 Accounting Entries and preparation of Balance Sheet after Internal Reconstruction

Unit 4

- 4.1 Insurance Company Accounts (15 hrs)**
- 4.1.1 Accounts of General Insurance
 - 4.1.2 Accounts of Life insurance Companies
- 4.2 Bank Accounts**
- 4.2.1 Treatment of Rebate on Bills Discounted
 - 4.2.2 Computation of Provision to be made for advances
 - 4.2.3 Computation of Profit and Loss Account with Schedules
 - 4.2.4 Preparation of Balance Sheet with Schedules

Unit 5

- Liquidation (10 hrs)**
- 5.1. Legal Provision
 - 5.2. Statement of Affairs and Deficiency or Surplus accounts
 - 5.3 Liquidators Final Statement of Accounts

TEXT BOOKS

Gupta, R.L., Radhaswamy, M., Advanced Accountancy (Vol I, III & IV), New Delhi, Sultan Chand, 2006

Reddy T.S and Murthy A, Corporate Accounting, Chennai, Margham, 2007

BOOKS FOR REFERENCE

Arulanandam, M.A., Raman, K.A., Corporate Accounting, Mumbai, Himalaya, 2006

Jain, S.P., Narang, K.L., Advanced Accountancy (Part II), New Delhi, Kalyani, 2005

Maheshwari, S.N., Advanced Accountancy (Part II), New Delhi Vikas, 2006

JOURNALS

Advances in Accounting

Journal of Corporate Accounting and Finance

WEB RESOURCES

www.emeraldgroupublishing.com

www.journals.elsevier.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50 Duration: 90Mins

Section A $3 \times 2 = 6$ (no choice)

Section B $3 \times 8 = 24$ (from a choice of four)

Section C $1 \times 20 = 20$ (from choice of two)

Third Component Tests

Seminars

Quiz

Group discussion

Assignments

End Semester Examination:

Total Marks:100 Duration: 3 Hours

Section A – short answers (max. 50 words) - $10 \times 2 = 20$ Marks

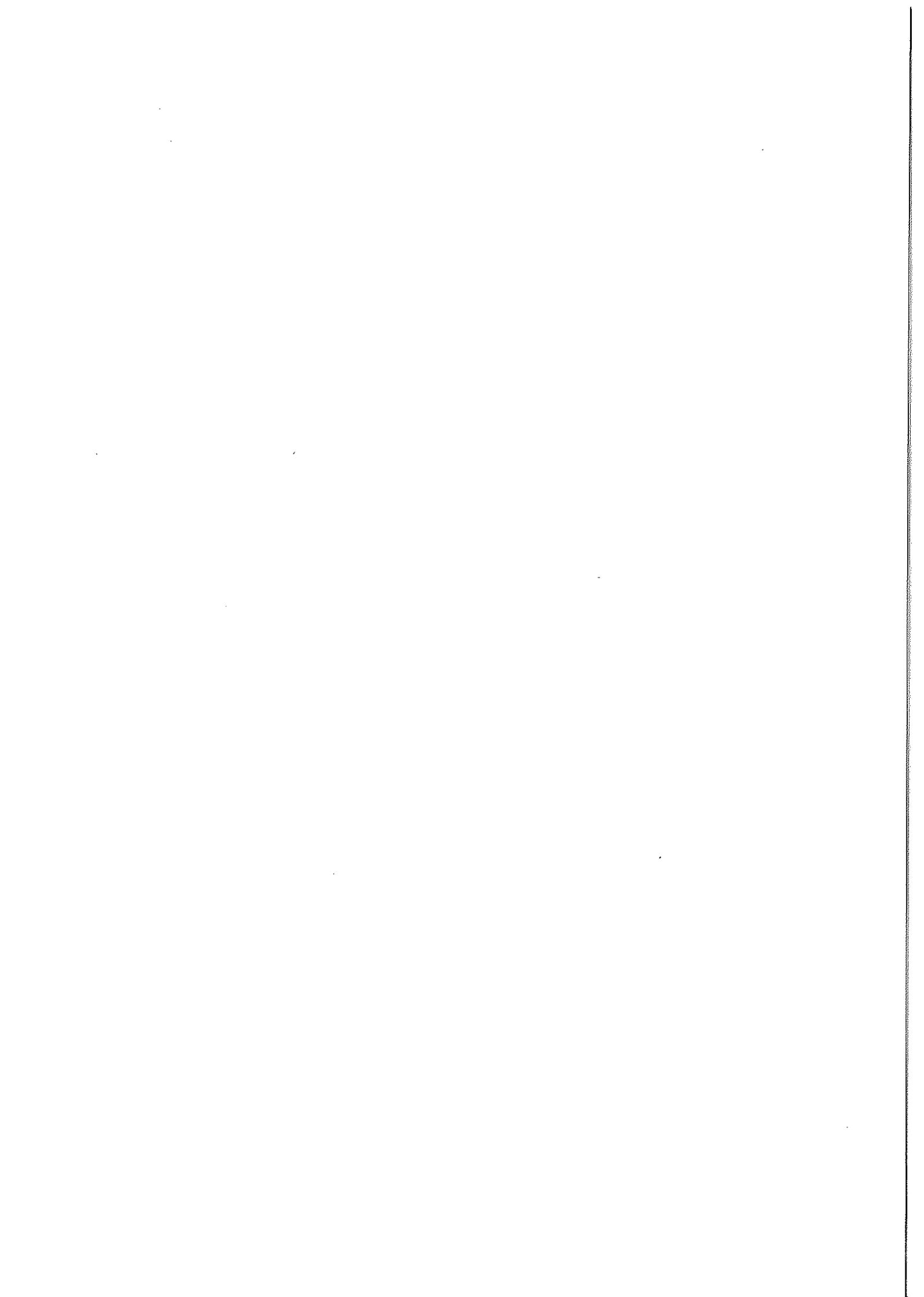
5 Questions theory and 5 Problems

Section B – Problems $5 \times 8 = 40$ Marks (From a choice of 7)

Section C – Problems $2 \times 20 = 40$ Marks (From a choice of 4)

Luna Nani
20/2/18

Vidya Srinivasan
20/2



STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Com (A & F) DEGREE: ACCOUNTING AND FINANCE

SYLLABUS
(Effective from the academic year 2015 -2016)

PORTFOLIO MANAGEMENT

CODE: 15CM/MC/PO65

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To enable students to make a cohesive analysis of alternative investments
- To enable acquire knowledge about creation and revision of an investment portfolio
- To equip the students with the skills for dealing with investments

Unit 1 (10 hrs)

Introduction

- 1.2 Definition and Meaning of Portfolio Management
- 1.2 Steps involved in Portfolio Management, Principles of Portfolio Management
- 1.3 Framework of Risk and Return
- 1.4 Meaning and Components of Return
- 1.5 Risk – Meaning and Causes
- 1.6 Types of Risk – Systematic and Unsystematic

Unit 2 (20 hrs)

Theories of Portfolio Management

- 2.1 Measurement of Return – Single Security and Portfolio
- 2.2 Measurement of Risk – Single Security and Portfolio
- 2.3 Harry Markowitz Theory
- 2.4 Single Index Model
- 2.5 CAPM (Capital Assets Pricing Model)

Unit 3 (15 hrs)

Valuation of Securities

- 3.1 Equity Valuation
 - 3.1.1 Based on Accounting Information
 - 3.1.2. Based on Dividends
 - 3.1.3 Based on Earnings
- 3.2 Bond Valuation
 - 3.2.1 Bond pricing, Yield to Maturity, Yield to Call

Unit 4 (10 hrs)

Security Analysis

- 4.1 Fundamental Analysis – Intrinsic value of shares – EIC (Economy-Industry-Company) framework
- 4.2 Technical Analysis (only theory) –Basic tenets of Technical Analysis
 - 4.2.1 Price and Volume Charts, Dow Theory, Pattern Analysis

Unit 5**(10 hrs)****Techniques of Portfolio Management**

- 5.1 Efficient Market Hypothesis
- 5.2 Asset Allocation Framework – Strategic and Tactical
- 5.3 Passive and Active Management Strategies
- 5.4 Portfolio Evaluation – Treynor Measure, Sharpe Measure, Jensen Measure

TEXT BOOKS

Bhalla V.K, Investment Management, New Delhi, S. Chand & Co Ltd, 2005

Chandra, Prasanna, Investment Analysis and Portfolio Management, New Delhi, Tata McGraw – Hill, 2007

Rustagi R.P , Investment Analysis and Portfolio Management, New Delhi, Sultan Chand, 2007

BOOKS FOR REFERENCE

Bhalla, V.K. Tuteja, S.K., Investment Management , Sultan Chand, New Delhi, 2005

Fisher, Donald, E. & Jordan, Ronald, J., Security Analysis of Portfolio Management, Prentice Hall, New Delhi, 2006

Grinold, Richard, Khan, Ronald, N., Active Portfolio Management – Quantitative Theory and Applications, , S. Chand, New Delhi, 2006

Ibbotson, Roger, G., Investment Markets, Tata McGraw Hill, New Delhi, 2006

Shah, Kishor & Others, How to Invest Well – A Guide to the Share Market and Personal Investments, Tata McGraw Hill, New Delhi, 2006

Singhi, Preethi, Investment Management – Security Analysis and Portfolio Management, Himalaya, Mumbai, 2005

JOURNAL

Sprinjer- Journal of Financial Market and Portfolio Management
Stretwise –The Journal of Portfolio Management
The Journal of Portfolio Management

WEB RESOURCES

www.bloomberg.in
www.innotas.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins

Section A – Answer all Questions

$7 \times 2 = 14$ Marks

Section B – Answer any Two Questions from a choice of Three $2 \times 8 = 16$ Marks

Section C – Answer any One Question from a choice of Two $1 \times 20 = 20$ Marks

Third Component Tests:

Open book tests

Assignments- Problem solving

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A – short answers (max. 50 words) - $10 \times 2 = 20$ Marks

5 Questions theory and 5 Problems

Section B – Problems $5 \times 8 = 40$ Marks (From a choice of 7)

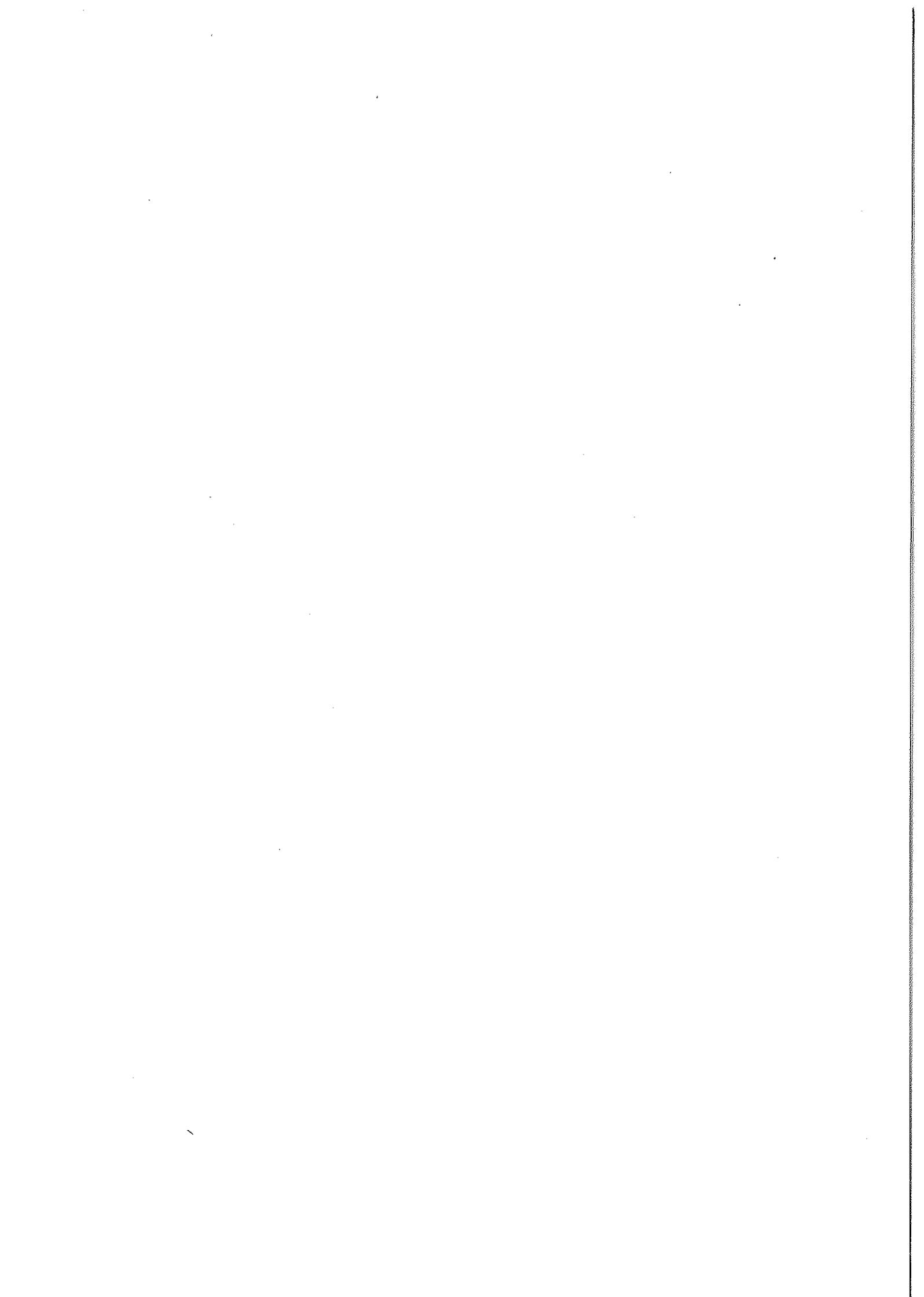
Section C – Problems $2 \times 20 = 40$ Marks (From a choice of 4)

Anna Hari

20/2/16

Vidy. Quinman

20/2



STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.Com (CS) DEGREE: CORPORATE SECRETARYSHIP

SYLLABUS
(Effective from the academic year 2015 – 2016)

FINANCIAL ACCOUNTING

CODE: 15CM/MC/FA15

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To enable the students to acquire conceptual knowledge about Accounting Standards.
- To help the students to acquire knowledge in preparing financial statements.
- To equip the students with the skill of preparing accounts for various type of organizations

Unit 1

Conceptual Frame Work for Preparation of Financial Statements (15 hrs.)

- 1.1 Capital and Revenue Expenditure - Capital and Revenue Receipts
- 1.2 Accounting Standards
 - 1.2.1 Object of Accounting Standards - Accounting Standard Board of India - Functions - Indian Accounting Standards (IND ASs) - International Financial Reporting Standards (IFRS)
 - 1.2.2 Ind AS – 1: Presentation of Financial Statements
 - a Objective b Scope c General Features
 - 1.2.3 Ind AS – 2: Inventories a Objective b Definitions c Measurement of Inventories d Disclosure
 - 1.2.4 Ind AS – 18: Revenue a Objective and Scope b Measurement of Revenue
 - 1.2.5 Advanced Problems in Final accounts of a sole trader

Unit 2

Insurance Claim for Loss of Stock and for Loss of Profit (13 hrs.)

- 2.1 Insurance Claim for Loss of Stock
 - 2.1.1 Concept of Under-Insurance and Average Clause
 - 2.1.2 Computation of Claim – with Price Change; Consideration of Unusual Selling Line and Price Reduction
- 2.2 Insurance Claim for Loss of Profit
 - 2.2.1 Concept – Insured and Uninsured Standing Charges, GP Rate, Short Sales and Increased Cost of Working, Average Clause
 - 2.2.2 Computation of Claim

Unit 3
Accounting for Hire Purchase and Installment System (12 hrs.)

- 3.1 Meaning - Features of Hire Purchase Agreement - Distinction Between Hire Purchase and Sale
 - 3.1.1 Interest Calculations
 - 3.1.2 Recording Transactions in the Books of Hire Purchaser and the Hire Vendor
- 3.2 Default and Repossession – Partial Repossession and Complete Repossession
- 3.3 Installment System – Features - Distinction Between Hire Purchase and Installment System

Unit 4
Branch Accounts and Departmental Accounts (15 hrs.)

- 4.1 Branch Accounts
 - 4.1.1 Features
 - 4.1.2 Methods of Accounting – Debtors System, Stock and debtors System
- 4.2 Independent Branches –Features, Adjustment Entries in the Books of Head Office and Branch
- 4.3 Departmental Accounts
 - 4.3.1 Concept, Distinction between Departments and Branches
 - 4.3.2 Objective of Preparation of Departmental Accounts, Apportionment of Common Cost
 - 4.3.3 Preparation of Departmental Trading and Profit and Loss Account
 - 4.3.4 Inter Departmental Transfer of Goods at Cost, Cost Plus and at Selling Price and Elimination of Unrealized Profit

Unit 5
Average Due Date and Account Current (10 hrs.)

- 5.1 Average Due Date and its Computation
- 5.2 Account Current – Methods of Computation – Forward, Backward and Daily Balance Method including Red Ink Interest

BOOKS FOR STUDY

Gupta, R.L and M. Radhaswamy. *Advanced Accountancy (Vol.1)*. Sultan Chand & Sons, 2007.
Reddy, T.S and A. Murthy. *Financial Accounting*. Margham, 2007.

BOOKS FOR REFERENCE

Goyal V.K. *Financial Accounting*, 2nd edition. Anuraj Jain, 2010.
Jain S.P and K.L Narang. *Advanced Accountancy (Part1)*. Kalyani, 2007.
Maheshwari S.N, *Advanced Accountancy (Part1)*. Vikas, 2007.

JOURNALS

The Chartered Accountant: Journal of the Institute of Chartered Accountants of India.
Indian Journal of Finance
Journal of Accounting & Finance: Research Development Association, Jaipur.

WEB RESOURCES

www.icaai.org
www.journals.elsevier.com
www.emeraldgroupublishing.com

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Duration: 90 mins.

Section A - $3 \times 2 = 6$ (no choice)

Section B - $3 \times 8 = 24$ (from a choice of four questions)

Section C - $1 \times 20 = 20$ (from choice of two questions)

Third Component

List of Evaluation modes:

Assignments

Test

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ Marks (no choice) 5 Questions theory and 5 Problems

Section B – $5 \times 8 = 40$ Marks (From a choice of seven questions - Problems)

Section C – $2 \times 20 = 40$ Marks (From a choice of four questions - Problems)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Com (CS) DEGREE: CORPORATE SECRETARYSHIP

SYLLABUS
(Effective from the academic year 2015 -2016)

MARKETING

CODE: 15CM/MC/MG14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To enable students to understand the intricacies of marketing, focusing on its macro role in society and micro role in business
- To equip students to face the challenges and constraints of the competitive business
- To facilitate understanding of the conceptual framework of marketing and its applications in decision making under various environmental constraints

Unit 1

Introduction

(12 hrs.)

- 1.1 Marketing – Meaning, Nature and Marketing Concept Model
- 1.2 Functions of Marketing – Clark’s Functions of Marketing

Unit 2

Product Planning and New Product Development

(10 hrs.)

- 2.1 Product Planning
 - 2.1.1 Product Policy and Product Mix
- 2.2 Product Life Cycle - Stages
- 2.3 New Product Development
 - 2.3.1 Process of New Product Development
 - 2.3.2 Reasons for Product Failure

Unit 3

Pricing and Market Segmentation

(10 hrs.)

- 3.1 Pricing
 - 3.1.1 Factors affecting Pricing
 - 3.1.2 Pricing Policy
- 3.2 Market Segmentation
 - 3.2.1 Methods of Segmentation

Unit 4

Branding, and Promotion

(10 hrs.)

- 4.1 Branding
 - 4.1.1 Meaning and Importance
 - 4.1.2 Types of Brands, Functions
- 4.2 Packaging
 - 4.2.1 Functions and Kinds of Packaging and Labeling
- 4.3 Promotion-Mix

Unit 5

Channels of Distribution

(10 hrs.)

- 5.1 Factors affecting Choice of Channel
- 5.2 Classification of Channel Members

BOOK FOR STUDY

Nair, Rajan and Sanjith Nair. *Marketing*. 11th Edition, New Delhi: Sultan Chand, 2013.

BOOKS FOR REFERENCE

Gandhi J.C. *Marketing*. New Delhi: Tata McGraw Hill, 2009.

Groucutt Jonathan, Peter Leadley, Patrick Forsyth. *Marketing Essential Principles. New Realities*. Kogan, 2004.

Kotler Philip. *Marketing* 12th edition. New Delhi: Prentice Hall of India, 2008.

Steven J Skinner, *Marketing*, Houghton Mifflin; 2nd edition, 1994.

Varshney R.L, Dr. S.L. Gupta. *Marketing Management*. Himalaya.

William J. Stanton, Micheal J. Etzel, Bruce J. Walker. *Fundamentals of Marketing*, New Delhi: Mc Graw Hill, 2009.

Xavier, M. J., *Marketing in the New Millenium*, New Delhi: Vikas, 2009.

JOURNALS

Journal of Marketing - American Marketing Association

Journal of Consumer Marketing

Journal of Marketing Education

International Journal of Research in Marketing

International Journal of Marketing Studies

International Journals of Marketing and Technology

Indian Journal of Marketing

WEB RESOURCES

www.yourarticlelibrary.com

www.boundless.com

www.learnmarketing.net

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component

List of Evaluation modes:

Seminars

Quiz,

Group discussion

Assignments

Class Presentation

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.Com (CS) DEGREE: CORPORATE SECRETARYSHIP

SYLLABUS
(Effective from the academic year 2015– 2016)

COST ACCOUNTING

CODE: 15CM/MC/CT25

CREDITS: 5

L T P : 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide an understanding of the basic concepts of cost accounting
- To enable students to understand the methods of ascertaining the product cost
- To expose the students to the practical application of costing

Unit 1

The Nature of Cost Accounting (10 hrs.)

- 1.1 Meaning, Objectives and Scope
- 1.2 Advantages and Limitations of Cost Accounting, Difference Between Financial and Cost Accounting Cost Center and Cost Units- Methods of Costing
- 1.3 Elements of Cost, Cost Concepts and Classification of Cost. Audit and Maintenance of Cost Records
- 1.4 Preparation of Cost Sheet, Quotations or Tenders

Unit 2

Material Cost and Material Control (15 hrs.)

- 2.1 Computation of Material Cost and Accounting Treatment for Normal, Abnormal Loss and Scrap
- 2.2 Essentials of Material Control, Purchase Control – Purchase Procedure
- 2.3 Store Control
 - 2.3.1 Techniques of Inventory Control – Economic Order Quantity, Level Setting, Perpetual Inventory Systems and Stock Control According to Value- ABC Analysis, JIT
- 2.4 Issue Control
 - 2.4.1 Stores and Material Records – Bin Card and Store Ledger
 - 2.4.2 Methods of Material Issue – First In First Out, Last In First Out, Average Cost - Simple and Weighted Average

Unit 3

Labour Cost, Remuneration and Incentives (15 hrs.)

- 3.1 Computation of Labour Cost with Overtime and Idle Time
- 3.2 Labor Turnover – Methods of Computation, Causes and Effects of Labour Turnover
- 3.3 Methods of Remuneration- Time Rate System, Piece Rate System, Taylor's Differential Piece Rate System.
- 3.4 Incentive Plans -Halsey Premium Plan, Rowan Premium Plan.

Unit 4**Overheads****(13 hrs.)**

- 4.1 Importance and Classification of Overhead Costs
- 4.2 Apportionment and Allocation of Overheads
 - 4.2.1 Primary Distribution of Overheads
 - 4.2.2 Secondary Distribution of Overheads- Direct Distribution, Reciprocal and Non Reciprocal Methods
- 4.3 Methods of Absorption of Overheads
 - 4.3.1 Direct Labour Hour Rate
 - 4.3.2 Machine Hour Rate
 - 4.3.3 Activity Based Costing

Unit 5**(12 hrs.)****Process and Operating Costing**

- 5.1 Process Costing
 - 5.1.2 Meaning and Features of Process Costing
 - 5.1.2 Process Losses and Gains – Accounting Treatment of Normal and Abnormal Wastage and Abnormal Gain
 - 5.1.3 Inter-Process Profit
- 5.2 Operating Costing- Transport Costing only

BOOKS FOR STUDY

Jain, S.P. and Narang K.L. *Cost Accounting*. NewDelhi: Kalyan, 2006.

Reddy, T.S and A. Murthy. *Cost Accounting*. Margham, 2007.

BOOKS FOR REFERENCE

Khanna, B.S, I.M Pandey, G.K Ahuja, and M.N Arora. *Practical Costing*. New Delhi: Sultan Chand, 2006.

Maheswari, S.N. *Problems and solutions in Cost Accounting*. 12th edition, Sultan Chand, 2010.

Ravi M. Kishore. *Cost Accounting*, 4th edition, Taxmann's Allied Services, 2010.

JOURNALS

Cost Accounting Standards - The ICWA of India

Management Accountant - The ICWA of India

Indian Journal of Finance

WEB RESOURCES

icwajournal@hotmail.com

www.accaglobal.com

PATTERN OF EVALUATION

Continuous Assessment

Total Marks : 50

Duration : 90 mins.

Section A - $3 \times 2 = 6$ (no choice)

Section B - $3 \times 8 = 24$ (from a choice of four questions)

Section C - $1 \times 20 = 20$ (from choice of two questions)

Third Component

List of Evaluation modes:

Assignments

Problem solving

Quiz

End Semester Examination

Total Marks : 100

Duration : 3 hours

Section A – $10 \times 2 = 20$ Marks (no choice) 5 Theory questions and 5 Problems

Section B – $5 \times 8 = 40$ Marks (from a choice of seven questions – 2 Theory questions and 5 Problems)

Section C – $2 \times 20 = 40$ Marks (from a choice of four questions -Problems)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.Com (CS) DEGREE: CORPORATE SECRETARYSHIP

SYLLABUS
(Effective from the academic year 2015 – 2016)

BUSINESS MANAGEMENT

CODE: 15CM/MC/BM24

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To provide a comprehensive understanding of the principles of management
- To emphasize the need for competence, trust and team work, in the organisation
- To familiarize students with the different functions of management

Unit 1

Introduction (10 hrs.)

- 1.1 Meaning, Concepts and Levels of Management
- 1.2 Contributions to Management Studies by Fayol, Taylor, Elton Mayo

Unit 2

Planning (9 hrs.)

- 2.1 Importance and Process of Planning
- 2.2 Types of Plans – Policies, Procedures, Strategies, Objectives, Rules, Budgets
- 2.3 Obstacles to Effective Planning

Unit 3

Organizing and Departmentation (12 hrs.)

- 3.1 **Organizing and Departmentation**
 - 3.1.1 Nature and Importance
 - 3.1.2 Types – Line, Line and Staff and Functional Organizations
- 3.2 Delegation and De-centralization
- 3.3 Departmentation

Unit 4

Staffing and Communication (12 hrs.)

- 4.1 **Staffing and Communication**
 - 4.1.1 Recruitment and Selection
 - 4.1.2 Training – Need, Types of Employee Training
 - 4.1.3 Motivation – Meaning and Maslow's Theory of Motivation
 - 4.1.4 Leadership – Qualities, Types of Leaders, Span of Control
- 4.2 **Communication**
 - 4.2.1 Types and Process
 - 4.2.2 Barriers to Communication

Unit 5

Control (9 hrs.)

- 5.1 Importance of Control and Control Process
- 5.2 Characteristics of an Ideal Control System

BOOK FOR STUDY

Gupta, C. B. *Business Management*. New Delhi: Sultan Chand, 2007.

BOOKS FOR REFERENCE

Pagare Dinakar. *Business Management*. 5th edition. New Delhi: Sultan Chand, 2008.

Gupta, N.S. and Alka Gupta. *Essentials of Management*. New Delhi; Anmol, 2010.

Harold, Koontz., Hein Wehrich. *Essentials of Management*. 6th edition. New Delhi: Tata Mc.Graw Hill, 2006.

Prasad, Manmohan. *Management Concepts and Practices*. Mumbai: Himalaya, 2006.

Prasad L.M. *Principles and Practice of Management*. New Delhi: Sultan Chand, 2008.

Sivarethinamohan R. and P.Aranganathan. *Principles of Management*. Chennai: CBA, 2008

JOURNALS

International Journal of Management Reviews

European Journal of Business Management

WEB RESOURCES

www.exed.hbs.edu

www.hbr.org

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of evaluation modes:

Case Studies

Mini projects

Objective type questions

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Com (CS) DEGREE: CORPORATE SECRETARYSHIP

SYLLABUS
(Effective from the academic year 2015 -2016)

LEGAL ASPECTS OF BUSINESS

CODE: 15CM/MC/LB34

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To familiarize the students with the principles of law that is essential to manage complex business transactions
- To sensitize on the legal rights, duties and obligations arising out of business transactions

Unit 1

Contract Act (12 hrs.)

- 1.1 Meaning and Types of Contract
- 1.2 Essentials of a Valid Contract, Offer and Acceptance, Consideration, Capacity of Parties, Legality of Object
- 1.3 Performance of Contract
- 1.4 Discharge of Contract, Remedies for Breach of Contract

Unit 2

Special Contract (7 hrs.)

- 2.1 **Contract of Indemnity**
 - 2.1.1 Contract of Guarantee
 - 2.1.2 Rights and Liabilities of Surety
 - 2.1.3 Discharge of Surety
- 2.2 **Bailment**
 - 2.2.1 Rights and Duties of Bailor and Bailee
 - 2.2.2 Termination of Bailment
 - 2.2.3 Finder of Lost Goods
- 2.3 **Pledge**
 - 2.3.1 Rights and Duties of Pledger and Pledgee
 - 2.3.2 Pledge by Non-Owners

Unit 3

Sale of Goods Act (10 hrs.)

- 3.1 Essentials of a Contract of Sale
- 3.2 Subject Matter of a Contract of Sale
- 3.3 Conditions and Warranties
- 3.4 Transfer of Property
- 3.5 Performance of Contract
- 3.6 Rights of an Unpaid Seller

Unit 4
Limited Liability Partnership Act, 2008 (LLP) (13 hrs.)

- 4.1 Salient Features of LLP
- 4.2 Difference Between LLP, Partnership and a Company
- 4.3 LLP Agreement, Nature of LLP , Partners and Designated Partners
- 4.4 Incorporation - Incorporation by Registration, Registered Office of LLP and Change of Name, Partners and their Relations
- 4.5 Extent and Limitation of Liability of LLP and Partners
- 4.6 Conversion to LLP, Winding Up and Dissolution

Unit 5
Law Relating to Intellectual Property (10 hrs.)

- 5.1 Concept and Development of Intellectual Property Law in India
- 5.2 Law and Procedure Relating to Patents, Trademarks and Copyrights
- 5.3 Overview of Laws Relating to other Intellectual Property Rights
- 5.4 Enforcement of Intellectual Property Rights

BOOK FOR STUDY

Kapoor N.D. *Elements of Mercantile Law*. New Delhi: Sultan Chand, 2010.

BOOKS FOR REFERENCE

Balachandran, V and Thothadri. *Business Law*. Tata McGraw Hill, 2007.

Chadha P.R. *Business Law*. 7th Edition, New Delhi: Galgotia, 2005.

Gogna P.P.S. *Mercantile Law*. 3rd Edition, New Delhi: Sultan Chand, 2005.

Pandit M.S. and Shoba Pandit. *Business Law*. Mumbai: Himalaya, 2010.

JOURNALS

Indian Business Law Journal

A.P.L.J. Andhra Pradesh Law Journal

WEB RESOURCES

www.indilaw.com

www.amritt.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component

List of Evaluation modes:

Seminars

Quiz,

Group discussion

Assignments

Class Presentation

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Com (CS) DEGREE: CORPORATE SECRETARYSHIP

SYLLABUS

(Effective from the academic year 2015 -2016)

BANKING AND FINANCIAL SERVICES

CODE: 15CM/MC/BF35

CREDITS : 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To expose students to the concept and practices adopted in the banking industry
- To educate students about the practical relevance and importance of banking
- To update students with the changing trends in banking industry
- To understand the basics of financial services and its various dimensions, evaluation and benefits to the economy
- To identify the importance of diverse facets of the services in the development of Indian financial

Unit 1

Introduction to Banking (15 hrs.)

- 1.1 Meaning, Definition and Functions of Commercial Banking
- 1.2 Types of Deposits - Savings, Current, Fixed Deposits and Recurring Deposits
- 1.3 Types of Lending – Cash Credit, Overdraft, Bills Discounting and Term Loans
- 1.4 Opening, Operation and Closing of Bank Accounts
- 1.5 Banking Ombudsman

Unit 2

Negotiable Instruments Act (12 hrs.)

- 2.1 Meaning and Features of Negotiable Instruments – Cheque, Promissory Note and Bills of Exchange
- 2.2 Crossing and Endorsement of Cheques
- 2.3 Payment and Collection of Cheques

Unit 3

Advancements in Banking (10 hrs.)

- 3.1 E-Banking – Meaning, Importance, Merits and Demerits
- 3.2 Internet Banking, Mobile Banking, Tele-Banking
- 3.3 Debit Card, Credit Card, ATM Card and Smart Card
- 3.4 Electronic Clearing Service and Electronic Fund Transfer

Unit 4

Financial Services - Introduction (13 hrs.)

- 4.1 Meaning, Features, Types and Importance of Financial Services in India
- 4.2 Credit Rating Services – Meaning and Methods of Rating with Special Reference to ICRA and CRISIL.
- 4.3 Merchant Banking - Meaning and Functions

Unit 5

Financial Services - Types

(15 hrs.)

- 5.1 Factoring - Definition, Importance, Types
- 5.2 Leasing – Meaning, Importance and Types
- 5.3 Mutual fund – Meaning, Types – Open Ended and Close Ended and Selection of Mutual Fund
- 5.4 Venture Capital Financing – Meaning, Importance and Features of Venture Capital Financing

BOOKS FOR STUDY

Gurusamy, S. *Financial Services*. Tata McGraw Hill, 2011.

Sundaram, K.P.M. and P. N. Varshney. *Banking Theory Law and Practice*, 18th Edition, New Delhi: Sultan Chand & Sons, 2005.

BOOKS FOR REFERENCE

Bhalla, V.K. *Management of Financial Services*. New Delhi: Anmol, 2002.

Gordon, E. and Natarajan K. *Banking Theory Law and Practice*. Mumbai: Himalaya, 2005.

Gupta Shashi K and Nisha Agarwal. *Financial Services*. New Delhi: Kalyani, 2006.

Gurusamy S, *Banking Theory Law and Practice*. Chennai: Vijay Nicole Imprints, 2006.

Gurusamy S. *Financial Services and Markets*. Chennai: Vijay Nicole Imprints, 2012.

Khan, M.Y. *Financial Services*. New Delhi: Tata McGraw Hill, 2006.

Machiraju H. R., *Indian Financial System*. New Delhi: Vikas, 2005.

Varshney P.N. *Banking Law and Practice*, New Delhi; Sultan Chand & Sons, 2006.

JOURNALS

Asian Journal of Research in Banking and Finance

Indian Journal of Finance

Journal of Banking, Information Technology and Management

Journal of Bank Management

Journal of Internet Banking and Commerce

International Journal of Banking and Finance

WEB RESOURCES

www.preservearticles.com

www.india-financing.com

www.languages.ind.in

www.rbi.org.in

www.allbankingsolutions.com

www.preservearticles.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component

List of Evaluation modes:

Seminar

Group Discussion

Assignments

Class Presentations

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.Com (CS) DEGREE: CORPORATE SECRETARYSHIP

SYLLABUS
(Effective from the academic year 2015 – 2016)

MANAGEMENT ACCOUNTING

CODE: 15CM/MC/MA34

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To emphasize the need for analyzing the financial data for internal reporting, cost control and effective decision-making.
- To analyze and interpret the financial statements for managerial decision making.
- To focus on the applications of cost control concepts and techniques for effective planning and forecasting

Unit 1 (5 hrs.)

1.1 Nature of Management Accounting

- 1.1.1 Definition and Nature of Management Accounting
- 1.1.2 Scope and Objectives of Management Accounting
- 1.1.3 Need, Importance and Limitations of Management Accounting

1.2 Analysis and Interpretation of Financial Statements

- 1.2.1 Financial Statements – Income statement, Position Statement
- 1.2.2 Importance and limitation of Financial Statements
- 1.2.3 Concept of Analysis and Interpretation- Types of Financial Analysis

Unit 2

Methods of Financial Analysis and Interpretation (15 hrs.)

- 2.1 Comparative Statements
- 2.2 Common-Size Statements
- 2.3 Trend Analysis
- 2.4 Ratio Analysis
 - 2.4.1 Use, Significance and Limitations of Ratio Analysis
 - 2.4.2 Computation and Interpretation of Ratios - Turn Over, Liquidity, Profitability, Solvency and Leverage Ratios

Unit 3

Budgets and Budgetary Control (10 hrs.)

- 3.1 Concepts of Budgets and Budgetary Control
- 3.2 Objectives and Advantages of Budgetary Control
- 3.3 Classification of Budgets and its Preparation – Sales Budget, Purchases Budget, Cost of Production Budget, Cash Budget and Flexible Budget

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B.Com (CS) DEGREE: CORPORATE SECRETARYSHIP

SYLLABUS
(Effective from the academic year 2015 -2016)

BUSINESS ETHICS AND CORPORATE SOCIAL RESPONSIBILITY

CODE: 15CM/MC/EC34

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To familiarise students with the understanding of issues and practices of corporate governance and corporate social responsibility in the global and Indian context
- To enable students to analyse and examine the corporate social responsibility of different organisations

Unit 1

Introduction to Business Ethics (10 hrs.)

- 1.1 Meaning, Scope and Objectives of Business Ethics
- 1.2 Globalisation and Business Ethics
- 1.3 Ethical Dilemma in Business

Unit 2

Business and Ethical Environment (15 hrs.)

- 2.1 Ethical Issues in Finance - Issues Related to Financial Services, Insider Trading and Takeovers
- 2.2 Ethical Issues in Marketing and Advertising
- 2.3 Whistle Blowing and Whistle Blower's Protection

Unit 3

Corporate Governance (10 hrs.)

- 3.1 Meaning and Concepts of Corporate Governance
- 3.2 Management Structure of Corporate Governance
- 3.3 Board Committees and Their Functions

Unit 4

Corporate Social Responsibility (10 hrs.)

- 4.1 Meaning, Importance of Corporate Social Responsibility and Legal Requirements
- 4.2 Corporate Sustainability and Corporate Social Responsibility
- 4.3 Managing Environmental Issues

Unit 5

Responding to Stakeholders

(7 hrs.)

- 5.1 Stockholders, Employees, Community - Corporate Philanthropy and Community Volunteering
- 5.2 Case Studies – Socially Responsible Business Practices

BOOKS FOR STUDY

Andrew Crane Dirk Matten. *Business Ethics*. New Delhi: Oxford University Press.
Fernando, A.C. *Corporate Governance – Principles, Policies & Practice*. Pearson.
Joan R. Boatright. *Ethics and the Conduct of Business*. 7th edition. Pearson.

BOOKS FOR REFERENCE

Bhanu Murthy, K. V. and Usha Krishna, *Politics Ethics and Social Responsibilities of Business*. New Delhi: Pearson Education.
Christine, A Mallin. *Corporate Governance* (Indian Edition). New Delhi: Oxford University Press.
Geeta Rani, D & R K Mishra. *Corporate Governance-Theory and Practice*. New Delhi: Excel.
Kotler, Philip and Nancy Lee. *Corporate Social Responsibility – Doing the Most Good for Your Company and Your Cause*. Wiley – India, 2008.
Mathur, U.C. *Corporate Governance & Business Ethics*. Macmillan, 2005.
Sharma, J. P. *Corporate Governance Business Ethics & CSR*. New Delhi: Ane Books
Subhash Chandra Das, *Corporate Governance in India*. PHI, 2008.

JOURNALS

International Journal of Management Reviews
International Journal on Corporate Strategy and Social Responsibility
SSRN – E Journal

WEB RESOURCES

www.ibscdc.org
www.exed.hbs.edu
www.hbr.org

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminar

Group Discussion

Assignments

Class Presentations

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI- 600 086
B.Com (CS) DEGREE: CORPORATE SECRETARYSHIP

SYLLABUS
(Effective from the academic year 2015 -2016)

FINANCIAL MANAGEMENT

CODE: 15CM/MC/FM44

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To acquaint students with the basic tools and principles of financial management
- To provide a sound conceptual frame work for financial decision-making

Unit 1

Nature of Financial Management (8 hrs.)

- 1.1 Modern Approach to Financial Management
 - 1.1.1 Investment Decisions
 - 1.1.2 Finance Decisions
 - 1.1.3 Dividend Decisions
- 1.2 Objectives of the Firm
 - 1.2.1 Profit Maximisation
 - 1.2.2 Wealth Maximisation
- 1.3 Risk Return Trade off
- 1.4 Significance of Financial Management

Unit 2

Time Value of Money (10 hrs.)

- 2.1 Meaning and Significance of Time value of Money in Financial Decisions
- 2.2 Computation of Time value of Money
 - 2.2.1 Compounding Techniques
 - 2.2.2 Present Value Techniques

Unit 3

Measurement of Cost of Capital (12hrs.)

- 3.1 Meaning and Significance
- 3.2 Cost of Equity and Retained Earnings
- 3.3 Cost of Debt - Redeemable and Irredeemable
- 3.4 Cost of Preference - Redeemable and Irredeemable
- 3.5 Computation of Overall Cost of Capital - Book Value and Market Value

Unit 4

Capital Budgeting (12 hrs.)

- 4.1 Nature of Capital Budgeting
- 4.2 Evaluating Techniques - Pay Back Period, Average Rate of Return, Net Present Value, Internal Rate of Return and Profitability Index

Unit 5

Working Capital Management

(10 hrs.)

- 5.1 Need for Working Capital Management
- 5.2 Determinants of Working Capital Management
- 5.3 Computation of Working Capital

BOOK FOR STUDY

Khan, M.Y. and P.K. Jain. *Basic Financial Management*. New Delhi: Tata Mc Graw Hill, 1999.

REFERENCE BOOKS

Chandra, Prasanna. *Fundamentals of Financial Management*. New Delhi: Tata McGraw Hill, 1999.

Van Horne, James C. *Financial Management and Policy*. New Delhi: Prentice Hall of India, 1991.

Kalra, Ashish. *Financial Management*. New Delhi: IGP, 2011.

Khan, M.Y. and Jain P.K. *Basic Financial Management*. New Delhi: Tata Mc Graw Hill, 1999.

Maheshwari, S. N. *Financial Management*. New Delhi: Vikas, 1999.

Pandey, I. M. *Financial Management*. New Delhi: Vikas, 2000.

Ravi M. Kishore. *Taxmann's Financial Management*. New Delhi: K. L. Taxmann, 2006.

JOURNALS

Journal on Risk and Financial Management

Indian Journal of Finance

Finance India

WEB RESOURCES

www.mdpi.com/

www.indianjournaloffinance.co.in/

www.financeindia.com/

PATTERN OF EVALUATION

Continuous Assessment Tests

Total Marks: 50

Duration: 90 mins.

Section A - $3 \times 2 = 6$ (no choice)

Section B - $3 \times 8 = 24$ (from a choice of four questions)

Section C - $1 \times 20 = 20$ (from choice of two questions)

Third Component

List of Evaluation modes:

Assignments

Test

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ Marks (no choice 5 Theory Questions and 5 Problems)

Section B – $5 \times 8 = 40$ Marks (from a choice of seven questions – 2 Theory and 5 Problems)

Section C – $2 \times 20 = 40$ Marks (from a choice of four questions)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.Com (CS) DEGREE: CORPORATE SECRETARYSHIP

SYLLABUS

(Effective from the academic year 2015 – 2016)

COMPANY LAW AND SECRETARIAL PRACTICE

CODE: 15CM/MC/CP45

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To expose students to the statutory provisions relating to the formation and management of a company and the functions of a company secretary
- To enable students to understand the secretarial aspects relating to drafting of minutes and other procedures of the Company law

Unit 1

Introduction to Company and Secretarial Practice (10 hrs.)

- 1.1 Definition and Characteristics of a Company
- 1.2 Importance of a Company Secretary, Scope of Secretarial Practice
- 1.3 Types of Secretaries
- 1.4 Rights, Duties and Liabilities of a Company Secretary
- 1.5 Qualification, Appointment and Dismissal

Unit 2

Formation of a Company (15 hrs.)

- 2.1 Incorporation
- 2.2 Memorandum of Association- Meaning, Contents, Alterations, Doctrine of Ultra Vires
- 2.3 Articles of Association – Contents, Alterations, Doctrine of Indoor Management
- 2.4 Prospectus – Definition, Contents, Mis-Statements in Prospectus and its Consequences

Unit 3

Duties of a Secretary Relating to Application and Allotment of Shares (15 hrs.)

- 3.1 Issue of Shares, Application and Allotment Procedure, Allotment Letter
- 3.2 Partial Allotment, Letter of Regret
- 3.3 Listing of Shares – SEBI Regulation, Bonus Shares Issue – Procedure
- 3.4 Calls, Forfeiture and Re-issue of Forfeited Shares

Unit 4

Meetings and Resolutions (15 hrs.)

- 4.1 **Meetings**
 - 4.1.1 Annual General Meeting
 - 4.1.2 Statutory Meeting
 - 4.1.3 Extraordinary General Meeting
 - 4.1.4 Board Meetings
- 4.2 **Resolutions**
 - 4.2.1 Types of Resolutions

- 4.3 Duties of Secretary Relating to Meeting.
- Unit 5**
Management and Administration (10 hrs.)
- 5.1 Board of Directors – Appointment, Removal, Powers, Duties and Liabilities
- 5.2 Managing Director
- 5.3 Duties of Secretary Regarding Management and Administration.

BOOK FOR STUDY

Kapoor, N.D. *Company Law and secretarial practice*. New Delhi: Sultan Chand, 2012.

BOOKS FOR REFERENCE

Bahl, J.C. *Secretarial Practice in India*. Mumbai: Tripathi M.N, 2006.

Ghosh K Prashanth. *Company Secretarial Practice*. New Delhi: Sultan Chand, 2007.

Pandab, S.K. *Company Law & Practice*. New Delhi: Bharat Law House, 2002.

Shah, S.M. *Lectures on Company Law*. Mumbai: Tripathi M.N, 2006.

Sherlekhar, S.A. *Company Secretarial Practice*. New Delhi: Kitab Mahal, 2006.

Tandon, B.N. *Manual of Secretarial Practice*. New Delhi: Sultan Chand.

JOURNAL

Company and Securities Law Journal

Company law journal

Company news and reports

WEB RESOURCES

www.ddegjust.ac.in

www.legalserviceindia.com

www.businesscommunicationarticles.com

study-material4u.blogspot.in

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminar

Assignments

Quiz

End Semester Examination :

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.Com (CS) DEGREE: CORPORATE SECRETARYSHIP

SYLLABUS
(Effective from the academic year 2015 – 2016)

STATISTICAL TECHNIQUES FOR BUSINESS

CODE: 15CM/AC/ST45

CREDITS: 5

L T P : 5 0 0

TOTAL TEACHING HOURS. : 65

OBJECTIVES OF THE COURSE

- To give a practical exposure on the various statistical methods and to arrive at rational decision through systematic analysis and interpretation
- To educate on the effective and efficient application of various statistical tools associated with research in business fields

Unit 1

Analysis of Time Series (12 hrs.)

- 1.1 Utility and Components of Time Series
- 1.2 Methods of Measuring Trend
- 1.3 Measurement of Seasonal Variations

Unit 2

Test of Hypothesis (13 hrs.)

- 2.1 Procedure for Testing Hypothesis
- 2.2 Test of Significance
- 2.3 For Large Samples
- 2.4 For Small Samples
- 2.5 Limitations of Test of Significance

Unit 3

Chi-Square Test and Goodness of Fit (15 hrs.)

- 3.1 Meaning and Condition for Applying Chi-Square Test
- 3.2 Application of Chi Square Test - Test of Goodness of Fit and Test of Independence
- 3.3 Yates Correction
- 3.4 Uses and Limitations of Chi Square

Unit 4

Analysis of Variance (13 hrs.)

- 4.1 Variance Ratio Test
- 4.2 Assumptions in Analysis of Variance
- 4.3 Techniques of Analysis of Variance
 - 4.3.1 One-Way Classification Model
 - 4.3.2 Two-Way Classification Model

Unit 5

Partial and Multiple Correlation

(12 hrs.)

5.1 Partial Correlation of First Order and Second Order Co-efficient

5.2 Co-efficient of Multiple Correlation

5.3 Multiple Regression Analysis

BOOK FOR STUDY

Gupta, S.P. *Statistical Methods*. New Delhi: Sultan Chand, 2007.

BOOKS FOR REFERENCE

Agarwal, Y.P. *Statistical Methods, Concepts, Applications and Computations*. New Delhi: Sterling, 2006.

Beri, G.C. *Business Statistics*. New Delhi: Tata Mc Graw Hill, 2007.

Pillai, R.S.N. & Bagavathy, V. *Statistics*, New Delhi: Sultan Chand, 2007.

Sanchetti, V.C. & Kapoor. *Business Statistics*, New Delhi: Sultan Chand, 2006.

Sharma, J.K. *Business Statistics*. New Delhi: Pearson Education, 2006.

JOURNALS

Analysis in Data Analysis and Classification, Springer Publications.

Advances in Statistical Analysis, A Journal of German Statistical Society.

Electronic Journal of Statistics, Bernoulli Society for Mathematics and Probability.

Annals of the Institute of Statistical Mathematics, Springer Publications.

WEBSITE

www.isical.ac.in/

www.ssc.ca/en/whats-new

www.rss.org.uk/

www.amstat.org/

PATTERN OF EVALUATION

Continuous Assessment

Total Marks : 50

Duration : 90 mins.

Section A - $3 \times 2 = 6$ (no choice)

Section B - $3 \times 8 = 24$ (from a choice of four questions)

Section C - $1 \times 20 = 20$ (from choice of two questions)

Third Component

List of Evaluation modes:

Assignments

Test

End Semester Examination

Total Marks : 100

Duration : 3 hours

Section A - $10 \times 2 = 20$ Marks (no choice) 5 Questions theory and 5 Problems

Section B - $5 \times 8 = 40$ Marks (from a choice of seven questions - Problems)

Section C - $2 \times 20 = 40$ Marks (from a choice of four questions-Problems)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Com (CS) DEGREE: CORPORATE SECRETARYSHIP

SYLLABUS
(Effective from the academic year 2015 -2016)

ENVIRONMENTAL STUDIES

CODE: 15CM/GC/ES42

CREDITS : 2

L T P : 2 0 0

TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE

- To provide a fundamental knowledge of the environment
- To create an awareness about environmental issues

Unit 1

Introduction (4 hrs.)

- 1.1 Components of the Environment – Technological, Social, Natural. Classification and Characteristics of Resources – K_N, K_M, K_H , Renewable and Non-Renewable
- 1.2 Material Balance Approach
- 1.3 Energy Flow under Ecosystems

Unit 2

Pollution and Socio Economic Aspects of the Environment (11 hrs.)

- 2.1 Types of Pollution –Air, Water, Solid Waste, Noise
- 2.2 Sources, Effects and Consequences of Pollution
- 2.3 Policy measures with respect to India
- 2.4 Human Behaviour- Population- Urbanization- Poverty (as Cause and Result of Pollution and Degradation
- 2.5 Technology- Agriculture and industry – Deforestation. Use, Misuse and Abuse of the Resources
- 2.6 Religion, Tradition and Culture

Unit 3

Sustainable Development, Remedies and Policy Implications (11 hrs.)

- 3.1 Problems – Greenhouse Effect – Depletion of the Ozone Layer – Climate Change
- 3.2 Loss of Biodiversity – Impact on Women –Ecofeminism
- 3.3 Impact on Livelihood and Health – Environmental Disasters – Natural and Manmade - Bhopal Gas Tragedy – Chernobyl Accident – Gulf War - Love Canal Episode –Tsunami
- 3.4 Methods Evolved to Measure and Check Environmental Degradation and Pollution – Carbon Footprint, Carbon Credit, Ecological Footprint, and Ecological Shadow

- 3.5 Environmental movements in India –Chipko movement,
Narmada Bachao Andolan, Sethu Samudram Project
- 3.6 International Environmental agreement – Stockholm Conference
–Montreal Protocol –RIO Meet –Kyoto Conference

BOOKS FOR REFERENCE

Igancimuthu, S. *Environmental Awareness and Protection*. New Delhi: Phoenic, 1997.

Jadhav, H. and V.M. Bhosale. *Environmental Protection and Laws*. New Delhi: Himalaya, 1995.

Odum, E.P. *Fundamentals of Ecology*, USA: W.B Saunders, 1971.

Mies, M. and V. Shiva. *Ecofeminism*, London: Zed Books, 1989.

JOURNALS

The National Geographic

International Journal of Environmental Studies

WEB RESOURCES

http://collegesat.du.ac.in/UG/Envinromental%20Studies_ebook.pdf

<http://www.slideshare.net/ruchispandey/introduction-to-environmental-studies>

PATTERN OF EVALUATION

Third Component:

List of Evaluation modes:

Seminars

Quiz

Group discussion

Assignments

Case studies

No End Semester Examination

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.Com (CS) DEGREE: CORPORATE SECRETARYSHIP

SYLLABUS
(Effective from the academic year 2015 – 2016)

CORPORATE ACCOUNTING

CODE: 15CM/MC/CA55

CREDITS : 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide knowledge relating to the Accounting Standards
- To enable students to acquire a conceptual knowledge on the fundamentals of the corporate accounting and the techniques of preparing the financial statements
- To give an exposure to the different methods for valuation of goodwill and shares

Unit 1

Accounting Standards and Final Accounts of a Company (15 hrs.)

- 1.1 Indian Accounting Standards (IND Ass):- Detailed Study of Ind as: 3,5 6, 10
- 1.2 Final Accounts of a Company- Preparation of Final Accounts – Forms and Contents as Per Provisions of Companies Act 2013 as Per Schedule - III

Unit 2

Fund Flow Analysis (15 hrs.)

- 2.1 Concept of Fund and Flow of Funds
- 2.2 Meaning and Significance of Fund Flow Statement
- 2.3 Preparation of Fund Flow Statement

Unit 3

Cash Flow Analysis (15 hrs.)

- 3.1 Meaning and Difference between Cash and Fund
- 3.2 Significance and Limitation of Cash Flow Statement
- 3.3 Preparation of Cash Flow Statement as Per Ind as 3

Unit 4

Alteration of Share Capital and Internal Reconstruction (10 hrs.)

- 4.1 Alteration of Share Capital – Types – Accounting Procedure
- 4.2 Internal Reconstruction – Types and Legal Provisions
- 4.3 Accounting Entries and Preparation of Balance Sheet after Internal Reconstruction

Unit 5

Valuation of Shares and Goodwill (10 hrs.)

- 5.1 Meaning, Need and factors to be Considered for Valuing Goodwill and Shares
- 5.2 Methods of Valuation of Shares - Intrinsic Value, Yield Value, Earning Capacity and Fair Value
- 5.3 Methods of Valuation of Goodwill – Average Profits, Super Profit, Capitalization of Super Profit and Annuity Method

BOOKS FOR STUDY

Gupta, R.L and M. Radhaswamy. *Advanced Accountancy* (Vol I, III & IV). New Delhi: Sultan Chand, 2006.

Reddy, T.S and A. Murthy. *Corporate Accounting*. Chennai: Margham, 2007.

BOOKS FOR REFERENCE

Arulanandam, M.A and K.A Raman. *Corporate Accounting*. Mumbai: Himalaya, 2006.

Jain, S.P., Narang, K.L. *Advanced Accountancy (Part II)*. New Delhi: Kalyani, 2005.

Maheshwari, S.N. *Advanced Accountancy (Part II)*. New Delhi: Vikas, 2006.

JOURNALS

Cost Accounting Standards - The ICWA of India

Journal of Corporate Accounting and Finance

Advances in Accounting

WEB RESOURCES

www.journals.elsevier.com

www.emeraldgroupublishing.com

PATTERN OF EVALUATION

Continuous Assessment

Total Marks : 50

Duration : 90 mins.

Section A - 3 x 2 = 6 (no choice)

Section B - 3 x 8 = 24 (from a choice of four questions)

Section C - 1 x 20 = 20 (from choice of two questions)

Third Component

List of Evaluation modes:

Assignments

Test

Open book assignment

End Semester Examination

Total Marks : 100

Duration : 3 hours

Section A – 10 x 2 = 20 Marks (no choice 5 theory questions and 5 Problems)

Section B – 5 x 8 = 40 Marks (from a choice of seven questions- Problems)

Section C – 2 x 20 = 40 Marks (From a choice of four questions- Problems)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.Com (CS) DEGREE: CORPORATE SECRETARYSHIP

SYLLABUS
(Effective from the academic year 2015 – 2016)

HUMAN RESOURCE MANAGEMENT

CODE: 15CM/MC/HR55

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide an understanding of the importance of Human Resource Management
- To educate the students on the managerial, operative and maintenance aspects of the human resources in an organization

- Unit 1**
Introduction (10 hrs.)
- 1.1 Significance and Objectives of Human Resource Management
 - 1.2 Functions and Scope of Human Resource Management
- Unit 2**
Procuring Human Resource (14 hrs.)
- 2.1 Human Resource Planning - Objectives and Process of Manpower Planning
 - 2.2 Job Analysis, Job Description, Job Specification
 - 2.3 Recruitment – Sources
 - 2.4 Selection - Procedure
- Unit 3**
Developing Human Resource (13 hrs.)
- 3.1 Orientation, Placement
 - 3.2 Training – Methods of Executive Development Programs
 - 3.3 Performance Appraisal - Methods
- Unit 4**
Motivating and Compensating Human Resource (10 hrs.)
- 4.1 Motivation – Meaning and Importance, Theories of Maslow Herzberg, Vroom's Porter and Lawler Theory
 - 4.2 Compensation – Factors, Types – Monetary and Non-Monetary
 - 4.3 Employees Welfare Programme – Health, Safety and Fringe Benefits
- Unit 5**
Leadership (18 hrs.)
- 5.1 Quality of Leadership – Trait, Situational, Behavioral and Managerial Grid
 - 5.2 Leadership Styles – Managerial Grid

BOOKS FOR STUDY

Aswathappa, K. *Human Resource Management*. New Delhi: Tata Mc Graw Hill, 2007.

BOOKS FOR REFERENCE

Flippo V. Edwin. *Personnel Management*. New Delhi: Mc Graw Hill, 2004.

Gupta, C.B. *Human Resource management*. New Delhi: Sultan Chand, 2007.

Khanka, S.S. *Human Resource management*. New Delhi: Sultan Chand, 2007.

Mamoria, C.B. *Personnel Management*. Mumbai: Himalaya, 2004.

Prasad, L.M. *Human Resource management*. New Delhi: Sultan Chand, 2007.

JOURNALS

International Journal of Human Resource Management

The Human Resource Management Review

Human Resource Management International Digest

Human Resource Management Journal.

WEB RESOURCES

[/hrcouncil.ca/hr-toolkit/planning-strategic.cfm](http://hrcouncil.ca/hr-toolkit/planning-strategic.cfm)

www.hrware.com/recruitment/88-2/

www.educationobserver.com/forum/showthread.php?tid=12165

managementhelp.org/training/

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminar

Group Discussion

Assignments

Class Presentations

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.Com (CS) DEGREE: CORPORATE SECRETARYSHIP

SYLLABUS
(Effective from the academic year 2015 – 2016)

FINANCIAL MARKETS

CODE: 15CM/MC/FK55

CREDITS : 5

L T P : 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVE OF THE COURSE

- To provide students with a comprehensive knowledge of the functions and elements of the financial market

Unit 1

Introduction (10 hrs.)

- 1.1 Definition and Overview of Financial Markets and Institutions
- 1.2 Functions of Financial Markets and Institutions
- 1.3 Constituents
- 1.4 Role of Financial Institutions, Depository and Non-Depository Institutions
- 1.5 Types of Financial Markets
- 1.6 Overview of the Indian Financial System Including Financial Sector Reforms and Other Contemporary Issues in Finance.

Unit 2

(10 hrs.)

- 2.1 Money Market
 - 2.1.1 Definition, Objectives and Features of a Developed Money Market
 - 2.1.2 Composition of Money Market
- 2.2 Money Market Instruments
- 2.3 Indian Money Market
- 2.4 Global Money Market
- 2.5 Bond Market

Unit 3

Capital and Primary Markets (15 hrs.)

- 3.1 Capital Market
 - 3.1.1 Characteristics of Primary and Secondary Markets
 - 3.1.2 Functions of Capital Markets
- 3.2 Primary Market
 - 3.2.1 Meaning and Functions
 - 3.2.2 Instruments of Issue
 - 3.2.3 Intermediaries in the New Issue Market
 - 3.2.4 SEBI Guidelines for Listed and Unlisted Companies

Unit 4 **Secondary Markets** **(15 hrs.)**

- 4.1 Stock Exchange – Services, Role and Organization of Stock Exchange in India
- 4.2 Listing of Securities – Requirements and Procedures
- 4.3 Types of Brokers
- 4.4 Methods of Trading in Stock Exchange – Carry Over or Badla, Genuine vs. Speculative Trading, Kinds of Speculators
- 4.4 Regulations and Regulatory Agencies for Primary and Secondary Markets

Unit 5 **(15 hrs.)**

- 5.1 Over-the-Counter-Exchange of India, National Stock Exchange and Depository Systems
 - 5.1.1 OTCEI – Features, Promoters, Participants, Listing
 - 5.1.2 NSE – Features, NSE vs. OTCEI
- 5.2 Depository System – Meaning, Definition, Objectives of Interacting Institutions
 - 5.2.1 Trading in Depository Systems
 - 5.2.2 Depository System in India
 - 5.2.3 National Securities Depository Limited

BOOKS FOR STUDY

- Avadhani, V.A. *Capital Market Management*. New Delhi: Himalaya, 2005.
- Gordon, E., K. Natarajan. *Capital Market in India*. New Delhi: Himalaya, 2006.
- Gurusamy, S. *Capital Markets*, Chennai: Vijay Nicole, 2006.

BOOKS FOR REFERENCE

- Bhole, L.M. *Financial Institutions and Markets: Structure, Growth and Innovations*. New Delhi: McGrawHill, 2008.
- Khan, M. Y. *Indian Financial System*. New Delhi: Tata McGraw Hill, 2005.
- Machiraju, H.R. *Indian Financial System*. Mumbai: Vikas, 2006.
- Saunders, Anthonu and Cornett, Marcia Millon. *Financial Markets and Institutions: An Introduction to the Risk Management Approach*. New York: Mc Graw Hill, 2007.
- Sundaram and Varshney. *Banking and Financial System*. New Delhi: Sultan Chand, 2005.

JOURNALS

- Journal of International Financial Markets, Institutions & Money
- Financial Markets, Institutions & Instruments
- Journal of Financial Management, Markets & Institutions

WEB RESOURCES

www.bloomberg.com

spu.fem.uniag.sk/.../kf/.../Financial%20management/financial_markets.p... utiicm.com/

www.nse-india.com

www.rbi.org.in

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminar

Group Discussion

Assignments

Class Presentations

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Com (CS) DEGREE: CORPORATE SECRETARYSHIP

SYLLABUS

(Effective from the academic year 2015 -2016)

LABOUR AND SOCIAL SECURITY LAWS

CODE: 15CM/MC/LS65

CREDITS : 5

L T P : 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To familiarize students with the understanding and provisions of industrial and labour related social security laws
- To enable students to understand the initiatives of the Government in the welfare of the employees

Unit 1

The Employees Provident Fund and Miscellaneous Provisions Act 1952 (10 hrs.)

- 1.1 Definitions, Schemes under the Act
- 1.2 Employees' Provident Fund Scheme, Employees Pension Scheme 1995
- 1.3 Employees' Deposit Linked Insurance Scheme - Case Laws

Unit 2

Employees State Insurance Act 1948 (10 hrs.)

- 2.1 Objectives and Applicability of the Scheme
- 2.2 Definitions - Personal Injury, Factory, Manufacturing Process, Wages, Partial and Permanent Disablement
- 2.3 ESI Corporation, Standing Committee and Medical Benefit Council Contributions Adjudication of Dispute and Claims, Benefits

Unit 3

Factories Act 1948 (13 hrs.)

- 3.1 Definitions
- 3.2 Authorities under the Factories Act
- 3.3 Provisions relating to Health, Safety and Welfare of Employees
- 3.4 Penalties and Procedure

Unit 4

4.1 Payment of Gratuity Act 1972 (15 hrs.)

- 4.1.1 Applicability and Non - Applicability of the Act
- 4.1.2 Definitions- Employee, Employer, Continuous Service
- 4.1.3 Payment of Gratuity, Forfeiture of Gratuity
- 4.1.4 Employer's Responsibility to Determine and Pay Gratuity
- 4.1.5 Employee's Right to Recover Gratuity

4.2 Employee's Compensation Act 1923

- 4.2.1 Definitions - Dependent, Employer, Partial and Total Disablement, Workmen, Injury, Accident

4.2.2 Employer's Liability for Compensation, Amount of Compensation

Unit 5 (17 hrs.)

5.1 The Payment of Bonus Act 1965

- 5.1.1 Objects, Scope and Application
- 5.1.2 Calculation of Amount Payable as Bonus
- 5.1.3 Eligibility and Disqualifications for Bonus, Minimum and Maximum Bonus
- 5.1.4 Set On and Set Off of Allocable Surplus
- 5.1.5 Application of Act in the Public Sector

5.2 The Payment of Wages Act 1936

- 5.2.1 Objects, Application and Responsibility for Payment of Wages
- 5.2.2 Fixation of Wage Periods, Time-Limits
- 5.2.3 Deduction From Wages
- 5.2.4 Remedies Available to Worker

BOOK FOR STUDY

Sharma, J.P. *Industrial Laws*. New Delhi: Ane Books.

BOOKS FOR REFERENCE

Kumar, H.L. *Digest of Labour Cases*. New Delhi: Universal Law.

Malik, K.L. *Industrial Laws and Labour Laws*. Lucknow: Eastern Book.

Sharma, J.P. *Simplified Approach to Labour Laws*. New Delhi: Bharat Law House.

Srivastava, S.C. *Industrial Relations & Labour Laws*. Vikas.

JOURNALS

Indian labour journal

International Society for Labor Law and Social Security

WEB RESOURCES

www.labour.nic.in

www.labour.nic.in

www.dyuthi.cusat.ac.in

www.caaa.in

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminar

Group Discussion

Assignments

Quiz

End Semester Examination:

Total Marks: 100

Duration: 3 hours.

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

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B.Com (CS) DEGREE: CORPORATE SECRETARYSHIP

SYLLABUS
(Effective from the academic year 2015 -2016)

E-COMMERCE

CODE: 15CM/MC/EC64

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- 4 To provide an overview of the fundamental concepts of e-commerce
- 5 To acquaint students with a fundamental understanding of the new marketing strategies, electronic payment system and internet security in the new economy

Unit 1 (10 hrs.)

Introduction

- 1.1 Meaning and Definition – Introduction to Internet, Intranet & Extranet
- 1.2 Emergence of the Internet
- 1.3 Difference Between E-Commerce and Traditional Commerce
- 1.4 E-Commerce Applications
- 1.5 Advantages and Limitations of E-Commerce

Unit 2 (10 hrs)

Business Models for E-Commerce

- 2.1 Introduction
- 2.2 Models Based on the Relationship of Transaction Parties – B2B, B2C, C2C, C2B
- 2.2 Models Based on the Relationship of Transaction Types – Brokerage, Aggregator, Info-Mediary, Value Chain, Manufacturer, Advertising and Subscription Models

Unit 3 (15 hrs)

E-Marketing

- 3.1 Traditional Marketing
- 3.2 Identifying Web Presence Goals
- 3.3 Online Marketing – Internet Marketing Trends
- 3.4 E-Advertising, E-Branding and E-Marketing Strategies

Unit 4 (10 hrs).

Electronic Payment Systems

- 4.1 Types of Online Payments – Token Based, Credit Card Based, Debit Cards and Smart Cards
- 4.2 Risk and Electronic Payment System
- 4.3 Designing Electronic Payment System – Encryption – Digital Signature – Common Standards for Secure E-Payments

Unit 5

(7 hrs)

Internet and Security

- 5.1 Network and Website Security Risks
- 5.2 Security Incidents on the Internet
- 5.3 Security and E-Mail
- 5.4 Firewall – Concept, Components and Constituents

TEXT BOOK

P.T. Joseph SJ, 2012, 4th edition, E-Commerce, PHI, New Delhi

BOOKS FOR REFERENCE

David Whiteley, 2006, 13th edition, E-Commerce – Strategy, Technologies and Applications, Tata McGraw Hill, New Delhi

Jefrey F. Rayport & Bernaud J.Jaworski, 2003, Introduction to E-Commerce, TMH

Kamlesh K Bajaj, Devjani Nag, 1999, 1st edition, E-Commerce, Tata McGraw Hill, New Delhi

Nancy Flynn, Randolph Kahn, 2003, 1st edition, American Management Association, USA

Ravi Kalakota, Andrew B. Whinston, 2008, 6th edition, Frontiers of Electronic Commerce, Pearson Education, New Delhi

Strauss, Adel El-Ansary, Raymond Frost, 2003, E-marketing, New Jersey, Prentice Hall

JOURNALS

Electronic Markets

International Journal of E-Commerce

Journal of Electronic Commerce in Organizations

Journal of Theoretical and Applied E-Commerce

Journal to Management Information Systems and E-Commerce

WEB RESOURCES

www.ecommerce-digest.com

www.htmlgoodies.com

www.openlearningworld.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminar

Case Studies

Assignments

Class Presentations

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Com (CS) DEGREE: CORPORATE SECRETARYSHIP

SYLLABUS
(Effective from the academic year 2015 -2016)

INTERNSHIP

CODE: 15CM/MC/IN64

CREDITS : 4

The student is required to

- Undergo practical training in a reputed organisation for 100 hours
- Maintain a log book duly countersigned by the Supervisor of the organisation
- The log book to contain the following details:
 - a. Hours worked
 - b. Nature of work
- Submit interim reports to the Faculty Advisor after completion of every 25 hours of work
- A final consolidated report to be submitted to the Faculty Advisor

Preparation of final Project Report

The Report should have a minimum of 50 pages detailing the work assigned and performed in the organization.

Pattern of Evaluation

Log book	10 marks
Interim Report	20 marks
Project Report	40 marks
Viva	30 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
Allied Core Offered to the Departments of Mathematics, Social Work and Computer Science

SYLLABUS
(Effective from the academic year 2015 -2016)

RECENT TRENDS IN MARKETING

CODE: 15CM/AE/RT45

CREDITS : 5

L T P : 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To acquaint the students about the recent trends in marketing.
- To provide an understanding of the application of marketing trends to discover and meet consumer needs.

Unit 1 (5 hrs.)

Emerging Trends in Marketing – An Overview

- 1.1 Emerging Trends – An Indian Perspective
- 1.2 Challenges for Marketers in the New Economy

Unit 2 (12 hrs.)
Technology Driven Marketing

2.1 Cloud/Online Marketing

- 2.1.1 Meaning, Reasons for growth of online marketing,
- 2.1.2 An introduction of two largest online marketing companies

2.2 Mobile Marketing

- 2.2.1 Meaning, Reasons for growth of mobile marketing,
- 2.2.2 An introduction of two largest mobile marketing companies

Unit 3 (15hrs.)
Socially Responsible Marketing

3.1 Green Marketing

- 3.1.1 Meaning & Characteristics
- 3.1.2 Reasons for growth of Green Marketing
- 3.1.3 An introduction two largest green marketing companies in India

3.2 Social Marketing

- 3.2.1 Meaning & Characteristics
- 3.2.2 Reasons for growth of Social Marketing
- 3.2.3 An introduction two largest social marketing companies in India

Unit 4 **Miscellaneous Marketing** (15 hrs.)

4.1 Rural Marketing

- 4.1.1 Meaning, Characteristics of Rural Market,
- 4.1.2 Reasons for growth of Rural Market,
- 4.1.3 An introduction to two largest green marketing companies in India

4.2 Viral Marketing

- 4.2.1 Meaning & Characteristics
- 4.2.2 Reasons for growth of Viral Marketing
- 4.2.3 An introduction to some of the largest viral marketing campaigns in India in recent past

Unit 5 (18 hrs.)

Recognising Emerging Trends: Management & Technological Tools

- 5.1 MIS: Meaning and Components of MIS, Benefits of MIS
- 5.2 IMC: Meaning and Components of IMC, Factors determining communication
- 5.3 Customer Relationship Management: Meaning of Customer Relationship, Customer Dissatisfaction and Delight, e-CRM, Strategies for building customer relations

TEXT BOOK

Kotler, Philip. Marketing Management. New Delhi: Prentice Hall.

BOOKS FOR REFERENCE

Damian Ryan. Understanding Digital Marketing: Marketing Strategies for Engaging the Digital Generation. Kogan Page, 2014.

Jacquelyn A. Ottman. The New Rules of Green Marketing: Strategies, Tools, and Inspiration for Sustainable Branding. Berrett-Koehler, 2011.

Jaiswal, M.P. Anjali Kaushik, e-CRM: Business and System Frontiers. New Delhi: Asian Books, 2002.

Pradeep Kashap, Rural Marketing, Prentice Hall, Delhi

JOURNALS

Indian Journal Of Marketing

International Journal of Research in Marketing

Journal of Marketing Theory and Practice

WEB RESOURCES

www.forbes.com

www.nielsen.com

www.marketing-trends-congress.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminar

Assignments

Class Presentations

End Semester Examination :

Total Marks: 100

Duration: 3 hours.

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Com (CS) DEGREE: CORPORATE SECRETARYSHIP

SYLLABUS
(Effective from the academic year 2015 -2016)

BUSINESS ENVIRONMENT

CODE: 15CM/ME/BE55

CREDITS : 5

L T P : 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To expose students to the environment in which modern business operates
- To familiarize the dynamics of changes in business environment

Unit 1 (13 hrs.)

1.1 Introduction

1.1.1 Meaning, Definition, Classification into External and Internal Environment

1.2 Business and Society

1.2.1 Business Ethics

1.2.2 Business and Culture, with Special Reference to Adaptation, Transmission and Conformity

Unit 2 (12 hrs.)
Economic Environment of Business

2.1 Nature of Economic System – Capitalistic, Socialistic and Mixed Economy - Structure of the Economy – Economic Policies and Planning the Economic Conditions

2.2 Governmental Role in Business – Regulatory, Promotional, Entrepreneurial and Planning

Unit 3 (15 hrs.)

3.1 Social Responsibilities of Business

3.1.1 Towards Shareholders

3.1.2 Towards Employees – with Special Reference to Compensation and Fringe Benefits – ESI, Provident Fund, Compensation Pertaining to Layoff, Retrenchment

3.2 Trade Union - Rights and Liabilities of Trade Unions

3.2.1 Worker's Participation in Management

3.2.2 Quality Circle

Unit 4 (12 hrs.)

4.1 Responsibilities of Business towards Society/Community

4.1.1 Consumer Protection and Consumerism in India

4.1.2 Utility of Consumerism

4.2 COPRA 86 - Important Provisions of Consumer Protection Act 1996

Unit 5

Global Business Environment

(13 hrs.)

- 5.1 Meaning of Globalisation - the Role of WTO – GATT – Trading Blocks in Globalisation – Impact of Globalization on India
- 5.2 Regional Economic Grouping – European Union, ASEAN, SAARC

BOOKS FOR STUDY

Agarwal, Raj. *Business Environment*. Excel, 2002.

Cherunilam, Francis. *Business Environment*. Mumbai: Himalaya, 2000.

BOOKS FOR REFERENCE

Aswathappa, K. *Essentials of Business Environment*. Himalaya, 2003.

Cherunilam, Francis. *Global Business Environment*. Mumbai: Himalaya, 2000.

Ghosh, P.K. and G.K. Kapoor. *Business Policy and Environment*. New Delhi: Sultan Chand, 1999.

Mamoria and Mamoria. *Business Planning and Policy*. Mumbai: Himalaya, 1999.

Sankaran, S. *Business Environment*. Chennai: Margham, 2000.

JOURNALS

International Journal of Business Environment

The Global Environment of Business

Environmental Business Journal

WEB RESOURCES

www.inderscience.com

www.wto.org

www.it.iitb.ac.in

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminar

Assignments

Class Presentations

End Semester Examination :

Total Marks: 100

Duration: 3 hours.

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Com (CS) DEGREE: CORPORATE SECRETARYSHIP

SYLLABUS
(Effective from the academic year 2015 -2016)

BUSINESS TAXATION

CODE: 15CM/ME/BT55

CREDITS : 5

L T P : 4 1 0

TOTAL TEACHING HRS. : 65

OBJECTIVES OF THE COURSE

- To give an insight into the complexity of the taxation system
- To enable students to compute the taxable income and tax liability of an Individual assessee

Unit 1

Introduction (10 hrs.)

- 1.1 Meaning and Need for Taxation
- 1.2 Cannons of Taxation
- 1.3 Tax Planning and Tax Evasion
- 1.4 Types of Tax- Direct Tax and Indirect Tax
- 1.5 Basic Concepts in Taxation
- 1.6 Residential Status and Incidence of Tax

Unit 2

Computation of Heads of Income - I (20 hrs.)

- 2.1 Salary, Basis of Charge – Allowances , Perquisites, Provident Fund and Computation of Income
- 2.2 House Property, Basis of Charge- Computation of Self-Occupied and Let Out House, House Property Income

Unit 3

Computation of Heads of Income – II (15 hrs.)

- 3.1 Profits and Gains of Business and Profession – Computation of Professional and Business Income (Simple Problems)
- 3.2 Capital Gains - Computation of Short Term and Long Term Capital Gain
- 3.3 Income From Other Sources – Casual and General Incomes

Unit 4

Computation of Taxable Income and Tax Liability (10 hrs.)

- 4.1 Set Off and Carry Forward Losses - Meaning
- 4.2 Clubbing of Income
- 4.3 Deductions
- 4.4 Assessment of Individual Income
- 4.5 Computation of Tax Liability

Unit 5

Introduction to Indirect Tax

(10 hrs.)

- 5.1 **Value Added Tax**
 - 5.1.1 Meaning, Objective
 - 5.1.2 Evolution of VAT in India, Features of VAT
 - 5.1.3 TANVAT Act 2006
- 5.2 **Service Tax Law**
 - 5.2.1 Meaning and Liability of Service Tax
 - 5.2.2 Payment and Recovery of Service Tax
 - 5.2.3 Registration Requirement and Procedure
 - 5.2.4 Assessment Procedure, - Revision, Appeal, Offences and Penalties
- 5.3 Basic Concept of Excise Duty – Meaning, Levy, Collection and Exemptions from Excise Duty
- 5.4 Basic Concepts of Customs Duty - Meaning, Levy and Exemptions from Customs Duty

BOOKS FOR STUDY

Balachandran, V. *Indirect Taxes*. New Delhi: Sultan Chand, 2015

Gaur, V.P. and D.B Naran. *Income Tax Law and Practice*. Kalyani, 2015.

BOOKS FOR REFERENCE

Ahuja, Girish and Gupta Ravi. *Practical Approach to Income Tax*.

Mehrothra, H.C. *Income Tax Law and Practice*. Sahithya Bhavan.

Singhania, Vinod K. *Student's Guide To Income Tax*. Taxmann.

JOURNALS

Excise Law Times (Fortnightly Reporting Journal) -

Excise and Customs Cases (Fortnightly Reporting Journal)

Excise and Customs Reporters (Fortnightly Reporting Journal) –

Direct Taxes Report Journal

WEB RESOURCES

www.icaai.org

www.icsi.edu

www.taxjournal.com

www.taxlawsonline.com

PATTERN OF EVALUATION

Continuous Assessment

Total Marks : 50

Duration : 90 mins.

Section A - $3 \times 2 = 6$ (no choice)

Section B - $3 \times 8 = 24$ (from a choice of four questions)

Section C - $1 \times 20 = 20$ (from choice of two questions)

Third Component

List of Evaluation modes:

Seminar

Problem Solving

Quiz

End Semester Examination

Total Marks : 100

Duration : 3 hours

Section A – $10 \times 2 = 20$ Marks (no choice 5 theory questions and 5 Problems)

Section B – $5 \times 8 = 40$ Marks (from a choice of seven questions- 3 theory questions and 4 problems)

Section C – $2 \times 20 = 40$ Marks (from a choice of four questions- 2 theory questions and 2 problems)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Com (CS) DEGREE: CORPORATE SECRETARYSHIP

SYLLABUS
(Effective from the academic year 2015 -2016)

PROJECT

CODE: 15CM/ME/PR55

CREDITS: 5
L T P: 0 0 5
TOTAL HOURS: 65

GUIDELINES FOR PROJECT

Project should be the independent work of the student. Each student will choose a topic of her interest and the student will be assigned to a supervisor.

The student can use Quantitative or Qualitative/Descriptive or both methods.

➤ **Page Limit :**

The project report should be submitted in the prescribed format having a maximum of 100 pages, typed in font Times New Roman -size 12, with 1 ½ line spacing on A4 Size paper.

➤ **Contents of the Project:**

- Contents Page
 - The Project Copy will include Certificate of the Supervisor, Declaration, and Acknowledgement
 - Four or five chapters
 - Presentation of the Project Report – format
 - Chapter 1 Introduction - to include background of the study, objectives , Methodology, limitation of the study and chapter scheme
 - Chapter 2 – Review of literature
 - Chapter 3 – Theoretical aspects of the study
 - Chapter 4 – Data analysis
 - Chapter 5 – Suggestion and conclusion
- At the end of the project ‘Bibliography’ must be given in Alphabetical/chronological order and necessary appendix may be added.

➤ **Submission:**

Each student may prepare two soft bound copies of the project, one for her and one copy to be submitted to the Head of the Department duly signed by the supervisor, on the scheduled date.

➤ **Guidelines for Evaluation:**

There will be double valuation for the project by the supervisor and an external examiner. The student will appear for viva -voce before a panel comprising External Examiner, Supervisor and Head of the Department.

The maximum marks for the project is 100 – 75 marks for the project report and 25 marks for the viva- voce.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Com (CS) DEGREE: CORPORATE SECRETARYSHIP

SYLLABUS
(Effective from the academic year 2015 -2016)

AUDITING

CODE: 15CM/ME/AG55

CREDITS : 5

L T P : 4 1 0

TOTAL TEACHING HOURS. : 65

OBJECTIVES OF THE COURSE

- To give an exposure to the various concepts of auditing
- To enlighten on the audit practices to check the authenticity and accuracy of the financial statements

Unit 1 (10 hrs.)

1.1 Introduction

- 1.1.1 Auditing – Meaning, Definition and Objective
- 1.1.2 Auditor – Qualification and Qualities
- 1.1.3 Auditing and Assurance Standards
- 1.1.4 Audit Programme

1.2 Audit Notebooks

Working Papers and Merits of Audit Programmes

Unit 2 (15 hrs.)

Vouching

- 2.1 Internal Audit and Internal Check – Test Checks
- 2.2 Vouching of Cash Transactions – Cash Sales, Receipts from Debtors Including Teeming and Lading Method of Frauds, Payment to Creditors, Payment of Wages
- 2.3 Vouching of Credit Transactions – Credit Purchases, Credit Sales, Sales Returns, Purchase Returns
- 2.4 Vouching of Impersonal Ledger – Outstanding Assets, Outstanding Liabilities, Contingent Liabilities

Unit 3 (15 hrs.)

Valuation and Verification of Assets and Liabilities

- 3.1 Capital and revenue expenditure
- 3.2 Divisible profits – Dividend Declaration
- 3.3 Verification of Assets & Liabilities

Unit 4 (15 hrs.)

Audit of Limited Companies

- 4.1 Appointment and Removal of Auditor
- 4.2 Rights, Duties and Liabilities as per Companies Act 2013
- 4.3 Audit Report - Method of Reporting - Reporting of Fraud under Companies Act 2013

Unit 5

Auditing in an EDP environment

(10 hrs.)

- 5.1 Audit approach in an EDP Environment
- 5.2 Problems and Control in an EDP Environment
- 5.3 Computer assisted Auditing Techniques

BOOK FOR STUDY

Tandon, B. N. *Handbook of Practical Auditing*. New Delhi: S.Chand, 2012.

BOOKS FOR REFERENCE

De Paula, F.R.M. *Principles of Auditing: A practical manual for student and practitioners*. London: E.L.B.S., 2005.

Gupta, Kamal. *Contemporary Auditing*. New Delhi: Tata McGraw Hill, 2006.

Kumar, Pradeep, Sachdeva, Baldev and Singh Jagwant. *Auditing Theory and Practice*. New Delhi: Kalyani, 2007.

Pagare, Dinakar. *Basics of Auditing*. New Delhi: Sultan Chand, 2007.

Saxena, R. G. *Principles and Practices of Auditing*. Mumbai: Himalaya, 2004.

JOURNALS

International Journal of Auditing

Auditing: A journal of Practice and Theory

Journal of Accounting, Auditing and Finance

Accounting, Auditing and Accountability Journal

Journal of International Accounting, Auditing and Taxation

International Journal of Auditing Technology

WEB RESOURCES

www.neoxen.com/neoxen/methodology/docs/intro_auditing_online.pdf

www.academia.edu/7505528/verification_and_valuation

www.e-economic.co.uk/accountingsystem/glossary/auditors-report

accountlearning.blogspot.in/2012/02/advantages-of-audit-program.html

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminar

Group Discussion

Assignments

Class Presentations

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Com (CS) DEGREE: CORPORATE SECRETARYSHIP

SYLLABUS
(Effective from the academic year 2015 -2016)

ADVERTISING

CODE: 15CM/ME/AD55

CREDITS : 5

L T P : 4 1 0

TOTAL TEACHING HOURS. : 65

OBJECTIVES OF THE COURSE

- To enable Students to comprehend the promotional aspects of marketing
- To provide an insight into the creative aspects of advertising

Unit 1

Introduction

(12 hrs.)

- 1.1 Meaning and Importance
- 1.2 Role of Advertising

Unit 2

Advertising Media

(15 hrs.)

- 2.1 Criteria for Choice of Media
- 2.2 Kinds of Media Used – Indoor and Outdoor

Unit 3

Creative Strategy and Execution

(13 hrs.)

- 3.1 Ad Copy – Types – Copy Elements
- 3.2 Ad Layout- Principles of Ad Layout
- 3.3 Principles of Designing

Unit 4

Advertising Organisation

(12 hrs.)

- 4.1 Ad – Agencies – Importance and Structure
- 4.2 Functions of an Ad- Agency

Unit 5

Ad – Campaign

(13 hrs.)

- 5.1 Stages of an Ad - Campaign
- 5.2 Measuring Effectiveness of Advertising

BOOK FOR STUDY

Courtland, L. Bovee John V Thill, George, Dovel and Marian Burk Wood. *Advertising Excellence*. New Delhi: Tata Mc Graw Hill, 1995.

BOOKS FOR REFERENCE

David, A. Aaker, Rajeev Batia and John G Meyers. *Advertising Management*. New Delhi: Prentice Hall, 1996.

Gandhi, J.C. *Managerial Introduction*. New Delhi: Tata Mc Graw Hill, 1996.

John R Rossiter, Larry Percy. *Advertising and Promotion Management*. New Delhi: Tata McGraw, 1997.

Sandage, C. H. Vernon Fry Burger, Kim Rotzall. *Advertising Theory and Practice*, New Delhi: A.I.T.B.S, 2000.

Wells William, John Burnett and Sandra moriaty. *Advertising Principles and Practice*. New Delhi: Dorling Kindersley, 2006

JOURNALS

www.journalsofadvertisingresearch.com

www.tandfonline.com

WEB RESOURCES

www.advertising.knogi.com

www.publishyourarticles.net

www.behance.net

www.advertising.about.com

www.zeepedia.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component Tests:

List of evaluation modes

Seminar

Group Discussion

Assignments

Class Presentations

End Semester Examination :

Total Marks: 100

Duration: 3 hours.

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
General Elective Course Offered by Department of Commerce to students of
B.Sc. / B.Com. / B.C.A. / B.S.W. Degree Programmes

SYLLABUS

(Effective from the academic year 2015 -2016)

CONTEMPORARY ADVERTISING

CODE: 15CM/GE/CA23

CREDITS : 3

L T P : 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To introduce the concept and types of contemporary advertising
- To enable students to meet the growing demands and challenges of the promotional aspects of advertising

Unit 1

Scope of Advertising (7 hrs.)

- 1.1 Introduction - Definition and Meaning
- 1.2 Role of Advertising

Unit 2

Advertising Copy (8 hrs.)

- 2.1 Elements of an Ad. Copy
- 2.2 Ad. Layout - Principles of Ad. Layout

Unit 3

Modern Advertising (9 hrs.)

- 3.1 Types of Modern Advertising
- 3.2 Comparison - Indoor and Outdoor Advertising

Unit 4

Online Advertising (7 hrs.)

- 4.1 Introduction - the Internet as an Advertising Medium
- 4.2 Types of Online Advertising - Alternative Offline Advertising Media and Mass Online Advertising, Web Resources, Banner Ads, Pop Ups, Interstitials, Superstitials and Sponsorships

Unit 5

Challenges and trends of Online Media (8 hrs.)

- 5.1 Reasons for Failure of Online Advertising
- 5.2 Changing Trends in Online Advertising.

BOOK FOR STUDY

Jefkins, Frank. *Advertising*. New Delhi: Pearson Education 2007.

BOOKS FOR REFERENCE

David W. Schumann and Esther Thorson. *Internet Advertising Theory and research*. Psychology Press, 2007.

Joseph, Plummer., Steve Rappaport, Teddy Hall and Robert Borocci. *The online Advertising play Book. Proven Strategies and tested tactics from the advertising research foundation*. John Wiley, 2006.

Terence A. Shimp. *Advertising, Promotion and supplemental Aspects of Intergrated Marketing Communications*. USA: Thomson Learning, 2003.

Wilmschurs, John and Adrian Mackay. *The fundamentals of Advertising*. Reed Educational and Professional, 1999.

JOURNALS

Journal of Advertising Research

International Journal of Advertising

International Journal of Internet Marketing and Research

Journal of Advertising

Journal of Advertising Education

WEB RESOURCES

www.mu.ac.in/myweb_test/sybcom-avtg-eng.pdf

advertising.knoji.com/what-are-the-different-roles-of-advertising/

techcrunch.com/2009/03/22/why-advertising-is-failing-on-the-internet/

www.networkadvertising.org/understanding-online-advertising/

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of evaluation modes:

Seminars

Assignments

Submission of AD Copy

No End Semester Examination

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
General Elective Course Offered by Department of Commerce to students of
B.Sc. / B.Com. / B.C.A. / B.S.W. Degree Programmes

SYLLABUS
(Effective from the academic year 2015 -2016)

FUNDAMENTALS OF MARKETING

CODE: 15CM/GE/FM23

CREDITS : 3

L T P : 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To enable students to understand the intricacies of marketing, focusing on its macro role in society and micro role in business
- To equip students to face the challenges and constraints of the competitive business
- To facilitate understanding of the conceptual framework of marketing and its applications in decision making under various environmental constraints

Unit 1

Field of Marketing

(7 hrs.)

- 1.1 Introduction - Meaning and Significance
- 1.2 Functions
- 1.3 Changing Marketing Environment

Unit 2

Product Planning and Development

(8 hrs.)

- 2.1 Meaning and Types of Products
- 2.2 Product Life Cycle
- 2.3 New Product Development -Stages

Unit 3

Brand Building

(8 hrs.)

- 3.1 Meaning and Importance
- 3.2 Types of Brands
- 3.3 Process of Branding

Unit 4

Pricing and Promotion

(8 hrs.)

- 4.1 Pricing Policy- Price Determination
- 4.2 Methods of Pricing
- 4.3 New Product Pricing

Unit 5

Channels of Distribution

(8 hrs.)

- 5.1 Meaning, Importance
- 5.2 Factors Affecting Channels of Distribution.
- 5.3 Classification-Retail and Wholesale

(Current Trends in Distribution and E-‘Tailing’)

BOOK FOR STUDY

Nair Rajan and Sanjith Nair. *Marketing*. New Delhi: Sultan Chand, 2013.

BOOKS FOR REFERENCE

Gandhi, J.C. *Marketing*, New Delhi: Tata McGraw Hill, 2009.

Groucutt, Jonathan., Peter Leadley and Patrick Forsyth. *Marketing Essential Principles, New Realities*. Kogan, 2004.

Kotler, Philip. *Marketing*. New Delhi: Prentice Hall, 2008.

Steven J Skinner. *Marketing*. Houghton, 1994.

Varshney, R.L. and S.L. Gupta. *Marketing Management*. Himalaya

Stanton, William J., Micheal J. Etzel and Bruce J. Walker. *Fundamentals of Marketing*. New Delhi: Mc Graw Hill, 2009.

Xavier, M. J. *Marketing in the New Millennium*. New Delhi: Vikas, 2009.

JOURNALS

Journal of Marketing - American Marketing Association

Journal of Consumer Marketing

Journal of Marketing Education

International Journal of Research in Marketing

International Journal of Marketing Studies

International Journals of Marketing and Technology

Indian Journal of Marketing

WEB RESOURCES

www.yourarticlelibrary.com

www.boundless.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of evaluation modes:

Seminars

Assignments

Submission of AD Copy

No End Semester Examination

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
General Elective Course Offered by Department of Commerce to students of
B.Sc. / B.Com. / B.C.A. / B.S.W. Degree Programmes

SYLLABUS
(Effective from the academic year 2015-2016)

PERSONNEL MANAGEMENT

CODE: 15CM/GE/PM23

CREDITS: 3

L T P: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To expose the students to the managerial, operative and maintenance aspects of Human Resources
- To provide an insight into human resources as an asset to the organization

Unit 1

Introduction (8 hrs.)

- 1.1 Definition – Characteristics, Objectives and Importance of Personnel Management
- 1.2 Functions of Personnel Management

Unit 2

Staffing (8 hrs.)

- 2.1 Nature, Elements and Importance of Staffing
- 2.2 Recruitment and Selection
- 2.3 Promotion – Types and Basis of Promotion

Unit 3

3.1 Training and Development (8 hrs.)

- 3.1.1 Training – Importance, Need and Types
- 3.1.2 Training Methods – On-the Job, Off-the Job and Vestibule Training.
- 3.2 Performance Appraisal – Concept, Objectives and Methods of Performance Appraisal

Unit 4

Components of Compensation (8 hrs.)

- 4.1 Factors to be considered for Determination of Wages and Salaries
- 4.2 Incentives and Perquisites
- 4.3 Fringe Benefits – Meaning and Types

Unit 5

Leadership and Communication (7 hrs.)

- 5.1 Leadership – Qualities of a Leader, Types of Leaders, Trait and Situational Approach to Leadership, Leadership Grid
- 5.2 Communication – Meaning, Nature, Importance and Types of Communication

BOOK FOR STUDY

Gupta, C.B. *Human Resource Management*. New Delhi: Sultan Chand, 2014.

BOOKS FOR REFERENCE

Aswathappa, K. *Human Resource Management*. New Delhi: Tata McGraw Hill, 2007.

Flippo V. Edwin. *Personnel Management*. New Delhi: McGraw Hill, 2008.

Khanka, S.S, *Human Resource Management*. New Delhi: Sultan Chand, 2007.

Mamoria, C.B, *Personnel Management*. New Delhi: Himalaya, 2004.

Prasad, L.M., *Human Resource Management*. NewDelhi: Sultan Chand, 2007

JOURNALS

International Journal of Management Reviews

European Journal of Business Management

WEB RESOURCES

www.exed.hbs.edu

www.hbr.org

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 =16 Marks (from a choice of three)

Section C –1 x 20 =20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminars

Assignments

Submission of AD Copy

No End Semester Examination

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
General Elective Course Offered by Department of Commerce to students of
B.Sc. / B.Com. / B.C.A. / B.S.W. Degree Programmes

SYLLABUS
(Effective from the academic year 2015-2016)

BUSINESS LEADERSHIP

CODE: 15CM/GE/BL22

CREDITS: 2

L T P : 2 0 0

TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE

- To introduce the concept and theories of leadership management
- To understand the essentials of leadership traits and approaches

Unit 1

Introduction (6 hrs.)

- 1.1 Definition and Characteristics of Leadership
- 1.2 Differences Between Leadership and Management
- 1.3 Role of a Leader- Group Task Roles, Group Building and Maintenance Roles

Unit 2

Functions and Responsibilities (10 hrs.)

- 2.1 Functions and Responsibilities of a Leader
- 2.2 Qualities of a Leader
- 2.3 Leadership Patterns - Autocratic, Democratic, Free Rein, Bureaucratic, Manipulative and Expert Leadership

Unit 3

Leadership Styles (10 hrs.)

- 3.1 Degrees of Leadership- Blake and Mouton's Managerial Grid
- 3.2 Facets of Leadership-Factors Affecting Choice of Leadership
- 3.3 Different Approaches to Leadership- Trait Oriented, Situational Approach and Functional Approach

BOOKS FOR STUDY

Mamoria, C.B. and S.V.Gankar. *Personnel Management*. Mumbai: Himalaya, 2004

BOOKS FOR REFERENCE

Aswathappa, K. *Organisational Behaviour Text, Cases and Games*. Mumbai: Himalaya, 2007.

Edwin B. Flippo, *Personnel Management*. Mumbai: Tata McGrawHill, 2004.

Peter F. Drucker. *Principles of Management*. Sultan Chand, 2003.

Prasad, L.M. *Human Resource Management*, New Delhi: Sultan Chand, 2004.

JOURNALS

International Journal of Management Reviews

International Journal of Business Management and Leadership

International Journal of Complexity in Leadership

WEB RESOURCES

www.insead.edu/library/rankings/journal_rankings.cfm

www.hbr.org

www.inderscience.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminars

Assignments

Submission of AD Copy

No End Semester Examination

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
Independent Elective Course Offered by Department of Commerce to students for
B.A. / B.Sc. / B.Com. / B.C.A. / B.S.W. / B.V.A. Degree Programmes

SYLLABUS
(Effective from the academic year 2015 -2016)

INTERNATIONAL MARKETING

CODE: 15CM/UI/IM23

CREDITS : 5

OBJECTIVES OF THE COURSE

- To familiarize with the nature and practices of international marketing
- To equip, design and participate in designing an international marketing strategy

Unit 1

Introduction (15 hrs.)

- 1.1 Definition, Domestic Marketing Vs. International Marketing
- 1.2 Reasons and Motivation for International Marketing - Scope and Benefits of International Marketing
- 1.3 Trade Barriers - Types and Reasons for Its Imposition

Unit 2

International Marketing Environment (13 hrs.)

- 2.1 Meaning, Factors Contributing to Business Environment
- 2.2 Economic, Cultural and Demographic Environment, Geographic, Political and Legal Environment
- 2.3 Conditions for Global Product Offering - Product Adaptation Hofstede

Unit 3

Institutional Framework (12 hrs.)

- 3.1 Various Institutions Engaged in Export Promotion in India
- 3.2 Advisory Bodies - Board of Trade & Export Promotion Board
- 3.3 Commodity Organisations

Unit 4

Export Procedure and Documents (15 hrs.)

- 4.1 EXIM Policy
- 4.2 Export Procedure and Documents
- 4.3 Processing of an Export Order

Unit 5

Trends in International Marketing (10 hrs.)

- 5.1 Recent Trends in World Trade
- 5.2 FEMA, TRIPS
- 5.3 Current Status on Indian Economy - Role Played by Government in Export Promotion

BOOK FOR STUDY

Cherunilam, Francis. *International Trade and Export Management*. Mumbai: Himalaya, 2012.

BOOKS FOR REFERENCE

Balagopal, TAS, *Export Management*. Mumbai: Himalaya, 2010.

Lewis Keith and Mathew Housden. *Introduction to International Marketing - A guide*.

Rathor, Jani and Rathor. *International Marketing*. Mumbai: Himalaya, 2010.

Varma, M.L. *International Trade*, New Delhi: Vikas, 2011.

Varshney, R.L. and B. Bhattacharya. *International Marketing Management - An Indian Perspective*, New Delhi: Sultan, 2010.

Warren J. Keergan, Mark Green. *Global Marketing*, Prentice Hill.

JOURNALS

Journal of International Marketing

Journal of International Marketing impact factor

Journal of International Marketing and Exporting

Journal of International Marketing ranking

The Journal of International Trade and Economic Development

International Journal of Trade and Global Markets

Journal of International Trade Law and Policy

WEB RESOURCES

www.marketingteacher.com/what-is-international-marketing/

www.marketing-schools.org/types-of-marketing/international-marketing.html

www.ncti.gov.in/how_do_exports_commodity_boards.php

internationalmarketingenvironment.com/

www.exporthelp.co.

www.bms.co

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminar

Group Discussion

Assignments

Class Presentations

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
Independent Elective Course Offered by Department of Commerce to students for
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SYLLABUS
(Effective from the academic year 2015 – 2016)
CONSUMER RIGHTS

CODE: 15CM/UI/CR34

CREDITS: 3

OBJECTIVES OF THE COURSE

- To provide knowledge about consumerism and related laws
- To enable an understanding of the importance of Consumer Rights
- To educate students on the rights and responsibilities of a consumer

Unit 1

Consumers

- 1.1 Meaning of Consumers-Customers
 - 1.1.1 Consumer Movements – Historical Perspectives
 - 1.1.2 Concept of Consumerism – Need and Importance

Unit 2

Consumer Exploitation

- 2.1 Meaning, Causes of Consumer Exploitation
- 2.2 Forms of Consumer Exploitation – Underweight Measures, High Prices, Substandard Quality, Poor or Inadequate After Sales Services
- 2.3 Challenges of Consumer Exploitation

Unit 3

Consumer Rights and Duties

- 3.1 Consumer Rights – John F Kennedy’s Consumer Bill of Rights
- 3.2 Types of Consumer Rights – (Right to Safety, Right to Information (RTI), Right to Redressal, Right to Consumer Education)
- 3.3 Duties of Consumers

Unit 4

Copra Act 1986

- 4.1 Introduction to COPRA Act
- 4.2 Consumer Protection Council – Central, State, Districts Consumer Protection Councils
- 4.3 Consumer Dispute Redressal Procedure

Unit 5

Consumerism in India

- 5.1 Reasons for the Growth of Consumerism in India
- 5.2 Recent Trends in Consumerism

5.3 Problems Faced by Consumers in India – Case Studies

BOOKS FOR REFERENCE

Anirban Chakraborty. *Law of Consumer Protection Advocacy and Practice*. India: Lexis Nexis, 2014.

Miller C.J., Brian W. Harvey, Deborah L Parry. *Consumer and Trading Law*. Oxford University, 1998.

Rajyalakshmi Rao. *Consumer is king!! Know your rights and remedies*. Universal, 2012.

Rao, Y.V. *Commentary on Consumer Protection Act*. Asia House, 2013

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

B.Com (CS) DEGREE

SYLLABUS

(Effective from the academic year 2015 -2016)

BUSINESS TAXATION

CODE: 15CM/ME/BT55

CREDITS : 5

L T P : 5 0 0

TOTAL TEACHING HRS. : 65

OBJECTIVES OF THE COURSE

- To give an insight into the complexity of the taxation system
- To enable students to compute the taxable income and tax liability of an Individual assessee

Unit 1

Introduction (20 hrs.)

- 1.1 Taxation – Meaning, Importance, Features and Types of Tax
- 1.2 Basic Concepts in Income Tax
- 1.3 Residential Status and Incidence of Tax
- 1.4 Computation of Heads of Income - Income taxable under the Head Salary, Basis of Charge , Allowances, Perquisites, Other receipts and Computation of Taxable Salary Income.

Unit 2

Income taxable under the Head Income from House Property and Profits and Gains of Business and Professional Income (15 hrs.)

- 2.1 House Property, Basis of Charge- Computation of Self-Occupied and Let Out House, House Property Income
- 2.2 Profits and Gains of Business and Profession – Computation of Professional and Business Income

Unit 3

Computation of other Heads of Income (10 hrs.)

- 3.1 Capital Gains - Computation of Short Term and Long Term Capital Gain
- 3.2 Income From Other Sources – General Incomes, Specific and Casual Income.

Unit 4

Computation of Taxable Income and Tax Liability (10 hrs.)

- 4.1 Set Off and Carry Forward Losses - Meaning
- 4.2 Clubbing of Income
- 4.3 Deductions
- 4.4 Assessment of Individual Income
- 4.5 Computation of Tax Liability

Unit 5
Introduction to Indirect Taxation (10 hrs.)

- 5.1 Customs Duty – Basic concepts, Levy and Collection
- 5.2 Excise Duty – Basic concepts, Levy and Collection
- 5.3 Goods and Service Tax (GST) – Basic concepts, Levy and liability under GST

BOOKS FOR STUDY

Balachandran, V. *Indirect Taxes*. New Delhi: Sultan Chand, 2015
Gaur, V.P. and D.B Naran. *Income Tax Law and Practice*. Kalyani, 2015.

BOOKS FOR REFERENCE

Ahuja, Girish and Gupta Ravi. *Practical Approach to Income Tax*.
Mehrothra, H.C. *Income Tax Law and Practice*. Sabithya Bhavan.
Singhania, Vinod K. *Student's Guide To Income Tax*. Taxmann.

JOURNALS

Excise Law Times (Fortnightly Reporting Journal) -
Excise and Customs Cases (Fortnightly Reporting Journal)
Excise and Customs Reporters (Fortnightly Reporting Journal) –
Direct Taxes Report Journal

WEB RESOURCES

www.icaai.org
www.icsi.edu
www.taxjournal.com
www.taxlawsonline.com

PATTERN OF EVALUATION

Continuous Assessment

Total Marks : 50 **Duration : 90 mins.**

Section A - 3 x 2 = 6 (no choice)
Section B - 3 x 8 = 24 (from a choice of four questions)
Section C - 1 x 20 = 20 (from choice of two questions)

Third Component

List of Evaluation modes:

Seminar
Problem Solving
Quiz

End Semester Examination

Total Marks : 100 **Duration : 3 hours**

Section A – 10 x 2 = 20 Marks (no choice) 5 Questions theory and 5 Problems
Section B – 5 x 8 = 40 Marks (From a choice of seven questions) 3 Theory and 4 Problems
Section C – 2 x 20 = 40 Marks (From a choice of four questions) 1 Theory and 3 Problems

Kumar Yoni
17/3/18

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.COM DEGREE

SYLLABUS

(Effective from the academic year 2015 – 2016)

FINANCIAL ACCOUNTING

CODE: 15CM/MC/FA15

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To enable the students to acquire conceptual knowledge about Accounting Standards.
- To help the students to acquire knowledge in preparing financial statements.
- To equip the students with the skill of preparing accounts for various type of organizations

Unit 1

Conceptual Frame Work for Preparation of Financial Statements (15 hrs.)

- 1.1 Capital and Revenue Expenditure - Capital and Revenue Receipts
- 1.2 Accounting Standards
 - 1.2.1 Object of Accounting Standards - Accounting Standard Board of India - Functions - Indian Accounting Standards (IND ASs) - International Financial Reporting Standards (IFRS)
 - 1.2.2 Ind AS – 1: Presentation of Financial Statements (a) Objective (b) Scope (c) General Features
 - 1.2.3 Ind AS – 2: Inventories (a) Objective (b) Definitions (c) Measurement of Inventories (d) Disclosure
 - 1.2.4 Ind AS – 18: Revenue (a) Objective and Scope (b) Measurement of Revenue
- 1.3 Advanced Problems in Final accounts of a Sole Trader

Unit 2

Insurance Claim for Loss of Stock and for Loss of Profit (13 hrs.)

- 2.1 Insurance Claim for Loss of Stock
 - 2.1.1 Concept of Under-Insurance and Average Clause
 - 2.1.2 Computation of Claim – with Price Change, Consideration of Unusual Selling Line and Price Reduction
- 2.2 Insurance Claim for Loss of Profit
 - 2.2.1 Concept – Insured and Uninsured Standing Charges, GP Rate, Short Sales and Increased Cost of Working, Average Clause
 - 2.2.2 Computation of Claim

Unit 3

Accounting for Hire Purchase and Installment System (12 hrs.)

- 3.1 Meaning - Features of Hire Purchase Agreement - Distinction Between Hire Purchase and Sale
 - 3.1.1 Interest Calculations
 - 3.1.2 Recording Transactions in the Books of Hire Purchaser and the Hire Vendor

- 3.2 Default and Repossession – Partial Repossession and Complete Repossession
- 3.3 Installment System – Features - Distinction Between Hire Purchase and Installment System

Unit 4

Branch Accounts and Departmental Accounts

(15 hrs.)

- 4.1 Branch Accounts
 - 4.1.1 Features
 - 4.1.2 Methods of Accounting – Debtors System, Stock and debtors System
- 4.2 Independent Branches –Features, Adjustment Entries in the Books of Head Office and Branch
- 4.3 Departmental Accounts
 - 4.3.1 Concept, Distinction between Departments and Branches
 - 4.3.2 Objective of Preparation of Departmental Accounts, Apportionment of Common Cost
 - 4.3.3 Preparation of Departmental Trading and Profit and Loss Account
 - 4.3.4 Inter Departmental Transfer of Goods at Cost, Cost Plus and at Selling Price and Elimination of Unrealized Profit

Unit 5

Average Due Date and Account Current

(10 hrs.)

- 5.1 Average Due Date and its Computation
- 5.2 Account Current – Methods of Computation – Forward, Backward and Daily Balance Method including Red Ink Interest

BOOKS FOR STUDY

Gupta, R.L and M. Radhaswamy. *Advanced Accountancy (Vol.1)*. Sultan Chand, 2007.
Reddy, T.S and A. Murthy. *Financial Accounting*. Margham, 2007.

BOOKS FOR REFERENCE

Goyal V.K. *Financial Accounting*. Anuraj Jain, 2010.
Jain S.P and K.L Narang. *Advanced Accountancy (Part1)*. Kalyani, 2007.
Maheshwari S.N, *Advanced Accountancy (Part1)*. Vikas, 2007.

JOURNALS

The Chartered Accountant: Journal of the Institute of Chartered Accountants of India.
Indian Journal of Finance
Journal of Accounting & Finance: Research Development Association, Jaipur.

WEB RESOURCES

www. icai.org
www.journals.elsevier.com
www. emeraldgroupublishing.com

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Duration: 90 mins.

Section A - $3 \times 2 = 6$ (no choice)

Section B - $3 \times 8 = 24$ (from a choice of four questions)

Section C - $1 \times 20 = 20$ (from choice of two questions)

Third Component

List of Evaluation modes:

Assignments

Test

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ Marks (no choice) 5 Questions theory and 5 Problems

Section B – $5 \times 8 = 40$ Marks (from a choice of seven questions - Problems)

Section C – $2 \times 20 = 40$ Marks (from a choice of four questions- Problems)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.COM DEGREE

SYLLABUS

(Effective from the academic year 2015 -2016)

MARKETING

CODE: 15CM/MC/MG14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To enable students to understand the intricacies of marketing, focusing on its macro role in society and micro role in business
- To equip students to face the challenges and constraints of the competitive business
- To facilitate understanding of the conceptual framework of marketing and its applications in decision making under various environmental constraints

Unit 1

Introduction

(12 hrs.)

- 1.1 Marketing – Meaning, Nature and Marketing Concept Model
- 1.2 Functions of Marketing – Clark’s Function of Marketing

Unit 2

Product Planning and New Product Development

(10 hrs.)

- 2.1 Product Planning
 - 2.1.1 Product Policy and Product Mix
- 2.2 Product Life Cycle - Stages
- 2.3 New Product Development
 - 2.3.1. Process of new Product Development
 - 2.3.2 Reasons for Product Failure

Unit 3

Pricing and Market Segmentation

(10 hrs.)

- 3.1 Pricing
 - 3.1.1 Factors affecting Pricing
 - 3.1.2 Pricing Policy
- 3.2 Market Segmentation
 - 3.2.1 Methods of Segmentation

Unit 4

Branding and Promotion

(10 hrs.)

- 4.1 Branding
 - 4.1.1 Meaning and Importance
 - 4.1.2 Types of Brands, Functions
- 4.2 Packaging
 - 4.2.1 Functions and types of Packaging and Labeling
- 4.3 Promotion - Mix

Unit 5

Channels of Distribution

(10 hrs.)

5.1 Factors affecting Choice of Channel

5.2 Classification of Channel Members

BOOK FOR STUDY

Nair, Rajan and Sanjith Nair. *Marketing*. 11th Edition, New Delhi: Sultan Chand, 2013.

BOOKS FOR REFERENCE

Gandhi J.C. *Marketing*. New Delhi: Tata McGraw Hill, 2009.

Groucutt Jonathan, Peter Leadley, Patrick Forsyth. *Marketing Essential Principles. New Realities*. Kogan, 2004.

Kotler Philip. *Marketing* 12th edition. New Delhi: Prentice Hall of India, 2008.

Steven J Skinner, *Marketing*, Houghton Mifflin; 2nd edition, 1994.

Varshney R.L, Dr. S.L. Gupta. *Marketing Management*. Himalaya.

William J. Stanton, Micheal J. Etzel, Bruce J. Walker. *Fundamentals of Marketing*, New Delhi: Mc Graw Hill, 2009.

Xavier, M. J., *Marketing in the New Millenium*, New Delhi: Vikas, 2009.

JOURNALS

Journal of Marketing - American Marketing Association

Journal of Consumer Marketing

Journal of Marketing Education

International Journal of Research in Marketing

International Journal of Marketing Studies

International Journals of Marketing and Technology

Indian Journal of Marketing

WEB RESOURCES

www.yourarticlelibrary.com

www.boundless.com

www.learnmarketing.net

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component

List of Evaluation modes:

Seminars

Quiz,

Group discussion
Assignments
Class Presentation

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.C.A. DEGREE

Allied Core Offered to the Department of Computer Science

SYLLABUS

(Effective from the academic year 2015 – 2016)

FINANCIAL STATEMENTS AND ANALYSIS

CODE: 15CM/AC/FS15

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide a basic knowledge of accounting concepts and practices.
- To understand and analyze financial statements.

Unit 1		
1.1	Principles of Accounting	(15 hrs.)
1.1.1	Introduction to double entry system	
1.1.2	Preparation of Journal and Trial balance.	
Unit 2		
2.1	Final Accounts	(20 hrs.)
2.1.1	Preparation of Trading, Profit and Loss Account and Balance Sheet of a Sole Trader (Basic Concepts and Adjustments relating to Closing Stock, Depreciation, Outstanding Expenses, Prepaid Expenses and Bad Debts)	
2.2	Final Accounts of a Company	
2.2.1	Preparation of Final accounts –Form and Contents as per Provision of Companies Act 2013 as per Schedule III	
Unit 3		
3.1	Techniques for analyzing Financial Statements	(10 hrs.)
1.1	Comparative Statements	
1.2	Common Size Statements	
1.3	Trend Analysis	
Unit 4		
4.1	Ratio Analysis	(10 hrs.)
4.1.1	Profitability Ratios	
4.1.2	Solvency Ratios	
4.1.3	Liquidity Ratios	
Unit 5		
5.1	Cost Ascertainment	(10 hrs.)
5.1.1	Meaning of Direct and Indirect Cost	
5.1.2	Preparation of Statement of Cost and Profit.	

BOOKS FOR STUDY

Jain S. P., and Narang K. L., *Cost and Management Accounting*. Ludhiana: Kalyani, 2006.
Reddy T.S and Murthy A, *Financial Accounting*. Chennai: Margham, 2008.

BOOKS FOR REFERENCE

Maheswari S.N., *Advanced Accountancy(Part 1)*. New Delhi: Vikas, 2007.
Murthy A. and Gurusamy S. *Essentials of Cost Accounting*. Chennai: Vijay Nicole, 2007.
Murthy.A and Guruswamy.S. *Management Accounting*, Chennai: Vijay Nicole, 2006.
Ramachandran. N.and Ram Kumar Kakani. *Financial Accounting for Management*. Tata McGraw Hill
Sridal A.N., *Management Accounting and financial analysis*. Shroff, 2009.

JOURNAL

International journal of accounting
Journal of finance

WEB RESOURCES

www.accountingcoach.com
www.cliffsnotes.com/.../accounting/accounting.../managerial...cost-accounting.../managerial-versus-financial-accounting

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50 **Duration: 90 mins.**

Section A $3 \times 2 = 6$ (no choice)
Section B $3 \times 8 = 24$ (from a choice of four)
Section C $1 \times 20 = 20$ (from choice of two)

Third Component:

List of Evaluation modes:
Open book test
Problem solving
Assignment

End Semester Examination

Total Marks: 100 **Duration: 3 hours**

Section A – $10 \times 2 = 20$ Marks (no choice) 5 Questions theory and 5 Problems
Section B – $5 \times 8 = 40$ Marks (from a choice of seven questions - Problems)
Section C – $2 \times 20 = 40$ Marks (from a choice of four questions- Problems)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.COM DEGREE

SYLLABUS

(Effective from the academic year 2015– 2016)

COST ACCOUNTING

CODE: 15CM/MC/CT25

CREDITS: 5

L T P : 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide an understanding of the basic concepts of cost accounting
- To enable students to understand the methods of ascertaining the product cost
- To expose the students to the practical applicability of Costing

Unit 1

The Nature of Cost Accounting (10 hrs.)

- 1.1 Meaning, Objectives and Scope
- 1.2 Advantages and Limitations of Cost Accounting, Difference Between Financial and Cost Accounting
- 1.3 Cost Center and Cost Units- Methods of Costing, Elements of Cost, Cost Concepts and Classification of Cost. Cost Audit and Maintenance of Cost Records
- 1.4 Preparation of Cost Sheet, Quotations or Tenders

Unit 2

Material Cost and Material Control (15 hrs.)

- 2.1 Computation of Material Cost and Accounting Treatment for Normal, Abnormal Loss and Scrap
- 2.2 Essentials of Material Control, Purchase Control – Purchase Procedure
- 2.3 Store Control
 - 2.3.1 Techniques of Inventory Control – Economic Order Quantity, Level Setting, Perpetual Inventory Systems and Stock Control According to Value- ABC Analysis, JIT
- 2.4 Issue Control
 - 2.4.1 Stores and Material Records – Bin Card and Store Ledger
 - 2.4.2 Methods of Material Issue – First In First Out, Last In First Out, Average Cost - Simple and Weighted Average

Unit 3

Labour Cost, Remuneration and Incentives (15 hrs.)

- 3.1 Computation of Labour Cost with Overtime and Idle Time
- 3.2 Labor Turnover – Methods of Computation, Causes and Effects of Labour Turnover
- 3.2 Methods of Remuneration- Time Rate System, Piece Rate System, Taylor’s Differential Piece Rate System.
- 3.4 Incentive Plans -Halsay Premium Plan, Rowan Premium Plan

Unit 4**Overheads****(13 hrs.)**

- 4.1 Importance and Classification of Overhead Costs
- 4.2 Apportionment and Allocation of Overheads
 - 4.2.1 Primary Distribution of Overheads
 - 4.2.2 Secondary Distribution of Overheads- Direct Distribution, Reciprocal and Non Reciprocal Methods
- 4.3 Methods of Absorption of Overheads
 - 4.3.1 Direct Labour Hour Rate
 - 4.3.2 Machine Hour Rate
 - 4.3.3 Activity Based Costing

Unit 5**Process and Operating Costing****(12 hrs.)**

- 5.1 Process Costing
 - 5.1.1 Meaning and Features of Process Costing
 - 5.1.2 Process Losses and Gains – Accounting Treatment of Normal and Abnormal Wastage and Abnormal Gain
 - 5.1.3 Inter-Process Profit
- 5.2 Operating Costing- Transport Costing only

BOOKS FOR STUDY

Jain, S.P. and Narang K.L. *Cost Accounting*. NewDelhi: Kalyan, 2006.

Reddy, T.S and A. Murthy. *Cost Accounting*. Margham, 2007.

BOOKS FOR REFERENCE

Khanna, B.S, I.M Pandey, G.K Ahuja. and M.N Arora. *Practical Costing*. New Delhi: Sultan Chand, 2006.

Maheswari, S.N. *Problems and solutions in Cost Accounting*. 12th edition, Sultan Chand,2010.

Ravi M. Kishore. *Cost Accounting*, 4th edition, Taxmann's Allied Services, 2010.

JOURNALS

Cost Accounting Standards - The ICWA of India

Management Accountant - The ICWA of India

Indian Journal of Finance

WEB RESOURCES

icwajournal@hotmail.com

www.accaglobal.com

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Duration: 90 mins.

Section A - $3 \times 2 = 6$ (no choice)

Section B - $3 \times 8 = 24$ (from a choice of four questions)

Section C - $1 \times 20 = 20$ (from choice of two questions)

Third Component

List of Evaluation modes:

Assignments

Problem solving

Open book test

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ Marks (no choice 5 Questions theory and 5 Problems)

Section B – $5 \times 8 = 40$ Marks (from a choice of seven questions – 2 theory and 5 problems)

Section C – $2 \times 20 = 40$ Marks (from a choice of four questions- Problems)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.COM DEGREE

SYLLABUS

(Effective from the academic year 2015 – 2016)

BUSINESS MANAGEMENT

CODE: 15CM/MC/BM24

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To provide a comprehensive understanding of the principles of management
- To emphasize the need for competence, trust and team work, in the organisation
- To familiarize students with the different functions of management

Unit 1

Introduction (10 hrs.)

- 1.1 Meaning, Concepts and Levels of Management
- 1.2 Contributions to Management Studies by Fayol, Taylor, Elton Mayo

Unit 2

Planning (9 hrs.)

- 2.1 Importance and Process of Planning
- 2.2 Types of Plans – Policies, Procedures, Strategies, Objectives, Rules, Budgets
- 2.3 Obstacles to Effective Planning

Unit 3

Organising and Departmentation (12 hrs.)

- 3.1 Organizing
 - 3.1.1 Nature and Importance
 - 3.1.2 Types – Line, Line and Staff and Functional Organizations
- 3.2 Delegation and De-centralization
- 3.3 Departmentation

Unit 4

Staffing and Communication (12 hrs.)

4.1 Staffing

- 4.1.1 Recruitment and Selection
- 4.1.2 Training – Need, Types of Employee Training
- 4.1.3 Motivation – Meaning and Maslow's Theory of Motivation
- 4.1.4 Leadership – Qualities, Types of Leaders, Span of Control

4.2 Communication

- 4.2.1 Types and Process
- 4.2.2 Barriers to Communication

Unit 5

Control (9 hrs.)

- 5.1 Importance of Control and Control Process
- 5.2 Characteristics of an Ideal Control System

BOOKS FOR STUDY

Gupta, C. B. *Business Management*. New Delhi: Sultan Chand, 2007.

BOOKS FOR REFERENCE

Pagare Dinakar. *Business Management*. 5th edition. New Delhi: Sultan Chand, 2008.

Gupta, N.S. and Alka Gupta. *Essentials of Management*. New Delhi; Anmol, 2010.

Harold, Koontz., Hein Wehrich. *Essentials of Management*. 6th edition. New Delhi: Tata Mc.Graw Hill, 2006.

Prasad, Manmohan. *Management Concepts and Practices*. Mumbai: Himalaya, 2006.

Prasad L.M. *Principles and Practice of Management*. New Delhi: Sultan Chand, 2008.

Sivarethnamohan R. and P.Aranganathan. *Principles of Management*. Chennai: CBA, 2008

JOURNALS

International Journal of Management Reviews

European Journal of Business Management

WEB RESOURCES

www.exed.hbs.edu

www.hbr.org

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of evaluation modes:

Case Studies

Mini projects

Objective type questions

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.C.A. DEGREE
Allied Core Offered to the Department of Computer Science

SYLLABUS
(Effective from the academic year 2015 -2016)

PRINCIPLES OF FINANCIAL MANAGEMENT

CODE: 15CM/AC/PF25

CREDITS : 5

L T P : 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To acquaint students with the basic tools and principles of financial management concept
- To provide a sound conceptual framework for financial decision-making
- To expose students to the financial concepts for effective financial planning and forecasting

Unit 1

Nature of Financial Management (10 hrs.)

- 1.1 Modern Approach to Financial Management
 - 1.1.1 Investment Decisions
 - 1.1.2 Finance Decisions
 - 1.1.3 Dividend Decisions
- 1.2 Objectives of a Firm
 - 1.2.1 Profit Maximization
 - 1.2.2 Wealth Maximization
- 1.3 Risk Return Trade Off
- 1.4 Significance of Financial Management

Unit 2

Time Value of Money (10 hrs.)

- 2.1 Meaning and Significance of Time Value of Money in Financial Decision
- 2.2 Techniques of Time Value
 - 2.2.1 Discounting Techniques
 - 2.2.2 Compounding Techniques

Unit 3

Working Capital Management (15 hrs.)

- 3.1 Need and Types of Working Capital
- 3.2 Determinants of Working Capital
- 3.3 Computation of Working Capital (simple problems)

Unit 4

Cash Asset Management (15 hrs.)

- 4.1 Motives in holding Cash Balance
- 4.2 Basic Strategies in Cash Management
- 4.3 Preparation of Cash Budget

Unit 5

Capital Budgeting

(15 hrs.)

- 5.1 Investment Appraisal Techniques
- 5.2 Pay Back Period Method
- 5.3 Accounting Rate of Return
- 5.4 Net Present Value Method
- 5.5 Profitability Index Method

BOOK FOR STUDY

Khan, M.Y. and P.K. Jain. *Basic Financial Management*. New Delhi: Tata McGraw Hill, 1999.

BOOKS FOR REFERENCE

James C. Van Horne. *Financial Management and Policy*. New Delhi: Prentice Hall of India, 2004.

Maheshwari S. N. *Financial Management*. New Delhi: Vikas, 2004.

Pandey I. M. *Financial Management*. New Delhi: Vikas, 2000.

Prasanna Chandra. *Fundamentals of Financial Management*. New Delhi: Tata Mc Graw Hill, 1999.

Ruzbeh J. Bodhanwala. *Understanding and Analysing Balance Sheets using Excel Worksheet*. New Delhi: Prentice Hall of India, 1999.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50 Duration: 90 mins.

Section A 3 x 2 = 6 (no choice)

Section B 3 x 8 = 24 (from a choice of four)

Section C 1 x 20 = 20 (from choice of two)

Third Component

List of Evaluation modes:

Open book test

Problem solving

Assignment

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice) 5 Questions theory and 5 Problems

Section B – 5 x 8 = 40 Marks (from a choice of seven questions – 2 theory and 5 problems)

Section C – 2 x 20 = 40 Marks (from a choice of four questions- Problems)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.COM DEGREE

SYLLABUS
(Effective from the academic year 2015 -2016)

BUSINESS LAW

CODE: 15CM/MC/BL34

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To familiarize with the principles of law that is essential to manage complex business transactions
- To sensitize on the legal rights, duties and obligations arising out of business transactions

Unit 1

1.1 Law of Contract - I (15 hrs.)

1.1.1. Classification of Contract

1.2 Requisites of a valid contract

1.2.1. Offer and Acceptance

1.2.2. Consideration

1.2.3. Capacity to Contract

1.2.4. Free Consent

1.2.5. Legality of Object

Unit 2

Law of Contract – II (12 hrs.)

2.1 Performance of Contract - Specific Performance

2.2 Discharge of Contract

2.3 Remedies for Breach of Contract

Unit 3

Special Contracts - I (8 hrs.)

3.1 Contract of Indemnity

3.2 Contract of Guarantee - Rights and Liabilities of Surety, Discharge of Surety

Unit 4

Special Contracts - II (10 hrs.)

4.1 Bailment

4.1.1 Rights and Duties of Bailor and Bailee

4.1.2 Termination of Bailment

4.1.3 Finder of Lost goods

4.2 Pledge

4.2.1 Rights and Duties of Pledger and Pledgee

4.2.2 Pledge by Non-owners

4.3 Law of Agency

Unit 5

Sale of Goods Act

(7 hrs.)

- 5.1 Essentials of a Contract of sale, Sale Vs. Agreement for Sale and Rule of Caveat Emptor
- 5.2 Conditions and Warranties
- 5.3 Transfer of Property
- 5.4 Performance of Contract
- 5.5 Rights of an Unpaid Seller

BOOKS FOR STUDY

Kapoor N.D, *Elements of Business Law*. New Delhi: Sultan Chand, 2007.

BOOKS FOR REFERENCE

Balachandran .V and Thothadri.S. *Business Law*. New Delhi: Tata McGraw Hill, 2010.

Chadha P.R. *Business Law*. New Delhi: Galgotia , 2005.

Gogna P.P.S. *Mercantile Law*. New Delhi: Sultan Chand, 2005.

Kuchhal M. C. *Business Law*. New Delhi: Vikas, 2008.

Pandit M.S. and ShobhaPandi. *Business Law*. Mumbai: Himalaya, 2004.

Tulsian P. C. *Business Law*. New Delh: Tata McGraw Hill, 2007.

Tuteja S.K. *Business Law for Managers*. New Delhi: Sultan Chand, 2005.

JOURNALS

A.P.L.J. Andhra Pradesh Law Journal

Cal. L.J. Calcutta Law Journal

Indian Business Law Journal

M.L.J. Madras Law Journal

WEB RESOURCES

www.amritt.com

www.indilaw.com

www.lawnotes.in

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component

List of Evaluation modes:

Case Studies

Group Discussion

Assignments

Class Presentations

Problem Solving

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B. COM DEGREE

SYLLABUS

(Effective from the academic year 2015 -2016)

BANKING AND FINANCIAL SERVICES

CODE: 15CM/MC/BF35

CREDITS : 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To expose students to the concept and practices adopted in the banking industry
- To educate students about the practical relevance and importance of banking
- To update students with the changing trends in banking industry
- To understand the basics of financial services and its various dimensions, evaluation and benefits to the economy

Unit 1

Introduction to Banking

(15 hrs.)

- 1.1 Meaning, Definition and Functions of Commercial Banking
- 1.2 Types of Deposits - Savings, Current, Fixed Deposits and Recurring Deposits
- 1.3 Types of Lending – Cash Credit, Overdraft, Bills Discounting and Term Loans
- 1.4 Opening, Operation and Closing of Bank Accounts
- 1.5 Banking Ombudsman

Unit 2

Negotiable Instruments Act

(12 hrs.)

- 2.1 Meaning and Features of Negotiable Instruments – Cheque, Promissory Note and Bills of Exchange
- 2.2 Crossing and Endorsement of Cheques
- 2.3 Payment and Collection of Cheques

Unit 3

Advancements in Banking

(10 hrs.)

- 3.1 E-Banking – Meaning, Importance, Merits and Demerits
- 3.2 Internet Banking, Mobile Banking, Tele-Banking
- 3.3 Debit Card, Credit Card, ATM Card and Smart Card
- 3.4 Electronic Clearing Service and Electronic Fund Transfer

Unit 4

Financial Services - Introduction

(13 hrs.)

- 4.1 Meaning, Features, Types and Importance of Financial Services in India
- 4.2 Credit Rating Services – Meaning and Methods of Rating with Special Reference to ICRA and CRISIL.
- 4.3 Merchant Banking - Meaning and Functions

Unit 5

Financial Services - Types

(15 hrs.)

- 5.1 Factoring - Definition, Importance, Types
- 5.2 Leasing – Meaning, Importance and Types
- 5.3 Mutual fund – Meaning, Types – Open Ended and Close Ended and Selection of Mutual Fund
- 5.4 Venture Capital Financing – Meaning, Importance and Features of Venture Capital Financing

BOOKS FOR STUDY

Gurusamy, S. *Financial Services*. Tata McGraw Hill, 2011.

Sundaram, K.P.M. and P. N.Varshney. *Banking Theory Law and Practice*, New Delhi: Sultan Chand , 2005.

BOOKS FOR REFERENCE

Bhalla, V.K. *Management of Financial Services*. New Delhi: Anmol, 2002.

Gordon, E. and Natarajan K. *Banking Theory Law and Practice*. Mumbai: Himalaya, 2005.

Gupta Shashi K and Nisha Agarwal. *Financial Services*. New Delhi: Kalyani, 2006.

Gurusamy S, *Banking Theory Law and Practice*. Chennai: Vijay Nicole Imprints, 2006.

Gurusamy S. *Financial Services and Markets*. Chennai: Vijay Nicole Imprints, 2012.

Khan, M.Y. *Financial Services*. New Delhi: Tata McGraw Hill, 2006.

Machiraju H. R., *Indian Financial System*. New Delhi: Vikas, 2005.

Varshney P.N. *Banking Law and Practice*, New Delhi; Sultan Chand, 2006.

JOURNALS

Asian Journal of Research in Banking and Finance

Indian Journal of Finance

Journal of Banking, Information Technology and Management

Journal of Bank Management

Journal of Internet Banking and Commerce

International Journal of Banking and Finance

WEB RESOURCES

www.preservearticles.com

www.india-financing.com

www.languages.ind.in

www.rbi.org.in

www.allbankingsolutions.com

www.preservearticles.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component

List of Evaluation modes:

Seminar

Group Discussion

Assignments

Class Presentations

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.COM DEGREE

SYLLABUS

(Effective from the academic year 2015 – 2016)

MANAGEMENT ACCOUNTING

CODE: 15CM/MC/MA34

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To emphasize the need for analyzing the financial data for internal reporting, cost control and effective decision-making
- To analyze and interpret the financial statements for managerial decision making
- To focus on the applications of cost control concepts and techniques for effective planning and forecasting

Unit 1 (5 hrs.)

1.1 Nature of Management Accounting

- 1.1.1 Definition and Nature of Management Accounting
- 1.1.2 Scope and Objectives of Management Accounting
- 1.1.3 Need, Importance and Limitations of Management Accounting

1.2 Analysis and Interpretation of Financial Statements

- 1.2.1 Financial Statements – Income statement, Position Statement
- 1.2.2 Importance and limitation of Financial Statements
- 1.2.3 Concept of Analysis and Interpretation- Types of Financial Analysis

Unit 2 (15 hrs.)

Methods of Financial Analysis and Interpretation

- 2.1 Comparative Statements
- 2.2 Common-Size Statements
- 2.3 Trend Analysis
- 2.4 Ratio Analysis
 - 2.4.1 Use, Significance and Limitations of Ratio Analysis
 - 2.4.2 Computation and Interpretation of Ratios - Turn Over, Liquidity, Profitability, Solvency and Leverage

Unit 3 (10 hrs.)

Budgets and Budgetary Control

- 3.1 Concepts of Budgets and Budgetary Control
- 3.2 Objectives and Advantages of Budgetary Control
- 3.3 Classification of Budgets and its Preparation – Sales Budget, Purchases Budget, Cost of Production Budget, Cash Budget and Flexible Budget

Unit 4 (10 hrs.)

Marginal Costing and its Applications

- 4.1 Definition, Meaning and Features of Marginal Costing
- 4.2 Marginal Costing and its Applications
- 4.3 Cost Volume Profit analysis – Break-Even Point
- 4.4 Make or Buy, Product Mix and Key Factors

Unit 5

Standard Costing and Variance Analysis

(12 hrs.)

- 5.1 Meaning - Standard Costing as a Management Tool - Limitations
- 5.2 Variance Analysis - Material, Labour, Overheads and Sales Variances

BOOKS FOR STUDY

Maheshwari, S.N. *Principles of Management Accounting*. New Delhi: Sultan Chand, 2007.

Reddy, T. S. and A .Murthy. *Management Accounting*. Chennai: Margham, 2007.

BOOKS FOR REFERENCE

Atkinson A. Anthony, Robert S. Kaplan and S. Mark Young. *Management Accounting*. Pearson Education, 2008.

Indian Institute of Banker, *Management Accounting*. Macmillan, 2008.

Man Mohan and S.N. Goyal. *Principles of Management Accounting*. Agra: Sahitya Shawan, 2005.

JOURNALS

International Journal of research in Commerce and Management
Management Accountant - The ICWA of India,
Indian Journal of Finance

WEB RESOURCES

www.icaai.org

www.cimaglobalcom

PATTERN OF EVALUATION

Continuous Assessment

Total Marks : 50

Duration : 90 mins.

Section A - 3 x 2 = 6 (no choice)

Section B - 3 x 8 = 24 (from a choice of four questions)

Section C - 1 x 20 = 20 (from choice of two questions)

Third Component

List of Evaluation modes:

Assignments

Test

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice) 5 Questions theory and 5 Problems

Section B – 5 x 8 = 40 Marks (from a choice of seven questions – 2 theory and 5 problems)

Section C – 2 x 20 = 40 Marks (from a choice of four questions- Problems)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.COM DEGREE

SYLLABUS

(Effective from the academic year 2015 -2016)

BUSINESS ETHICS AND CORPORATE SOCIAL RESPONSIBILITY

CODE: 15CM/MC/EC34

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To familiarize students with the understanding of issues and practices of corporate governance and corporate social responsibility in the global and Indian context
- To analyse and examine corporate social responsibility

Unit 1

Introduction to Business Ethics (10 hrs.)

- 1.1 Meaning, Scope and Objectives of Business Ethics
- 1.2 Globalisation and Business Ethics
- 1.3 Ethical Dilemma in Business

Unit 2

Business and Ethical Environment (15 hrs.)

- 2.1 Ethical Issues in Finance - Issues Related to Financial Services, Insider Trading and Takeovers
- 2.2 Ethical Issues in Marketing and Advertising
- 2.3 Whistle Blowing and Whistle Blower's Protection

Unit 3

Corporate Governance (10 hrs.)

- 3.1 Meaning and Concepts of Corporate Governance
- 3.2 Management Structure of Corporate Governance
- 3.3 Board Committees and Their Functions

Unit 4

Corporate Social Responsibility (10 hrs.)

- 4.1 Meaning, Importance of Corporate Social Responsibility and Legal Requirements
- 4.2 Corporate Sustainability and Corporate Social Responsibility
- 4.3 Managing Environmental Issues

Unit 5

Responding to Stakeholders (7 hrs.)

- 5.1 Stockholders, Employees, Community - Corporate Philanthropy and Community Volunteering
- 5.2 Case Studies – Socially Responsible Business Practices

BOOKS FOR STUDY

Andrew Crane Dirk Matten. *Business Ethics*. New Delhi: Oxford University Press.

Fernando, A.C. *Corporate Governance – Principles, Policies & Practice*. Pearson.

Joan R. Boatright. *Ethics and the Conduct of Business*. 7th edition. Pearson.

BOOKS FOR REFERENCE

Bhanu Murthy, K. V. and Usha Krishna, *Politics Ethics and Social Responsibilities of Business*. New Delhi: Pearson Education.

Christine, A Mallin. *Corporate Governance (Indian Edition)*. New Delhi: Oxford University Press.

Geeta Rani, D & R K Mishra. *Corporate Governance-Theory and Practice*. New Delhi: Excel.

Kotler, Philip and Nancy Lee. *Corporate Social Responsibility – Doing the Most Good for Your Company and Your Cause*. Wiley – India, 2008.

Mathur, U.C. *Corporate Governance & Business Ethics*. Macmillan, 2005.

Sharma, J. P. *Corporate Governance Business Ethics & CSR*. New Delhi: Ane Books

Subhash Chandra Das, *Corporate Governance in India*. PHI, 2008.

JOURNALS

International Journal of Management Reviews

International Journal on Corporate Strategy and Social Responsibility

SSRN – E Journal

WEB RESOURCES

www.ibscdc.org

www.exed.hbs.edu

www.hbr.org

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminar

Group Discussion

Assignments

Class Presentations

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A.DEGREE: BRANCH IV-ECONOMICS
Allied Core Offered to the Department of Economics

SYLLABUS
(Effective from the academic year 2015 – 2016)

PRINCIPLES OF FINANCIAL MANAGEMENT

CODE : 15CM/AC/PF35

CREDITS : 5

L T P : 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To acquaint students with the basic tools and principles of financial management concept
- To provide a sound conceptual framework for financial decision-making
- To expose students to the financial concepts for effective financial planning and forecasting

Unit 1 (10 hrs.)

Nature of Financial Management

- 1.1 Modern Approach to Financial Management
 - 1.1.1 Investment Decisions
 - 1.1.2 Finance Decisions
 - 1.1.3 Dividend Decisions
- 1.2 Objectives of a Firm
 - 1.2.1 Profit Maximization
 - 1.2.2 Wealth Maximization
- 1.3 Risk Return Trade Off
- 1.4 Significance of Financial Management

Unit 2 (10 hrs.)

Time Value of Money

- 2.1 Meaning and Significance of Time Value of Money in Financial Decision
- 2.2 Techniques of Time Value
 - 2.2.1 Discounting Techniques
 - 2.2.2 Compounding Techniques

Unit 3 (15 hrs.)

Working Capital Management

- 3.1 Need and Types of Working Capital
- 3.2 Determinants of Working Capital
- 3.3 Simple Problems on Computation of Working Capital

Unit 4 (15 hrs.)

Cash Asset Management

- 4.1 Motives in Holding Cash Balance
- 4.2 Basic Strategies in Cash Management
- 4.3 Preparation of Cash Budget

Unit 5**(15 hrs.)****Capital Budgeting**

- 5.1 Investment Appraisal Techniques
- 5.2 Pay Back Period Method
- 5.3 Accounting Rate of Return
- 5.4 Net Present Value Method
- 5.5 Profitability Index Method

BOOK FOR STUDY

Khan M. Y. and P.K. Jain. *Basic Financial Management*. New Delh: Tata Mc Graw Hill, 2013.

BOOKS FOR REFERENCE

Ruzbeh J. Bodhanwala. *Understanding and Analysing Balance Sheets using Excel Worksheet*. New Delhi: Prentice Hall of India, 2006.

James C. Van Horne. *Financial Management and Policy*. New Delhi: Prentice Hall of India, 2004.

Maheshwari S. N. *Financial Management*, New Delhi: Vikas, 2004.

Pandey I. M. *Financial Management*. New Delhi: Vikas, 2005.

Prasanna Chandra. *Fundamentals of Financial Management*. New Delhi: Tata Mc Graw Hill, 2014.

JOURNALS:

Indian Journal of Finance
International Journal of Financial Management

WEB RESOURCES:

www.exinfm.com
www.indianjournaloffinance.co.in

PATTERN OF EVALUATION**Continuous Assessment:****Total Marks: 50****Duration: 90 mins.**

Section A – 7 x 2 = 14 Marks (Answer all questions)

Section B – 2 x 8 =16 Marks (Answer any two questions from a choice of three)

Section C –1 x 20 = 20 Marks (Answer any one question from a choice of two)

Third Component:

List of evaluation modes

Open book tests

Assignments- Problem solving

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ (five theory and five problems, short answers, Max. 50 words)

Section B – $5 \times 8 = 40$ (from a choice of 7, Two theory Questions and five Problems)

Section C – $2 \times 20 = 40$ (from a choice of 4, Problems)

STELLA MARIS COLLEGE (AUTONOMOUS),CHENNAI- 600 086
B.COM DEGREE

SYLLABUS

(Effective from the academic year 2015 -2016)

FINANCIAL MANAGEMENT

CODE: 15CM/MC/FM44

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To acquaint the students with the basic tools and principles of financial management
- To provide a sound conceptual frame work for financial decision-making

Unit 1

Nature of Financial Management

(8 hrs.)

- 1.1 Modern Approach to Financial Management
 - 1.1.1 Investment Decisions
 - 1.1.2 Finance Decisions
 - 1.1.3 Dividend Decisions
- 1.2 Objectives of the Firm
 - 1.2.1 Profit Maximisation
 - 1.2.2 Wealth Maximisation
- 1.3 Risk Return Trade off
- 1.4 Significance of Financial Management

Unit 2

Time Value of Money

(10 hrs.)

- 2.1 Meaning and Significance of Time value of Money in Financial Decisions
- 2.2 Computation of Time value of Money
 - 2.2.1 Compounding Techniques
 - 2.2.2 Present Value Techniques

Unit 3

Measurement of Cost of Capital

(12hrs.)

- 3.1 Meaning and Significance
- 3.2 Cost of Equity and Retained Earnings
- 3.3 Cost of Debt - Redeemable and Irredeemable
- 3.4 Cost of Preference - Redeemable and Irredeemable
- 3.5 Computation of Overall Cost of Capital - Book Value and Market Value

Unit 4

Capital Budgeting

(12 hrs.)

- 4.1 Nature of Capital Budgeting
- 4.2 Evaluating Techniques - Pay Back Period, Average Rate of Return, Net Present Value, Internal Rate of Return and Profitability Index

Unit 5

Working Capital Management

(10 hrs.)

- 5.1 Need for Working Capital Management
- 5.2 Determinants of Working Capital Management
- 5.3 Computation of Working Capital

BOOK FOR STUDY

Khan, M.Y. and P.K. Jain. *Basic Financial Management*. New Delhi: Tata Mc Graw Hill, 1999.

REFERENCE BOOKS

Chandra, Prasanna. *Fundamentals of Financial Management*. New Delhi: Tata McGraw Hill, 1999.

Van Horne, James C. *Financial Management and Policy*. New Delhi: Prentice Hall of India, 1991.

Kalra, Ashish. *Financial Management*. New Delhi: IGP, 2011.

Khan, M.Y. and Jain P.K. *Basic Financial Management*. New Delhi: Tata Mc Graw Hill, 1999.

Maheshwari, S. N. *Financial Management*. New Delhi: Vikas, 1999.

Pandey, I. M. *Financial Management*. New Delhi: Vikas, 2000.

Ravi M. Kishore. *Taxmann's Financial Management*. New Delhi: K. L. Taxmann, 2006.

JOURNALS

Journal on Risk and Financial Management

[Indian Journal of Finance](#)

Finance India

WEB RESOURCES

www.mdpi.com/

www.indianjournaloffinance.co.in/

www.financeindia.com/

PATTERN OF EVALUATION

Continuous Assessment Tests

Total Marks : 50

Duration : 90 mins.

Section A - $3 \times 2 = 6$ (no choice)

Section B - $3 \times 8 = 24$ (from a choice of four questions)

Section C - $1 \times 20 = 20$ (from choice of two questions)

Third Component

List of Evaluation modes:

Assignments

Test

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ Marks (no choice 5 Questions theory and 5 Problems)

Section B – $5 \times 8 = 40$ Marks (from a choice of seven questions – 2 theory and 5 problems)

Section C – $2 \times 20 = 40$ Marks (from a choice of four questions- Problems)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.COM. DEGREE

SYLLABUS

(Effective from the academic year 2015 – 2016)

COMPANY LAW

CODE: 15CM/MC/CL44

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To acquaint students with the fundamental principles of company law
- To expose students to the statutory provisions relating to the formation and management of a company

Unit 1

Introduction

(10 hrs.)

- 1.1 Definition and Characteristics of a Company
- 1.2 Lifting of the Corporate Veil, Advantages of Incorporation
- 1.3 Types of Companies- Private, Public, Government Companies
Foreign Companies, Dormant Company, One Person Company, Small Company

Unit 2

Formation of a Company

(11 hrs.)

- 2.1 Incorporation
- 2.2 Memorandum of Association- Meaning, Contents, Alterations, Doctrine of Ultra Vires
- 2.3 Articles of Association – Contents, Alterations, Doctrine of Indoor Management – Entrenched Provisions.

Unit 3

Raising of Capital

(11 hrs.)

- 3.1 Prospectus – Definition, Contents, Mis-statements in Prospectus and its Consequences
- 3.2 Share Capital - Meaning, Kinds and Alteration of Share Capital
- 3.3 Shares - Nature of Shares, Types of Shares, Application and Allotment, Transfer and Transmission of Shares
- 3.4 Debentures - Nature and Classes of Debentures

Unit 4

4.1 Meetings

(10 hrs.)

- 4.1.1 Annual General Meeting
- 4.1.2 Extraordinary General Meeting and Electronic Voting
- 4.1.3 Board Meetings – Video Conferencing and Other Audio Visual Aids
- 4.1.4 Requisites for a Valid Meeting

4.2. Resolutions

- 4.2.1 Types of Resolutions

Unit 5

Management and Administration

(10 hrs.)

- 5.1 Board of Directors – Appointment, Removal, Powers, Duties and Liabilities
- 5.2 Kinds of Directors - Managing Director, Independent Director, Women Director

BOOK FOR STUDY

Kapoor, N.D. *Company Law*. New Delhi: Sultan Chand, 2013

BOOKS FOR REFERENCE

Bahl, J.C. *Secretarial Practice in India*. Mumbai: Tripathi M.N, 2006.

Ghosh K Prashanth. *Company Secretarial Practice*. New Delhi: Sultan Chand, 2007.

Pandab, S.K. *Company Law & Practice*. New Delhi: Bharat Law House, 2002.

Shah, S.M. *Lectures on Company Law*. Mumbai: Tripathi M.N, 2006.

Sherlekhar, S.A. *Company Secretarial Practice*. New Delhi: Kitab Mahal, 2006.

Tandon, B.N. *Manual of Secretarial Practice*. New Delhi: Sultan Chand.

JOURNALS

Company and Securities Law Journal

Company law journal

Company news and reports

WEB RESOURCES

www.business.gov.in

www.cdslindia.com

www.geebeevee.org

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50 Duration: 90 mins.

Section A 3 x 2 = 6 (no choice)

Section B 3 x 8 = 24 (from a choice of four)

Section C 1 x 20 = 20 (from choice of two)

Third Component

List of Evaluation modes:

Objective Type Test

Assignment

Case Study Discussions

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.COM DEGREE

SYLLABUS

(Effective from the academic year 2015 – 2016)

STATISTICAL TECHNIQUES FOR BUSINESS

CODE: 15CM/AC/ST45

CREDITS: 5

LTP : 5 0 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To give a practical exposure on the various statistical methods and to arrive at rational decision through systematic analysis and interpretation
- To educate on the effective and efficient application of various statistical tools associated with research in business fields

Unit 1

Analysis of Time Series (12 hrs.)

- 1.1 Utility and Components of Time Series
- 1.2 Methods of Measuring Trend
- 1.3 Measurement of Seasonal Variations

Unit 2

Test of Hypothesis (13 hrs.)

- 2.1 Procedure for Testing Hypothesis
- 2.2 Test of Significance
- 2.3 For Large Samples
- 2.4 For Small Samples
- 2.5 Limitations of Test of Significance

Unit 3

Chi-Square Test and Goodness of Fit (15 hrs.)

- 3.1 Meaning and Condition for Applying Chi-Square Test
- 3.2 Application of Chi Square Test - Test of Goodness of Fit and Test of Independence
- 3.3 Yates Correction
- 3.4 Uses and Limitations of Chi Square

Unit 4

Analysis of Variance (13 hrs.)

- 4.1 Variance Ratio Test
- 4.2 Assumptions in Analysis of Variance
- 4.3 Techniques of Analysis of Variance
 - 4.3.1 One-Way Classification Model
 - 4.3.2 Two-Way Classification Model

Unit 5

Partial and Multiple Correlation (12 hrs.)

- 5.1 Partial Correlation of First Order and Second Order Co-efficient

5.2 Co-efficient of Multiple Correlation

5.3 Multiple Regression Analysis

BOOK FOR STUDY

Gupta, S.P. *Statistical Methods*. New Delhi: Sultan Chand, 2007.

BOOKS FOR REFERENCE

Agarwal, Y.P. *Statistical Methods, Concepts, Applications and Computations*. New Delhi: Sterling, 2006.

Beri, G.C. *Business Statistics*. New Delhi: Tata Mc Graw Hill, 2007.

Pillai, R.S.N. & Bagavathy, V. *Statistics*, New Delhi: Sultan Chand, 2007.

Sanchetti, V.C. & Kapoor. *Business Statistics*, New Delhi: Sultan Chand, 2006.

Sharma, J.K. *Business Statistics*. New Delhi: Pearson Education, 2006.

JOURNALS

Analysis in Data Analysis and Classification, Springer Publications.

Advances in Statistical Analysis, A Journal of German Statistical Society.

Electronic Journal of Statistics, Bernoulli Society for Mathematics and Probability.

Annals of the Institute of Statistical Mathematics, Springer Publications.

WEBSITE

www.isical.ac.in/

www.ssc.ca/en/whats-new

www.rss.org.uk/

www.amstat.org/

PATTERN OF EVALUATION

Continuous Assessment

Total Marks : 50

Duration : 90 mins.

Section A - $3 \times 2 = 6$ (no choice)

Section B - $3 \times 8 = 24$ (from a choice of four questions)

Section C - $1 \times 20 = 20$ (from choice of two questions)

Third Component

List of Evaluation modes:

Assignments

Test

End Semester Examination

Total Marks: 100

Duration : 3 hours

Section A – $10 \times 2 = 20$ Marks (no choice 5 Questions theory and 5 Problems)

Section B – $5 \times 8 = 40$ Marks (from a choice of seven questions Problems)

Section C – $2 \times 20 = 40$ Marks (from a choice of four questions Problems)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.COM DEGREE

SYLLABUS

(Effective from the academic year 2015 -2016)

ENVIRONMENTAL STUDIES

CODE: 15CM/GC/ES42

CREDITS : 2

L T P : 2 0 0

TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE

- To provide a fundamental knowledge of the environment
- To create an awareness about environmental issues

Unit 1

Introduction

(4 hrs.)

- 1.1 Components of the Environment – Technological, Social, Natural. Classification and Characteristics of Resources – K_N, K_M, K_H , Renewable and Non-Renewable
- 1.2 Material Balance Approach
- 1.3 Energy Flow under Ecosystems

Unit 2

Pollution and Socio Economic Aspects of the Environment

(11 hrs.)

- 2.1 Types of Pollution –Air, Water, Solid Waste, Noise
- 2.2 Sources, Effects and Consequences of Pollution
- 2.3 Policy Measures with respect to India
- 2.4 Human Behaviour- Population- Urbanization- Poverty (as Cause and Result of Pollution and Degradation
- 2.5 Technology- Agriculture and industry – Deforestation. Use, Misuse and Abuse of the Resources
- 2.6 Religion, Tradition and Culture

Unit 3

Sustainable Development, Remedies and Policy Implications

(11 hrs.)

- 3.1 Problems – Greenhouse Effect – Depletion of the Ozone Layer – Climate Change
- 3.2 Loss of Biodiversity – Impact on Women –Ecofeminism
- 3.3 Impact on Livelihood and Health – Environmental Disasters – Natural and Manmade - Bhopal Gas Tragedy – Chernobyl Accident - Gulf War - Love Canal Episode –Tsunami
- 3.4 Methods Evolved to Measure and Check Environmental Degradation and Pollution – Carbon Footprint, Carbon Credit, Ecological Footprint, and Ecological Shadow
- 3.5 Environmental movements in India –Chipko movement, Narmada Bachao Andolan, Sethu Samudram Project
- 3.6 International Environmental agreement – Stockholm Conference –Montreal Protocol –RIO Meet –Kyoto Conference

BOOKS FOR REFERENCE

- Igancimuthu, S. *Environmental Awareness and Protection*. New Delhi: Phoenic, 1997.
Jadhav, H. and V.M. Bhosale. *Environmental Protection and Laws*. New Delhi: Himalaya, 1995.
Odum, E.P. *Fundamentals of Ecology*, USA: W.B Sauders,1971.
Mies,M. and V. Shiva. *Ecofeminism*,London: Zed Books, 1989.

JOURNALS

- The National Geographic
International Journal of Environmental Studies

WEB RESOURCES

- http://collegesat.du.ac.in/UG/Envinromental%20Studies_ebook.pdf
<http://www.slideshare.net/ruchispandey/introduction-to-environmental-studies>

PATTERN OF EVALUATION

Third Component:

List of Evaluation modes:

- Seminars
- Quiz
- Group discussion
- Assignments
- Case studies

No End Semester Examination

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.COM DEGREE

SYLLABUS

(Effective from the academic year 2015 – 2016)

FINANCIAL MARKETS

CODE: 15CM/MC/FK55

CREDITS : 5

L T P : 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVE OF THE COURSE

- To provide students with a comprehensive knowledge of the functions and elements of the financial market.

Unit 1

Introduction

(10 hrs.)

- 1.1 Definition and Overview of Financial Markets and Institutions
- 1.2 Functions of Financial Markets and Institutions
- 1.3 Constituents
- 1.4 Role of Financial Institutions, Depository and Non-Depository Institutions
- 1.5 Types of Financial Markets
- 1.6 Overview of the Indian Financial System Including Financial Sector Reforms and Other Contemporary Issues in Finance.

Unit 2

(10 hrs.)

- 2.1 Money Market
 - 2.1.1 Definition, Objectives and Features of a Developed Money Market
 - 2.1.2 Composition of Money Market
- 2.2 Money Market Instruments
- 2.3 Indian Money Market
- 2.4 Global Money Market
- 2.5 Bond Market

Unit 3

Capital and Primary Markets

(15 hrs.)

- 3.1 Capital Market
 - 3.2.1 Characteristics of Primary and Secondary Markets
 - 3.2.2 Functions of Capital Markets
- 3.3 Primary Market
 - 3.3.1 Meaning and Functions
 - 3.3.2 Instruments of Issue
 - 3.3.3 Intermediaries in the New Issue Market
 - 3.3.4 SEBI Guidelines for Listed and Unlisted Companies

Unit 4

Secondary Markets

(15 hrs.)

- 4.1 Stock Exchange – Services, Role and Organization of Stock Exchange in India
- 4.2 Listing of Securities – Requirements and Procedures

- 4.3 Types of Brokers
- 4.4 Methods of Trading in Stock Exchange – Carry Over or Badla, Genuine vs. Speculative Trading, Kinds of Speculators
- 4.5 Regulations and Regulatory Agencies for Primary and Secondary Markets

Unit 5 **(15 hrs.)**

- 5.1 Over-the-Counter-Exchange of India, National Stock Exchange and Depository Systems
 - 5.1.1 OTCEI – Features, Promoters, Participants, Listing
 - 5.1.2 NSE – Features, NSE vs. OTCEI
- 5.2 Depository System – Meaning, Definition, Objectives of Interacting Institutions
 - 5.2.1 Trading in Depository Systems
 - 5.2.2 Depository System in India
 - 5.2.3 National Securities Depository Limited

BOOKS FOR STUDY

Avadhani, V.A. *Capital Market Management*. New Delhi: Himalaya, 2005.
 Gordon, E., K. Natarajan. *Capital Market in India*. New Delhi: Himalaya, 2006.
 Gurusamy, S. *Capital Markets*, Chennai: Vijay Nicole, 2006.

BOOKS FOR REFERENCE

Bhole, L.M. *Financial Institutions and Markets: Structure, Growth and Innovations*. New Delhi: McGrawHill, 2008.
 Khan, M. Y. *Indian Financial System*. New Delhi: Tata McGraw Hill, 2005.
 Machiraju, H.R. *Indian Financial System*. Mumbai: Vikas, 2006.
 Saunders, Anthonu and Cornett, Marcia Millon. *Financial Markets and Institutions: An Introduction to the Risk Management Approach*. New York: Mc Graw Hill, 2007.
 Sundaram and Varshney. *Banking and Financial System*. New Delhi: Sultan Chand, 2005.

JOURNALS

Journal of International Financial Markets, Institutions & Money
 Financial Markets, Institutions & Instruments
 Journal of Financial Management, Markets & Institutions

WEB RESOURCES

www.bloomberg.com
 spu.fem.uniag.sk/.../kf/.../Financial%20management/financial_markets.p... utiicm.com/
 www.nse-india.com
www.rbi.org.in

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminar

Group Discussion

Assignments

Class Presentations

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.COM DEGREE

SYLLABUS

(Effective from the academic year 2015 – 2016)

CORPORATE ACCOUNTING

CODE: 15CM/MC/CA55

CREDITS : 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide the knowledge relating to the Accounting Standards
- To help the students acquire conceptual knowledge of the fundamentals of the corporate accounting and the techniques of preparing the financial statements
- To give an exposure to the different methods for valuation of goodwill and shares

Unit 1

Accounting Standards and Final Accounts of a Company (15 hrs.)

- 1.1 Indian Accounting Standards (IND Ass):- Detailed Study of Ind as: 3,5 6, 10
- 1.2 Final Accounts of a Company- Preparation of Final Accounts – Forms and Contents as Per Provisions of Companies Act 2013 as Per Schedule - III

Unit 2

Fund Flow Analysis (15 hrs.)

- 2.1 Concept of Fund and Flow of Funds
- 2.2 Meaning and Significance of Fund Flow Statement
- 2.3 Preparation of Fund Flow Statement

Unit 3

Cash Flow Analysis (15 hrs.)

- 3.1 Meaning and Difference between Cash and Fund
- 3.2 Significance and Limitation of Cash Flow Statement
- 3.3 Preparation of Cash Flow Statement as Per Ind as 3

Unit 4

Alteration of Share Capital and Internal Reconstruction (10 hrs.)

- 4.2 Alteration of Share Capital – Types – Accounting Procedure
- 4.3 Internal Reconstruction – Types and Legal Provisions
- 4.4 Accounting Entries and Preparation of Balance Sheet after Internal Reconstruction

Unit 5

Valuation of Shares and Goodwill (10 hrs.)

- 5.1 Meaning, Need and factors to be Considered for Valuing Goodwill and Shares
- 5.2 Methods of Valuation of Shares - Intrinsic Value, Yield Value, Earning Capacity and Fair Value
- 5.3 Methods of Valuation of Goodwill – Average Profits, Super Profit, Capitalization of Super Profit and Annuity Method

BOOKS FOR STUDY

Gupta, R.L and M. Radhaswamy. *Advanced Accountancy* (Vol I, III & IV). New Delhi: Sultan Chand, 2006.

Reddy, T.S and A. Murthy. *Corporate Accounting*. Chennai: Margham, 2007.

BOOKS FOR REFERENCE

Arulanandam, M.A and K.A Raman. *Corporate Accounting*. Mumbai: Himalaya, 2006.

Jain, S.P., Narang, K.L. *Advanced Accountancy (Part II)*. New Delhi: Kalyani, 2005.

Maheshwari, S.N. *Advanced Accountancy (Part II)*. New Delhi: Vikas, 2006.

JOURNALS

Cost Accounting Standards - The ICWA of India,

Journal of Corporate Accounting and Finance

Advances in Accounting

WEB RESOURCES

www.journals.elsevier.com

www.emeraldgroupublishing.com

PATTERN OF EVALUATION

Continuous Assessment

Total Marks : 50

Duration : 90 mins.

Section A - $3 \times 2 = 6$ (no choice)

Section B - $3 \times 8 = 24$ (from a choice of four questions)

Section C - $1 \times 20 = 20$ (from choice of two questions)

Third Component

List of Evaluation modes:

Assignments

Test

End Semester Examination

Total Marks : 100

Duration : 3 hours

Section A – $10 \times 2 = 20$ Marks (no choice 5 Questions theory and 5 Problems)

Section B – $5 \times 8 = 40$ Marks (from a choice of seven questions - Problems)

Section C – $2 \times 20 = 40$ Marks (from a choice of four questions - Problems)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.COM DEGREE

SYLLABUS
(Effective from the academic year 2015 – 2016)

HUMAN RESOURCE MANAGEMENT

CODE: 15CM/MC/HR55

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide an understanding of the importance of Human Resource Management
- To educate the students on the managerial, operative and maintenance aspects of the human resources in an organization

Unit 1

Introduction (10 hrs.)

- 1.1 Significance and Objectives of Human Resource Management
- 1.2 Functions and Scope of Human Resource Management

Unit 2

Procuring Human Resource (15 hrs.)

- 2.1 Human Resource Planning - Objectives and Process of Manpower Planning
- 2.2 Job Analysis, Job Description, Job Specification
- 2.3 Recruitment – Sources
- 2.4 Selection - Procedure

Unit 3

Developing Human Resource (15 hrs.)

- 3.1 Orientation, Placement
- 3.2 Training – Methods of Executive Development Programs
- 3.3 Performance Appraisal - Methods

Unit 4

Motivating and Compensating Human Resource (10 hrs.)

- 4.1 Motivation – Meaning and Importance, Theories of Maslow Herzberg, Vroom's Porter and Lawler Theory
- 4.2 Compensation – Factors, Types – Monetary and Non-Monetary
- 4.3 Employees Welfare Programme – Health, Safety and Fringe Benefits

Unit 5

Leadership (15 hrs.)

- 5.1 Quality of Leadership – Trait, Situational, Behavioral and Managerial Grid
- 5.2 Leadership Styles – Managerial Grid

BOOKS FOR STUDY

Aswathappa, K. *Human Resource Management*. New Delhi: Tata Mc Graw Hill, 2007.

BOOKS FOR REFERENCE

Flippo V. Edwin. *Personnel Management*. New Delhi: Mc Graw Hill, 2004.

Gupta, C.B. *Human Resource management*. New Delhi: Sultan Chand, 2007.

Khanka, S.S. *Human Resource management*. New Delhi: Sultan Chand, 2007.

Mamoria, C.B. *Personnel Management*. Mumbai: Himalaya, 2004.

Prasad, L.M. *Human Resource management*. New Delhi: Sultan Chand, 2007.

JOURNALS

International Journal of Human Resource Management

The Human Resource Management Review

Human Resource Management International Digest

Human Resource Management Journal.

WEB RESOURCES

[/hrcouncil.ca/hr-toolkit/planning-strategic.cfm](http://hrcouncil.ca/hr-toolkit/planning-strategic.cfm)

www.hrware.com/recruitment/88-2/

www.educationobserver.com/forum/showthread.php?tid=12165

managementhelp.org/training/

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminar

Group Discussion

Assignments

Class Presentations

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

**STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI 600 086.
B. COM DEGREE**

**SYLLABUS
(Effective from the academic year 2015-16)**

INCOME TAX LAW AND PRACTICE

CODE: 15CM/MC/IT65

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide a broad conceptual framework for determining the tax liability for an individual
- To expose students to the significance and constitutional provisions relevant to indirect tax laws

Unit 1

Introduction to Taxation (5 hrs.)

- 1.1 Meaning of Tax , Importance and Features of Taxation
- 1.2 Types of Tax –
 - 1.2.1 Direct Taxes – Meaning and Significance - Brief Introduction to Income Tax and Wealth Tax
 - 1.2.2 Indirect Taxes - Meaning and Significance - Types of Indirect Taxes – Excise Duty, Customs Duty, Service Tax , State Level VAT, Securities Transaction Tax

Unit 2

2.1 Basic Concepts in Income Tax (15 hrs.)

- 2.1.1 Person, Assessee, Assessment year, Previous year, Total income, Taxable Income
- 2.1.2 Residential Status and Incidence of Tax

2.2 Computation of Salary Income

- 2.2.1 Definition, Meaning, Basis of Charge
- 2.2.2 Allowances – Taxable and Exempted
- 2.2.3 Perquisites
- 2.2.4 Other Receipts and Treatment of Provident Fund
- 2.2.5 Deductions

2.3 Computation of Income from House Property

- 2.3.1 Basis of Charge
- 2.3.2 Computation of House Property Income
- 2.3.3 Deductions

Unit 3

Computation of Other Heads of Income (15 hrs.)

3.1 Profits and Gains of Business or Profession

- 3.1.1 Computation of Professional Income
- 3.1.2 Depreciation – Meaning and Relevance - Computation
- 3.1.3 Computation of Business Income

3.2 Capital Gains –

- 3.2.1 Meaning of Capital Asset - Types of Capital Assets
- 3.2.2 Computation of Short Term and Long Term Capital Gains

- 3.2.3 Exempted Capital Gains
- 3.3. **Income from other sources**
 - 3.3.1 Basis of charge, Casual and Other Income
 - 3.3.2 Computations of Taxable Income from Other Sources

Unit 4 (15 hrs.)

Computation of Total income

- 4.1 Set-off and Carry forward of Losses
- 4.2 Clubbing of Income
- 4.3 Deductions - Individual

.Unit 5 (15 hrs.)

Return of income and Assessment

- 5.1 Basic Concepts in Assessment Procedure,- TDS, Advance Payment of Tax
- 5.2 Filing of Returns,- E - filing, Refiling, PAN,TAN
- 5.3 Types of Assessment – Self Assessment, Assessment in Response to Notice, Best Judgment Assessment
- 5.4 Refund of Tax
- 5.5 Income Tax Authorities – Jurisdiction and Powers
- 5.6 Tax Reforms in Direct and Indirect Taxes: Issues and Challenges, Value Added Tax, Goods and Service Tax, Direct Tax Code

BOOK FOR STUDY

Gaur, V.P. and Narang D.B., *Income Tax Law and Practice*. New Delhi: Kalyani,2014-15.

BOOKS FOR REFERENCE

Dinkar Pagare, *Law and Practice of Income Tax*, New Delhi: Sultan Chand.2014-15.

Lal B.B., *Income Tax Law and Practice*, New Delhi: Konark. 2014-15.

Manoharan T. N. *Income Tax Law, Mumbai: Snow White*. 2014-15.

Mehrothra, H.C., *Income Tax Law and Practicum*, Agra: Sahithya Bhavan.2014-15

Vinod K., Singhania, *Taxman's Students Guide to Income Tax*, New Delhi: Taxman's 2014-15

Vinod K., Singhania, *Indirect Tax*. New Delhi: Taxman's, 2014-15.

Note: Latest edition of the readings may be used

JOURNALS

Journal of taxation
National tax journal

WEB RESOURCES

www.ntanet.org/tax

www.aicpa.org

www.icaew.com

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Duration: 90 mins.

Section A - $3 \times 2 = 6$ (no choice)

Section B - $3 \times 8 = 24$ (from a choice of four questions)

Section C - $1 \times 20 = 20$ (from choice of two questions)

Third Component

List of Evaluation modes:

Assignments

Test

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ Marks (no choice) 5 Questions theory and 5 Problems

Section B – $5 \times 8 = 40$ Marks (from a choice of seven questions – 2 theory and 5 problems)

Section C – $2 \times 20 = 40$ Marks (from a choice of four questions - Problems)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.COM DEGREE

SYLLABUS
(Effective from the academic year 2015 -2016)

E-COMMERCE

CODE: 15CM/MC/EC64

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To provide an overview of the fundamental concepts of e-commerce
- To acquaint students with a fundamental understanding of the new marketing strategies, electronic payment system and internet security in the new economy

Unit 1 (10 hrs.)

Introduction

- 1.1 Meaning and Definition – Introduction to Internet, Intranet & Extranet
- 1.2 Emergence of the Internet
- 1.3 Difference Between E-Commerce and Traditional Commerce
- 1.4 E-Commerce Applications
- 1.5 Advantages and Limitations of E-Commerce

Unit 2 (10 hrs)

Business Models for E-Commerce

- 2.1 Introduction
- 2.2 Models Based on the Relationship of Transaction Parties – B2B, B2C, C2C, C2B
- 2.3 Models Based on the Relationship of Transaction Types – Brokerage, Aggregator, Info-Mediary, Value Chain, Manufacturer, Advertising and Subscription Models

Unit 3 (15 hrs)

E-Marketing

- 3.1 Traditional Marketing
- 3.2 Identifying Web Presence Goals
- 3.3 Online Marketing – Internet Marketing Trends
- 3.4 E-Advertising, E-Branding and E-Marketing Strategies

Unit 4 (10hrs)

Electronic Payment Systems

- 4.1 Types of Online Payments – Token Based, Credit Card Based, Debit Cards and Smart Cards
- 4.2 Risk and Electronic Payment System
- 4.3 Designing Electronic Payment System – Encryption – Digital Signature – Common Standards for Secure E-Payments

Unit 5

(7 hrs)

Internet and Security

- 5.1 Network and Website Security Risks
- 5.2 Security Incidents on the Internet
- 5.3 Security and E-Mail
- 5.4 Firewall – Concept, Components and Constituents

TEXT BOOK

P.T. Joseph SJ, 2012, 4th edition, E-Commerce, PHI, New Delhi

BOOKS FOR REFERENCE

David Whiteley, 2006, 13th edition, E-Commerce – Strategy, Technologies and Applications, Tata McGraw Hill, New Delhi

Jeffrey F. Rayport & Bernard J. Jaworski, 2003, Introduction to E-Commerce, TMH

Kamlesh K Bajaj, Devjani Nag, 1999, 1st edition, E-Commerce, Tata McGraw Hill, New Delhi

Nancy Flynn, Randolph Kahn, 2003, 1st edition, American Management Association, USA

Ravi Kalakota, Andrew B. Whinston, 2008, 6th edition, Frontiers of Electronic Commerce, Pearson Education, New Delhi

Strauss, Adel El-Ansary, Raymond Frost, 2003, E-marketing, New Jersey, Prentice Hall

JOURNALS

Electronic Markets

International Journal of E-Commerce

Journal of Electronic Commerce in Organizations

Journal of Theoretical and Applied E-Commerce

Journal to Management Information Systems and E-Commerce

WEB RESOURCES

www.ecommerce-digest.com

www.htmlgoodies.com

www.openlearningworld.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminar

Case Studies

Assignments

Class Presentations

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**Allied Elective Course Offered by Department of Commerce for
B.A. (Economics) and B.Sc. (Mathematics)**

SYLLABUS

(Effective from the academic year 2015-2016)

ACCOUNTING PRACTICES

CODE: 15CM/AE/AP45

CREDITS: 5

L T P : 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To enable the students to acquire knowledge of Accounting principles and practice
- To expose students to the accounting practices in Financial, Cost and Management accounting

Unit 1 (10 hrs.)

Introduction

- 1.1 Fundamental Principles of Accounting
 - 1.1.1 Nature of Accounting – Definition and Importance of Accounting
 - 1.1.2 Groups Interested in Accounting Information
 - 1.1.3 Accounting Principles – Double Entry
 - 1.1.4 Preparation of Journal Entries and Trial Balance
- 1.2 Final Accounts of a Sole Trader
 - 1.2.1 Preparation of Trading and Profit And Loss Account
 - 1.2.2 Preparation of Balance Sheet
(Basic Concepts and Adjustments Relating to Closing Stock, Depreciation, Outstanding and Prepaid Expenses and Income and Bad Debts - Simple Problems)

Unit 2 (15 hrs.)

Final Accounts of a Company

- 2.1 Forms and Contents as per Provisions of Companies Act 2013 as per Schedule- III
- 2.2 Preparation of Final Accounts (Simple Problems)

Unit 3 (15 hrs.)

Financial Statement Analysis

- 3.1 Meaning and Importance of Analysis
- 3.2 Types of Analysis – Comparative Statement, Common size Statement, Trend Analysis
- 3.3 Ratio Analysis – Computation and Interpretation of Liquidity, Profitability and Solvency Ratios

Unit 4 (10 hrs.)

Cost Ascertainment

- 4.1 Concept of Cost, Cost Unit and Cost Centre

- 4.2 Elements of Cost – Direct and Indirect Cost
- 4.3 Preparation of Cost- Sheet

Unit 5 **(15 hrs.)**

Marginal Costing

- 5.1 Definition, Meaning and Features of Marginal Costing
- 5.2 Cost Volume Profit Analysis - Break-Even Point
- 5.3 Managerial Application of Marginal Costing – Make or Buy, Product Mix and Key Factors

BOOKS FOR STUDY

Reddy T.S and Murthy A. *Financial Accounting*, Chennai: Margham, 2008.

Reddy T.S and Murthy A. *Management Accounting*. 7th ed. Margham, 2010.

BOOKS FOR REFERENCE

Jain S. P. and Narang K. L. *Cost and Management Accounting*. Ludhiana: Kalyani, 2006.

Maheswari S.N., *Principles of Management Accounting*, New Delhi: Sultan Chand and sons, 2012.

Murthy A. and Gurusamy S. *Essentials of Cost Accounting*. Chennai: Vijay Nicole, 2007.

Reddy T.S and Murthy A. *Financial Accounting*, Chennai: Margham, 2008.

Reddy T.S. and Murthy A. *Management Accounting*, 7th ed. Margham, 2010.

JOURNALS

The Chartered Accountant: Journal of the Institute of Chartered Accountants of India

Indian Journal of Finance

Journal of Accounting and Finance: Research Development Association, Jaipur

WEB RESOURCES

www. icai.org

www.journals.elsevier.com

www. emeraldgroupublishing.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A - $3 \times 2 = 6$ (no choice)

Section B - $3 \times 8 = 24$ (from a choice of four)

Section C - $1 \times 20 = 20$ (from choice of two)

Third Component:

List of evaluation modes:

Open Book test

Assignments

Problem solving

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – short answers (max. 50 words) - $10 \times 2 = 20$ Marks
5 questions theory and 5 problems

Section B – Problems $5 \times 8 = 40$ Marks (From a choice of 7)

Section C – Problems $2 \times 20 = 40$ Marks (From a choice of 4)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
Allied Elective Course Offered by Department of Commerce for
B.S.W and B.C.A

SYLLABUS
(Effective from the academic year 2015 -2016)

INDUSTRIAL RELATIONS

CREDITS : 4

L T P : 4 1 0

CODE: 15CM/AE/IR45

TOTAL TEACHING HOURS. : 52

OBJECTIVES OF THE COURSE

- To sensitise students to the employee relations scenario in India
- To provide an understanding of the various issues in management of IR in the modern business environment

Unit 1

Introduction

(8 hrs.)

- 2.6 Industrial Relations – Origin, Scope, Growth and Importance of Industrial Relations
- 2.7 Socio- Economic-Political Factors affecting Industrial Relations in the Changing Environment
- 2.8 Sociological, Psychological, Gandhian and Marxian Approaches to Industrial Relations

Unit 2

Industrial Discipline and Grievance Handling

(10 hrs.)

- 3.1 Discipline - Causes of Indiscipline
- 3.2 Maintenance of Discipline, Domestic Enquiries - Concept and Practice Principles of Natural Justice
- 3.3 Causes , Types and Trends in Industrial Conflict, Principle of Hot Stove Rule
- 3.4 Nature, Causes and Types of Industrial Disputes - Measures for Prevention and Settlement for Industrial Disputes,
- 3.5 Grievance Handling - Meaning of Grievance, Constitution of Grievance Committee - Benefits of Grievance System.
- 3.6 Grievance Redressal Machinery in India

Unit 3

Collective Bargaining

(14 hrs.)

- 3.1 Meaning, Nature, Types, Process and Importance of Collective Bargaining
- 3.2 Factors Influencing Bargaining - Suggestions to Improve Collective Bargaining
- 3.3 Negotiations-Types of Negotiations-Problem Solving Attitude

Unit 4
Labour Participation in Management (12 hrs.)

1. Objective and Importance of Worker's Participation in Management
2. Forms and Levels of Participation, Issues in Participation
3. Scheme of Employee's Participation in Public and Private Sector
4. Benefits of Worker's Participation in Management
5. Emerging Trends in Union-Management Relations

Unit 5
Labour Legislation (8 hrs.)

- Objectives and Principles
- Forces Influencing Modern Labour Legislation
- Indian Constitution and Labour Legislation

BOOK FOR STUDY

Sinha, P.R.N. Indu Bala Sinha & Seema Priyadarshini Shekhar. *Industrial relations, Trade Unions and Labour Legislation*, Pearson Education.

BOOKS FOR REFERENCE

Bray M, Waring P, Cooper R, Macneil JL. *Employment Relations: Theory and Practice*, Sydney: McGraw Hill, 2014

Bray, M. Deery.S, Walsh.J, and Waring P. *Industrial Relations: A Contemporary Approach*. Tata Mc Graw Hill, 2005

Dwivedi, R.S. *Managing Human Resources: Industrial Relations in Indian Enterprises*. New Delhi: Galgotia.

Mamoria, C.B. & S. Mamoria. *Dynamics of Industrial Relations in India*, Mumbai: Himalaya,2011.

Singh, P. & Kumar, N. *Employee Relations Management*, New Delhi: Pearson Education India,2012.

Tripathi, P.C. *Personnel Management & Industrial Relationship*. New Delhi: Sultan Chand ,2011

JOURNALS

Indian Journal of Industrial relations
Journal of Advances in Management

WEB RESOURCES

www.workersparticipation.eu

www.ilo.org

www.blackwellpublishing.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10=30 Marks (from a choice of four questions –Max words 500)

Section B - 1x20=20 (from a choice of two questions – Max words 1200)

Third Component:

List of Evaluation Modes:

Assignments

Seminar

Class presentation and group discussion

End Semester Examination:

Total Marks:100

Duration: 3 hours

Section A – 6x10= 60(from a choice of eight questions –Max words 500)

Section B – 2x20= 40(from a choice of four questions – Max words 1200)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.COM. DEGREE

SYLLABUS
(Effective from the academic year 2015 -2016)

PROJECT

CODE: 15CM/ME/PR55

CREDITS: 5
L T P: 0 0 5
TOTAL HOURS: 65

GUIDELINES FOR PROJECT

Project should be the independent work of the student. Each student will choose a topic of her interest and the student will be assigned to a supervisor.

The student can use Quantitative or Qualitative/Descriptive or both methods.

➤ **Page Limit :**

The project report should be submitted in the prescribed format having a maximum of 100 pages, typed in font Times New Roman -size 12, with 1 ½ line spacing on A4 Size paper.

➤ **Contents of the Project:**

- Contents Page
 - The Project Copy will include Certificate of the Supervisor, Declaration, and Acknowledgement
 - Four or five chapters
 - Presentation of the Project Report – format
 - Chapter 1 Introduction - to include background of the study, objectives , Methodology, limitation of the study and chapter scheme
 - Chapter 2 – Review of literature
 - Chapter 3 – Theoretical aspects of the study
 - Chapter 4 – Data analysis
 - Chapter 5 – Suggestion and conclusion
- At the end of the project ‘Bibliography’ must be given in Alphabetical/chronological order and necessary appendix may be added.

➤ **Submission:**

Each student may prepare two soft bound copies of the project, one for her and one copy to be submitted to the Head of the Department duly signed by the supervisor, on the scheduled date.

➤ **Guidelines for Evaluation:**

There will be double valuation for the project by the supervisor and an external examiner. The student will appear for viva -voce before a panel comprising External Examiner, Supervisor and Head of the Department.

The maximum marks for the project is 100 – 75 marks for the project report and 25 marks for the viva- voce.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI 600 086.
B. COM DEGREE

SYLLABUS
(Effective from the academic year 2015-16)

CONSUMER BEHAVIOUR

CODE: 15CM/ME/CB55

CREDITS: 5

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To enable students to understand the importance of customer satisfaction
- To provide an insight into the various behavioral patterns of consumption

Unit 1		
Consumer Behavior		(8 hrs.)
1.1 Nature, Meaning and Importance		
1.2 Buyer Behavior Model – Black Box Model		
Unit 2		
Individual Influence on Buying Behavior		(15 hrs.)
2.1 Consumer Motivation and Involvement		
2.2 Perceptions, Learning and Attitudes		
2.3 Personality and Self-Concepts – Psychoanalytical Theory		
Unit 3		
Group Influences		(15 hrs.)
3.1 Functions of Family – Family Life Cycle, Family Decision Making		
3.2 Types of Groups – Consumer Relevant Groups and Reference Groups		
3.3 Characteristics and Core Values of Culture, Sub Culture		
Unit 4		
Consumer's Problem Solving Process		(12 hrs.)
4.1 Problem Identification and Information Processing		
4.2 Evaluating Alternatives and Deciding on Appropriate Solutions		
Unit 5		
Consumer Protection and Redressal		(15 hrs.)
5.1 Exploitation of Consumers		
5.2 Meaning and Need for Consumerism		
5.3 Consumer Protection Act, 1956 – Important Provisions.		

BOOK FOR STUDY

Bennett and Kassanjian , *Consumer Behaviour*. Prentice Hall, 2005.

BOOKS FOR REFERENCE

McCarthy E. Jerome., and William D Perreault. *Basic Marketing*. Boston: Irwin Home Wood, 2004.

Paul Peter J. & Jerry C. Oslon. *Understanding Consumer Behaviour*, Australia: 2004.

Shiffman Leon G. & Kanuk Leslie Lazar. *Consumer Behaviour*. Prentice Hall, 2007.

Suja R. Nair. *Consumer Behaviour(Text and cases)*. Mumbai: Himalya, 2005.

JOURNALS

Indian Journal of Marketing

Journal of Consumer Research

The Journal of Consumer Behaviour

WEB RESOURCES

www.businessdictionary.com

www.slideshare.net

www.udel.edu

www.theconsumerfactor.com

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Duration: 90 mins.

Section A - 3 x 2 = 6 (no choice)

Section B - 3 x 8 = 24 (from a choice of four questions)

Section C - 1 x 20 = 20 (from choice of two questions)

Third Component

List of Evaluation modes:

Assignments

Test

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.COM DEGREE

SYLLABUS
(Effective from the academic year 2015 -2016)
RETAIL MARKETING

CODE: 15CM/ME/RM55

CREDITS : 5

L T P : 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To provide an overview of the key principles of retailing
- To familiarise with the concept of retail marketing and its practical aspects
- To facilitate understanding of the operational issues faced by the retailers

Unit 1

Introduction to Retail Marketing (10 hrs.)

- 1.1 Definition, Growing Importance of Retailing
- 1.2 Retailing Formats - Types
- 1.3 Theories of Retailing - Dynamic Nature of Retailing - Environmental, Cyclical and Conflict Theory
- 1.4 Retail Service – 7 P's

Unit 2

The Retail Marketing Mix (15 hrs.)

- 2.1 Retailing as a Product
- 2.2 Retail Pricing and Relationship to Value
- 2.3 Retail Promotion – Consumer Promotion tools and Trade Promotion tools

Unit 3

Merchandise And Category Management (15 hrs.)

- 3.1 Merchandise Management - Definition, Merchandiser – skills
- 3.2 Merchandise Management - Process
- 3.3 Category Management - Definition, Significance and Process

Unit 4

Supply Chain Management (10 hrs.)

- 4.1 Supply Chain Management - Definition, Objectives, Structure
- 4.2 Retail Logistics – Meaning, Elements
- 4.3 Functions of Supply Chain Management

Unit 5

Retail Branding (15 hrs.)

- 5.1 The Role of Brand in Retail Trade
- 5.2 Brand Loyalty - Definition, Types and Loyalty Hierarchy
- 5.3 Brand Positioning and Corporate Branding - Significance

BOOKS FOR STUDY

David Gilbert. *Retail Marketing Management*, 5th edition. New Delhi: Prentice Hall of India, 2012.

BOOKS FOR REFERENCE

Hasty Ron & Reardon James. *Retail Management*. New Delhi: Tata McGraw Hill, 2003.

Look D & Walters D. *Retail Marketing Theory and Practice*. New Delhi: Prentice Hall, 2004.

McGodrick, P.J. *Retail Marketing*. New Delhi: Tata McGraw Hill, 2003.

Senthil Ganesan. *Retailing Sectors*. Chennai: The Institute of Chartered Financial Analysts of India, 2002.

JOURNALS

Indian Journal of Marketing

International Journal of Electronic Marketing and Retailing

International Journal of Managing Value and Supply Chains

International Journal of Retail and Distribution Management

International Journal of Sales, Retailing and Marketing

International Retail and Marketing Review

Journal of Retailing

The Journal of Retail Marketing Management Research

WEB RESOURCES

www.ibef.org

www.indiaretailing.com

www.retailanywhere.com

www.yourarticlelibrary.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminar

Group Discussion

Assignments

Class Presentations

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600086
B.COM DEGREE

SYLLABUS
(Effective from the academic year 2015-2016)

ORGANIZATIONAL BEHAVIOUR

CODE: 15CM/ME/OB55

CREDITS: 5

LTP : 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide an overview of the major challenges and paradigm shift facing management
- To create an understanding of individual and group behavior on the effective functioning of an organization
- To create an awareness on the importance of team building skills

Unit 1

Introduction (10 hrs.)

- 1.1 Nature, Importance and Scope of Behaviour of Work Force in an Organisation
- 1.2 Basic Concepts and New Challenges in Managing Work Force

Unit 2

Foundation of Individual Behaviour (16 hrs.)

- 2.1 Individual Behaviour – Environmental Factors Affecting Individual Behaviour
- 2.2 Personality – Definition, Personality Traits
- 2.3 Attitudes –Nature of Attitudes, Formation of Attitudes, Key Work Related Attitudes
- 2.4 Perception – Meaning and Definition, Factors Influencing Perception

Unit 3

Stress and Conflict Management (13 hrs.)

- 3.1 Stress- Nature of Stress, Causes and Consequences of Stress, Managing Stress in Workplace
- 3.2 Conflict in Organizations – Nature of Conflict, Functional and Dysfunctional Conflict and Strategies for Resolving Conflict

Unit 4

The Organization System (13 hrs.)

- 4.1 Organization Structure-Meaning and Importance, Influence of Organizational Structure of Individual Behavior
- 4.2 Organisational Culture- Meaning and Definition, Changing the Organizational Culture

Unit 5

Group Behaviour (13 hrs.)

- 5.1 Group Dynamics – Meaning and Types
- 5.2 Team building – Ingredients of Effective Team, the Process and Skills in Team Building

TEXT BOOKS

Aswathappa, K. *Organizational Behaviour*. New Delhi: Himalaya, 2007.

Robbins P. Stephen. *Organisational Behaviour – Concepts, Controversies and Applications*, New Delhi: Prentice Hall, 2005.

BOOKS FOR REFERENCE

Davis, Keith and Weratom, JohnW. *Human behaviour at Work, Organisational Behavior*. Madras: Mc Graw Hill.

Luthans, Fred. *Organizational Behaviour*. Singapore: McGraw Hill, 2010.

Mishra M. N. *Organizational Behaviour*. New Delhi: Vikas, 2010.

Prasad L.M. *Organisational Behaviour*. New Delhi: Sultan Chand, 2007.

Sekaran Uma. *Organizational Behaviour – Text and Cases*. New Delhi: Tata Mc Graw Hill, 2006.

JOURNALS

International Journal of Management Reviews

Journal of Leadership and Organisational Studies

Journal of Organisational Culture, Communication and Conflict

SSRN – E Journal

WEB RESOURCES

www.exed.hbs.edu

www.hbr.org

www.onlinelibrary.wiley.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminar

Group Discussion

Assignments

Class Presentations

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.COM. DEGREE

SYLLABUS
(Effective from the academic year 2015 -2016)

AUDITING

CODE: 15CM/ME/AG55

CREDITS : 5

L T P : 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To give an exposure to the various concepts of auditing
- To enlighten on the audit practices to check the authenticity and accuracy of the financial statements

Unit 1 (10 hrs.)

1.1 Introduction

- 1.1.1 Auditing – Meaning, Definition and Objective
- 1.1.2 Auditor – Qualification and Qualities
- 1.1.3 Auditing and Assurance Standards
- 1.1.4 Audit Programme

1.1 Audit Notebooks

Working Papers and Merits of Audit Programmes

Unit 2 (15 hrs.)

Vouching

- 2.1 Internal Audit and Internal Check – Test Checks
- 2.2 Vouching of Cash Transactions – Cash Sales, Receipts From Debtors Including Teeming and Lading Method of Frauds, Payment to Creditors, Payment of Wages
- 2.3 Vouching of Credit Transactions – Credit Purchases, Credit Sales, Sales Returns, Purchase Returns
- 2.4 Vouching of Impersonal Ledger – Outstanding Assets, Outstanding Liabilities, Contingent Liabilities

Unit 3 (15 hrs.)

Valuation and Verification of Assets and Liabilities

- 3.1 Capital and Revenue Expenditure
- 3.2 Divisible Profits – Dividend Declaration
- 3.3 Verification of Assets & Liabilities

Unit 4 (15 hrs.)

Audit of Limited Companies

- 4.1 Appointment and Removal of Auditor
- 4.2 Rights, Duties and Liabilities as per Companies Act 2013
- 4.3 Audit Report - Method of Reporting - Reporting of Fraud under Companies Act 2013

Unit 5 (10 hrs.)

Auditing in an EDP Environment

- 5.1 Audit Approach in an EDP Environment
- 5.2 Problems and Control in an EDP Environment
- 5.3 Computer Assisted Auditing Techniques

BOOK FOR STUDY

Tandon, B. N. *Handbook of Practical Auditing*. New Delhi: S.Chand, 2012.

BOOKS FOR REFERENCE

De Paula, F.R.M. *Principles of Auditing: A practical manual for student and practitioners*. London: E.L.B.S., 2005.

Gupta, Kamal. *Contemporary Auditing*. New Delhi: Tata McGraw Hill, 2006.

Kumar, Pradeep, Sachdeva, Baldev and Singh Jagwant. *Auditing Theory and Practice*. New Delhi: Kalyani, 2007.

Pagare, Dinakar. *Basics of Auditing*. New Delhi: Sultan Chand, 2007.

Saxena, R. G. *Principles and Practices of Auditing*. Mumbai: Himalaya, 2004.

JOURNALS

International Journal of Auditing

Auditing: A journal of Practice and Theory

Journal of Accounting, Auditing and Finance

Accounting, Auditing and Accountability Journal

Journal of International Accounting, Auditing and Taxation

International Journal of Auditing Technology

WEB RESOURCES

www.neoxen.com/neoxen/methodology/docs/intro_auditing_online.pdf

www.academia.edu/7505528/verification_and_valuation

www.e-economic.co.uk/accountingsystem/glossary/auditors-report

accountlearning.blogspot.in/2012/02/advantages-of-audit-program.html

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminar

Group Discussion

Assignments

Class Presentations

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.COM DEGREE

SYLLABUS
(Effective from the academic year 2015 – 2016)

ADVANCED CORPORATE ACCOUNTING

CODE: 15CM/ME/AC55

CREDITS: 5

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide a practical knowledge and skills relating to the Accounting procedures of specific industries
- To expose the students to the accounting procedures for mergers and acquisitions.

Unit 1

Amalgamation, Absorption and External Reconstruction (12 hrs.)

- 1.1 Meaning and Difference
- 1.2 Calculation of Purchase Consideration for Amalgamation in the Nature of Merger and Purchase
- 1.3 Accounting Treatment in the Books of the Purchasing Company and Vendor Company for Merger and Purchase excluding Inter- Company Holdings

Unit 2

Holding Company Accounts (15 hrs.)

- 2.1 Definition
- 2.2 Preparation of Consolidated Balance Sheet – Calculation of minority interest, Capital Profit and Goodwill or Cost of Control
- 2.3 Intercompany Owings with One Subsidiary Company
- 2.4 Dividend Received and Bonus Shares

Unit 3

Insurance Company Accounts (12 hrs.)

- 3.1 Accounts of General Insurance
- 3.2 Accounts of Life Insurance Companies

Unit 4

Bank Accounts (12 hrs.)

- 4.1 Treatment of Rebate on Bills Discounted
- 4.2 Computation of Provision to be made for Advances
- 4.3 Preparation of Profit and Loss Account with Schedules
- 4.4 Preparation of Balance Sheet with Schedules

Unit 5

5.1 Liquidation (14 hrs.)

- 5.1.1 Legal provision
- 5.1.2 Statement of Affairs and Deficiency or Surplus accounts
- 5.1.3 Liquidators Final Statement of Accounts

TEXT BOOKS

Gupta, R.L. Radhaswamy M. *Advanced Accountancy (Vol I, III & IV)*. New Delhi: Sultan Chand, 2009.

Reddy, T.S., Murthy A. *Corporate Accounting, 6th revised edition*. Chennai: Margham, 2007.

BOOKS FOR REFERENCE

Arulanandam M.A., Raman, K.A. *Corporate Accounting*. Mumbai: Himalaya, 2001.

Goyal V.K. *Corporate Accounting*. Excel books, 2010.

Jain, S.P., Narang, K.L. *Advanced Accountancy (Part II)*. New Delhi: Vikas, 2006.

Joseph T. *Corporate Accounting*, Tata McGrawhill, 2009.

Maheshwari, S.N. *Advanced Accountancy (Part II), 9th edition*, New Delhi: Vikas, 2006.

JOURNALS

Indian Journal of Commerce

Journal of Banking and Finance

Journal of Finance

WEB RESOURCES

www.commercedu.com

www.icaai.org

www.jrcm.org

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Duration: 90 mins.

Section A - $3 \times 2 = 6$ (no choice)

Section B - $3 \times 8 = 24$ (from a choice of four questions)

Section C - $1 \times 20 = 20$ (from choice of two questions)

Third Component

List of Evaluation modes:

Assignments

Test

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ Marks (no choice) 5 Questions theory and 5 Problems

Section B – $5 \times 8 = 40$ Marks (from a choice of seven questions – Problems)

Section C – $2 \times 20 = 40$ Marks (from a choice of four questions - Problems)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
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SYLLABUS
(Effective from the academic year 2015 -2016)

PORTFOLIO MANAGEMENT

CODE: 15CM/ME/PF55

CREDITS: 5

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To enable students to make a cohesive analysis of alternative investments
- To equip the students with the skills for dealing with investments

Unit 1 (10 hrs.)

Introduction

- 1.2 Definition and Meaning of Portfolio Management
- 1.2 Steps involved in Portfolio Management, Principles of Portfolio Management
- 1.3 Framework of Risk and Return
- 1.4 Meaning and Components of Return
- 1.5 Risk – Meaning and Causes
- 1.6 Types of Risk – Systematic and Unsystematic

Unit 2 (20 hrs.)

Theories of Portfolio Management

- 2.1 Measurement of Return – Single Security and Portfolio
- 2.2 Measurement of Risk – Single Security and Portfolio
- 2.3 Harry Markowitz Theory
- 2.4 Single Index Model
- 2.5 CAPM (Capital Assets Pricing Model)

Unit 3 (15 hrs.)

Valuation of Securities

- 3.1 Equity Valuation
 - 3.1.1 Based on Accounting Information
 - 3.1.2. Based on Dividends
 - 3.1.3 Based on Earnings
- 3.2 Bond Valuation
 - 3.2.1 Bond pricing, Yield to Maturity, Yield to Call

Unit 4 (10 hrs.)

Security Analysis

- 4.1 Fundamental Analysis – Intrinsic value of shares – EIC (Economy-Industry Company) Framework
- 4.2 Technical Analysis (only theory) –Basic tenets of Technical Analysis
 - 4.2.1 Price and Volume Charts, Dow Theory, Pattern Analysis

Unit 5

(10 hrs.)

Techniques of Portfolio Management

- 5.1 Efficient Market Hypothesis
- 5.2 Asset Allocation Framework – Strategic and Tactical
- 5.3 Passive and Active Management Strategies
- 5.4 Portfolio Evaluation – Treynor Measure, Sharpe Measure, Jensen Measure

BOOKS FOR STUDY

Bhalla V.K. *Investment Management*. New Delhi: S.Chand, 2005.

Chandra, Prasanna. *Investment Analysis and Portfolio Management*. New Delhi: Tata McGraw Hill, 2007.

Rustagi R.P. *Investment Analysis and Portfolio Management*. New Delhi: Sultan Chand, 2007.

BOOKS FOR REFERENCE

Bhalla, V.K. Tuteja, S.K, *Investment Management*. New Delhi: Sultan Chand, 2005.

Fisher, Donald, E. & Jordan, Ronald, J. *Security Analysis of Portfolio Management*. New Delhi: Prentice Hall.

Grinold, Richard, Khan, Ronald, N. *Active Portfolio Management – Quantitative Theory and Applications*. New Delhi: S. Chand, 2006

Ibbotson, Roger, G. *Investment Markets*. New Delhi: Tata McGraw Hill, 2006.

Shah, Kishor & Others. *How to Invest Well – A Guide to the Share Market and Personal Investments*. New Delhi: Tata McGraw Hill, 2006.

Singhi, Preethi. *Investment Management – Security Analysis and Portfolio Management*. Mumbai: Himalaya, 2005.

JOURNAL

Sprinjer- Journal of Financial Market and Portfolio Management
Stretwise –The Journal of Portfolio Management
The Journal of Portfolio Management

WEB RESOURCES

www.bloomberg.in

www.innotas.com

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Duration: 90 mins.

Section A - $3 \times 2 = 6$ (no choice)

Section B - $3 \times 8 = 24$ (from a choice of four questions)

Section C - $1 \times 20 = 20$ (from choice of two questions)

Third Component

List of Evaluation modes:

Assignments

Test

Case study

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ Marks (no choice) 5 Questions theory and 5 Problems

Section B – $5 \times 8 = 40$ Marks (from a choice of seven questions – 2 theory and 5 Problems)

Section C – $2 \times 20 = 40$ Marks (from a choice of four questions – Problems)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.COM DEGREE

SYLLABUS

(Effective from the academic year 2015 -2016)

OFFICE ORGANISATION AND MANAGEMENT

CODE: 15CM/ME/OM55

CREDITS : 5

L T P : 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce the concepts relating to recent developments in office management.
- To provide an understanding of the importance of office functions.
- To enlighten the students on the essential modern equipments used in an office.

Unit 1

Introduction (10 hrs.)

- 1.1 Meaning-Definition-Importance of Office-Back Office and Front Office
- 1.2 Functions of Office- Primary & Administrative Management Functions
- 1.3 Paperless Office-Concept, Utility and Feasibility
- 1.4 Office Work- Office Activities and its Purpose

Unit 2

2.1 Office Organisation (18 hrs.)

- 2.1.1 Meaning-Principles of Office Organization
- 2.1.2 Formal and Informal Organization-Centralization and Decentralization of Office.
- 2.1.3 Departmentation of a Modern Office

2.2 Office Management

- 2.2.1 Meaning-Elements of Office Management
- 2.2.2 Functions and Importance of Office Management.
- 2.2.3 Office Manager-Position, Functions and Duties

Unit 3

Office Environment (13 hrs.)

- 3.1 Meaning and Nature of Office Environment.
- 3.2 Office Lighting-Types, Benefits, Designing a Good Lighting System.
- 3.3 Ventilation-Interior Decoration
- 3.4 Sanitary Requirements

Unit 4

Office Location and Layout (12 hrs.)

- 4.1 Introduction-Principles, Location of Office
- 4.2 Office Building- Factors to be Considered for Location of an Office
- 4.3 Office Layout-Principles
- 4.4 Importance and Need for a Good Layout
- 4.5 Open and private office-New trends in Office layout.

Unit 5 (12 hrs.)

5.1 Communication Management in an Office

5.1.1 Meaning and Importance of Verbal and Non-Verbal Communication.

5.1.2 Types of Verbal and Non-Verbal Communication.

5.1.3 Keys to Better Listening.

5.2 Office Machines and Equipment

5.2.1 Objectives of Mechanisation-Criteria for selection.

5.2.2 Types of Office Machines (Fax Machines-Telephones including PABX and PBX system-Printers-Address Machines-Franking Machines-Scanners, Shredders-Laminating Machine-Billing Machine-Pay-roll Machines)

5.2.3 Role of computers in Modern Office working

BOOK FOR STUDY

Chopra R.K. *Office Management*, Mumbai: Himalaya, 2001.

BOOKS FOR REFERENCE

Arora S.P. *Office Organization and Management*. New Delhi: Vikas, 2001

Gupta C B. *Office Business Communication*. New Delhi: Sultan Chand, 2005

Gupta C B. *Office Organisation and Management*. New Delhi: Sultan Chand, 2001

Pillai R,S.N., Bagawathi. *Office Management*. New Delhi: Sultan Chand, 2003.

Prasanta K.Ghosh. *Office Managemnet*. New Delhi: Sultan Chand, 2003.

Sahai I M. *Modern Office Management*. Sahitya Bhawan, 2001.

JOURNALS

International Journal for Business and Management

International Journal of Contemporary Hospitality Management.

Journal of Knowledge Management, Economics and Information Technology.

WEB RESOURCES

www.education-portal.com

www.office-environments.com

www.officedepot.com

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Duration: 90 mins.

Section A - 3 x 2 = 6 (no choice)

Section B - 3 x 8 = 24 (from a choice of four questions)

Section C - 1 x 20 = 20 (from choice of two questions)

Third Component

List of Evaluation modes:

Assignments

Seminars

Quiz

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.COM DEGREE

SYLLABUS

(Effective from the academic year 2015 -2016)

AUTOMATED ACCOUNTING PRACTICES

CODE: 15CM/ME/AA55

CREDITS : 5

L T P : 4 0 1

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide hands on experience in the use of Tally accounting package
- To enable students to analyse financial statements using Excel

Unit 1

Introduction to Tally (15 hrs.)

- 1.1 Creation of a Company
- 1.2 Creation of a Company
- 1.3 Creation of Ledgers
- 1.4 Vouchers – Types, Groups and Entry
- 1.5 Financial Reports using Tally – Cash Book, Profit and Loss Account and Balance Sheet

Unit 2

Inventory Management in Tally (10 hrs.)

- 2.1 Integrate Accounts and Inventory
- 2.2 Stock Categories, Groups and Voucher Entry
- 2.2 Inventory Reports

Unit 3

Techniques for Analysing Financial Statements using Excel (10 hrs.)

- 3.1 Inter Firm Comparison
- 3.2 Common Size Statements
- 3.3 Cash Flow and Fund Flow Analysis

Unit 4

Business Forecasting Techniques using Excel (15 hrs.)

- 4.1 Ratio Analysis – Profitability, Liquidity and Solvency Ratios
- 4.2 Trend Analysis
- 4.3 Moving Averages
- 4.4 Method of Least Squares
- 4.5 Fitting a Trend Line
- 4.6 Correlation and Regression Analysis
- 4.7 Budgeting – Preparation of Master Budget

Unit 5

Business Evaluation Techniques using Excel (15 hrs.)

- 5.1 Time Value of Money
- 5.2 Future and Present value of Money
- 5.3 Future and Present value of Annuity
- 5.4 Evaluation Techniques using Pay Back, NPV and IRR methods

BOOKS FOR REFERENCE

Agarwal Namrata and Sanjay Kumar. *Financial Accounting on Computers using Tally*. New Delhi: Dreamtech Press India, 2002.

Bodhanwala J Ruzbeh. *Understanding and Analysing Balance Sheets using Excel Worksheet*. New Delhi: Prentice Hall of India, 2004.

Gupta R.L., M.Radhaswamy. *Advanced Accountancy*. New Delhi: Sultan Chand, 2005.

Jain.S.P., K.L.Narang. *Advanced Accountancy*. New Delhi : Kalyani, 2005.

John E. Harker, Dean W. Wichern Arthur G. Reitsch. *Business Forecasting*, New Delhi: Prentice Hall of India, 2012

Nadhani A.K. and Nadhani K.K.*Implementing Tally 9*. New Delhi: TPB, 2009.

JOURNALS

Information System Frontiers - A Journal of Research and Innovation
Information Technology and Management
Quantitative Marketing and Economics

WEB RESOURCES

www.cameron.econ.ucdavis.edu

www.cengage.com

www.tallyerp9help.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Theory: 20 marks Duration: 30 mins.

Section A – 2 mark questions - $5 \times 2 = 10$ marks

Section B – Short answer questions - $2 \times 5 = 10$ marks

Practical: 30 marks Duration: 60 mins.

Section A – Problems - $3 \times 5 = 15$ marks

Section B – Problems - $1 \times 15 = 15$ marks

Third Component :

List of Evaluation modes:

Assignments

Problem solving

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Theory: (40 marks)

Duration: 60 mins

Section A – 2 mark questions - $10 \times 2 = 20$ marks

Section B – Short answer questions - $4 \times 5 = 20$ marks

Practical: (60 marks)

Duration: 120 mins

Section A – Problems - $6 \times 5 = 30$ marks

Section B – Problems - $2 \times 15 = 30$ marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
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SYLLABUS

(Effective from the academic year 2015 -2016)

OFFICE PROCEDURES AND PRACTICES

CODE: 15CM/ME/OP55

CREDITS : 5

L T P : 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To enlighten the students on the essential skills required by an office executive.
- To familiarize students with the modern procedures in office.
- To understand the practical aspects of organizing meetings and conferences.

Unit 1 (12 hrs.)

1.1 Office Systems

- 1.1.1 Definition of Office System, Procedures
- 1.1.2 Flow of Work-Analysis
- 1.1.3 Planning and Designing of Office System.
- 1.1.4 Objectives –Advantages of Designing System
- 1.1.5 Essentials of Good Office System

1.2 Work Simplification and Measurement

- 1.2.1 Meaning-Steps Involved, Advantages
- 1.2.2 Work Measurement-Principles and Procedures

Unit 2 (15 hrs.)

2.1 Record Management

- 2.1.1 Importance of Records and Record management
- 2.1.2 Filing and Essentials of Good Filing System
- 2.1.3 Classification and Arrangement of Files
- 2.1.4 Methods of Filing

2.2 Indexing

- 2.2.1 Types of Indexing
- 2.2.2 Selection of a Suitable Indexing System
- 2.2.3 Filing Manual

Unit 3 (10 hrs.)

Mail Services in an Office

- 3.1 Meaning and Importance of Mail
- 3.2 Need for Centralized Mail Service in an Office
- 3.3 Handling Incoming and Outgoing Mail-Steps Involved
- 3.4 Mechanised Mail Service
- 3.5 Indian Postal Services-Main and Ancillary services

Unit 4 (16 hrs.)

4.1 Office Forms-Design, Management and Control

4.1.1 Office forms-Importance and Advantages

4.1.2 Forms Control in an Office-Guidelines, Forms Designing

4.1.3 Management of Forms in an Office-Control

4.2 Meeting, Seminar and Conference

4.2.1 Planning the Meeting-Purpose, Procedure

4.2.2 Recording of the Proceedings of Meeting using Audio-Visual Aids

Unit 5 (12 hrs.)

5.1 Essential Skills and Responsibilities of an Office Executive

5.1.1 Multiplexing.

5.1.2 Preparation of Appointments and Schedules

5.1.3 Maintaining Visitors Diary.

5.2 Office Etiquette

5.2.1 Understanding the Office Culture-hierarchical, formal and informal and Government office

5.2.2 Office Decorum

5.2.3 Management of Front Office

5.2.4 Personal Grooming

TEXT BOOK

Chopra R.K. *Office Management*. Mumbai: Himalaya, 2001.

BOOKS FOR REFERENCE

Arora S.P. *Office Organisation and Management*. New Delhi: Vikas, 2007.

Gupta C B. *Office Organisation and Management*. New Delhi: Sultan Chand, 2001.

Philip Burnar. *Interpersonal Skill Training*. New Delhi: Viva books, 2005.

Sahai I.M. *Modern Office Management*. Agra: Sahitya Bhawan, 2006.

Shaw H.William. *Business ethics*. Bangalore: Thomson Wadsworth, 2007.

JOURNALS

Indian Journal of Management.

International Journal for Business and Management

International Journal of Contemporary Hospitality Management.

Journal of Knowledge Management, Economics and Information Technology.

Journal of Office Workers.

WEB RESOURCES

www.adam-europe.eu

www.chiro.org

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminar

Group Discussion

Assignments

Class Presentations

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

General Elective Course Offered by Department of Commerce to students of
B.A. / B.Sc. / B.Com. / B.C.A. / B.S.W.

SYLLABUS

(Effective from the academic year 2015-2016)

BANKING PRACTICES

CODE: 15CM/GE/BP22

CREDITS: 2

L T P: 2 0 0

TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE

- To expose students to a variety of financial services available to meet the dynamic changes in the economy and the diverse requirements of the investors
- To provide an opportunity to understand the significance of banking and financial services

Unit 1 (6 hrs.)

Customers' Accounts with the Bank

- 1.1 Opening of Bank Accounts
- 1.2 Different Types of Bank Accounts
- 1.3 Documents Relating to Transactions with Bank
- 1.4 Closing of Bank Accounts

Unit 2 (8 hrs.)

E- Banking

- 2.1 Meaning and Importance.
- 2.2 Credit Card, Debit Card, Smart Card
- 2.3 Internet Banking – Services and Major Issues
- 2.4 ATM – Concept, Features and Importance
- 2.5 Mobile Banking and Telebanking

Unit 3 (12 hrs.)

Negotiable Instruments

- 3.1 Meaning, Characteristics
- 3.2 Types of Negotiable Instruments
 - 3.2.1 Cheque – Requirement of a Cheque
 - 3.2.2 Post-dated Cheque, Stale Cheque, Ante-dated Cheque
 - 3.2.3 Crossing- Meaning, Types and Significance
 - 3.2.4 Endorsement- Types and Significance

BOOKS FOR STUDY

Gurusamy S. *Banking Theory Law and Practice*. 2nd ed. Chennai: Vijay Nicole, 2012.

Sundharam K.P.M. and P.N Varshney. *Banking Theory Law and Practice*. 18th ed. New Delhi: Sultan Chand, 2012.

BOOKS FOR REFERENCE

Bihari, SC. *E-Banking*. 1st ed. SkyLark, 2007.

Gordon E. and K.Natarajan. *Banking Theory Law and Practice*. 19th ed. Mumbai: Himalaya, 2012.

Gordon E., Natarajan K. *Emerging Scenario in Financial Services*. Mumbai: Himalaya, 2006.

Rajesh R., T. Sivagnanasithi. *Banking Theory Law and Practice*. New Delhi: Mc Graw Hill, 2009.

Taxmann. *Guide To Negotiable Instruments Act*. Taxmann, 2003.

JOURNALS

Journal of Banking and Finance
Banking and Financial Services – The Business Journals
International Journal on Electronic Banking

WEB RESOURCES

www.academia.edu

www.lawhandbook.sa.gov

PATTERN OF EVALUATION (Internal only - No End Semester Examination)

One Continuous Assessment for 25 marks

Third Component:

Test for 25 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

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SYLLABUS

(Effective from the academic year 2015-2016)

FINANCIAL SERVICES

CODE: 15CM/GE/FS22

CREDITS: 2

L T P: 2 0 0

TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE

- To expose students to the innovative services offered by Financial Institutions
- To enlighten on the practical aspects of the financial services industry

Unit 1 (6 hrs.)

Financial Services

- 1.1 Meaning and Characteristics
- 1.2 Importance of Financial Services

Unit 2 (10 hrs.)

Basic Concepts in Financial Services

- 2.1 Types of Financial Services
- 2.2 Fund-based Financial Services – Leasing, Venture Capital, Hire-Purchase
- 2.3 Non Fund-Based Financial Services – Stock Broking, Credit Rating, Merger and Acquisition

Unit 3 (10 hrs.)

Mutual Funds

- 3.1 Meaning and Importance of Mutual Funds
- 3.2 Selection of a Mutual Fund
- 3.3 Mutual Funds in India

BOOK FOR STUDY

Gordon E., Natarajan K. *Emerging Scenario in Financial Services*. Mumbai: Himalaya, 2009.

BOOKS FOR REFERENCE

Bhalla. V.K. *Management of Financial Services*. 1st ed. New Delhi: Anmol, 2009.

Gurusamy, S. *Financial Services and Markets*. Chennai: Vijay Nicole, 2012.

Khan M.Y. *Financial Services*. 2nd ed. New Delhi: Tata Mc Graw Hill, 2011.

Machiraju H. R. *Indian Financial System*. 2nd ed. New Delhi: Vikas, 2010.

Shashi K. Gupta, Nisha Agarwal. *Financial Services*. 2nd ed. New Delhi: Kalyani, 2006.

JOURNALS

Indian Journal of Finance
Journal of Internet Banking and Commerce
International Journal of Banking and Finance

WEB RESOURCES

www.kpmg.com
www.india-financing.com

PATTERN OF EVALUATION (Internal only- No End Semester Examination)

One Continuous Assessment for 25 marks

Third Component:

Test for 25 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
General Elective Course Offered by Department of Commerce to students of
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SYLLABUS
(Effective from the academic year 2015-2016)

BUSINESS LEADERSHIP

CODE: 15CM/GE/BL22

CREDITS: 2

L T P : 2 0 0

TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE

- To introduce the concept and theories of leadership management
- To understand the essentials of leadership traits and approaches

Unit 1

Introduction

(6 hrs.)

- 1.1 Definition and Characteristics of Leadership
- 1.2 Differences Between Leadership and Management
- 1.3 Role of a Leader- Group Task Roles, Group Building and Maintenance Roles

Unit 2

Functions and Responsibilities

(10 hrs.)

- 2.1 Functions and Responsibilities of a Leader
- 2.2 Qualities of a Leader
- 2.3 Leadership Patterns - Autocratic, Democratic, Free Rein, Bureaucratic, Manipulative and Expert Leadership

Unit 3

Leadership Styles

(10 hrs.)

- 3.1 Degrees of Leadership- Blake and Mouton's Managerial Grid
- 3.2 Facets of Leadership-Factors Affecting Choice of Leadership
- 3.3 Different Approaches to Leadership- Trait Oriented, Situational Approach and Functional Approach

BOOKS FOR STUDY

Mamoria, C.B. and S.V.Gankar. *Personnel Management*. Mumbai: Himalaya, 2004

BOOKS FOR REFERENCE

Aswathappa, K. *Organisational Behaviour Text, Cases and Games*. Mumbai: Himalaya, 2007.

Edwin B. Flippo, *Personnel Management*. Mumbai: Tata McGrawHill, 2004.

Peter F. Drucker. *Principles of Management*. Sultan Chand, 2003.

Prasad, L.M. *Human Resource Management*, New Delhi: Sultan Chand, 2004.

JOURNALS

International Journal of Management Reviews

International Journal of Business Management and Leadership

International Journal of Complexity in Leadership

WEB RESOURCES

www.insead.edu/library/rankings/journal_rankings.cfm

www.hbr.org

www.inderscience.com

PATTERN OF EVALUATION (Internal only- No End Semester Examination)

One Continuous Assessment for 25 marks

Third Component:

Test for 25 marks

Third Component:

List of Evaluation modes:

Seminars

Assignments

Submission of AD Copy

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
General Elective Course Offered by Department of Commerce to students for
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SYLLABUS
(Effective from the academic year 2015 -2016)

FUNDAMENTALS OF MARKETING

CODE: 15CM/GE/FM23

CREDITS : 3

L T P : 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To enable students to understand the intricacies of marketing, focusing on its macro role in society and micro role in business
- To equip students to face the challenges and constraints of the competitive business
- To facilitate understanding of the conceptual framework of marketing and its applications in decision making under various environmental constraints

Unit 1

Field of Marketing

(7 hrs.)

- 1.1 Introduction - Meaning and Significance
- 1.2 Functions
- 1.3 Changing Marketing Environment

Unit 2

Product Planning and Development

(8 hrs.)

- 2.1 Meaning and Types of Products
- 2.2 Product Life Cycle
- 2.3 New Product Development -Stages

Unit 3

Brand Building

(8 hrs.)

- 3.1 Meaning and Importance
- 3.2 Types of Brands
- 3.3 Process of Branding

Unit 4

Pricing and Promotion

(8 hrs.)

- 4.1 Pricing Policy- Price Determination
- 4.2 Methods of Pricing
- 4.3 New Product Pricing

Unit 5

Channels of Distribution

(8 hrs.)

- 5.1 Meaning, Importance
- 5.2 Factors Affecting Channels of Distribution.
- 5.3 Classification-Retail & Wholesale - (Current Trends in Distribution & E-‘Tailing’)

BOOK FOR STUDY

Nair Rajan and Sanjith Nair. *Marketing*. New Delhi: Sultan Chand, 2013.

BOOKS FOR REFERENCE

Gandhi, J.C. *Marketing*, New Delhi: Tata McGraw Hill, 2009.

Groucutt, Jonathan., Peter Leadley and Patrick Forsyth. *Marketing Essential Principles, New Realities*. Kogan, 2004.

Kotler, Philip. *Marketing*. New Delhi: Prentice Hall, 2008.

Steven J Skinner. *Marketing*. Houghton, 1994.

Varshney, R.L. and S.L. Gupta. *Marketing Management*. Himalaya

Stanton, William J., Micheal J. Etzel and Bruce J. Walker. *Fundamentals of Marketing*. New Delhi: Mc Graw Hill, 2009.

Xavier, M. J. *Marketing in the New Millennium*. New Delhi: Vikas, 2009.

JOURNALS

Journal of Marketing - American Marketing Association

Journal of Consumer Marketing

Journal of Marketing Education

International Journal of Research in Marketing

International Journal of Marketing Studies

International Journals of Marketing and Technology

Indian Journal of Marketing

WEB RESOURCES

www.yourarticlelibrary.com

www.boundless.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 =16 Marks (from a choice of three)

Section C – 1 x 20 =20 Marks (from a choice of two)

Third Component:

List of evaluation modes:

Seminars

Assignments

No End Semester Examination

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
General Elective Course Offered by Department of Commerce to students for
B.A. / B.Sc. / B.Com. / B.C.A. / B.S.W. / B.V.A. Degree Programmes
SYLLABUS
(Effective from the academic year 2015 -2016)

CONTEMPORARY ADVERTISING

CODE: 15CM/GE/CA23

CREDITS : 3

L T P : 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To introduce the concept and types of Contemporary advertising
- To enable students to meet the growing demands and challenges of the promotional aspects of advertising

Unit 1	Scope of Advertising	(7 hrs.)
	1.1 Introduction - Definition and Meaning	
	1.2 Role of Advertising	
Unit 2	Advertising Copy	(8 hrs.)
	2.1 Elements of an Ad. Copy	
	2.2 Ad. Layout - Principles of Ad. Layout	
Unit 3	Modern Advertising	(9 hrs.)
	3.1 Types of Modern Advertising	
	3.2 Comparison - Indoor & Outdoor Advertising	
Unit 4	Online Advertising	(7 hrs.)
	4.1 Introduction - the Internet as an Advertising Medium	
	4.2 Types of Online Advertising - Alternative Offline Advertising Media and Mass Online Advertising Web Resources, Banner Ads, Pop Ups, Interstitials, Superstitials and Sponsorships	
Unit 5	Challenges and trends of Online Media	(8 hrs.)
	5.1 Reasons for Failure of Online Advertising	
	5.2 Changing Trends in Online Advertising.	

BOOK FOR STUDY

Jefkins, Frank. *Advertising*. New Delhi: Pearson Education 2007.

BOOKS FOR REFERENCE

- David W.Schumann and Esther Thorson. *Internet Advertising Theory and research*. Psychology Press, 2007.
- Joseph, Plummer., Steve Rappaport, Teddy Hall and Robert Borocci. *The online Advertising play Book. Proven Strategies and tested tactics from the advertising research foundation*. John Wiley, 2006.
- Terence A. Shimp. *Advertising, Promotion and supplemental Aspects of Intergrated Marketing Communications*. USA: Thomson Learning, 2003
- Wilmschurs, John and Adrian Mackay. *The fundamentals of Advertising*. Reed Educational and Professional, 1999.

JOURNALS

- Journal of Advertising Research
- International Journal of Advertising
- International Journal of Internet Marketing and Research
- Journal of Advertising
- Journal of Advertising Education

WEB RESOURCES

- www.mu.ac.in/myweb_test/sybcom-avtg-eng.pdf
- advertising.knoji.com/what-are-the-different-roles-of-advertising/
- techcrunch.com/2009/03/22/why-advertising-is-failing-on-the-internet/
- www.networkadvertising.org/understanding-online-advertising/

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 =16 Marks (from a choice of three)

Section C – 1 x 20 =20 Marks (from a choice of two)

Third Component:

List of evaluation modes:

Seminars

Assignments

Submission of AD Copy

No End Semester Examination

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
General Elective Course Offered by Department of Commerce to students for
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SYLLABUS
(Effective from the academic year 2015-2016)

PERSONNEL MANAGEMENT

CODE: 15CM/GE/PM23

CREDITS: 3

L T P: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To expose the students to the managerial, operative and maintenance aspects of Human Resources
- To provide an insight into Human resources as an asset to the organization

Unit 1

Introduction (8 hrs.)

- 1.1 Definition – Characteristics, Objectives & Importance of Personnel Management
- 1.2 Functions of Personnel Management

Unit 2

Staffing (8 hrs.)

- 2.1 Nature, Elements and Importance of Staffing
- 2.2 Recruitment and Selection
- 2.3 Promotion – Types and Basis of Promotion

Unit 3

3.1 Training and Development (8 hrs.)

- 3.1.1 Training – Importance, Need & Types
- 3.1.2 Training Methods – on-the Job, Off-the Job and Vestibule Training.
- 3.2 Performance Appraisal – Concept, Objectives & Methods of Performance Appraisal

Unit 4

Components of Compensation (8 hrs.)

- 4.1 Factors to Be Considered for Determination of Wages and Salaries
- 4.2 Incentives & Perquisites
- 4.3 Fringe Benefits – Meaning and Types

Unit 5

Leadership & Communication (7 hrs.)

- 5.1 Leadership – Qualities of a Leader, Types of Leaders, Trait and Situational Approach to Leadership, Leadership Grid
- 5.2 Communication – Meaning, Nature, Importance and Types of Communication

BOOK FOR STUDY

Gupta, C.B. *Human Resource Management*. New Delhi: Sultan Chand, 2014

BOOKS FOR REFERENCE

Aswathappa, K. *Human Resource Management*. New Delhi: Tata McGraw Hill, 2007.

Flippo V. Edwin. *Personnel Management*. New Delhi: McGraw Hill, 2008

Khanka, S.S, *Human Resource Management*. New Delhi: Sultan Chand, 2007.

Mamoria, C.B, *Personnel Management*. New Delhi: Himalaya, 2004

Prasad, L.M., *Human Resource Management*. New Delhi: Sultan Chand, 2007

JOURNALS

International Journal of Management Reviews

European Journal of Business Management

WEB RESOURCES

www.exed.hbs.edu

www.hbr.org

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of evaluation modes:

Seminars

Assignments

No End Semester Examination

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**General Elective Course Offered by Department of Commerce to students for
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SYLLABUS

(Effective from the academic year 2015-2016)

BASIC ACCOUNTING

CODE: 15CM/GE/BA23

CREDITS: 3

L T P: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To introduce the accounting principles and basic concepts in the preparation of the financial statements for trading and non-trading organizations
- To expose students to the accounting practices in financial, cost and management accounting

Unit 1 (8 hrs.)

Basic Accounting Concepts

- 1.1 Introduction to Double Entry System
- 1.2 Kinds of Accounts- Rules of Debit and Credit
- 1.3 Preparation of Journal
- 1.4 Preparation of Trial Balance

Unit 2 (8 hrs.)

Final Accounts of a Sole Trader

- 2.1 Preparation of Trading and Profit and Loss account
- 2.2 Preparation of Balance Sheet
(Basic Concepts and Adjustments Relating to Closing Stock, Depreciation, Outstanding and Prepaid Expenses and Income and Bad Debts - Simple Problems)

Unit 3 (8 hrs.)

Final Accounts of a Company

- 3.1 Preparation of Final Accounts- Forms and Contents as per Provisions of Companies Act 2013 as per Schedule- III (Simple Problems)

Unit 4 (8 hrs.)

Accounting of Non-Profit Organizations

- 4.1 Features of Non – Profit Entities
- 4.2 Preparation of Summaries -Receipts and Payments Account
- 4.3 Preparation of Income and Expenditure and Balance Sheet

- Unit 5** (7 hrs.)
Management Accounting and Cost Accounting
5.1 Definition and Nature of Management Accounting
5.2 Definition and Nature of Cost Accounting
5.3 Scope and Limitations of Management Accounting and Cost Accounting

BOOKS FOR STUDY

Arjun Saini. *How to Read Balancesheet and other Financial Statements*. 1st ed. Himalaya, 2013.

Chatterjee, D.K. *Basic Accounts and Finance for Non-Accountants*. 4th ed. Himalaya, 2011.

PATTERN OF EVALUATION (Internal only - No End Semester Examination)

One Continuous Assessment Test for 50 marks (90 mins.)

Third Component:

Test for 50 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
Independent Elective Course Offered by Department of Commerce to students for
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SYLLABUS
(Effective from the academic year 2015 – 2016)
CONSUMER RIGHTS

CODE: 15CM/UI/CR23

CREDITS: 3

OBJECTIVES OF THE COURSE

- To provide knowledge about consumerism and related laws
- To enable an understanding of the importance of Consumer Rights
- To educate students on the rights and responsibilities of a consumer

Unit 1

Consumers

- 1.1 Meaning of Consumers-Customers
 - 1.1.1 Consumer Movements – Historical Perspectives
 - 1.1.2 Concept of Consumerism – Need and Importance

Unit 2

Consumer Exploitation

- 2.1 Meaning, Causes of Consumer Exploitation
- 2.2 Forms of Consumer Exploitation – Underweight Measures, High Prices, Substandard Quality, Poor or Inadequate After Sales Services
- 2.3 Challenges of Consumer Exploitation

Unit 3

Consumer Rights and Duties

- 3.1 Consumer Rights – John F Kennedy’s Consumer Bill of Rights
- 3.2 Types of Consumer Rights – (Right to Safety, Right to Information (RTI), Right to Redressal, Right to Consumer Education)
- 3.3 Duties of Consumers

Unit 4

Copra Act 1986

- 4.1 Introduction to COPRA Act
- 4.2 Consumer Protection Council – Central, State, Districts Consumer Protection Councils
- 4.3 Consumer Dispute Redressal Procedure

Unit 5

Consumerism in India

- 5.1 Reasons for the Growth of Consumerism in India
- 5.2 Recent Trends in Consumerism
- 5.3 Problems Faced by Consumers in India – Case Studies

BOOKS FOR REFERENCE

Anirban Chakraborty. *Law of Consumer Protection Advocacy and Practice*. India: Lexis Nexis, 2014.

Miller C.J., Brian W. Harvey, Deborah L Parry. *Consumer and Trading Law*. Oxford University, 1998.

Rajyalakshmi Rao. *Consumer is king!! Know your rights and remedies*. Universal, 2012.

Rao, Y.V. *Commentary on Consumer Protection Act*. Asia House, 2013

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
Independent Elective Course Offered by Department of Commerce to students for
B.A. / B.Sc. / B.Com. / B.C.A. / B.S.W. / B.V.A. Degree Programmes

SYLLABUS

(Effective from the academic year 2015 -2016)

INTERNATIONAL MARKETING

CODE: 15CM/UI/IM23

CREDITS : 3

OBJECTIVES OF THE COURSE

- To familiarize with the nature and practices of international marketing
- To equip, design and participate in designing an international marketing strategy

Unit 1		
	Introduction	(15 hrs.)
	1.1 Definition, Domestic Marketing Vs. International Marketing	
	1.2 Reasons and Motivation for International Marketing	
	1.3 Scope and Benefits of International Marketing	
	1.4 Trade Barriers - Types and Reasons for Its Imposition	
Unit 2		
	International Marketing Environment	(13 hrs.)
	2.1 Meaning, Factors Contributing to Business Environment	
	2.2 Economic, Cultural and Demographic Environment, Geographic, Political and Legal Environment	
	2.3 Conditions for Global Product Offering - Product Adaptation Hofstede	
Unit 3		
	Institutional Framework	(12 hrs.)
	3.1 Various Institutions Engaged in Export Promotion in India	
	3.2 Advisory Bodies - Board of Trade & Export Promotion Board	
	3.3 Commodity Organisations	
Unit 4		
	Export Procedure and Documents	(15 hrs.)
	4.1 EXIM Policy	
	4.2 Export Procedure and Documents	
	4.3 Processing of an Export Order	
Unit 5		
	Trends in International Marketing	(10 hrs.)
	5.1 Recent Trends in World Trade	
	5.2 FEMA, TRIPS	
	5.3 Current Status on Indian Economy - Role Played by Government in Export Promotion	

BOOK FOR STUDY

Cherunilam, Francis. *International Trade and Export Management*. Mumbai: Himalaya, 2012.

BOOKS FOR REFERENCE

Balagopal, TAS, *Export Management*. Mumbai: Himalaya, 2010.

Lewis Keith and Mathew Housden. *Introduction to International Marketing - A guide*.

Rathor, Jani and Rathor. *International Marketing*. Mumbai: Himalaya, 2010.

Varma, M.L. *International Trade*, New Delhi: Vikas, 2011.

Varshney, R.L. and B. Bhattacharya. *International Marketing Management - An Indian Perspective*, New Delhi: Sultan, 2010.

Warren J. Keergan, Mark Green. *Global Marketing*, Prentice Hill.

JOURNALS

Journal of International Marketing

Journal of International Marketing impact factor

Journal of International Marketing and Exporting

Journal of International Marketing ranking

The Journal of International Trade and Economic Development

International Journal of Trade and Global Markets

Journal of International Trade Law and Policy

WEB RESOURCES

www.marketingteacher.com/what-is-international-marketing/

www.marketing-schools.org/types-of-marketing/international-marketing.html

www.ncti.gov.in/how_do_exports_commodity_boards.php

internationalmarketingenvironment.com/

www.exporthelp.co.

www.bms.co

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminar

Group Discussion

Assignments

Class Presentations

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600086
B.COM. DEGREE

SYLLABUS
(Effective from the academic year 2015-2016)
ENTREPRENEURSHIP

CODE: 15CM/MC/ED65

CREDITS: 5

LTP : 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide comprehensive knowledge on the various aspects related to entrepreneurial development
- To familiarise the students with the practical knowledge of establishing a business

Unit 1 **(15 hrs.)**
Introduction

- 1.1 Concept of Entrepreneurship - Meaning, Definition, Characteristics and Need for Entrepreneurship
- 1.2 Entrepreneur - Meaning, Definition, Scope, Need, Function and Types of Entrepreneur
 - 1.2.1 Role of Entrepreneurship in Economic Development
 - 1.2.2 Factors Influencing Entrepreneurship Development
 - 1.2.3 Internal and External Environment – Economic and Non - Economic, Psychological, Social, Cultural, Political, Legal and Economic Factors.
- 1.3 Barriers to Entrepreneurship
- 1.4 Entrepreneur vs. Entrepreneurship, Entrepreneur vs. Manager, Entrepreneur vs. Intrapreneur

Unit 2 **(10 hrs.)**
Women Entrepreneurs

- 2.1 Importance and Characteristics of Women Entrepreneurs
- 2.2 Entrepreneurial Culture and Innovation
- 2.3 Functions, Growth and Problems of Women Entrepreneurs
- 2.4 Recent Trends of Women Entrepreneurs in India

Unit 3 **(15 hrs.)**
New Venture Feasibility and Planning

- 3.1 Opportunity Identification - Environmental Analysis, SWOT Analysis
- 3.2 Idea Generation and Screening of Business Idea, Sources of Business Idea, Evaluation of Business Idea. Selection of Business Idea
- 3.3 Business Plan – Meaning, Contents and Significance of Business Plan
- 3.4 Business Plan Process, Advantages of Business Planning

Unit 4 (15 hrs.)
Project Formulation

- 4.1 Meaning, Concept and Stages in Project Formulation
- 4.2 Need and Significance of Project Formulation, Feasibility Analysis
- 4.3 Elements of Project Formulation
- 4.4 Feasibility Report
- 4.5 Preparing a Model Project Report for Starting a New Venture

Unit 5 (10 hrs.)
Selection of Form of Business Ownership

- 5.1 Choice of Organisation - Meaning, Importance of Choosing the Forms of Organisation
- 5.2 Factors Determining the Choice of Organisation
- 5.3 E-Commerce and Small Enterprises

BOOKS FOR STUDY

Gupta C.B. *Entrepreneurial Development*. New Delhi: Sultan Chand, 2012.

BOOKS FOR REFERENCE

Khanka, S. S. *Entrepreneurial Development*. Sultan and Chand Sons, New Delhi: 2005

Renu Arora, S. K. Sood. *Entrepreneurial Development*. Ludhiana: Kalyani, 2007

Sani, J.S., Rathore, B.S. *Entrepreneurship - Theory and Practice*, New Delhi: Wheeler, 2011.

Vasanth Desai. *Entrepreneurial Development*. Himalaya, Mumbai: 2012.

JOURNALS

Journal of Entrepreneurship

Journal of Innovation and Entrepreneurship

International Journal of Entrepreneurship and Small Business

WEB RESOURCES

www.womenentrepreneursindia.com

www.tie.org

www.preservearticles.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $7 \times 2 = 14$ Marks (Answer all questions)

Section B – $2 \times 8 = 16$ Marks (Answer any two questions from a choice of three)

Section C – $1 \times 20 = 20$ Marks (Answer any one question from a choice of two)

Third Component:

List of evaluation modes:

Project

Class Presentation

Assignment

Seminar

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ Marks (Short answers - Max 30 words - no choice)

Section B – $5 \times 8 = 40$ Marks (Essay type answers - 500 words - from a choice of 8)

Section C – $2 \times 20 = 40$ Marks (Essay type answers - 1200 words - from a choice of 4)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.COM DEGREE

SYLLABUS

(Effective from the academic year 2015 – 2016)

FINANCIAL ACCOUNTING

CODE: 15CM/MC/FA15

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To enable the students to acquire conceptual knowledge about Accounting Standards.
- To help the students to acquire knowledge in preparing financial statements.
- To equip the students with the skill of preparing accounts for various type of organizations

Unit 1

Conceptual Frame Work for Preparation of Financial Statements (15 hrs.)

- 1.1 Capital and Revenue Expenditure - Capital and Revenue Receipts
- 1.2 Accounting Standards
 - 1.2.1 Object of Accounting Standards - Accounting Standard Board of India - Functions - Indian Accounting Standards (IND ASs) - International Financial Reporting Standards (IFRS)
 - 1.2.2 Ind AS – 1: Presentation of Financial Statements (a) Objective (b) Scope (c) General Features
 - 1.2.3 Ind AS – 2: Inventories (a) Objective (b) Definitions (c) Measurement of Inventories (d) Disclosure
 - 1.2.4 Ind AS – 18: Revenue (a) Objective and Scope (b) Measurement of Revenue
- 1.3 Advanced Problems in Final accounts of a Sole Trader

Unit 2

Insurance Claim for Loss of Stock and for Loss of Profit (13 hrs.)

- 2.1 Insurance Claim for Loss of Stock
 - 2.1.1 Concept of Under-Insurance and Average Clause
 - 2.1.2 Computation of Claim – with Price Change, Consideration of Unusual Selling Line and Price Reduction
- 2.2 Insurance Claim for Loss of Profit
 - 2.2.1 Concept – Insured and Uninsured Standing Charges, GP Rate, Short Sales and Increased Cost of Working, Average Clause
 - 2.2.2 Computation of Claim

Unit 3

Accounting for Hire Purchase and Installment System (12 hrs.)

- 3.1 Meaning - Features of Hire Purchase Agreement - Distinction Between Hire Purchase and Sale
 - 3.1.1 Interest Calculations
 - 3.1.2 Recording Transactions in the Books of Hire Purchaser and the Hire Vendor

- 3.2 Default and Repossession – Partial Repossession and Complete Repossession
- 3.3 Installment System – Features - Distinction Between Hire Purchase and Installment System

Unit 4

Branch Accounts and Departmental Accounts (15 hrs.)

- 4.1 Branch Accounts
 - 4.1.1 Features
 - 4.1.2 Methods of Accounting – Debtors System, Stock and debtors System
- 4.2 Independent Branches –Features, Adjustment Entries in the Books of Head Office and Branch
- 4.3 Departmental Accounts
 - 4.3.1 Concept, Distinction between Departments and Branches
 - 4.3.2 Objective of Preparation of Departmental Accounts, Apportionment of Common Cost
 - 4.3.3 Preparation of Departmental Trading and Profit and Loss Account
 - 4.3.4 Inter Departmental Transfer of Goods at Cost, Cost Plus and at Selling Price and Elimination of Unrealized Profit

Unit 5

Average Due Date and Account Current (10 hrs.)

- 5.1 Average Due Date and its Computation
- 5.2 Account Current – Methods of Computation – Forward, Backward and Daily Balance Method including Red Ink Interest

BOOKS FOR STUDY

Gupta, R.L and M. Radhaswamy. *Advanced Accountancy (Vol.1)*. Sultan Chand, 2007.
Reddy, T.S and A. Murthy. *Financial Accounting*. Margham, 2007.

BOOKS FOR REFERENCE

Goyal V.K. *Financial Accounting*. Anuraj Jain, 2010.
Jain S.P and K.L Narang. *Advanced Accountancy (Part1)*. Kalyani, 2007.
Maheshwari S.N, *Advanced Accountancy (Part1)*. Vikas, 2007.

JOURNALS

The Chartered Accountant: Journal of the Institute of Chartered Accountants of India.
Indian Journal of Finance
Journal of Accounting & Finance: Research Development Association, Jaipur.

WEB RESOURCES

www. icai.org
www.journals.elsevier.com
www. emeraldgroupublishing.com

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Duration: 90 mins.

Section A - $3 \times 2 = 6$ (no choice)

Section B - $3 \times 8 = 24$ (from a choice of four questions)

Section C - $1 \times 20 = 20$ (from choice of two questions)

Third Component

List of Evaluation modes:

Assignments

Test

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ Marks (no choice) 5 Questions theory and 5 Problems

Section B – $5 \times 8 = 40$ Marks (from a choice of seven questions - Problems)

Section C – $2 \times 20 = 40$ Marks (from a choice of four questions- Problems)

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SYLLABUS

(Effective from the academic year 2015 -2016)

MARKETING

CODE: 15CM/MC/MG14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To enable students to understand the intricacies of marketing, focusing on its macro role in society and micro role in business
- To equip students to face the challenges and constraints of the competitive business
- To facilitate understanding of the conceptual framework of marketing and its applications in decision making under various environmental constraints

Unit 1

Introduction

(12 hrs.)

- 1.1 Marketing – Meaning, Nature and Marketing Concept Model
- 1.2 Functions of Marketing – Clark’s Function of Marketing

Unit 2

Product Planning and New Product Development

(10 hrs.)

- 2.1 Product Planning
 - 2.1.1 Product Policy and Product Mix
- 2.2 Product Life Cycle - Stages
- 2.3 New Product Development
 - 2.3.1. Process of new Product Development
 - 2.3.2 Reasons for Product Failure

Unit 3

Pricing and Market Segmentation

(10 hrs.)

- 3.1 Pricing
 - 3.1.1 Factors affecting Pricing
 - 3.1.2 Pricing Policy
- 3.2 Market Segmentation
 - 3.2.1 Methods of Segmentation

Unit 4

Branding and Promotion

(10 hrs.)

- 4.1 Branding
 - 4.1.1 Meaning and Importance
 - 4.1.2 Types of Brands, Functions
- 4.2 Packaging
 - 4.2.1 Functions and types of Packaging and Labeling
- 4.3 Promotion - Mix

Unit 5

Channels of Distribution

(10 hrs.)

5.1 Factors affecting Choice of Channel

5.2 Classification of Channel Members

BOOK FOR STUDY

Nair, Rajan and Sanjith Nair. *Marketing*. 11th Edition, New Delhi: Sultan Chand, 2013.

BOOKS FOR REFERENCE

Gandhi J.C. *Marketing*. New Delhi: Tata McGraw Hill, 2009.

Groucutt Jonathan, Peter Leadley, Patrick Forsyth. *Marketing Essential Principles. New Realities*. Kogan, 2004.

Kotler Philip. *Marketing* 12th edition. New Delhi: Prentice Hall of India, 2008.

Steven J Skinner, *Marketing*, Houghton Mifflin; 2nd edition, 1994.

Varshney R.L, Dr. S.L. Gupta. *Marketing Management*. Himalaya.

William J. Stanton, Micheal J. Etzel, Bruce J. Walker. *Fundamentals of Marketing*, New Delhi: Mc Graw Hill, 2009.

Xavier, M. J., *Marketing in the New Millenium*, New Delhi: Vikas, 2009.

JOURNALS

Journal of Marketing - American Marketing Association

Journal of Consumer Marketing

Journal of Marketing Education

International Journal of Research in Marketing

International Journal of Marketing Studies

International Journals of Marketing and Technology

Indian Journal of Marketing

WEB RESOURCES

www.yourarticlelibrary.com

www.boundless.com

www.learnmarketing.net

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component

List of Evaluation modes:

Seminars

Quiz,

Group discussion
Assignments
Class Presentation

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
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SYLLABUS

(Effective from the academic year 2015– 2016)

COST ACCOUNTING

CODE: 15CM/MC/CT25

CREDITS: 5

L T P : 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide an understanding of the basic concepts of cost accounting
- To enable students to understand the methods of ascertaining the product cost
- To expose the students to the practical applicability of Costing

Unit 1

The Nature of Cost Accounting (10 hrs.)

- 1.1 Meaning, Objectives and Scope
- 1.2 Advantages and Limitations of Cost Accounting, Difference Between Financial and Cost Accounting
- 1.3 Cost Center and Cost Units- Methods of Costing, Elements of Cost, Cost Concepts and Classification of Cost. Cost Audit and Maintenance of Cost Records
- 1.4 Preparation of Cost Sheet, Quotations or Tenders

Unit 2

Material Cost and Material Control (15 hrs.)

- 2.1 Computation of Material Cost and Accounting Treatment for Normal, Abnormal Loss and Scrap
- 2.2 Essentials of Material Control, Purchase Control – Purchase Procedure
- 2.3 Store Control
 - 2.3.1 Techniques of Inventory Control – Economic Order Quantity, Level Setting, Perpetual Inventory Systems and Stock Control According to Value- ABC Analysis, JIT
- 2.4 Issue Control
 - 2.4.1 Stores and Material Records – Bin Card and Store Ledger
 - 2.4.2 Methods of Material Issue – First In First Out, Last In First Out, Average Cost - Simple and Weighted Average

Unit 3

Labour Cost, Remuneration and Incentives (15 hrs.)

- 3.1 Computation of Labour Cost with Overtime and Idle Time
- 3.2 Labor Turnover – Methods of Computation, Causes and Effects of Labour Turnover
- 3.2 Methods of Remuneration- Time Rate System, Piece Rate System, Taylor's Differential Piece Rate System.
- 3.4 Incentive Plans -Halsay Premium Plan, Rowan Premium Plan

Unit 4**Overheads****(13 hrs.)**

- 4.1 Importance and Classification of Overhead Costs
- 4.2 Apportionment and Allocation of Overheads
 - 4.2.1 Primary Distribution of Overheads
 - 4.2.2 Secondary Distribution of Overheads- Direct Distribution, Reciprocal and Non Reciprocal Methods
- 4.3 Methods of Absorption of Overheads
 - 4.3.1 Direct Labour Hour Rate
 - 4.3.2 Machine Hour Rate
 - 4.3.3 Activity Based Costing

Unit 5**Process and Operating Costing****(12 hrs.)**

- 5.1 Process Costing
 - 5.1.1 Meaning and Features of Process Costing
 - 5.1.2 Process Losses and Gains – Accounting Treatment of Normal and Abnormal Wastage and Abnormal Gain
 - 5.1.3 Inter-Process Profit
- 5.2 Operating Costing- Transport Costing only

BOOKS FOR STUDY

Jain, S.P. and Narang K.L. *Cost Accounting*. NewDelhi: Kalyan, 2006.

Reddy, T.S and A. Murthy. *Cost Accounting*. Margham, 2007.

BOOKS FOR REFERENCE

Khanna, B.S, I.M Pandey, G.K Ahuja. and M.N Arora. *Practical Costing*. New Delhi: Sultan Chand, 2006.

Maheswari, S.N. *Problems and solutions in Cost Accounting*. 12th edition, Sultan Chand,2010.

Ravi M. Kishore. *Cost Accounting*, 4th edition, Taxmann's Allied Services, 2010.

JOURNALS

Cost Accounting Standards - The ICWA of India

Management Accountant - The ICWA of India

Indian Journal of Finance

WEB RESOURCES

icwajournal@hotmail.com

www.accaglobal.com

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Duration: 90 mins.

Section A - $3 \times 2 = 6$ (no choice)

Section B - $3 \times 8 = 24$ (from a choice of four questions)

Section C - $1 \times 20 = 20$ (from choice of two questions)

Third Component

List of Evaluation modes:

Assignments

Problem solving

Open book test

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ Marks (no choice 5 Questions theory and 5 Problems)

Section B – $5 \times 8 = 40$ Marks (from a choice of seven questions – 2 theory and 5 problems)

Section C – $2 \times 20 = 40$ Marks (from a choice of four questions- Problems)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.COM DEGREE

SYLLABUS

(Effective from the academic year 2015 – 2016)

BUSINESS MANAGEMENT

CODE: 15CM/MC/BM24

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To provide a comprehensive understanding of the principles of management
- To emphasize the need for competence, trust and team work, in the organisation
- To familiarize students with the different functions of management

Unit 1

Introduction (10 hrs.)

- 1.1 Meaning, Concepts and Levels of Management
- 1.2 Contributions to Management Studies by Fayol, Taylor, Elton Mayo

Unit 2

Planning (9 hrs.)

- 2.1 Importance and Process of Planning
- 2.2 Types of Plans – Policies, Procedures, Strategies, Objectives, Rules, Budgets
- 2.3 Obstacles to Effective Planning

Unit 3

Organising and Departmentation (12 hrs.)

- 3.1 Organizing
 - 3.1.1 Nature and Importance
 - 3.1.2 Types – Line, Line and Staff and Functional Organizations
- 3.2 Delegation and De-centralization
- 3.3 Departmentation

Unit 4

Staffing and Communication (12 hrs.)

4.1 Staffing

- 4.1.1 Recruitment and Selection
- 4.1.2 Training – Need, Types of Employee Training
- 4.1.3 Motivation – Meaning and Maslow's Theory of Motivation
- 4.1.4 Leadership – Qualities, Types of Leaders, Span of Control

4.2 Communication

- 4.2.1 Types and Process
- 4.2.2 Barriers to Communication

Unit 5

Control (9 hrs.)

- 5.1 Importance of Control and Control Process
- 5.2 Characteristics of an Ideal Control System

BOOKS FOR STUDY

Gupta, C. B. *Business Management*. New Delhi: Sultan Chand, 2007.

BOOKS FOR REFERENCE

Pagare Dinakar. *Business Management*. 5th edition. New Delhi: Sultan Chand, 2008.

Gupta, N.S. and Alka Gupta. *Essentials of Management*. New Delhi; Anmol, 2010.

Harold, Koontz., Hein Wehrich. *Essentials of Management*. 6th edition. New Delhi: Tata Mc.Graw Hill, 2006.

Prasad, Manmohan. *Management Concepts and Practices*. Mumbai: Himalaya, 2006.

Prasad L.M. *Principles and Practice of Management*. New Delhi: Sultan Chand, 2008.

Sivarethnamohan R. and P.Aranganathan. *Principles of Management*. Chennai: CBA, 2008

JOURNALS

International Journal of Management Reviews

European Journal of Business Management

WEB RESOURCES

www.exed.hbs.edu

www.hbr.org

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of evaluation modes:

Case Studies

Mini projects

Objective type questions

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.COM DEGREE

SYLLABUS
(Effective from the academic year 2015 -2016)

BUSINESS LAW

CODE: 15CM/MC/BL34

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To familiarize with the principles of law that is essential to manage complex business transactions
- To sensitize on the legal rights, duties and obligations arising out of business transactions

Unit 1

1.1 Law of Contract - I (15 hrs.)

1.1.1. Classification of Contract

1.2 Requisites of a valid contract

1.2.1. Offer and Acceptance

1.2.2. Consideration

1.2.3. Capacity to Contract

1.2.4. Free Consent

1.2.5. Legality of Object

Unit 2

Law of Contract – II (12 hrs.)

2.1 Performance of Contract - Specific Performance

2.2 Discharge of Contract

2.3 Remedies for Breach of Contract

Unit 3

Special Contracts - I (8 hrs.)

3.1 Contract of Indemnity

3.2 Contract of Guarantee - Rights and Liabilities of Surety, Discharge of Surety

Unit 4

Special Contracts - II (10 hrs.)

4.1 Bailment

4.1.1 Rights and Duties of Bailor and Bailee

4.1.2 Termination of Bailment

4.1.3 Finder of Lost goods

4.2 Pledge

4.2.1 Rights and Duties of Pledger and Pledgee

4.2.2 Pledge by Non-owners

4.3 Law of Agency

Unit 5

Sale of Goods Act

(7 hrs.)

- 5.1 Essentials of a Contract of sale, Sale Vs. Agreement for Sale and Rule of Caveat Emptor
- 5.2 Conditions and Warranties
- 5.3 Transfer of Property
- 5.4 Performance of Contract
- 5.5 Rights of an Unpaid Seller

BOOKS FOR STUDY

Kapoor N.D, *Elements of Business Law*. New Delhi: Sultan Chand, 2007.

BOOKS FOR REFERENCE

Balachandran .V and Thothadri.S. *Business Law*. New Delhi: Tata McGraw Hill, 2010.

Chadha P.R. *Business Law*. New Delhi: Galgotia , 2005.

Gogna P.P.S. *Mercantile Law*. New Delhi: Sultan Chand, 2005.

Kuchhal M. C. *Business Law*. New Delhi: Vikas, 2008.

Pandit M.S. and ShobhaPandi. *Business Law*. Mumbai: Himalaya, 2004.

Tulsian P. C. *Business Law*. New Delh: Tata McGraw Hill, 2007.

Tuteja S.K. *Business Law for Managers*. New Delhi: Sultan Chand, 2005.

JOURNALS

A.P.L.J. Andhra Pradesh Law Journal

Cal. L.J. Calcutta Law Journal

Indian Business Law Journal

M.L.J. Madras Law Journal

WEB RESOURCES

www.amritt.com

www.indilaw.com

www.lawnotes.in

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component

List of Evaluation modes:

Case Studies

Group Discussion

Assignments

Class Presentations

Problem Solving

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B. COM DEGREE

SYLLABUS

(Effective from the academic year 2015 -2016)

BANKING AND FINANCIAL SERVICES

CODE: 15CM/MC/BF35

CREDITS : 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To expose students to the concept and practices adopted in the banking industry
- To educate students about the practical relevance and importance of banking
- To update students with the changing trends in banking industry
- To understand the basics of financial services and its various dimensions, evaluation and benefits to the economy

Unit 1

Introduction to Banking

(15 hrs.)

- 1.1 Meaning, Definition and Functions of Commercial Banking
- 1.2 Types of Deposits - Savings, Current, Fixed Deposits and Recurring Deposits
- 1.3 Types of Lending – Cash Credit, Overdraft, Bills Discounting and Term Loans
- 1.4 Opening, Operation and Closing of Bank Accounts
- 1.5 Banking Ombudsman

Unit 2

Negotiable Instruments Act

(12 hrs.)

- 2.1 Meaning and Features of Negotiable Instruments – Cheque, Promissory Note and Bills of Exchange
- 2.2 Crossing and Endorsement of Cheques
- 2.3 Payment and Collection of Cheques

Unit 3

Advancements in Banking

(10 hrs.)

- 3.1 E-Banking – Meaning, Importance, Merits and Demerits
- 3.2 Internet Banking, Mobile Banking, Tele-Banking
- 3.3 Debit Card, Credit Card, ATM Card and Smart Card
- 3.4 Electronic Clearing Service and Electronic Fund Transfer

Unit 4

Financial Services - Introduction

(13 hrs.)

- 4.1 Meaning, Features, Types and Importance of Financial Services in India
- 4.2 Credit Rating Services – Meaning and Methods of Rating with Special Reference to ICRA and CRISIL.
- 4.3 Merchant Banking - Meaning and Functions

Unit 5

Financial Services - Types

(15 hrs.)

- 5.1 Factoring - Definition, Importance, Types
- 5.2 Leasing – Meaning, Importance and Types
- 5.3 Mutual fund – Meaning, Types – Open Ended and Close Ended and Selection of Mutual Fund
- 5.4 Venture Capital Financing – Meaning, Importance and Features of Venture Capital Financing

BOOKS FOR STUDY

Gurusamy, S. *Financial Services*. Tata McGraw Hill, 2011.

Sundaram, K.P.M. and P. N.Varshney. *Banking Theory Law and Practice*, New Delhi: Sultan Chand , 2005.

BOOKS FOR REFERENCE

Bhalla, V.K. *Management of Financial Services*. New Delhi: Anmol, 2002.

Gordon, E. and Natarajan K. *Banking Theory Law and Practice*. Mumbai: Himalaya, 2005.

Gupta Shashi K and Nisha Agarwal. *Financial Services*. New Delhi: Kalyani, 2006.

Gurusamy S, *Banking Theory Law and Practice*. Chennai: Vijay Nicole Imprints, 2006.

Gurusamy S. *Financial Services and Markets*. Chennai: Vijay Nicole Imprints, 2012.

Khan, M.Y. *Financial Services*. New Delhi: Tata McGraw Hill, 2006.

Machiraju H. R., *Indian Financial System*. New Delhi: Vikas, 2005.

Varshney P.N. *Banking Law and Practice*, New Delhi; Sultan Chand, 2006.

JOURNALS

Asian Journal of Research in Banking and Finance

Indian Journal of Finance

Journal of Banking, Information Technology and Management

Journal of Bank Management

Journal of Internet Banking and Commerce

International Journal of Banking and Finance

WEB RESOURCES

www.preservearticles.com

www.india-financing.com

www.languages.ind.in

www.rbi.org.in

www.allbankingsolutions.com

www.preservearticles.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component

List of Evaluation modes:

Seminar

Group Discussion

Assignments

Class Presentations

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.COM DEGREE

SYLLABUS

(Effective from the academic year 2015 – 2016)

MANAGEMENT ACCOUNTING

CODE: 15CM/MC/MA34

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To emphasize the need for analyzing the financial data for internal reporting, cost control and effective decision-making
- To analyze and interpret the financial statements for managerial decision making
- To focus on the applications of cost control concepts and techniques for effective planning and forecasting

Unit 1 (5 hrs.)

1.1 Nature of Management Accounting

- 1.1.1 Definition and Nature of Management Accounting
- 1.1.2 Scope and Objectives of Management Accounting
- 1.1.3 Need, Importance and Limitations of Management Accounting

1.2 Analysis and Interpretation of Financial Statements

- 1.2.1 Financial Statements – Income statement, Position Statement
- 1.2.2 Importance and limitation of Financial Statements
- 1.2.3 Concept of Analysis and Interpretation- Types of Financial Analysis

Unit 2 (15 hrs.)

Methods of Financial Analysis and Interpretation

- 2.1 Comparative Statements
- 2.2 Common-Size Statements
- 2.3 Trend Analysis
- 2.4 Ratio Analysis
 - 2.4.1 Use, Significance and Limitations of Ratio Analysis
 - 2.4.2 Computation and Interpretation of Ratios - Turn Over, Liquidity, Profitability, Solvency and Leverage

Unit 3 (10 hrs.)

Budgets and Budgetary Control

- 3.1 Concepts of Budgets and Budgetary Control
- 3.2 Objectives and Advantages of Budgetary Control
- 3.3 Classification of Budgets and its Preparation – Sales Budget, Purchases Budget, Cost of Production Budget, Cash Budget and Flexible Budget

Unit 4 (10 hrs.)

Marginal Costing and its Applications

- 4.1 Definition, Meaning and Features of Marginal Costing
- 4.2 Marginal Costing and its Applications
- 4.3 Cost Volume Profit analysis – Break-Even Point
- 4.4 Make or Buy, Product Mix and Key Factors

Unit 5

Standard Costing and Variance Analysis

(12 hrs.)

- 5.1 Meaning - Standard Costing as a Management Tool - Limitations
- 5.2 Variance Analysis - Material, Labour, Overheads and Sales Variances

BOOKS FOR STUDY

Maheshwari, S.N. *Principles of Management Accounting*. New Delhi: Sultan Chand, 2007.

Reddy, T. S. and A .Murthy. *Management Accounting*. Chennai: Margham, 2007.

BOOKS FOR REFERENCE

Atkinson A. Anthony, Robert S. Kaplan and S. Mark Young. *Management Accounting*. Pearson Education, 2008.

Indian Institute of Banker, *Management Accounting*. Macmillan, 2008.

Man Mohan and S.N. Goyal. *Principles of Management Accounting*. Agra: Sahitya Shawan, 2005.

JOURNALS

International Journal of research in Commerce and Management
Management Accountant - The ICWA of India,
Indian Journal of Finance

WEB RESOURCES

www.icaai.org

www.cimaglobalcom

PATTERN OF EVALUATION

Continuous Assessment

Total Marks : 50

Duration : 90 mins.

Section A - 3 x 2 = 6 (no choice)

Section B - 3 x 8 = 24 (from a choice of four questions)

Section C - 1 x 20 = 20 (from choice of two questions)

Third Component

List of Evaluation modes:

Assignments

Test

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice) 5 Questions theory and 5 Problems

Section B – 5 x 8 = 40 Marks (from a choice of seven questions – 2 theory and 5 problems)

Section C – 2 x 20 = 40 Marks (from a choice of four questions- Problems)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.COM DEGREE

SYLLABUS

(Effective from the academic year 2015 -2016)

BUSINESS ETHICS AND CORPORATE SOCIAL RESPONSIBILITY

CODE: 15CM/MC/EC34

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To familiarize students with the understanding of issues and practices of corporate governance and corporate social responsibility in the global and Indian context
- To analyse and examine corporate social responsibility

Unit 1

Introduction to Business Ethics (10 hrs.)

- 1.1 Meaning, Scope and Objectives of Business Ethics
- 1.2 Globalisation and Business Ethics
- 1.3 Ethical Dilemma in Business

Unit 2

Business and Ethical Environment (15 hrs.)

- 2.1 Ethical Issues in Finance - Issues Related to Financial Services, Insider Trading and Takeovers
- 2.2 Ethical Issues in Marketing and Advertising
- 2.3 Whistle Blowing and Whistle Blower's Protection

Unit 3

Corporate Governance (10 hrs.)

- 3.1 Meaning and Concepts of Corporate Governance
- 3.2 Management Structure of Corporate Governance
- 3.3 Board Committees and Their Functions

Unit 4

Corporate Social Responsibility (10 hrs.)

- 4.1 Meaning, Importance of Corporate Social Responsibility and Legal Requirements
- 4.2 Corporate Sustainability and Corporate Social Responsibility
- 4.3 Managing Environmental Issues

Unit 5

Responding to Stakeholders (7 hrs.)

- 5.1 Stockholders, Employees, Community - Corporate Philanthropy and Community Volunteering
- 5.2 Case Studies – Socially Responsible Business Practices

BOOKS FOR STUDY

Andrew Crane Dirk Matten. *Business Ethics*. New Delhi: Oxford University Press.

Fernando, A.C. *Corporate Governance – Principles, Policies & Practice*. Pearson.

Joan R. Boatright. *Ethics and the Conduct of Business*. 7th edition. Pearson.

BOOKS FOR REFERENCE

Bhanu Murthy, K. V. and Usha Krishna, *Politics Ethics and Social Responsibilities of Business*. New Delhi: Pearson Education.

Christine, A Mallin. *Corporate Governance (Indian Edition)*. New Delhi: Oxford University Press.

Geeta Rani, D & R K Mishra. *Corporate Governance-Theory and Practice*. New Delhi: Excel.

Kotler, Philip and Nancy Lee. *Corporate Social Responsibility – Doing the Most Good for Your Company and Your Cause*. Wiley – India, 2008.

Mathur, U.C. *Corporate Governance & Business Ethics*. Macmillan, 2005.

Sharma, J. P. *Corporate Governance Business Ethics & CSR*. New Delhi: Ane Books

Subhash Chandra Das, *Corporate Governance in India*. PHI, 2008.

JOURNALS

International Journal of Management Reviews

International Journal on Corporate Strategy and Social Responsibility

SSRN – E Journal

WEB RESOURCES

www.ibscdc.org

www.exed.hbs.edu

www.hbr.org

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminar

Group Discussion

Assignments

Class Presentations

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A.DEGREE: BRANCH IV-ECONOMICS
Allied Core Offered to the Department of Economics

SYLLABUS
(Effective from the academic year 2015 – 2016)

PRINCIPLES OF FINANCIAL MANAGEMENT

CODE : 15CM/AC/PF35

CREDITS : 5

L T P : 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To acquaint students with the basic tools and principles of financial management concept
- To provide a sound conceptual framework for financial decision-making
- To expose students to the financial concepts for effective financial planning and forecasting

Unit 1 (10 hrs.)

Nature of Financial Management

- 1.1 Modern Approach to Financial Management
 - 1.1.1 Investment Decisions
 - 1.1.2 Finance Decisions
 - 1.1.3 Dividend Decisions
- 1.2 Objectives of a Firm
 - 1.2.1 Profit Maximization
 - 1.2.2 Wealth Maximization
- 1.3 Risk Return Trade Off
- 1.4 Significance of Financial Management

Unit 2 (10 hrs.)

Time Value of Money

- 2.1 Meaning and Significance of Time Value of Money in Financial Decision
- 2.2 Techniques of Time Value
 - 2.2.1 Discounting Techniques
 - 2.2.2 Compounding Techniques

Unit 3 (15 hrs.)

Working Capital Management

- 3.1 Need and Types of Working Capital
- 3.2 Determinants of Working Capital
- 3.3 Simple Problems on Computation of Working Capital

Unit 4 (15 hrs.)

Cash Asset Management

- 4.1 Motives in Holding Cash Balance
- 4.2 Basic Strategies in Cash Management
- 4.3 Preparation of Cash Budget

Unit 5**(15 hrs.)****Capital Budgeting**

- 5.1 Investment Appraisal Techniques
- 5.2 Pay Back Period Method
- 5.3 Accounting Rate of Return
- 5.4 Net Present Value Method
- 5.5 Profitability Index Method

BOOK FOR STUDY

Khan M. Y. and P.K. Jain. *Basic Financial Management*. New Delh: Tata Mc Graw Hill, 2013.

BOOKS FOR REFERENCE

Ruzbeh J. Bodhanwala. *Understanding and Analysing Balance Sheets using Excel Worksheet*. New Delhi: Prentice Hall of India, 2006.

James C. Van Horne. *Financial Management and Policy*. New Delhi: Prentice Hall of India, 2004.

Maheshwari S. N. *Financial Management*, New Delhi: Vikas, 2004.

Pandey I. M. *Financial Management*. New Delhi: Vikas, 2005.

Prasanna Chandra. *Fundamentals of Financial Management*. New Delhi: Tata Mc Graw Hill, 2014.

JOURNALS:

Indian Journal of Finance
International Journal of Financial Management

WEB RESOURCES:

www.exinfm.com
www.indianjournaloffinance.co.in

PATTERN OF EVALUATION**Continuous Assessment:****Total Marks: 50****Duration: 90 mins.**

Section A – 7 x 2 = 14 Marks (Answer all questions)

Section B – 2 x 8 =16 Marks (Answer any two questions from a choice of three)

Section C –1 x 20 = 20 Marks (Answer any one question from a choice of two)

Third Component:

List of evaluation modes

Open book tests

Assignments- Problem solving

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ (five theory and five problems, short answers, Max. 50 words)

Section B – $5 \times 8 = 40$ (from a choice of 7, Two theory Questions and five Problems)

Section C – $2 \times 20 = 40$ (from a choice of 4, Problems)

STELLA MARIS COLLEGE (AUTONOMOUS),CHENNAI- 600 086
B.COM DEGREE

SYLLABUS

(Effective from the academic year 2015 -2016)

FINANCIAL MANAGEMENT

CODE: 15CM/MC/FM44

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To acquaint the students with the basic tools and principles of financial management
- To provide a sound conceptual frame work for financial decision-making

Unit 1

Nature of Financial Management

(8 hrs.)

- 1.1 Modern Approach to Financial Management
 - 1.1.1 Investment Decisions
 - 1.1.2 Finance Decisions
 - 1.1.3 Dividend Decisions
- 1.2 Objectives of the Firm
 - 1.2.1 Profit Maximisation
 - 1.2.2 Wealth Maximisation
- 1.3 Risk Return Trade off
- 1.4 Significance of Financial Management

Unit 2

Time Value of Money

(10 hrs.)

- 2.1 Meaning and Significance of Time value of Money in Financial Decisions
- 2.2 Computation of Time value of Money
 - 2.2.1 Compounding Techniques
 - 2.2.2 Present Value Techniques

Unit 3

Measurement of Cost of Capital

(12hrs.)

- 3.1 Meaning and Significance
- 3.2 Cost of Equity and Retained Earnings
- 3.3 Cost of Debt - Redeemable and Irredeemable
- 3.4 Cost of Preference - Redeemable and Irredeemable
- 3.5 Computation of Overall Cost of Capital - Book Value and Market Value

Unit 4

Capital Budgeting

(12 hrs.)

- 4.1 Nature of Capital Budgeting
- 4.2 Evaluating Techniques - Pay Back Period, Average Rate of Return, Net Present Value, Internal Rate of Return and Profitability Index

Unit 5

Working Capital Management

(10 hrs.)

- 5.1 Need for Working Capital Management
- 5.2 Determinants of Working Capital Management
- 5.3 Computation of Working Capital

BOOK FOR STUDY

Khan, M.Y. and P.K. Jain. *Basic Financial Management*. New Delhi: Tata Mc Graw Hill, 1999.

REFERENCE BOOKS

Chandra, Prasanna. *Fundamentals of Financial Management*. New Delhi: Tata McGraw Hill, 1999.

Van Horne, James C. *Financial Management and Policy*. New Delhi: Prentice Hall of India, 1991.

Kalra, Ashish. *Financial Management*. New Delhi: IGP, 2011.

Khan, M.Y. and Jain P.K. *Basic Financial Management*. New Delhi: Tata Mc Graw Hill, 1999.

Maheshwari, S. N. *Financial Management*. New Delhi: Vikas, 1999.

Pandey, I. M. *Financial Management*. New Delhi: Vikas, 2000.

Ravi M. Kishore. *Taxmann's Financial Management*. New Delhi: K. L. Taxmann, 2006.

JOURNALS

Journal on Risk and Financial Management

[Indian Journal of Finance](#)

Finance India

WEB RESOURCES

www.mdpi.com/

www.indianjournaloffinance.co.in/

www.financeindia.com/

PATTERN OF EVALUATION

Continuous Assessment Tests

Total Marks : 50

Duration : 90 mins.

Section A - $3 \times 2 = 6$ (no choice)

Section B - $3 \times 8 = 24$ (from a choice of four questions)

Section C - $1 \times 20 = 20$ (from choice of two questions)

Third Component

List of Evaluation modes:

Assignments

Test

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ Marks (no choice 5 Questions theory and 5 Problems)

Section B – $5 \times 8 = 40$ Marks (from a choice of seven questions – 2 theory and 5 problems)

Section C – $2 \times 20 = 40$ Marks (from a choice of four questions- Problems)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.COM. DEGREE

SYLLABUS

(Effective from the academic year 2015 – 2016)

COMPANY LAW

CODE: 15CM/MC/CL44

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To acquaint students with the fundamental principles of company law
- To expose students to the statutory provisions relating to the formation and management of a company

Unit 1

Introduction

(10 hrs.)

- 1.1 Definition and Characteristics of a Company
- 1.2 Lifting of the Corporate Veil, Advantages of Incorporation
- 1.3 Types of Companies- Private, Public, Government Companies
Foreign Companies, Dormant Company, One Person Company, Small Company

Unit 2

Formation of a Company

(11 hrs.)

- 2.1 Incorporation
- 2.2 Memorandum of Association- Meaning, Contents, Alterations,
Doctrine of Ultra Vires
- 2.3 Articles of Association – Contents, Alterations, Doctrine of Indoor
Management – Entrenched Provisions.

Unit 3

Raising of Capital

(11 hrs.)

- 3.1 Prospectus – Definition, Contents, Mis-statements in Prospectus and its
Consequences
- 3.2 Share Capital - Meaning, Kinds and Alteration of Share Capital
- 3.3 Shares - Nature of Shares, Types of Shares, Application and Allotment,
Transfer and Transmission of Shares
- 3.4 Debentures - Nature and Classes of Debentures

Unit 4

4.1 Meetings

(10 hrs.)

- 4.1.1 Annual General Meeting
- 4.1.2 Extraordinary General Meeting and Electronic Voting
- 4.1.3 Board Meetings – Video Conferencing and Other Audio Visual Aids
- 4.1.4 Requisites for a Valid Meeting

4.2. Resolutions

- 4.2.1 Types of Resolutions

Unit 5

Management and Administration

(10 hrs.)

- 5.1 Board of Directors – Appointment, Removal, Powers, Duties and Liabilities
- 5.2 Kinds of Directors - Managing Director, Independent Director, Women Director

BOOK FOR STUDY

Kapoor, N.D. *Company Law*. New Delhi: Sultan Chand, 2013

BOOKS FOR REFERENCE

Bahl, J.C. *Secretarial Practice in India*. Mumbai: Tripathi M.N, 2006.

Ghosh K Prashanth. *Company Secretarial Practice*. New Delhi: Sultan Chand, 2007.

Pandab, S.K. *Company Law & Practice*. New Delhi: Bharat Law House, 2002.

Shah, S.M. *Lectures on Company Law*. Mumbai: Tripathi M.N, 2006.

Sherlekhar, S.A. *Company Secretarial Practice*. New Delhi: Kitab Mahal, 2006.

Tandon, B.N. *Manual of Secretarial Practice*. New Delhi: Sultan Chand.

JOURNALS

Company and Securities Law Journal

Company law journal

Company news and reports

WEB RESOURCES

www.business.gov.in

www.cdslindia.com

www.geebeevee.org

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50 Duration: 90 mins.

Section A 3 x 2 = 6 (no choice)

Section B 3 x 8 = 24 (from a choice of four)

Section C 1 x 20 = 20 (from choice of two)

Third Component

List of Evaluation modes:

Objective Type Test

Assignment

Case Study Discussions

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.COM DEGREE

SYLLABUS

(Effective from the academic year 2015 – 2016)

STATISTICAL TECHNIQUES FOR BUSINESS

CODE: 15CM/AC/ST45

CREDITS: 5

LTP : 5 0 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To give a practical exposure on the various statistical methods and to arrive at rational decision through systematic analysis and interpretation
- To educate on the effective and efficient application of various statistical tools associated with research in business fields

Unit 1

Analysis of Time Series (12 hrs.)

- 1.1 Utility and Components of Time Series
- 1.2 Methods of Measuring Trend
- 1.3 Measurement of Seasonal Variations

Unit 2

Test of Hypothesis (13 hrs.)

- 2.1 Procedure for Testing Hypothesis
- 2.2 Test of Significance
- 2.3 For Large Samples
- 2.4 For Small Samples
- 2.5 Limitations of Test of Significance

Unit 3

Chi-Square Test and Goodness of Fit (15 hrs.)

- 3.1 Meaning and Condition for Applying Chi-Square Test
- 3.2 Application of Chi Square Test - Test of Goodness of Fit and Test of Independence
- 3.3 Yates Correction
- 3.4 Uses and Limitations of Chi Square

Unit 4

Analysis of Variance (13 hrs.)

- 4.1 Variance Ratio Test
- 4.2 Assumptions in Analysis of Variance
- 4.3 Techniques of Analysis of Variance
 - 4.3.1 One-Way Classification Model
 - 4.3.2 Two-Way Classification Model

Unit 5

Partial and Multiple Correlation (12 hrs.)

- 5.1 Partial Correlation of First Order and Second Order Co-efficient

5.2 Co-efficient of Multiple Correlation

5.3 Multiple Regression Analysis

BOOK FOR STUDY

Gupta, S.P. *Statistical Methods*. New Delhi: Sultan Chand, 2007.

BOOKS FOR REFERENCE

Agarwal, Y.P. *Statistical Methods, Concepts, Applications and Computations*. New Delhi: Sterling, 2006.

Beri, G.C. *Business Statistics*. New Delhi: Tata Mc Graw Hill, 2007.

Pillai, R.S.N. & Bagavathy, V. *Statistics*, New Delhi: Sultan Chand, 2007.

Sanchetti, V.C. & Kapoor. *Business Statistics*, New Delhi: Sultan Chand, 2006.

Sharma, J.K. *Business Statistics*. New Delhi: Pearson Education, 2006.

JOURNALS

Analysis in Data Analysis and Classification, Springer Publications.

Advances in Statistical Analysis, A Journal of German Statistical Society.

Electronic Journal of Statistics, Bernoulli Society for Mathematics and Probability.

Annals of the Institute of Statistical Mathematics, Springer Publications.

WEBSITE

www.isical.ac.in/

www.ssc.ca/en/whats-new

www.rss.org.uk/

www.amstat.org/

PATTERN OF EVALUATION

Continuous Assessment

Total Marks : 50

Duration : 90 mins.

Section A - $3 \times 2 = 6$ (no choice)

Section B - $3 \times 8 = 24$ (from a choice of four questions)

Section C - $1 \times 20 = 20$ (from choice of two questions)

Third Component

List of Evaluation modes:

Assignments

Test

End Semester Examination

Total Marks: 100

Duration : 3 hours

Section A – $10 \times 2 = 20$ Marks (no choice 5 Questions theory and 5 Problems)

Section B – $5 \times 8 = 40$ Marks (from a choice of seven questions Problems)

Section C – $2 \times 20 = 40$ Marks (from a choice of four questions Problems)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.COM DEGREE

SYLLABUS

(Effective from the academic year 2015 -2016)

ENVIRONMENTAL STUDIES

CODE: 15CM/GC/ES42

CREDITS : 2

L T P : 2 0 0

TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE

- To provide a fundamental knowledge of the environment
- To create an awareness about environmental issues

Unit 1

Introduction

(4 hrs.)

- 1.1 Components of the Environment – Technological, Social, Natural. Classification and Characteristics of Resources – K_N, K_M, K_H , Renewable and Non-Renewable
- 1.2 Material Balance Approach
- 1.3 Energy Flow under Ecosystems

Unit 2

Pollution and Socio Economic Aspects of the Environment

(11 hrs.)

- 2.1 Types of Pollution –Air, Water, Solid Waste, Noise
- 2.2 Sources, Effects and Consequences of Pollution
- 2.3 Policy Measures with respect to India
- 2.4 Human Behaviour- Population- Urbanization- Poverty (as Cause and Result of Pollution and Degradation
- 2.5 Technology- Agriculture and industry – Deforestation. Use, Misuse and Abuse of the Resources
- 2.6 Religion, Tradition and Culture

Unit 3

Sustainable Development, Remedies and Policy Implications

(11 hrs.)

- 3.1 Problems – Greenhouse Effect – Depletion of the Ozone Layer – Climate Change
- 3.2 Loss of Biodiversity – Impact on Women –Ecofeminism
- 3.3 Impact on Livelihood and Health – Environmental Disasters – Natural and Manmade - Bhopal Gas Tragedy – Chernobyl Accident - Gulf War - Love Canal Episode –Tsunami
- 3.4 Methods Evolved to Measure and Check Environmental Degradation and Pollution – Carbon Footprint, Carbon Credit, Ecological Footprint, and Ecological Shadow
- 3.5 Environmental movements in India –Chipko movement, Narmada Bachao Andolan, Sethu Samudram Project
- 3.6 International Environmental agreement – Stockholm Conference –Montreal Protocol –RIO Meet –Kyoto Conference

BOOKS FOR REFERENCE

Igancimuthu, S. *Environmental Awareness and Protection*. New Delhi: Phoenic, 1997.
Jadhav, H. and V.M. Bhosale. *Environmental Protection and Laws*. New Delhi: Himalaya, 1995.
Odum, E.P. *Fundamentals of Ecology*, USA: W.B Sauders,1971.
Mies,M. and V. Shiva. *Ecofeminism*,London: Zed Books, 1989.

JOURNALS

The National Geographic
International Journal of Environmental Studies

WEB RESOURCES

http://collegesat.du.ac.in/UG/Envinromental%20Studies_ebook.pdf

<http://www.slideshare.net/ruchispandey/introduction-to-environmental-studies>

PATTERN OF EVALUATION

Third Component:

List of Evaluation modes:

Seminars
Quiz
Group discussion
Assignments
Case studies

No End Semester Examination

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.COM DEGREE

SYLLABUS

(Effective from the academic year 2015 – 2016)

FINANCIAL MARKETS

CODE: 15CM/MC/FK55

CREDITS : 5

L T P : 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVE OF THE COURSE

- To provide students with a comprehensive knowledge of the functions and elements of the financial market.

Unit 1

Introduction

(10 hrs.)

- 1.1 Definition and Overview of Financial Markets and Institutions
- 1.2 Functions of Financial Markets and Institutions
- 1.3 Constituents
- 1.4 Role of Financial Institutions, Depository and Non-Depository Institutions
- 1.5 Types of Financial Markets
- 1.6 Overview of the Indian Financial System Including Financial Sector Reforms and Other Contemporary Issues in Finance.

Unit 2

(10 hrs.)

- 2.1 Money Market
 - 2.1.1 Definition, Objectives and Features of a Developed Money Market
 - 2.1.2 Composition of Money Market
- 2.2 Money Market Instruments
- 2.3 Indian Money Market
- 2.4 Global Money Market
- 2.5 Bond Market

Unit 3

Capital and Primary Markets

(15 hrs.)

- 3.1 Capital Market
 - 3.2.1 Characteristics of Primary and Secondary Markets
 - 3.2.2 Functions of Capital Markets
- 3.3 Primary Market
 - 3.3.1 Meaning and Functions
 - 3.3.2 Instruments of Issue
 - 3.3.3 Intermediaries in the New Issue Market
 - 3.3.4 SEBI Guidelines for Listed and Unlisted Companies

Unit 4

Secondary Markets

(15 hrs.)

- 4.1 Stock Exchange – Services, Role and Organization of Stock Exchange in India
- 4.2 Listing of Securities – Requirements and Procedures

- 4.3 Types of Brokers
- 4.4 Methods of Trading in Stock Exchange – Carry Over or Badla, Genuine vs. Speculative Trading, Kinds of Speculators
- 4.5 Regulations and Regulatory Agencies for Primary and Secondary Markets

Unit 5 **(15 hrs.)**

- 5.1 Over-the-Counter-Exchange of India, National Stock Exchange and Depository Systems
 - 5.1.1 OTCEI – Features, Promoters, Participants, Listing
 - 5.1.2 NSE – Features, NSE vs. OTCEI
- 5.2 Depository System – Meaning, Definition, Objectives of Interacting Institutions
 - 5.2.1 Trading in Depository Systems
 - 5.2.2 Depository System in India
 - 5.2.3 National Securities Depository Limited

BOOKS FOR STUDY

Avadhani, V.A. *Capital Market Management*. New Delhi: Himalaya, 2005.
 Gordon, E., K. Natarajan. *Capital Market in India*. New Delhi: Himalaya, 2006.
 Gurusamy, S. *Capital Markets*, Chennai: Vijay Nicole, 2006.

BOOKS FOR REFERENCE

Bhole, L.M. *Financial Institutions and Markets: Structure, Growth and Innovations*. New Delhi: McGrawHill, 2008.
 Khan, M. Y. *Indian Financial System*. New Delhi: Tata McGraw Hill, 2005.
 Machiraju, H.R. *Indian Financial System*. Mumbai: Vikas, 2006.
 Saunders, Anthonu and Cornett, Marcia Millon. *Financial Markets and Institutions: An Introduction to the Risk Management Approach*. New York: Mc Graw Hill, 2007.
 Sundaram and Varshney. *Banking and Financial System*. New Delhi: Sultan Chand, 2005.

JOURNALS

Journal of International Financial Markets, Institutions & Money
 Financial Markets, Institutions & Instruments
 Journal of Financial Management, Markets & Institutions

WEB RESOURCES

www.bloomberg.com
 spu.fem.uniag.sk/.../kf/.../Financial%20management/financial_markets.p... utiicm.com/
 www.nse-india.com
www.rbi.org.in

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminar

Group Discussion

Assignments

Class Presentations

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.COM DEGREE

SYLLABUS

(Effective from the academic year 2015 – 2016)

CORPORATE ACCOUNTING

CODE: 15CM/MC/CA55

CREDITS : 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide the knowledge relating to the Accounting Standards
- To help the students acquire conceptual knowledge of the fundamentals of the corporate accounting and the techniques of preparing the financial statements
- To give an exposure to the different methods for valuation of goodwill and shares

Unit 1

Accounting Standards and Final Accounts of a Company (15 hrs.)

- 1.1 Indian Accounting Standards (IND Ass):- Detailed Study of Ind as: 3,5 6, 10
- 1.2 Final Accounts of a Company- Preparation of Final Accounts – Forms and Contents as Per Provisions of Companies Act 2013 as Per Schedule - III

Unit 2

Fund Flow Analysis (15 hrs.)

- 2.1 Concept of Fund and Flow of Funds
- 2.2 Meaning and Significance of Fund Flow Statement
- 2.3 Preparation of Fund Flow Statement

Unit 3

Cash Flow Analysis (15 hrs.)

- 3.1 Meaning and Difference between Cash and Fund
- 3.2 Significance and Limitation of Cash Flow Statement
- 3.3 Preparation of Cash Flow Statement as Per Ind as 3

Unit 4

Alteration of Share Capital and Internal Reconstruction (10 hrs.)

- 4.2 Alteration of Share Capital – Types – Accounting Procedure
- 4.3 Internal Reconstruction – Types and Legal Provisions
- 4.4 Accounting Entries and Preparation of Balance Sheet after Internal Reconstruction

Unit 5

Valuation of Shares and Goodwill (10 hrs.)

- 5.1 Meaning, Need and factors to be Considered for Valuing Goodwill and Shares
- 5.2 Methods of Valuation of Shares - Intrinsic Value, Yield Value, Earning Capacity and Fair Value
- 5.3 Methods of Valuation of Goodwill – Average Profits, Super Profit, Capitalization of Super Profit and Annuity Method

BOOKS FOR STUDY

Gupta, R.L and M. Radhaswamy. *Advanced Accountancy* (Vol I, III & IV). New Delhi: Sultan Chand, 2006.
Reddy, T.S and A. Murthy. *Corporate Accounting*. Chennai: Margham, 2007.

BOOKS FOR REFERENCE

Arulanandam, M.A and K.A Raman. *Corporate Accounting*. Mumbai: Himalaya, 2006.
Jain, S.P., Narang, K.L. *Advanced Accountancy (Part II)*. New Delhi: Kalyani, 2005.
Maheshwari, S.N. *Advanced Accountancy (Part II)*. New Delhi: Vikas, 2006.

JOURNALS

Cost Accounting Standards - The ICWA of India,
Journal of Corporate Accounting and Finance
Advances in Accounting

WEB RESOURCES

www.journals.elsevier.com
www.emeraldgroupublishing.com

PATTERN OF EVALUATION

Continuous Assessment

Total Marks : 50

Duration : 90 mins.

Section A - $3 \times 2 = 6$ (no choice)

Section B - $3 \times 8 = 24$ (from a choice of four questions)

Section C - $1 \times 20 = 20$ (from choice of two questions)

Third Component

List of Evaluation modes:

Assignments

Test

End Semester Examination

Total Marks : 100

Duration : 3 hours

Section A – $10 \times 2 = 20$ Marks (no choice 5 Questions theory and 5 Problems)

Section B – $5 \times 8 = 40$ Marks (from a choice of seven questions - Problems)

Section C – $2 \times 20 = 40$ Marks (from a choice of four questions - Problems)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.COM DEGREE

SYLLABUS
(Effective from the academic year 2015 – 2016)

HUMAN RESOURCE MANAGEMENT

CODE: 15CM/MC/HR55

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide an understanding of the importance of Human Resource Management
- To educate the students on the managerial, operative and maintenance aspects of the human resources in an organization

Unit 1

Introduction (10 hrs.)

- 1.1 Significance and Objectives of Human Resource Management
- 1.2 Functions and Scope of Human Resource Management

Unit 2

Procuring Human Resource (15 hrs.)

- 2.1 Human Resource Planning - Objectives and Process of Manpower Planning
- 2.2 Job Analysis, Job Description, Job Specification
- 2.3 Recruitment – Sources
- 2.4 Selection - Procedure

Unit 3

Developing Human Resource (15 hrs.)

- 3.1 Orientation, Placement
- 3.2 Training – Methods of Executive Development Programs
- 3.3 Performance Appraisal - Methods

Unit 4

Motivating and Compensating Human Resource (10 hrs.)

- 4.1 Motivation – Meaning and Importance, Theories of Maslow Herzberg, Vroom's Porter and Lawler Theory
- 4.2 Compensation – Factors, Types – Monetary and Non-Monetary
- 4.3 Employees Welfare Programme – Health, Safety and Fringe Benefits

Unit 5

Leadership (15 hrs.)

- 5.1 Quality of Leadership – Trait, Situational, Behavioral and Managerial Grid
- 5.2 Leadership Styles – Managerial Grid

BOOKS FOR STUDY

Aswathappa, K. *Human Resource Management*. New Delhi: Tata Mc Graw Hill, 2007.

BOOKS FOR REFERENCE

Flippo V. Edwin. *Personnel Management*. New Delhi: Mc Graw Hill, 2004.

Gupta, C.B. *Human Resource management*. New Delhi: Sultan Chand, 2007.

Khanka, S.S. *Human Resource management*. New Delhi: Sultan Chand, 2007.

Mamoria, C.B. *Personnel Management*. Mumbai: Himalaya, 2004.

Prasad, L.M. *Human Resource management*. New Delhi: Sultan Chand, 2007.

JOURNALS

International Journal of Human Resource Management

The Human Resource Management Review

Human Resource Management International Digest

Human Resource Management Journal.

WEB RESOURCES

[/hrcouncil.ca/hr-toolkit/planning-strategic.cfm](http://hrcouncil.ca/hr-toolkit/planning-strategic.cfm)

www.hrware.com/recruitment/88-2/

www.educationobserver.com/forum/showthread.php?tid=12165

managementhelp.org/training/

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminar

Group Discussion

Assignments

Class Presentations

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

**STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI 600 086.
B. COM DEGREE**

**SYLLABUS
(Effective from the academic year 2015-16)**

INCOME TAX LAW AND PRACTICE

CODE: 15CM/MC/IT65

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide a broad conceptual framework for determining the tax liability for an individual
- To expose students to the significance and constitutional provisions relevant to indirect tax laws

Unit 1

Introduction to Taxation (5 hrs.)

- 1.1 Meaning of Tax , Importance and Features of Taxation
- 1.2 Types of Tax –
 - 1.2.1 Direct Taxes – Meaning and Significance - Brief Introduction to Income Tax and Wealth Tax
 - 1.2.2 Indirect Taxes - Meaning and Significance - Types of Indirect Taxes – Excise Duty, Customs Duty, Service Tax , State Level VAT, Securities Transaction Tax

Unit 2

2.1 Basic Concepts in Income Tax (15 hrs.)

- 2.1.1 Person, Assessee, Assessment year, Previous year, Total income, Taxable Income
- 2.1.2 Residential Status and Incidence of Tax

2.2 Computation of Salary Income

- 2.2.1 Definition, Meaning, Basis of Charge
- 2.2.2 Allowances – Taxable and Exempted
- 2.2.3 Perquisites
- 2.2.4 Other Receipts and Treatment of Provident Fund
- 2.2.5 Deductions

2.3 Computation of Income from House Property

- 2.3.1 Basis of Charge
- 2.3.2 Computation of House Property Income
- 2.3.3 Deductions

Unit 3

Computation of Other Heads of Income (15 hrs.)

3.1 Profits and Gains of Business or Profession

- 3.1.1 Computation of Professional Income
- 3.1.2 Depreciation – Meaning and Relevance - Computation
- 3.1.3 Computation of Business Income

3.2 Capital Gains –

- 3.2.1 Meaning of Capital Asset - Types of Capital Assets
- 3.2.2 Computation of Short Term and Long Term Capital Gains

- 3.2.3 Exempted Capital Gains
- 3.3. **Income from other sources**
 - 3.3.1 Basis of charge, Casual and Other Income
 - 3.3.2 Computations of Taxable Income from Other Sources

Unit 4 (15 hrs.)

Computation of Total income

- 4.1 Set-off and Carry forward of Losses
- 4.2 Clubbing of Income
- 4.3 Deductions - Individual

.Unit 5 (15 hrs.)

Return of income and Assessment

- 5.1 Basic Concepts in Assessment Procedure,- TDS, Advance Payment of Tax
- 5.2 Filing of Returns,- E - filing, Refiling, PAN,TAN
- 5.3 Types of Assessment – Self Assessment, Assessment in Response to Notice, Best Judgment Assessment
- 5.4 Refund of Tax
- 5.5 Income Tax Authorities – Jurisdiction and Powers
- 5.6 Tax Reforms in Direct and Indirect Taxes: Issues and Challenges, Value Added Tax, Goods and Service Tax, Direct Tax Code

BOOK FOR STUDY

Gaur, V.P. and Narang D.B., *Income Tax Law and Practice*. New Delhi: Kalyani,2014-15.

BOOKS FOR REFERENCE

Dinkar Pagare, *Law and Practice of Income Tax*, New Delhi: Sultan Chand.2014-15.

Lal B.B., *Income Tax Law and Practice*, New Delhi: Konark. 2014-15.

Manoharan T. N. *Income Tax Law, Mumbai: Snow White*. 2014-15.

Mehrothra, H.C., *Income Tax Law and Practicum*, Agra: Sahithya Bhavan.2014-15

Vinod K., Singhania, *Taxman's Students Guide to Income Tax*, New Delhi: Taxman's 2014-15

Vinod K., Singhania, *Indirect Tax*. New Delhi: Taxman's, 2014-15.

Note: Latest edition of the readings may be used

JOURNALS

Journal of taxation
National tax journal

WEB RESOURCES

www.ntanet.org/tax

www.aicpa.org

www.icaew.com

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Duration: 90 mins.

Section A - $3 \times 2 = 6$ (no choice)

Section B - $3 \times 8 = 24$ (from a choice of four questions)

Section C - $1 \times 20 = 20$ (from choice of two questions)

Third Component

List of Evaluation modes:

Assignments

Test

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ Marks (no choice) 5 Questions theory and 5 Problems

Section B – $5 \times 8 = 40$ Marks (from a choice of seven questions – 2 theory and 5 problems)

Section C – $2 \times 20 = 40$ Marks (from a choice of four questions - Problems)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.COM DEGREE

SYLLABUS
(Effective from the academic year 2015 -2016)

E-COMMERCE

CODE: 15CM/MC/EC64

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To provide an overview of the fundamental concepts of e-commerce
- To acquaint students with a fundamental understanding of the new marketing strategies, electronic payment system and internet security in the new economy

Unit 1 (10 hrs.)

Introduction

- 1.1 Meaning and Definition – Introduction to Internet, Intranet & Extranet
- 1.2 Emergence of the Internet
- 1.3 Difference Between E-Commerce and Traditional Commerce
- 1.4 E-Commerce Applications
- 1.5 Advantages and Limitations of E-Commerce

Unit 2 (10 hrs)

Business Models for E-Commerce

- 2.1 Introduction
- 2.2 Models Based on the Relationship of Transaction Parties – B2B, B2C, C2C, C2B
- 2.3 Models Based on the Relationship of Transaction Types – Brokerage, Aggregator, Info-Mediary, Value Chain, Manufacturer, Advertising and Subscription Models

Unit 3 (15 hrs)

E-Marketing

- 3.1 Traditional Marketing
- 3.2 Identifying Web Presence Goals
- 3.3 Online Marketing – Internet Marketing Trends
- 3.4 E-Advertising, E-Branding and E-Marketing Strategies

Unit 4 (10hrs)

Electronic Payment Systems

- 4.1 Types of Online Payments – Token Based, Credit Card Based, Debit Cards and Smart Cards
- 4.2 Risk and Electronic Payment System
- 4.3 Designing Electronic Payment System – Encryption – Digital Signature – Common Standards for Secure E-Payments

Unit 5

(7 hrs)

Internet and Security

- 5.1 Network and Website Security Risks
- 5.2 Security Incidents on the Internet
- 5.3 Security and E-Mail
- 5.4 Firewall – Concept, Components and Constituents

TEXT BOOK

P.T. Joseph SJ, 2012, 4th edition, E-Commerce, PHI, New Delhi

BOOKS FOR REFERENCE

David Whiteley, 2006, 13th edition, E-Commerce – Strategy, Technologies and Applications, Tata McGraw Hill, New Delhi

Jeffrey F. Rayport & Bernard J. Jaworski, 2003, Introduction to E-Commerce, TMH

Kamlesh K Bajaj, Devjani Nag, 1999, 1st edition, E-Commerce, Tata McGraw Hill, New Delhi

Nancy Flynn, Randolph Kahn, 2003, 1st edition, American Management Association, USA

Ravi Kalakota, Andrew B. Whinston, 2008, 6th edition, Frontiers of Electronic Commerce, Pearson Education, New Delhi

Strauss, Adel El-Ansary, Raymond Frost, 2003, E-marketing, New Jersey, Prentice Hall

JOURNALS

Electronic Markets

International Journal of E-Commerce

Journal of Electronic Commerce in Organizations

Journal of Theoretical and Applied E-Commerce

Journal to Management Information Systems and E-Commerce

WEB RESOURCES

www.ecommerce-digest.com

www.htmlgoodies.com

www.openlearningworld.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminar

Case Studies

Assignments

Class Presentations

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**Allied Elective Course Offered by Department of Commerce for
B.A. (Economics) and B.Sc. (Mathematics)**

SYLLABUS

(Effective from the academic year 2015-2016)

ACCOUNTING PRACTICES

CODE: 15CM/AE/AP45

CREDITS: 5

L T P : 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To enable the students to acquire knowledge of Accounting principles and practice
- To expose students to the accounting practices in Financial, Cost and Management accounting

Unit 1 (10 hrs.)

Introduction

- 1.1 Fundamental Principles of Accounting
 - 1.1.1 Nature of Accounting – Definition and Importance of Accounting
 - 1.1.2 Groups Interested in Accounting Information
 - 1.1.3 Accounting Principles – Double Entry
 - 1.1.4 Preparation of Journal Entries and Trial Balance
- 1.2 Final Accounts of a Sole Trader
 - 1.2.1 Preparation of Trading and Profit And Loss Account
 - 1.2.2 Preparation of Balance Sheet
(Basic Concepts and Adjustments Relating to Closing Stock, Depreciation, Outstanding and Prepaid Expenses and Income and Bad Debts - Simple Problems)

Unit 2 (15 hrs.)

Final Accounts of a Company

- 2.1 Forms and Contents as per Provisions of Companies Act 2013 as per Schedule- III
- 2.2 Preparation of Final Accounts (Simple Problems)

Unit 3 (15 hrs.)

Financial Statement Analysis

- 3.1 Meaning and Importance of Analysis
- 3.2 Types of Analysis – Comparative Statement, Common size Statement, Trend Analysis
- 3.3 Ratio Analysis – Computation and Interpretation of Liquidity, Profitability and Solvency Ratios

Unit 4 (10 hrs.)

Cost Ascertainment

- 4.1 Concept of Cost, Cost Unit and Cost Centre

- 4.2 Elements of Cost – Direct and Indirect Cost
- 4.3 Preparation of Cost- Sheet

Unit 5 **(15 hrs.)**

Marginal Costing

- 5.1 Definition, Meaning and Features of Marginal Costing
- 5.2 Cost Volume Profit Analysis - Break-Even Point
- 5.3 Managerial Application of Marginal Costing – Make or Buy, Product Mix and Key Factors

BOOKS FOR STUDY

Reddy T.S and Murthy A. *Financial Accounting*, Chennai: Margham, 2008.

Reddy T.S and Murthy A. *Management Accounting*. 7th ed. Margham, 2010.

BOOKS FOR REFERENCE

Jain S. P. and Narang K. L. *Cost and Management Accounting*. Ludhiana: Kalyani, 2006.

Maheswari S.N., *Principles of Management Accounting*, New Delhi: Sultan Chand and sons, 2012.

Murthy A. and Gurusamy S. *Essentials of Cost Accounting*. Chennai: Vijay Nicole, 2007.

Reddy T.S and Murthy A. *Financial Accounting*, Chennai: Margham, 2008.

Reddy T.S. and Murthy A. *Management Accounting*, 7th ed. Margham, 2010.

JOURNALS

The Chartered Accountant: Journal of the Institute of Chartered Accountants of India

Indian Journal of Finance

Journal of Accounting and Finance: Research Development Association, Jaipur

WEB RESOURCES

www. icai.org

www.journals.elsevier.com

www. emeraldgroupublishing.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A - $3 \times 2 = 6$ (no choice)

Section B - $3 \times 8 = 24$ (from a choice of four)

Section C - $1 \times 20 = 20$ (from choice of two)

Third Component:

List of evaluation modes:

Open Book test

Assignments

Problem solving

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – short answers (max. 50 words) - $10 \times 2 = 20$ Marks
5 questions theory and 5 problems

Section B – Problems $5 \times 8 = 40$ Marks (From a choice of 7)

Section C – Problems $2 \times 20 = 40$ Marks (From a choice of 4)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
Allied Elective Course Offered by Department of Commerce for
B.S.W and B.C.A

SYLLABUS
(Effective from the academic year 2015 -2016)

INDUSTRIAL RELATIONS

CREDITS : 4

L T P : 4 1 0

CODE: 15CM/AE/IR45

TOTAL TEACHING HOURS. : 52

OBJECTIVES OF THE COURSE

- To sensitise students to the employee relations scenario in India
- To provide an understanding of the various issues in management of IR in the modern business environment

Unit 1

Introduction

(8 hrs.)

- 2.6 Industrial Relations – Origin, Scope, Growth and Importance of Industrial Relations
- 2.7 Socio- Economic-Political Factors affecting Industrial Relations in the Changing Environment
- 2.8 Sociological, Psychological, Gandhian and Marxian Approaches to Industrial Relations

Unit 2

Industrial Discipline and Grievance Handling

(10 hrs.)

- 3.1 Discipline - Causes of Indiscipline
- 3.2 Maintenance of Discipline, Domestic Enquiries - Concept and Practice Principles of Natural Justice
- 3.3 Causes , Types and Trends in Industrial Conflict, Principle of Hot Stove Rule
- 3.4 Nature, Causes and Types of Industrial Disputes - Measures for Prevention and Settlement for Industrial Disputes,
- 3.5 Grievance Handling - Meaning of Grievance, Constitution of Grievance Committee - Benefits of Grievance System.
- 3.6 Grievance Redressal Machinery in India

Unit 3

Collective Bargaining

(14 hrs.)

- 3.1 Meaning, Nature, Types, Process and Importance of Collective Bargaining
- 3.2 Factors Influencing Bargaining - Suggestions to Improve Collective Bargaining
- 3.3 Negotiations-Types of Negotiations-Problem Solving Attitude

Unit 4
Labour Participation in Management (12 hrs.)

1. Objective and Importance of Worker's Participation in Management
2. Forms and Levels of Participation, Issues in Participation
3. Scheme of Employee's Participation in Public and Private Sector
4. Benefits of Worker's Participation in Management
5. Emerging Trends in Union-Management Relations

Unit 5
Labour Legislation (8 hrs.)

- Objectives and Principles
- Forces Influencing Modern Labour Legislation
- Indian Constitution and Labour Legislation

BOOK FOR STUDY

Sinha, P.R.N. Indu Bala Sinha & Seema Priyadarshini Shekhar. *Industrial relations, Trade Unions and Labour Legislation*, Pearson Education.

BOOKS FOR REFERENCE

Bray M, Waring P, Cooper R, Macneil JL. *Employment Relations: Theory and Practice*, Sydney: McGraw Hill, 2014

Bray, M. Deery.S, Walsh.J, and Waring P. *Industrial Relations: A Contemporary Approach*. Tata Mc Graw Hill, 2005

Dwivedi, R.S. *Managing Human Resources: Industrial Relations in Indian Enterprises*. New Delhi: Galgotia.

Mamoria, C.B. & S. Mamoria. *Dynamics of Industrial Relations in India*, Mumbai: Himalaya,2011.

Singh, P. & Kumar, N. *Employee Relations Management*, New Delhi: Pearson Education India,2012.

Tripathi, P.C. *Personnel Management & Industrial Relationship*. New Delhi: Sultan Chand ,2011

JOURNALS

Indian Journal of Industrial relations
Journal of Advances in Management

WEB RESOURCES

www.workersparticipation.eu

www.ilo.org

www.blackwellpublishing.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10=30 Marks (from a choice of four questions –Max words 500)

Section B - 1x20=20 (from a choice of two questions – Max words 1200)

Third Component:

List of Evaluation Modes:

Assignments

Seminar

Class presentation and group discussion

End Semester Examination:

Total Marks:100

Duration: 3 hours

Section A – 6x10= 60(from a choice of eight questions –Max words 500)

Section B – 2x20= 40(from a choice of four questions – Max words 1200)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.COM. DEGREE

SYLLABUS
(Effective from the academic year 2015 -2016)

PROJECT

CODE: 15CM/ME/PR55

CREDITS: 5
L T P: 0 0 5
TOTAL HOURS: 65

GUIDELINES FOR PROJECT

Project should be the independent work of the student. Each student will choose a topic of her interest and the student will be assigned to a supervisor.

The student can use Quantitative or Qualitative/Descriptive or both methods.

➤ **Page Limit :**

The project report should be submitted in the prescribed format having a maximum of 100 pages, typed in font Times New Roman -size 12, with 1 ½ line spacing on A4 Size paper.

➤ **Contents of the Project:**

- Contents Page
 - The Project Copy will include Certificate of the Supervisor, Declaration, and Acknowledgement
 - Four or five chapters
 - Presentation of the Project Report – format
 - Chapter 1 Introduction - to include background of the study, objectives , Methodology, limitation of the study and chapter scheme
 - Chapter 2 – Review of literature
 - Chapter 3 – Theoretical aspects of the study
 - Chapter 4 – Data analysis
 - Chapter 5 – Suggestion and conclusion
- At the end of the project ‘Bibliography’ must be given in Alphabetical/chronological order and necessary appendix may be added.

➤ **Submission:**

Each student may prepare two soft bound copies of the project, one for her and one copy to be submitted to the Head of the Department duly signed by the supervisor, on the scheduled date.

➤ **Guidelines for Evaluation:**

There will be double valuation for the project by the supervisor and an external examiner. The student will appear for viva -voce before a panel comprising External Examiner, Supervisor and Head of the Department.

The maximum marks for the project is 100 – 75 marks for the project report and 25 marks for the viva- voce.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI 600 086.
B. COM DEGREE

SYLLABUS
(Effective from the academic year 2015-16)

CONSUMER BEHAVIOUR

CODE: 15CM/ME/CB55

CREDITS: 5

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To enable students to understand the importance of customer satisfaction
- To provide an insight into the various behavioral patterns of consumption

Unit 1		
Consumer Behavior		(8 hrs.)
1.1 Nature, Meaning and Importance		
1.2 Buyer Behavior Model – Black Box Model		
Unit 2		
Individual Influence on Buying Behavior		(15 hrs.)
2.1 Consumer Motivation and Involvement		
2.2 Perceptions, Learning and Attitudes		
2.3 Personality and Self-Concepts – Psychoanalytical Theory		
Unit 3		
Group Influences		(15 hrs.)
3.1 Functions of Family – Family Life Cycle, Family Decision Making		
3.2 Types of Groups – Consumer Relevant Groups and Reference Groups		
3.3 Characteristics and Core Values of Culture, Sub Culture		
Unit 4		
Consumer's Problem Solving Process		(12 hrs.)
4.1 Problem Identification and Information Processing		
4.2 Evaluating Alternatives and Deciding on Appropriate Solutions		
Unit 5		
Consumer Protection and Redressal		(15 hrs.)
5.1 Exploitation of Consumers		
5.2 Meaning and Need for Consumerism		
5.3 Consumer Protection Act, 1956 – Important Provisions.		

BOOK FOR STUDY

Bennett and Kassanjian , *Consumer Behaviour*. Prentice Hall, 2005.

BOOKS FOR REFERENCE

McCarthy E. Jerome., and William D Perreault. *Basic Marketing*. Boston: Irwin Home Wood, 2004.

Paul Peter J. & Jerry C. Oslon. *Understanding Consumer Behaviour*, Australia: 2004.

Shiffman Leon G. & Kanuk Leslie Lazar. *Consumer Behaviour*. Prentice Hall, 2007.

Suja R. Nair. *Consumer Behaviour(Text and cases)*. Mumbai: Himalya, 2005.

JOURNALS

Indian Journal of Marketing

Journal of Consumer Research

The Journal of Consumer Behaviour

WEB RESOURCES

www.businessdictionary.com

www.slideshare.net

www.udel.edu

www.theconsumerfactor.com

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Duration: 90 mins.

Section A - 3 x 2 = 6 (no choice)

Section B - 3 x 8 = 24 (from a choice of four questions)

Section C - 1 x 20 = 20 (from choice of two questions)

Third Component

List of Evaluation modes:

Assignments

Test

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.COM DEGREE

SYLLABUS
(Effective from the academic year 2015 -2016)
RETAIL MARKETING

CODE: 15CM/ME/RM55

CREDITS : 5

L T P : 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To provide an overview of the key principles of retailing
- To familiarise with the concept of retail marketing and its practical aspects
- To facilitate understanding of the operational issues faced by the retailers

Unit 1

Introduction to Retail Marketing (10 hrs.)

- 1.1 Definition, Growing Importance of Retailing
- 1.2 Retailing Formats - Types
- 1.3 Theories of Retailing - Dynamic Nature of Retailing - Environmental, Cyclical and Conflict Theory
- 1.4 Retail Service – 7 P's

Unit 2

The Retail Marketing Mix (15 hrs.)

- 2.1 Retailing as a Product
- 2.2 Retail Pricing and Relationship to Value
- 2.3 Retail Promotion – Consumer Promotion tools and Trade Promotion tools

Unit 3

Merchandise And Category Management (15 hrs.)

- 3.1 Merchandise Management - Definition, Merchandiser – skills
- 3.2 Merchandise Management - Process
- 3.3 Category Management - Definition, Significance and Process

Unit 4

Supply Chain Management (10 hrs.)

- 4.1 Supply Chain Management - Definition, Objectives, Structure
- 4.2 Retail Logistics – Meaning, Elements
- 4.3 Functions of Supply Chain Management

Unit 5

Retail Branding (15 hrs.)

- 5.1 The Role of Brand in Retail Trade
- 5.2 Brand Loyalty - Definition, Types and Loyalty Hierarchy
- 5.3 Brand Positioning and Corporate Branding - Significance

BOOKS FOR STUDY

David Gilbert. *Retail Marketing Management*, 5th edition. New Delhi: Prentice Hall of India, 2012.

BOOKS FOR REFERENCE

Hasty Ron & Reardon James. *Retail Management*. New Delhi: Tata McGraw Hill, 2003.

Look D & Walters D. *Retail Marketing Theory and Practice*. New Delhi: Prentice Hall, 2004.

McGodrick, P.J. *Retail Marketing*. New Delhi: Tata McGraw Hill, 2003.

Senthil Ganesan. *Retailing Sectors*. Chennai: The Institute of Chartered Financial Analysts of India, 2002.

JOURNALS

Indian Journal of Marketing

International Journal of Electronic Marketing and Retailing

International Journal of Managing Value and Supply Chains

International Journal of Retail and Distribution Management

International Journal of Sales, Retailing and Marketing

International Retail and Marketing Review

Journal of Retailing

The Journal of Retail Marketing Management Research

WEB RESOURCES

www.ibef.org

www.indiaretailing.com

www.retailanywhere.com

www.yourarticlelibrary.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminar

Group Discussion

Assignments

Class Presentations

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600086
B.COM DEGREE

SYLLABUS
(Effective from the academic year 2015-2016)

ORGANIZATIONAL BEHAVIOUR

CODE: 15CM/ME/OB55

CREDITS: 5

LTP : 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide an overview of the major challenges and paradigm shift facing management
- To create an understanding of individual and group behavior on the effective functioning of an organization
- To create an awareness on the importance of team building skills

Unit 1

Introduction

(10 hrs.)

- 1.1 Nature, Importance and Scope of Behaviour of Work Force in an Organisation
- 1.2 Basic Concepts and New Challenges in Managing Work Force

Unit 2

Foundation of Individual Behaviour

(16 hrs.)

- 2.1 Individual Behaviour – Environmental Factors Affecting Individual Behaviour
- 2.2 Personality – Definition, Personality Traits
- 2.3 Attitudes –Nature of Attitudes, Formation of Attitudes, Key Work Related Attitudes
- 2.4 Perception – Meaning and Definition, Factors Influencing Perception

Unit 3

Stress and Conflict Management

(13 hrs.)

- 3.1 Stress- Nature of Stress, Causes and Consequences of Stress, Managing Stress in Workplace
- 3.2 Conflict in Organizations – Nature of Conflict, Functional and Dysfunctional Conflict and Strategies for Resolving Conflict

Unit 4

The Organization System

(13 hrs.)

- 4.1 Organization Structure-Meaning and Importance, Influence of Organizational Structure of Individual Behavior
- 4.2 Organisational Culture- Meaning and Definition, Changing the Organizational Culture

Unit 5

Group Behaviour

(13 hrs.)

- 5.1 Group Dynamics – Meaning and Types
- 5.2 Team building – Ingredients of Effective Team, the Process and Skills in Team Building

TEXT BOOKS

Aswathappa, K. *Organizational Behaviour*. New Delhi: Himalaya, 2007.

Robbins P. Stephen. *Organisational Behaviour – Concepts, Controversies and Applications*, New Delhi: Prentice Hall, 2005.

BOOKS FOR REFERENCE

Davis, Keith and Weratom, JohnW. *Human behaviour at Work, Organisational Behavior*. Madras: Mc Graw Hill.

Luthans, Fred. *Organizational Behaviour*. Singapore: McGraw Hill, 2010.

Mishra M. N. *Organizational Behaviour*. New Delhi: Vikas, 2010.

Prasad L.M. *Organisational Behaviour*. New Delhi: Sultan Chand, 2007.

Sekaran Uma. *Organizational Behaviour – Text and Cases*. New Delhi: Tata Mc Graw Hill, 2006.

JOURNALS

International Journal of Management Reviews

Journal of Leadership and Organisational Studies

Journal of Organisational Culture, Communication and Conflict

SSRN – E Journal

WEB RESOURCES

www.exed.hbs.edu

www.hbr.org

www.onlinelibrary.wiley.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminar

Group Discussion

Assignments

Class Presentations

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.COM. DEGREE

SYLLABUS
(Effective from the academic year 2015 -2016)

AUDITING

CODE: 15CM/ME/AG55

CREDITS : 5

L T P : 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To give an exposure to the various concepts of auditing
- To enlighten on the audit practices to check the authenticity and accuracy of the financial statements

Unit 1 (10 hrs.)

1.1 Introduction

- 1.1.1 Auditing – Meaning, Definition and Objective
- 1.1.2 Auditor – Qualification and Qualities
- 1.1.3 Auditing and Assurance Standards
- 1.1.4 Audit Programme

1.1 Audit Notebooks

Working Papers and Merits of Audit Programmes

Unit 2 (15 hrs.)

Vouching

- 2.1 Internal Audit and Internal Check – Test Checks
- 2.2 Vouching of Cash Transactions – Cash Sales, Receipts From Debtors Including Teeming and Lading Method of Frauds, Payment to Creditors, Payment of Wages
- 2.3 Vouching of Credit Transactions – Credit Purchases, Credit Sales, Sales Returns, Purchase Returns
- 2.4 Vouching of Impersonal Ledger – Outstanding Assets, Outstanding Liabilities, Contingent Liabilities

Unit 3 (15 hrs.)

Valuation and Verification of Assets and Liabilities

- 3.1 Capital and Revenue Expenditure
- 3.2 Divisible Profits – Dividend Declaration
- 3.3 Verification of Assets & Liabilities

Unit 4 (15 hrs.)

Audit of Limited Companies

- 4.1 Appointment and Removal of Auditor
- 4.2 Rights, Duties and Liabilities as per Companies Act 2013
- 4.3 Audit Report - Method of Reporting - Reporting of Fraud under Companies Act 2013

Unit 5 (10 hrs.)

Auditing in an EDP Environment

- 5.1 Audit Approach in an EDP Environment
- 5.2 Problems and Control in an EDP Environment
- 5.3 Computer Assisted Auditing Techniques

BOOK FOR STUDY

Tandon, B. N. *Handbook of Practical Auditing*. New Delhi: S.Chand, 2012.

BOOKS FOR REFERENCE

De Paula, F.R.M. *Principles of Auditing: A practical manual for student and practitioners*. London: E.L.B.S., 2005.

Gupta, Kamal. *Contemporary Auditing*. New Delhi: Tata McGraw Hill, 2006.

Kumar, Pradeep, Sachdeva, Baldev and Singh Jagwant. *Auditing Theory and Practice*. New Delhi: Kalyani, 2007.

Pagare, Dinakar. *Basics of Auditing*. New Delhi: Sultan Chand, 2007.

Saxena, R. G. *Principles and Practices of Auditing*. Mumbai: Himalaya, 2004.

JOURNALS

International Journal of Auditing

Auditing: A journal of Practice and Theory

Journal of Accounting, Auditing and Finance

Accounting, Auditing and Accountability Journal

Journal of International Accounting, Auditing and Taxation

International Journal of Auditing Technology

WEB RESOURCES

www.neoxen.com/neoxen/methodology/docs/intro_auditing_online.pdf

www.academia.edu/7505528/verification_and_valuation

www.e-economic.co.uk/accountingsystem/glossary/auditors-report

accountlearning.blogspot.in/2012/02/advantages-of-audit-program.html

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminar

Group Discussion

Assignments

Class Presentations

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.COM DEGREE

SYLLABUS
(Effective from the academic year 2015 – 2016)

ADVANCED CORPORATE ACCOUNTING

CODE: 15CM/ME/AC55

CREDITS: 5

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide a practical knowledge and skills relating to the Accounting procedures of specific industries
- To expose the students to the accounting procedures for mergers and acquisitions.

Unit 1

Amalgamation, Absorption and External Reconstruction (12 hrs.)

- 1.1 Meaning and Difference
- 1.2 Calculation of Purchase Consideration for Amalgamation in the Nature of Merger and Purchase
- 1.3 Accounting Treatment in the Books of the Purchasing Company and Vendor Company for Merger and Purchase excluding Inter- Company Holdings

Unit 2

Holding Company Accounts (15 hrs.)

- 2.1 Definition
- 2.2 Preparation of Consolidated Balance Sheet – Calculation of minority interest, Capital Profit and Goodwill or Cost of Control
- 2.3 Intercompany Owings with One Subsidiary Company
- 2.4 Dividend Received and Bonus Shares

Unit 3

Insurance Company Accounts (12 hrs.)

- 3.1 Accounts of General Insurance
- 3.2 Accounts of Life Insurance Companies

Unit 4

Bank Accounts (12 hrs.)

- 4.1 Treatment of Rebate on Bills Discounted
- 4.2 Computation of Provision to be made for Advances
- 4.3 Preparation of Profit and Loss Account with Schedules
- 4.4 Preparation of Balance Sheet with Schedules

Unit 5

5.1 Liquidation (14 hrs.)

- 5.1.1 Legal provision
- 5.1.2 Statement of Affairs and Deficiency or Surplus accounts
- 5.1.3 Liquidators Final Statement of Accounts

TEXT BOOKS

Gupta, R.L. Radhaswamy M. *Advanced Accountancy (Vol I, III & IV)*. New Delhi: Sultan Chand, 2009.

Reddy, T.S., Murthy A. *Corporate Accounting, 6th revised edition*. Chennai: Margham, 2007.

BOOKS FOR REFERENCE

Arulanandam M.A., Raman, K.A. *Corporate Accounting*. Mumbai: Himalaya, 2001.

Goyal V.K. *Corporate Accounting*. Excel books, 2010.

Jain, S.P., Narang, K.L. *Advanced Accountancy (Part II)*. New Delhi: Vikas, 2006.

Joseph T. *Corporate Accounting*, Tata McGrawhill, 2009.

Maheshwari, S.N. *Advanced Accountancy (Part II), 9th edition*, New Delhi: Vikas, 2006.

JOURNALS

Indian Journal of Commerce

Journal of Banking and Finance

Journal of Finance

WEB RESOURCES

www.commercedu.com

www.icaai.org

www.jrcm.org

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Duration: 90 mins.

Section A - $3 \times 2 = 6$ (no choice)

Section B - $3 \times 8 = 24$ (from a choice of four questions)

Section C - $1 \times 20 = 20$ (from choice of two questions)

Third Component

List of Evaluation modes:

Assignments

Test

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ Marks (no choice) 5 Questions theory and 5 Problems

Section B – $5 \times 8 = 40$ Marks (from a choice of seven questions – Problems)

Section C – $2 \times 20 = 40$ Marks (from a choice of four questions - Problems)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.COM DEGREE

SYLLABUS
(Effective from the academic year 2015 -2016)

PORTFOLIO MANAGEMENT

CODE: 15CM/ME/PF55

CREDITS: 5

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To enable students to make a cohesive analysis of alternative investments
- To equip the students with the skills for dealing with investments

Unit 1 (10 hrs.)

Introduction

- 1.2 Definition and Meaning of Portfolio Management
- 1.2 Steps involved in Portfolio Management, Principles of Portfolio Management
- 1.3 Framework of Risk and Return
- 1.4 Meaning and Components of Return
- 1.5 Risk – Meaning and Causes
- 1.6 Types of Risk – Systematic and Unsystematic

Unit 2 (20 hrs.)

Theories of Portfolio Management

- 2.1 Measurement of Return – Single Security and Portfolio
- 2.2 Measurement of Risk – Single Security and Portfolio
- 2.3 Harry Markowitz Theory
- 2.4 Single Index Model
- 2.5 CAPM (Capital Assets Pricing Model)

Unit 3 (15 hrs.)

Valuation of Securities

- 3.1 Equity Valuation
 - 3.1.1 Based on Accounting Information
 - 3.1.2. Based on Dividends
 - 3.1.3 Based on Earnings
- 3.2 Bond Valuation
 - 3.2.1 Bond pricing, Yield to Maturity, Yield to Call

Unit 4 (10 hrs.)

Security Analysis

- 4.1 Fundamental Analysis – Intrinsic value of shares – EIC (Economy-Industry Company) Framework
- 4.2 Technical Analysis (only theory) –Basic tenets of Technical Analysis
 - 4.2.1 Price and Volume Charts, Dow Theory, Pattern Analysis

Unit 5

(10 hrs.)

Techniques of Portfolio Management

- 5.1 Efficient Market Hypothesis
- 5.2 Asset Allocation Framework – Strategic and Tactical
- 5.3 Passive and Active Management Strategies
- 5.4 Portfolio Evaluation – Treynor Measure, Sharpe Measure, Jensen Measure

BOOKS FOR STUDY

Bhalla V.K. *Investment Management*. New Delhi: S.Chand, 2005.

Chandra, Prasanna. *Investment Analysis and Portfolio Management*. New Delhi: Tata McGraw Hill, 2007.

Rustagi R.P. *Investment Analysis and Portfolio Management*. New Delhi: Sultan Chand, 2007.

BOOKS FOR REFERENCE

Bhalla, V.K. Tuteja, S.K, *Investment Management*. New Delhi: Sultan Chand, 2005.

Fisher, Donald, E. & Jordan, Ronald, J. *Security Analysis of Portfolio Management*. New Delhi: Prentice Hall.

Grinold, Richard, Khan, Ronald, N. *Active Portfolio Management – Quantitative Theory and Applications*. New Delhi: S. Chand, 2006

Ibbotson, Roger, G. *Investment Markets*. New Delhi: Tata McGraw Hill, 2006.

Shah, Kishor & Others. *How to Invest Well – A Guide to the Share Market and Personal Investments*. New Delhi: Tata McGraw Hill, 2006.

Singhi, Preethi. *Investment Management – Security Analysis and Portfolio Management*. Mumbai: Himalaya, 2005.

JOURNAL

Sprinjer- Journal of Financial Market and Portfolio Management
Stretwise –The Journal of Portfolio Management
The Journal of Portfolio Management

WEB RESOURCES

www.bloomberg.in
www.innotas.com

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Duration: 90 mins.

Section A - $3 \times 2 = 6$ (no choice)

Section B - $3 \times 8 = 24$ (from a choice of four questions)

Section C - $1 \times 20 = 20$ (from choice of two questions)

Third Component

List of Evaluation modes:

Assignments

Test

Case study

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ Marks (no choice) 5 Questions theory and 5 Problems

Section B – $5 \times 8 = 40$ Marks (from a choice of seven questions – 2 theory and 5 Problems)

Section C – $2 \times 20 = 40$ Marks (from a choice of four questions – Problems)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.COM DEGREE

SYLLABUS

(Effective from the academic year 2015 -2016)

OFFICE ORGANISATION AND MANAGEMENT

CODE: 15CM/ME/OM55

CREDITS : 5

L T P : 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce the concepts relating to recent developments in office management.
- To provide an understanding of the importance of office functions.
- To enlighten the students on the essential modern equipments used in an office.

Unit 1

Introduction (10 hrs.)

- 1.1 Meaning-Definition-Importance of Office-Back Office and Front Office
- 1.2 Functions of Office- Primary & Administrative Management Functions
- 1.3 Paperless Office-Concept, Utility and Feasibility
- 1.4 Office Work- Office Activities and its Purpose

Unit 2

2.1 Office Organisation (18 hrs.)

- 2.1.1 Meaning-Principles of Office Organization
- 2.1.2 Formal and Informal Organization-Centralization and Decentralization of Office.
- 2.1.3 Departmentation of a Modern Office

2.2 Office Management

- 2.2.1 Meaning-Elements of Office Management
- 2.2.2 Functions and Importance of Office Management.
- 2.2.3 Office Manager-Position, Functions and Duties

Unit 3

Office Environment (13 hrs.)

- 3.1 Meaning and Nature of Office Environment.
- 3.2 Office Lighting-Types, Benefits, Designing a Good Lighting System.
- 3.3 Ventilation-Interior Decoration
- 3.4 Sanitary Requirements

Unit 4

Office Location and Layout (12 hrs.)

- 4.1 Introduction-Principles, Location of Office
- 4.2 Office Building- Factors to be Considered for Location of an Office
- 4.3 Office Layout-Principles
- 4.4 Importance and Need for a Good Layout
- 4.5 Open and private office-New trends in Office layout.

Unit 5 (12 hrs.)

5.1 Communication Management in an Office

5.1.1 Meaning and Importance of Verbal and Non-Verbal Communication.

5.1.2 Types of Verbal and Non-Verbal Communication.

5.1.3 Keys to Better Listening.

5.2 Office Machines and Equipment

5.2.1 Objectives of Mechanisation-Criteria for selection.

5.2.2 Types of Office Machines (Fax Machines-Telephones including PABX and PBX system-Printers-Address Machines-Franking Machines-Scanners, Shredders-Laminating Machine-Billing Machine-Pay-roll Machines)

5.2.3 Role of computers in Modern Office working

BOOK FOR STUDY

Chopra R.K. *Office Management*, Mumbai: Himalaya, 2001.

BOOKS FOR REFERENCE

Arora S.P. *Office Organization and Management*. New Delhi: Vikas, 2001

Gupta C B. *Office Business Communication*. New Delhi: Sultan Chand, 2005

Gupta C B. *Office Organisation and Management*. New Delhi: Sultan Chand, 2001

Pillai R,S.N., Bagawathi. *Office Management*. New Delhi: Sultan Chand, 2003.

Prasanta K.Ghosh. *Office Managemnet*. New Delhi: Sultan Chand, 2003.

Sahai I M. *Modern Office Management*. Sahitya Bhawan, 2001.

JOURNALS

International Journal for Business and Management

International Journal of Contemporary Hospitality Management.

Journal of Knowledge Management, Economics and Information Technology.

WEB RESOURCES

www.education-portal.com

www.office-environments.com

www.officedepot.com

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Duration: 90 mins.

Section A - 3 x 2 = 6 (no choice)

Section B - 3 x 8 = 24 (from a choice of four questions)

Section C - 1 x 20 = 20 (from choice of two questions)

Third Component

List of Evaluation modes:

Assignments

Seminars

Quiz

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.COM DEGREE

SYLLABUS

(Effective from the academic year 2015 -2016)

AUTOMATED ACCOUNTING PRACTICES

CODE: 15CM/ME/AA55

CREDITS : 5

L T P : 4 0 1

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide hands on experience in the use of Tally accounting package
- To enable students to analyse financial statements using Excel

Unit 1

Introduction to Tally (15 hrs.)

- 1.1 Creation of a Company
- 1.2 Creation of a Company
- 1.3 Creation of Ledgers
- 1.4 Vouchers – Types, Groups and Entry
- 1.5 Financial Reports using Tally – Cash Book, Profit and Loss Account and Balance Sheet

Unit 2

Inventory Management in Tally (10 hrs.)

- 2.1 Integrate Accounts and Inventory
- 2.2 Stock Categories, Groups and Voucher Entry
- 2.2 Inventory Reports

Unit 3

Techniques for Analysing Financial Statements using Excel (10 hrs.)

- 3.1 Inter Firm Comparison
- 3.2 Common Size Statements
- 3.3 Cash Flow and Fund Flow Analysis

Unit 4

Business Forecasting Techniques using Excel (15 hrs.)

- 4.1 Ratio Analysis – Profitability, Liquidity and Solvency Ratios
- 4.2 Trend Analysis
- 4.3 Moving Averages
- 4.4 Method of Least Squares
- 4.5 Fitting a Trend Line
- 4.6 Correlation and Regression Analysis
- 4.7 Budgeting – Preparation of Master Budget

Unit 5

Business Evaluation Techniques using Excel (15 hrs.)

- 5.1 Time Value of Money
- 5.2 Future and Present value of Money
- 5.3 Future and Present value of Annuity
- 5.4 Evaluation Techniques using Pay Back, NPV and IRR methods

BOOKS FOR REFERENCE

Agarwal Namrata and Sanjay Kumar. *Financial Accounting on Computers using Tally*. New Delhi: Dreamtech Press India, 2002.

Bodhanwala J Ruzbeh. *Understanding and Analysing Balance Sheets using Excel Worksheet*. New Delhi: Prentice Hall of India, 2004.

Gupta R.L., M.Radhaswamy. *Advanced Accountancy*. New Delhi: Sultan Chand, 2005.

Jain.S.P., K.L.Narang. *Advanced Accountancy*. New Delhi : Kalyani, 2005.

John E. Harker, Dean W. Wichern Arthur G. Reitsch. *Business Forecasting*, New Delhi: Prentice Hall of India, 2012

Nadhani A.K. and Nadhani K.K.*Implementing Tally 9*. New Delhi: TPB, 2009.

JOURNALS

Information System Frontiers - A Journal of Research and Innovation
Information Technology and Management
Quantitative Marketing and Economics

WEB RESOURCES

www.cameron.econ.ucdavis.edu

www.cengage.com

www.tallyerp9help.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Theory: 20 marks Duration: 30 mins.

Section A – 2 mark questions - $5 \times 2 = 10$ marks

Section B – Short answer questions - $2 \times 5 = 10$ marks

Practical: 30 marks Duration: 60 mins.

Section A – Problems - $3 \times 5 = 15$ marks

Section B – Problems - $1 \times 15 = 15$ marks

Third Component :

List of Evaluation modes:

Assignments

Problem solving

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Theory: (40 marks)

Duration: 60 mins

Section A – 2 mark questions - $10 \times 2 = 20$ marks

Section B – Short answer questions - $4 \times 5 = 20$ marks

Practical: (60 marks)

Duration: 120 mins

Section A – Problems - $6 \times 5 = 30$ marks

Section B – Problems - $2 \times 15 = 30$ marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.COM DEGREE

SYLLABUS

(Effective from the academic year 2015 -2016)

OFFICE PROCEDURES AND PRACTICES

CODE: 15CM/ME/OP55

CREDITS : 5

L T P : 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To enlighten the students on the essential skills required by an office executive.
- To familiarize students with the modern procedures in office.
- To understand the practical aspects of organizing meetings and conferences.

Unit 1 (12 hrs.)

1.1 Office Systems

- 1.1.1 Definition of Office System, Procedures
- 1.1.2 Flow of Work-Analysis
- 1.1.3 Planning and Designing of Office System.
- 1.1.4 Objectives –Advantages of Designing System
- 1.1.5 Essentials of Good Office System

1.2 Work Simplification and Measurement

- 1.2.1 Meaning-Steps Involved, Advantages
- 1.2.2 Work Measurement-Principles and Procedures

Unit 2 (15 hrs.)

2.1 Record Management

- 2.1.1 Importance of Records and Record management
- 2.1.2 Filing and Essentials of Good Filing System
- 2.1.3 Classification and Arrangement of Files
- 2.1.4 Methods of Filing

2.2 Indexing

- 2.2.1 Types of Indexing
- 2.2.2 Selection of a Suitable Indexing System
- 2.2.3 Filing Manual

Unit 3 (10 hrs.)

Mail Services in an Office

- 3.1 Meaning and Importance of Mail
- 3.2 Need for Centralized Mail Service in an Office
- 3.3 Handling Incoming and Outgoing Mail-Steps Involved
- 3.4 Mechanised Mail Service
- 3.5 Indian Postal Services-Main and Ancillary services

Unit 4 (16 hrs.)

4.1 Office Forms-Design, Management and Control

4.1.1 Office forms-Importance and Advantages

4.1.2 Forms Control in an Office-Guidelines, Forms Designing

4.1.3 Management of Forms in an Office-Control

4.2 Meeting, Seminar and Conference

4.2.1 Planning the Meeting-Purpose, Procedure

4.2.2 Recording of the Proceedings of Meeting using Audio-Visual Aids

Unit 5 (12 hrs.)

5.1 Essential Skills and Responsibilities of an Office Executive

5.1.1 Multiplexing.

5.1.2 Preparation of Appointments and Schedules

5.1.3 Maintaining Visitors Diary.

5.2 Office Etiquette

5.2.1 Understanding the Office Culture-hierarchical, formal and informal and Government office

5.2.2 Office Decorum

5.2.3 Management of Front Office

5.2.4 Personal Grooming

TEXT BOOK

Chopra R.K. *Office Management*. Mumbai: Himalaya, 2001.

BOOKS FOR REFERENCE

Arora S.P. *Office Organisation and Management*. New Delhi: Vikas, 2007.

Gupta C B. *Office Organisation and Management*. New Delhi: Sultan Chand, 2001.

Philip Burnar. *Interpersonal Skill Training*. New Delhi: Viva books, 2005.

Sahai I.M. *Modern Office Management*. Agra: Sahitya Bhawan, 2006.

Shaw H.William. *Business ethics*. Bangalore: Thomson Wadsworth, 2007.

JOURNALS

Indian Journal of Management.

International Journal for Business and Management

International Journal of Contemporary Hospitality Management.

Journal of Knowledge Management, Economics and Information Technology.

Journal of Office Workers.

WEB RESOURCES

www.adam-europe.eu

www.chiro.org

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminar

Group Discussion

Assignments

Class Presentations

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

General Elective Course Offered by Department of Commerce to students of
B.A. / B.Sc. / B.Com. / B.C.A. / B.S.W.

SYLLABUS

(Effective from the academic year 2015-2016)

BANKING PRACTICES

CODE: 15CM/GE/BP22

CREDITS: 2

L T P: 2 0 0

TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE

- To expose students to a variety of financial services available to meet the dynamic changes in the economy and the diverse requirements of the investors
- To provide an opportunity to understand the significance of banking and financial services

Unit 1 (6 hrs.)

Customers' Accounts with the Bank

- 1.1 Opening of Bank Accounts
- 1.2 Different Types of Bank Accounts
- 1.3 Documents Relating to Transactions with Bank
- 1.4 Closing of Bank Accounts

Unit 2 (8 hrs.)

E- Banking

- 2.1 Meaning and Importance.
- 2.2 Credit Card, Debit Card, Smart Card
- 2.3 Internet Banking – Services and Major Issues
- 2.4 ATM – Concept, Features and Importance
- 2.5 Mobile Banking and Telebanking

Unit 3 (12 hrs.)

Negotiable Instruments

- 3.1 Meaning, Characteristics
- 3.2 Types of Negotiable Instruments
 - 3.2.1 Cheque – Requirement of a Cheque
 - 3.2.2 Post-dated Cheque, Stale Cheque, Ante-dated Cheque
 - 3.2.3 Crossing- Meaning, Types and Significance
 - 3.2.4 Endorsement- Types and Significance

BOOKS FOR STUDY

Gurusamy S. *Banking Theory Law and Practice*. 2nd ed. Chennai: Vijay Nicole, 2012.

Sundharam K.P.M. and P.N Varshney. *Banking Theory Law and Practice*. 18th ed. New Delhi: Sultan Chand, 2012.

BOOKS FOR REFERENCE

Bihari, SC. *E-Banking*. 1st ed. SkyLark, 2007.

Gordon E. and K.Natarajan. *Banking Theory Law and Practice*. 19th ed. Mumbai: Himalaya, 2012.

Gordon E., Natarajan K. *Emerging Scenario in Financial Services*. Mumbai: Himalaya, 2006.

Rajesh R., T. Sivagnanasithi. *Banking Theory Law and Practice*. New Delhi: Mc Graw Hill, 2009.

Taxmann. *Guide To Negotiable Instruments Act*. Taxmann, 2003.

JOURNALS

Journal of Banking and Finance
Banking and Financial Services – The Business Journals
International Journal on Electronic Banking

WEB RESOURCES

www.academia.edu

www.lawhandbook.sa.gov

PATTERN OF EVALUATION (Internal only - No End Semester Examination)

One Continuous Assessment for 25 marks

Third Component:

Test for 25 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

General Elective Course Offered by Department of Commerce to students of
B.A. / B.Sc. / B.Com. / B.C.A. / B.S.W.

SYLLABUS

(Effective from the academic year 2015-2016)

FINANCIAL SERVICES

CODE: 15CM/GE/FS22

CREDITS: 2

L T P: 2 0 0

TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE

- To expose students to the innovative services offered by Financial Institutions
- To enlighten on the practical aspects of the financial services industry

Unit 1 (6 hrs.)

Financial Services

- 1.1 Meaning and Characteristics
- 1.2 Importance of Financial Services

Unit 2 (10 hrs.)

Basic Concepts in Financial Services

- 2.1 Types of Financial Services
- 2.2 Fund-based Financial Services – Leasing, Venture Capital, Hire-Purchase
- 2.3 Non Fund-Based Financial Services – Stock Broking, Credit Rating, Merger and Acquisition

Unit 3 (10 hrs.)

Mutual Funds

- 3.1 Meaning and Importance of Mutual Funds
- 3.2 Selection of a Mutual Fund
- 3.3 Mutual Funds in India

BOOK FOR STUDY

Gordon E., Natarajan K. *Emerging Scenario in Financial Services*. Mumbai: Himalaya, 2009.

BOOKS FOR REFERENCE

Bhalla. V.K. *Management of Financial Services*. 1st ed. New Delhi: Anmol, 2009.

Gurusamy, S. *Financial Services and Markets*. Chennai: Vijay Nicole, 2012.

Khan M.Y. *Financial Services*. 2nd ed. New Delhi: Tata Mc Graw Hill, 2011.

Machiraju H. R. *Indian Financial System*. 2nd ed. New Delhi: Vikas, 2010.

Shashi K. Gupta, Nisha Agarwal. *Financial Services*. 2nd ed. New Delhi: Kalyani, 2006.

JOURNALS

Indian Journal of Finance
Journal of Internet Banking and Commerce
International Journal of Banking and Finance

WEB RESOURCES

www.kpmg.com
www.india-financing.com

PATTERN OF EVALUATION (Internal only- No End Semester Examination)

One Continuous Assessment for 25 marks

Third Component:

Test for 25 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
General Elective Course Offered by Department of Commerce to students of
B.Sc. / B.Com. / B.C.A. / B.S.W. Degree Programmes

SYLLABUS
(Effective from the academic year 2015-2016)

BUSINESS LEADERSHIP

CODE: 15CM/GE/BL22

CREDITS: 2

L T P : 2 0 0

TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE

- To introduce the concept and theories of leadership management
- To understand the essentials of leadership traits and approaches

Unit 1

Introduction

(6 hrs.)

- 1.1 Definition and Characteristics of Leadership
- 1.2 Differences Between Leadership and Management
- 1.3 Role of a Leader- Group Task Roles, Group Building and Maintenance Roles

Unit 2

Functions and Responsibilities

(10 hrs.)

- 2.1 Functions and Responsibilities of a Leader
- 2.2 Qualities of a Leader
- 2.3 Leadership Patterns - Autocratic, Democratic, Free Rein, Bureaucratic, Manipulative and Expert Leadership

Unit 3

Leadership Styles

(10 hrs.)

- 3.1 Degrees of Leadership- Blake and Mouton's Managerial Grid
- 3.2 Facets of Leadership-Factors Affecting Choice of Leadership
- 3.3 Different Approaches to Leadership- Trait Oriented, Situational Approach and Functional Approach

BOOKS FOR STUDY

Mamoria, C.B. and S.V.Gankar. *Personnel Management*. Mumbai: Himalaya, 2004

BOOKS FOR REFERENCE

Aswathappa, K. *Organisational Behaviour Text, Cases and Games*. Mumbai: Himalaya, 2007.

Edwin B. Flippo, *Personnel Management*. Mumbai: Tata McGrawHill, 2004.

Peter F. Drucker. *Principles of Management*. Sultan Chand, 2003.

Prasad, L.M. *Human Resource Management*, New Delhi: Sultan Chand, 2004.

JOURNALS

International Journal of Management Reviews

International Journal of Business Management and Leadership

International Journal of Complexity in Leadership

WEB RESOURCES

www.insead.edu/library/rankings/journal_rankings.cfm

www.hbr.org

www.inderscience.com

PATTERN OF EVALUATION (Internal only- No End Semester Examination)

One Continuous Assessment for 25 marks

Third Component:

Test for 25 marks

Third Component:

List of Evaluation modes:

Seminars

Assignments

Submission of AD Copy

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
General Elective Course Offered by Department of Commerce to students for
B.A. / B.Sc. / B.Com. / B.C.A. / B.S.W. / B.V.A. Degree Programmes

SYLLABUS
(Effective from the academic year 2015 -2016)

FUNDAMENTALS OF MARKETING

CODE: 15CM/GE/FM23

CREDITS : 3

L T P : 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To enable students to understand the intricacies of marketing, focusing on its macro role in society and micro role in business
- To equip students to face the challenges and constraints of the competitive business
- To facilitate understanding of the conceptual framework of marketing and its applications in decision making under various environmental constraints

Unit 1

Field of Marketing

(7 hrs.)

- 1.1 Introduction - Meaning and Significance
- 1.2 Functions
- 1.3 Changing Marketing Environment

Unit 2

Product Planning and Development

(8 hrs.)

- 2.1 Meaning and Types of Products
- 2.2 Product Life Cycle
- 2.3 New Product Development -Stages

Unit 3

Brand Building

(8 hrs.)

- 3.1 Meaning and Importance
- 3.2 Types of Brands
- 3.3 Process of Branding

Unit 4

Pricing and Promotion

(8 hrs.)

- 4.1 Pricing Policy- Price Determination
- 4.2 Methods of Pricing
- 4.3 New Product Pricing

Unit 5

Channels of Distribution

(8 hrs.)

- 5.1 Meaning, Importance
- 5.2 Factors Affecting Channels of Distribution.
- 5.3 Classification-Retail & Wholesale - (Current Trends in Distribution & E-‘Tailing’)

BOOK FOR STUDY

Nair Rajan and Sanjith Nair. *Marketing*. New Delhi: Sultan Chand, 2013.

BOOKS FOR REFERENCE

Gandhi, J.C. *Marketing*, New Delhi: Tata McGraw Hill, 2009.

Groucutt, Jonathan., Peter Leadley and Patrick Forsyth. *Marketing Essential Principles, New Realities*. Kogan, 2004.

Kotler, Philip. *Marketing*. New Delhi: Prentice Hall, 2008.

Steven J Skinner. *Marketing*. Houghton, 1994.

Varshney, R.L. and S.L. Gupta. *Marketing Management*. Himalaya

Stanton, William J., Micheal J. Etzel and Bruce J. Walker. *Fundamentals of Marketing*. New Delhi: Mc Graw Hill, 2009.

Xavier, M. J. *Marketing in the New Millennium*. New Delhi: Vikas, 2009.

JOURNALS

Journal of Marketing - American Marketing Association

Journal of Consumer Marketing

Journal of Marketing Education

International Journal of Research in Marketing

International Journal of Marketing Studies

International Journals of Marketing and Technology

Indian Journal of Marketing

WEB RESOURCES

www.yourarticlelibrary.com

www.boundless.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 =16 Marks (from a choice of three)

Section C – 1 x 20 =20 Marks (from a choice of two)

Third Component:

List of evaluation modes:

Seminars

Assignments

No End Semester Examination

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
General Elective Course Offered by Department of Commerce to students for
B.A. / B.Sc. / B.Com. / B.C.A. / B.S.W. / B.V.A. Degree Programmes
SYLLABUS
(Effective from the academic year 2015 -2016)

CONTEMPORARY ADVERTISING

CODE: 15CM/GE/CA23

CREDITS : 3

L T P : 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To introduce the concept and types of Contemporary advertising
- To enable students to meet the growing demands and challenges of the promotional aspects of advertising

Unit 1	Scope of Advertising	(7 hrs.)
	1.1 Introduction - Definition and Meaning	
	1.2 Role of Advertising	
Unit 2	Advertising Copy	(8 hrs.)
	2.1 Elements of an Ad. Copy	
	2.2 Ad. Layout - Principles of Ad. Layout	
Unit 3	Modern Advertising	(9 hrs.)
	3.1 Types of Modern Advertising	
	3.2 Comparison - Indoor & Outdoor Advertising	
Unit 4	Online Advertising	(7 hrs.)
	4.1 Introduction - the Internet as an Advertising Medium	
	4.2 Types of Online Advertising - Alternative Offline Advertising Media and Mass Online Advertising Web Resources, Banner Ads, Pop Ups, Interstitials, Superstitials and Sponsorships	
Unit 5	Challenges and trends of Online Media	(8 hrs.)
	5.1 Reasons for Failure of Online Advertising	
	5.2 Changing Trends in Online Advertising.	

BOOK FOR STUDY

Jefkins, Frank. *Advertising*. New Delhi: Pearson Education 2007.

BOOKS FOR REFERENCE

- David W.Schumann and Esther Thorson. *Internet Advertising Theory and research*. Psychology Press, 2007.
- Joseph, Plummer., Steve Rappaport, Teddy Hall and Robert Borocci. *The online Advertising play Book. Proven Strategies and tested tactics from the advertising research foundation*. John Wiley, 2006.
- Terence A. Shimp. *Advertising, Promotion and supplemental Aspects of Intergrated Marketing Communications*. USA: Thomson Learning, 2003
- Wilmschurs, John and Adrian Mackay. *The fundamentals of Advertising*. Reed Educational and Professional, 1999.

JOURNALS

- Journal of Advertising Research
International Journal of Advertising
International Journal of Internet Marketing and Research
Journal of Advertising
Journal of Advertising Education

WEB RESOURCES

- www.mu.ac.in/myweb_test/sybcom-avtg-eng.pdf
advertising.knoji.com/what-are-the-different-roles-of-advertising/
techcrunch.com/2009/03/22/why-advertising-is-failing-on-the-internet/
www.networkadvertising.org/understanding-online-advertising/

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 =16 Marks (from a choice of three)

Section C – 1 x 20 =20 Marks (from a choice of two)

Third Component:

List of evaluation modes:

Seminars

Assignments

Submission of AD Copy

No End Semester Examination

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
General Elective Course Offered by Department of Commerce to students for
B.A. / B.Sc. / B.Com. / B.C.A. / B.S.W. / B.V.A. Degree Programmes

SYLLABUS
(Effective from the academic year 2015-2016)

PERSONNEL MANAGEMENT

CODE: 15CM/GE/PM23

CREDITS: 3

L T P: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To expose the students to the managerial, operative and maintenance aspects of Human Resources
- To provide an insight into Human resources as an asset to the organization

Unit 1

- Introduction (8 hrs.)**
- 1.1 Definition – Characteristics, Objectives & Importance of Personnel Management
 - 1.2 Functions of Personnel Management

Unit 2

- Staffing (8 hrs.)**
- 2.1 Nature, Elements and Importance of Staffing
 - 2.2 Recruitment and Selection
 - 2.3 Promotion – Types and Basis of Promotion

Unit 3

- 3.1 Training and Development (8 hrs.)**
- 3.1.1 Training – Importance, Need & Types
 - 3.1.2 Training Methods – on-the Job, Off-the Job and Vestibule Training.
- 3.2 Performance Appraisal – Concept, Objectives & Methods of Performance Appraisal

Unit 4

- Components of Compensation (8 hrs.)**
- 4.1 Factors to Be Considered for Determination of Wages and Salaries
 - 4.2 Incentives & Perquisites
 - 4.3 Fringe Benefits – Meaning and Types

Unit 5

- Leadership & Communication (7 hrs.)**
- 5.1 Leadership – Qualities of a Leader, Types of Leaders, Trait and Situational Approach to Leadership, Leadership Grid
 - 5.2 Communication – Meaning, Nature, Importance and Types of Communication

BOOK FOR STUDY

Gupta, C.B. *Human Resource Management*. New Delhi: Sultan Chand, 2014

BOOKS FOR REFERENCE

Aswathappa, K. *Human Resource Management*. New Delhi: Tata McGraw Hill, 2007.

Flippo V. Edwin. *Personnel Management*. New Delhi: McGraw Hill, 2008

Khanka, S.S, *Human Resource Management*. New Delhi: Sultan Chand, 2007.

Mamoria, C.B, *Personnel Management*. New Delhi: Himalaya, 2004

Prasad, L.M., *Human Resource Management*. New Delhi: Sultan Chand, 2007

JOURNALS

International Journal of Management Reviews

European Journal of Business Management

WEB RESOURCES

www.exed.hbs.edu

www.hbr.org

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of evaluation modes:

Seminars

Assignments

No End Semester Examination

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**General Elective Course Offered by Department of Commerce to students for
B.A. / B.Sc. / B.Com. / B.C.A. / B.S.W. / B.V.A. Degree Programmes**

SYLLABUS

(Effective from the academic year 2015-2016)

BASIC ACCOUNTING

CODE: 15CM/GE/BA23

CREDITS: 3

L T P: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To introduce the accounting principles and basic concepts in the preparation of the financial statements for trading and non-trading organizations
- To expose students to the accounting practices in financial, cost and management accounting

Unit 1 (8 hrs.)

Basic Accounting Concepts

- 1.1 Introduction to Double Entry System
- 1.2 Kinds of Accounts- Rules of Debit and Credit
- 1.3 Preparation of Journal
- 1.4 Preparation of Trial Balance

Unit 2 (8 hrs.)

Final Accounts of a Sole Trader

- 2.1 Preparation of Trading and Profit and Loss account
- 2.2 Preparation of Balance Sheet
(Basic Concepts and Adjustments Relating to Closing Stock, Depreciation, Outstanding and Prepaid Expenses and Income and Bad Debts - Simple Problems)

Unit 3 (8 hrs.)

Final Accounts of a Company

- 3.1 Preparation of Final Accounts- Forms and Contents as per Provisions of Companies Act 2013 as per Schedule- III (Simple Problems)

Unit 4 (8 hrs.)

Accounting of Non-Profit Organizations

- 4.1 Features of Non – Profit Entities
- 4.2 Preparation of Summaries -Receipts and Payments Account
- 4.3 Preparation of Income and Expenditure and Balance Sheet

Unit 5 (7 hrs.)

Management Accounting and Cost Accounting

5.1 Definition and Nature of Management Accounting

5.2 Definition and Nature of Cost Accounting

5.3 Scope and Limitations of Management Accounting and Cost Accounting

BOOKS FOR STUDY

Arjun Saini. *How to Read Balancesheet and other Financial Statements*. 1st ed. Himalaya, 2013.

Chatterjee, D.K. *Basic Accounts and Finance for Non-Accountants*. 4th ed. Himalaya, 2011.

PATTERN OF EVALUATION (Internal only - No End Semester Examination)

One Continuous Assessment Test for 50 marks (90 mins.)

Third Component:

Test for 50 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
Independent Elective Course Offered by Department of Commerce to students for
B.A. / B.Sc. / B.Com. / B.C.A. / B.S.W. / B.V.A. Degree Programmes

SYLLABUS
(Effective from the academic year 2015 – 2016)
CONSUMER RIGHTS

CODE: 15CM/UI/CR23

CREDITS: 3

OBJECTIVES OF THE COURSE

- To provide knowledge about consumerism and related laws
- To enable an understanding of the importance of Consumer Rights
- To educate students on the rights and responsibilities of a consumer

Unit 1

Consumers

- 1.1 Meaning of Consumers-Customers
 - 1.1.1 Consumer Movements – Historical Perspectives
 - 1.1.2 Concept of Consumerism – Need and Importance

Unit 2

Consumer Exploitation

- 2.1 Meaning, Causes of Consumer Exploitation
- 2.2 Forms of Consumer Exploitation – Underweight Measures, High Prices, Substandard Quality, Poor or Inadequate After Sales Services
- 2.3 Challenges of Consumer Exploitation

Unit 3

Consumer Rights and Duties

- 3.1 Consumer Rights – John F Kennedy’s Consumer Bill of Rights
- 3.2 Types of Consumer Rights – (Right to Safety, Right to Information (RTI), Right to Redressal, Right to Consumer Education)
- 3.3 Duties of Consumers

Unit 4

Copra Act 1986

- 4.1 Introduction to COPRA Act
- 4.2 Consumer Protection Council – Central, State, Districts Consumer Protection Councils
- 4.3 Consumer Dispute Redressal Procedure

Unit 5

Consumerism in India

- 5.1 Reasons for the Growth of Consumerism in India
- 5.2 Recent Trends in Consumerism
- 5.3 Problems Faced by Consumers in India – Case Studies

BOOKS FOR REFERENCE

Anirban Chakraborty. *Law of Consumer Protection Advocacy and Practice*. India: Lexis Nexis, 2014.

Miller C.J., Brian W. Harvey, Deborah L Parry. *Consumer and Trading Law*. Oxford University, 1998.

Rajyalakshmi Rao. *Consumer is king!! Know your rights and remedies*. Universal, 2012.

Rao, Y.V. *Commentary on Consumer Protection Act*. Asia House, 2013

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
Independent Elective Course Offered by Department of Commerce to students for
B.A. / B.Sc. / B.Com. / B.C.A. / B.S.W. / B.V.A. Degree Programmes

SYLLABUS

(Effective from the academic year 2015 -2016)

INTERNATIONAL MARKETING

CODE: 15CM/UI/IM23

CREDITS : 3

OBJECTIVES OF THE COURSE

- To familiarize with the nature and practices of international marketing
- To equip, design and participate in designing an international marketing strategy

Unit 1		
	Introduction	(15 hrs.)
	1.1 Definition, Domestic Marketing Vs. International Marketing	
	1.2 Reasons and Motivation for International Marketing	
	1.3 Scope and Benefits of International Marketing	
	1.4 Trade Barriers - Types and Reasons for Its Imposition	
Unit 2		
	International Marketing Environment	(13 hrs.)
	2.1 Meaning, Factors Contributing to Business Environment	
	2.2 Economic, Cultural and Demographic Environment, Geographic, Political and Legal Environment	
	2.3 Conditions for Global Product Offering - Product Adaptation Hofstede	
Unit 3		
	Institutional Framework	(12 hrs.)
	3.1 Various Institutions Engaged in Export Promotion in India	
	3.2 Advisory Bodies - Board of Trade & Export Promotion Board	
	3.3 Commodity Organisations	
Unit 4		
	Export Procedure and Documents	(15 hrs.)
	4.1 EXIM Policy	
	4.2 Export Procedure and Documents	
	4.3 Processing of an Export Order	
Unit 5		
	Trends in International Marketing	(10 hrs.)
	5.1 Recent Trends in World Trade	
	5.2 FEMA, TRIPS	
	5.3 Current Status on Indian Economy - Role Played by Government in Export Promotion	

BOOK FOR STUDY

Cherunilam, Francis. *International Trade and Export Management*. Mumbai: Himalaya, 2012.

BOOKS FOR REFERENCE

Balagopal, TAS, *Export Management*. Mumbai: Himalaya, 2010.

Lewis Keith and Mathew Housden. *Introduction to International Marketing - A guide*.

Rathor, Jani and Rathor. *International Marketing*. Mumbai: Himalaya, 2010.

Varma, M.L. *International Trade*, New Delhi: Vikas, 2011.

Varshney, R.L. and B. Bhattacharya. *International Marketing Management - An Indian Perspective*, New Delhi: Sultan, 2010.

Warren J. Keergan, Mark Green. *Global Marketing*, Prentice Hill.

JOURNALS

Journal of International Marketing

Journal of International Marketing impact factor

Journal of International Marketing and Exporting

Journal of International Marketing ranking

The Journal of International Trade and Economic Development

International Journal of Trade and Global Markets

Journal of International Trade Law and Policy

WEB RESOURCES

www.marketingteacher.com/what-is-international-marketing/

www.marketing-schools.org/types-of-marketing/international-marketing.html

www.ncti.gov.in/how_do_exports_commodity_boards.php

internationalmarketingenvironment.com/

www.exporthelp.co.

www.bms.co

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 7 x 2 = 14 Marks (no choice)

Section B – 2 x 8 = 16 Marks (from a choice of three)

Section C – 1 x 20 = 20 Marks (from a choice of two)

Third Component:

List of Evaluation modes:

Seminar

Group Discussion

Assignments

Class Presentations

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 Marks (no choice - Max 30 words)

Section B – 5 x 8 = 40 Marks (from a choice of seven - Max 500 words)

Section C – 2 x 20 = 40 Marks (from a choice of four -Max 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600086
B.COM. DEGREE

SYLLABUS
(Effective from the academic year 2015-2016)
ENTREPRENEURSHIP

CODE: 15CM/MC/ED65

CREDITS: 5

LTP : 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide comprehensive knowledge on the various aspects related to entrepreneurial development
- To familiarise the students with the practical knowledge of establishing a business

Unit 1 (15 hrs.)
Introduction

- 1.1 Concept of Entrepreneurship - Meaning, Definition, Characteristics and Need for Entrepreneurship
- 1.2 Entrepreneur - Meaning, Definition, Scope, Need, Function and Types of Entrepreneur
 - 1.2.1 Role of Entrepreneurship in Economic Development
 - 1.2.2 Factors Influencing Entrepreneurship Development
 - 1.2.3 Internal and External Environment – Economic and Non - Economic, Psychological, Social, Cultural, Political, Legal and Economic Factors.
- 1.3 Barriers to Entrepreneurship
- 1.4 Entrepreneur vs. Entrepreneurship, Entrepreneur vs. Manager, Entrepreneur vs. Intrapreneur

Unit 2 (10 hrs.)
Women Entrepreneurs

- 2.1 Importance and Characteristics of Women Entrepreneurs
- 2.2 Entrepreneurial Culture and Innovation
- 2.3 Functions, Growth and Problems of Women Entrepreneurs
- 2.4 Recent Trends of Women Entrepreneurs in India

Unit 3 (15 hrs.)
New Venture Feasibility and Planning

- 3.1 Opportunity Identification - Environmental Analysis, SWOT Analysis
- 3.2 Idea Generation and Screening of Business Idea, Sources of Business Idea, Evaluation of Business Idea. Selection of Business Idea
- 3.3 Business Plan – Meaning, Contents and Significance of Business Plan
- 3.4 Business Plan Process, Advantages of Business Planning

Unit 4 (15 hrs.)
Project Formulation

- 4.1 Meaning, Concept and Stages in Project Formulation
- 4.2 Need and Significance of Project Formulation, Feasibility Analysis
- 4.3 Elements of Project Formulation
- 4.4 Feasibility Report
- 4.5 Preparing a Model Project Report for Starting a New Venture

Unit 5 (10 hrs.)
Selection of Form of Business Ownership

- 5.1 Choice of Organisation - Meaning, Importance of Choosing the Forms of Organisation
- 5.2 Factors Determining the Choice of Organisation
- 5.3 E-Commerce and Small Enterprises

BOOKS FOR STUDY

Gupta C.B. *Entrepreneurial Development*. New Delhi: Sultan Chand, 2012.

BOOKS FOR REFERENCE

Khanka, S. S. *Entrepreneurial Development*. Sultan and Chand Sons, New Delhi: 2005

Renu Arora, S. K. Sood. *Entrepreneurial Development*. Ludhiana: Kalyani, 2007

Sani, J.S., Rathore, B.S. *Entrepreneurship - Theory and Practice*, New Delhi: Wheeler, 2011.

Vasanth Desai. *Entrepreneurial Development*. Himalaya, Mumbai: 2012.

JOURNALS

Journal of Entrepreneurship

Journal of Innovation and Entrepreneurship

International Journal of Entrepreneurship and Small Business

WEB RESOURCES

www.womenentrepreneursindia.com

www.tie.org

www.preservearticles.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $7 \times 2 = 14$ Marks (Answer all questions)

Section B – $2 \times 8 = 16$ Marks (Answer any two questions from a choice of three)

Section C – $1 \times 20 = 20$ Marks (Answer any one question from a choice of two)

Third Component:

List of evaluation modes:

Project

Class Presentation

Assignment

Seminar

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ Marks (Short answers - Max 30 words - no choice)

Section B – $5 \times 8 = 40$ Marks (Essay type answers - 500 words - from a choice of 8)

Section C – $2 \times 20 = 40$ Marks (Essay type answers - 1200 words - from a choice of 4)

STELLAMARISCOLLEGE (AUTONOMOUS), CHENNAI - 600 086
BACHELOR OF COMPUTER APPLICATIONS

SYLLABUS

(Effective from the academic year 2015 – 2016)

PROCEDURE ORIENTED PROGRAMMING WITH C

CODE: 15CS/MC/PO14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To familiarise the students with basic concepts of computer programming
- To introduce the syntax, semantics and various features of C language
- To enable the students to write programs using C

Unit 1 (10 hrs.)

1.1 Introduction

Overview and Characteristics of Procedure Oriented Programming- Program Development Life Cycle – Algorithm – Control Structures – Flowchart

1.2 Overview of C

History- Importance of C – Basic Structure of C Programming- Programming Style – Executing a C Program

1.3 Constants, Variables and Data Types

Character Set – C Tokens – Keywords and Identifiers – Constants – Variables – Data Types – Declaration of Variables – Declaration of Storage Class – Assigning values to variables - Declaring a variable as constant – Overflow and Underflow of Data

1.4 Preprocessors

Introduction - Defining Symbolic Constants and File Inclusion

1.5 Operators and Expressions

Arithmetic, Relational, Logical, Assignment, Increment, Decrement, Conditional, Bitwise and Special Operators – Arithmetic Expressions – Evaluation of Expressions – Operator Precedence and Associativity – Type Conversions

Unit 2 (11 hrs.)

2.1 Managing Input and Output Operations

Reading and Writing a character – Formatted Input and Output

2.2 Decision Making and Branching

Simple if – if ...else – nesting of if ...else – else if ladder – switch – ternary operator – goto statement

2.3 Decision Making and Looping

while, do and for statements – jumps in loops

Unit 3 (8 hrs.)

3.1 Arrays

Arrays – Types of Arrays - Definition, Declaration and Initialisation of one and two Dimensional Arrays

3.2 Character Arrays and Strings

Declaring and Initialising String Variables – Reading and Writing Strings – Arithmetic Operation on Characters – Putting Strings together – Comparison of two Strings- String handling functions

Unit 4 (12 hrs.)

4.1 User Defined Functions

Need – Elements of User Defined Functions- Definition of Functions – Return Values and their Types – Function Calls – Function Declaration – Category – Functions that Return Multiple Values – Recursion - Passing Arrays and Strings to Functions – Scope, Visibility and Lifetime of Variables

4.2 Structures and Unions

Definition and Declaration – Accessing Structure Member –Initialisation – Copying and Comparing Structure Variables – Arrays of Structures – Arrays within Structures – Structures and Functions - Unions –Size of Structures

Unit 5 (11 hrs.)

5.1 Pointers

Introduction – Accessing the Address of a Variable – Declaring and Initialising Pointer Variable – Accessing a Variable through its Pointer- Pointer Expressions –

Pointer Increments and Scale Factor – Pointers and Arrays – Pointers as Function Arguments - Pointers and Structures

5.2 Dynamic Memory Allocation

malloc, calloc, realloc, free

5.3. Command Line Arguments

Introduction to Command Line Arguments

5.4 Files

Data Organisation – File Operation – A simple example program to read from and write to a file

TEXTBOOKS

Balagurusamy, E. *Programming in ANSI C*, 6th ed. New Delhi: Tata McGraw-Hill, 2012.

BOOKS FOR REFERENCE

Gottfried, Byron. S. *Programming with C, Schaum's Outline Series*. New York: Tata McGraw-Hill, 1999.

WEB RESOURCES

<http://www.tutorialspoint.com/cprogramming/>

<http://www.cprogramming.com/tutorial/c-tutorial.html>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A - $10 \times 1 = 10$ marks (Answer all the questions)
(5 Multiple choice questions and 5 Fill-in the Blanks)

Section B - $5 \times 2 = 10$ marks (Answer all the questions)

Section C - $4 \times 5 = 20$ marks (4 out of 5)

Section D - $1 \times 10 = 10$ marks (1 out of 2)

Third Component:

Quiz

Tracing the program

Assignments

Problem solving

Debugging

End Semester Examination:

Total Marks : 100

Duration : 3 hours

Section A - $20 \times 1 = 20$ marks (Answer all the questions)
(10 Multiple choice questions and 10 Fill-in the Blanks)

Section B - $5 \times 2 = 10$ marks (Answer all the questions)
(1 question from each unit)

Section C - $8 \times 5 = 40$ marks (8 out of 10)
(2 questions from each unit)

Section D - $3 \times 10 = 30$ marks (3 out of 5)
(1 question from each unit)

STELLAMARISCOLLEGE (AUTONOMOUS), CHENNAI - 600 086
BACHELOR OF COMPUTER APPLICATIONS

SYLLABUS

(Effective from the academic year 2015 – 2016)

PROCEDURE ORIENTED PROGRAMMING WITH C - PRACTICAL

CODE : 15CS/MC/P112

CREDITS: 2

L T P: 0 0 3

TOTAL TEACHING HOURS: 39

1. Basic programs in C like addition, subtraction, mod,etc.
2. Programs implementing if structure
3. Programs to implement looping structure
4. Program for a simple calculator using switch
5. Program to calculate a series
6. Program using one dimensional array like sorting numbers, check for the presence of a given number
7. Programs using two dimensional array like matrix addition, transpose and multiplication
8. Program to handle strings
9. Program using functions with no arguments, with arguments, no return type, with return type using pass by value
10. Program to manage data using structure
11. Program using array of structures, array within structure and nested structure
12. Program passing a structure to a function
13. Program to access the array members using pointers and arrays
14. Program using structure pointer to a function
15. Program to create a stack of two elements using dynamic memory allocation

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

BACHELOR OF COMPUTER APPLICATIONS

SYLLABUS

(Effective from the academic year 2015 -2016)

MULTIMEDIA- PRACTICAL

CODE: 15CS/MC/P212

CREDITS : 2

L T P : 0 0 3

TOTAL TEACHING HOURS: 39

OBJECTIVE OF THE COURSE

- To provide an opportunity to pursue skills and practical applications in Multimedia using Photoshop and Flash

Photoshop

1. Exercise using shape and text tools
2. Exercise to create a photo collage by applying layer effects
3. Exercise to create a logo
4. Exercise to create a banner using basic tools and masking
5. Exercise to develop a colorful advertisement using tools and effects
6. Exercise to create cover page for magazine
7. Exercise on retouching old photo to new one
8. Exercise to create a blended image with layer properties
9. Exercise to enhance the given image using filters
10. Exercise to create a background for web pages
11. Exercise to create an image using 3D effects
12. Exercise to create an image with pop up, pop out and out of bounds effects

Flash

1. Exercise to use shape tools and motion tween
2. Exercise to perform simple animation using shape and classic tween
3. Exercise to create a Solar System using guide path
4. Exercise to create a picture animation using pencil, brush and bone tools
5. Exercise to perform animation using masking and onion skinning
6. Exercise to create Water Wave Effect animation using masking
7. Exercise to animate using blur, bevel and drop shadow filter
8. Exercise to create animated banners
9. Exercise to perform text animation
10. Exercise using symbols as movie clip, graphics and buttons
11. Exercise to perform navigations using action script
12. Exercise to make a simple slideshow-type image gallery with minimal scripting
13. Exercise to manipulate 3D objects using action script
14. Exercise to perform simple animation using 3D rotation
15. Exercise to make an object move along a path on button click

16. Exercise to add sound to flash movies
17. Exercise on publishing movies in web

BOOKS FOR REFERENCE

Brad,Dayley and DanaeDayley. *Adobe Photoshop CS6 Bible*.1sted. India: Wiley Dreamtech. 2012.

Perkins,Todd. *Flash Professional CS6 Bible*.1sted. India: Wiley Dreamtech. 2012.

Shufflebotham, Robert.*Photoshop CS6 in easy steps*. 1sted.In Easy Steps Limited,2012.

WEB RESOURCES

<http://as.wiley.com/WileyCDA/WileyTitle/productCd-1118123883.html>

http://help.adobe.com/archive/en/photoshop/cs6/photoshop_reference.pdf

<http://www.marquette.edu/ctl/e-learning/documents/PhotoshopPDF.pdf>

http://help.adobe.com/archive/en/flash/cs6/flash_reference.pdf

http://helpx.adobe.com/pdf/flash_reference.pdf

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50 Duration: 90 mins.

Practical

Third Component:

Total Marks: 50

Mini Project

Phase 1- Storyboard and design using Photoshop 25 Marks

Phase 2- Full project 25 marks

End Semester Examination (3 hrs.)

Practical -100 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
BACHELOR OF COMPUTER APPLICATIONS

SYLLABUS

(Effective from the Academic Year 2015 – 2016)

ENVIRONMENTAL STUDIES

CODE :15CS/GC/ES12

CREDIT : 2

L T P: 2 0 0

TOTAL TEACHING HOUR: 26

OBJECTIVES OF THE COURSE

- To create an awareness on current environmental issues
- To educate the students about conservation and management of natural resources
- To train the students to be eco sensitive

Unit 1

Introduction

(6 hrs.)

- 1.1 Components of The Environment – Classification and Characteristics of Resources – Renewable and Non – Renewable Resources
- 1.2 Need for Public Awareness in Conservation of Natural Resources
- 1.3 Energy Flow in Ecosystems – Aquatic and Terrestrial – Food Chain and Food Web

Unit 2

Pollution and Socio Economic Aspects of the Environment

(10 hrs.)

- 2.1 Types of Pollution – Air, Water, Solid Waste, Noise
- 2.2 Problems - Greenhouse Effect – Depletion of The Ozone Layer – Climate Change
- 2.3 Bio Diversity - Definition - Loss of Bio Diversity – Threats to Biodiversity and Conservation of Biodiversity.
- 2.4 Human Behaviour: - Population – Urbanisation – Poverty (as cause and result of pollution and degradation)
- 2.5 Technology: - Agriculture and Industry – Deforestation. Use, Misuse and Abuse of The Resources
- 2.6 Effects and Consequences Of Environmental Problems

Unit 3

Sustainable Development, Remedies And Policy Implications

(10 hrs.)

- 3.1 Environmental Disasters Natural and Human Made – Bhopal Gas Tragedy – Chernobyl Accident – Fukushima Nuclear Crisis - Gulf War – Love Canal Episode – Tsunami – Volcanic Eruptions
- 3.2 Methods Evolved to Measure and Check Environmental Degradation and Pollution – Carbon Footprint, Carbon Credit, Ecological Footprint, and Ecological Shadow
- 3.3 Environmental Movements in India – Chipko Movement, Narmada Bachao Andolan, SethuSamudram Project

- 3.4 Environmental Acts – Policy Measures with Respect to India
3.5 International Environmental Agreement – Stockholm Conference – Montreal Protocol – RIO Meet – Kyoto Conference – UN Conference on Climate Change (Copenhagen)

Field visit

Eco initiatives at the campus : Garbage segregation and Vermicomposting – Graywater recycling – Rainwater harvesting – Solar powered lights – Bio diversity

BOOKS FOR STUDY

Bharucha, E., *Textbook of Environmental Studies*. (1st edition), Hyderabad: Universities Press, 2005.

BOOKS FOR REFERENCE

Ignacimuthu, S. *Environmental Awareness and Protection*. New Delhi: Phoenix, 1997.

Jadhav, H and. Bhosale V. M. *Environmental Protection and Laws*. New Delhi: Himalaya, 1995.

Mies, M. and V. Shiva. *Ecofeminism*. London: Zed Books, 1989.

Odum, E.P. *Fundamentals of Ecology*. U.S.A: W.B. Saunders Co. 1971.

Singh, H.R. *Environmental Biology*. (1st edition), New Delhi: S.Chand, 2005.

PATTERN OF EVALUATION (Totally Internal)

CONTINUOUS ASSESSMENT (CA): One Hour Test – 25 Marks
Objective Quiz – 25 Marks

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BACHELOR OF COMPUTER APPLICATIONS

SYLLABUS

(Effective from the academic year 2015 – 2016)

DATA STRUCTURES AND ALGORITHMS

CODE: 15CS/MC/DA24

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To enhance problem solving skills and methodologies
- To understand the use of programming in day to day applications
- To introduce and initiate the implementation of data structures and algorithms

Unit 1 (10 hrs.)

1.1 Introduction to Algorithms

Introduction-Basic steps in complete development of an algorithm- Efficiency and Analysis of algorithms

1.2 Fundamental Algorithms

Exchanging the values of two variables - Counting, Summation, Factorial Computation, Generation of Fibonacci Sequence, Reversing the digits of an Integer – Introduction to Data Structures

1.3 Searching Algorithms

Binary Search - Linear Search

Unit 2 (10 hrs.)

2.1 Sorting Algorithms Implementing Arrays

Selection Sort - Bubble Sort - Insertion Sort

2.2 Linked List

Linked List – Representation, Traversing, Searching, Memory Allocation, Insertion, Deletion, Header List, Two-way List and Circular List

Unit 3 (10 hrs.)

3.1 Stack

Array representation and Linked representation- Push, Pop – Recursion - Quick Sort - Merge Sort - Infix to Prefix and Postfix conversions

3.2 Queue

Array representation and Linked representation - Add and Delete an element, Traversing a Queue

Unit 4 (11 hrs.)

4.1 Tree

Introduction - Binary Tree - Representation, Traversal, Searching - Binary Search Tree - Searching, Deleting and Inserting - Tree Implementation – Heap Sort

Unit 5**(11 hrs.)****5.1 Graph**

Definition and Concepts - Representation of Graphs - Graph Traversals – Breadth First Search and Traversal – Depth First Search and Traversal – Shortest Path algorithms – Dijkstra's algorithm

TEXT BOOKS

Horowitz, Ellis, Sartaj Sahni and Sanguthevar Rajasekaran. *Fundamentals of Computer Algorithms*. Galgotia, 2013.

Lipschutz Seymour. *Schaum Series Data structures*. New Delhi: Tata McGraw Hill, 2006.

Weiss, M.A. *Data Structures and Algorithm Analysis in C*. 2nd ed. Pearson Education, 1996.

BOOKS FOR REFERENCE

Goodman, S.E., S.T. Hedetniemi. *Introduction to the design and analysis of algorithms*. New Delhi: Tata McGraw Hill, 1998.

PATTERN OF EVALUATION**Continuous Assessment:****Total Marks: 50****Duration: 90 mins.**

Section A - $10 \times 1 = 10$ marks (Answer all the questions)
(5 Multiple choice questions and 5 Fill in the Blanks)

Section B - $5 \times 2 = 10$ marks (Answer all the questions)

Section C - $4 \times 5 = 20$ marks (4 out of 5)

Section D - $1 \times 10 = 10$ marks (1 out of 2)

Third Component:

Seminars

Quiz

Open book tests

Group discussion

Assignments

Problem solving

Role plays

Tracing algorithms

End Semester Examination:**Total Marks: 100****Duration: 3 hours**

Section A - $20 \times 1 = 20$ marks (Answer all the questions)
(10 Multiple choice questions and 10 Fill-in the Blanks)

Section B - $5 \times 2 = 10$ marks (Answer all the questions)
(1 question from each unit)

Section C - $8 \times 5 = 40$ marks (8 out of 10)
(2 questions from each unit)

Section D - $3 \times 10 = 30$ marks (3 out of 5)
(1 question from each unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

BACHELOR OF COMPUTER APPLICATIONS

SYLLABUS

(Effective from the academic year 2015-16)

COMPUTER CONCEPTS

CODE: 15CS/MC/CC24

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To expose the students to various functional units of a computer
- To give a hands-on experience on assembling a personal computer
- To introduce data representation, basic computer organisation and design
- To enable the students to understand the basics of networking

Unit 1 (10 hrs.)

1.1 Basics of Computers

Introduction - Digital and Analog Computers - Characteristics of Computer - History of Computer - Generations of Computer - Classification of Computer - The Computer System - Applications of Computers – Different Generations of Programming Language – Assembler - Compiler – Interpreter – Loader - Linker

1.2 The Computer System Hardware

Introduction – Central Processing Unit – Memory Unit – Instruction Format – Instruction Set – Instruction Cycle – Addressing Modes - Microprocessor – Interconnecting the Units of a Computer – Performance of a Computer – Inside a Computer Cabinet

Unit 2 (14 hrs.)

2.1 Computer Memory

Introduction – Memory Representation – Memory Hierarchy – CPU Registers – Cache Memory – Primary Memory – Secondary Memory – Access Types of Storage Devices – Magnetic Tape – Magnetic Disk – Optical Disk – Magneto Optical Disk – Using the Computer Memory

2.2 Input and Output Devices

Introduction – Input – Output Unit – Input Devices – Human Data Entry Devices – Source Data Entry Devices – Output Devices – I/O Port – Working of I/O System

2.3 PC Assembling in Practice

Practical experience on identifying and assembling the system parts

Unit 3 (8 hrs.)

3.1 Digital Logic Circuits

Digital Computers – Logic Gates – Boolean Algebra – Map Simplification

3.2 Data Representation

Data Types – Complements – Fixed Point Representation – Floating Point Representation – Other Binary Codes - Error Detection Codes

Unit 4 (10 hrs.)

4.1 Central Processing Unit

Introduction – General Register Organisation – Stack Organisation – Instruction Formats – Addressing modes – Data Transfer and Manipulation – Program Control – Reduced Instruction Set Computer

Unit 5 (10 hrs.)

5.1 Data Communication and Computer Networks

Introduction – Importance of Networking – Data Transmission media – Data Transmission across media – Data Transmission and Data Networking – LAN Topology - Computer Network – Wireless Networking

5.2 The Internet and Internet Services

Introduction – History of Internet – Internetworking Protocol – The Internet Architecture – Managing the Internet – Connecting to Internet – Internet Connections - Internet Address - Internet Services – Uses of Internet

TEXT BOOKS

Goel, Anita. *Computer Fundamentals*. New Delhi: Pearson, 2010.

Mano, Morris M. *Computer System Architecture*. 3rd ed. USA: Prentice-Hall, 2008.

Zacker Craig. *PC Hardware*. 1st ed. New Delhi: Tata McGraw Hill, 2001.

BOOKS FOR REFERENCE

Sinha, Pradeep K., Preeti Sinha. *Computer Fundamentals*. 6th ed. New Delhi: BPB, 2007.

Tittel, Ed. *Schaum's Outline of Computer Networking*. New Delhi: Tata McGraw-Hill, 2002.

WEB RESOURCES

<http://www.tutorialspoint.com/>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A - $10 \times 1 = 10$ marks (Answer all the questions)

(5 Multiple choice questions and 5 Fill in the Blanks)

Section B - $5 \times 2 = 10$ marks (Answer all the questions)

Section C - $4 \times 5 = 20$ marks (4 out of 5)

Section D - $1 \times 10 = 10$ marks (1 out of 2)

Third Component:

Quiz

Assignment

Seminar

Group Discussion

Problem solving

Identifying and Assembling System parts

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A - $20 \times 1 = 20$ marks (Answer all the questions)

(10 Multiple choice questions and 10 Fill-in the Blanks)

Section B - $5 \times 2 = 10$ marks (Answer all the questions)

(1 question from each unit)

Section C - $8 \times 5 = 40$ marks (8 out of 10)

(2 questions from each unit)

Section D - $3 \times 10 = 30$ marks (3 out of 5)

(1 question from each unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

BACHELOR OF COMPUTER APPLICATIONS

SYLLABUS

(Effective from the academic year 2015 – 2016)

DATA STRUCTURES AND ALGORITHMS – PRACTICAL

CODE: 15CS/MC/P322

CREDITS: 2

L T P: 0 0 3

TOTAL TEACHING HOURS: 39

1. Program to implement basic algorithms
2. Program to implement Linear Search and Binary Search
3. Program to implement Sorting algorithms: Insertion Sort, Quick Sort, Bubble Sort, Selection Sort
4. Programs to implement Singly and Doubly Linked List operations
5. Program to implement Stack operations - Push, Pop and Traverse using Arrays and Linked Lists
6. Program to implement Queue operations - Insert, Delete and Display using Arrays and Linked Lists
7. Program to implement Infix expression to Postfix expression
8. Program to implement Binary Tree operations - Insertion, Display and Search
9. Program to implement Preorder, Inorder and Postorder Traversal in a Binary Tree
10. Program to implement Breadth First Search and Depth First Search in a Graph

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BACHELOR OF COMPUTER APPLICATIONS

SYLLABUS

(Effective from the academic year 2015 - 16)

DATABASE MANAGEMENT SYSTEMS

CODE: 15CS/MC/DB34

CREDITS: 4

L T P : 4 0 0

TOTAL TEACHING HOURS : 52

OBJECTIVES OF THE COURSE

- To learn the fundamentals of data models and to conceptualise and depict a database system using ER diagram
- To study SQL and relational database design
- To understand the normalization that will help in physical database design
- To introduce the fundamental concepts of PL/SQL
- To provide an introduction on the current trends in database management

Unit 1 (10 hrs.)

1.1 Introduction

Introduction to DBMS - Purpose, Data Abstraction, Data Models, Instances and Schemas - Data Independence - DDL and DML - Database Manager, Administrator and Users - Overall System Structure

1.2 Relational Databases

E-R Model - Entities and Entity sets, Relationships and Relationship sets, Attributes, Mapping Constraints, Keys, E-R diagrams - Relational Model - Structure of Relational Databases

Unit 2 (10 hrs.)

2.1 SQL

Basic SQL - SQL Commands- Set operators- Integrity Constraints – Domain, Check, Not Null, Entity, Referential Integrity

2.2 Functions

Single Row Functions - Character and Numeric - Group Functions

Unit 3 (14 hrs.)

3.1 Normalization

Relational Database Design, FNF, Pitfalls - Functional Dependency – SNF – TNF - BCNF - Codd's rule – Mapping - Data Dictionary

3.2 Joins and Sub Queries

Joins and Kinds of Joins-Table Aliases - Sub Queries - Synonym, Sequence, Views, Indexes

Unit 4 (10 hrs.)
4.1 PL/ SQL
PL/ SQL Blocks – Architecture - Data Types and their usage - Control Structures - Exceptions - Predefined, User Defined
4.2 Cursors and Triggers
Introduction – Cursors - Cursor Management – Procedures – Functions - Triggers and its types

Unit 5 (8 hrs.)
5.1 Object-Oriented and Object Relational Databases
Object Identity - Object Structure - Type Constructors - Encapsulation of Operations, Methods – Persistence - Type Hierarchies and Inheritance - Type Extents and Queries - Database Design for an ORDBMS - Nested Relations and Collections - Storage and Access methods
5.2 Data Warehousing
Data warehousing basics - Introduction and Overview – Data Marts, Data warehousing components - Data warehouse architecture
5.3 OLAP
Overview - Multidimensional modeling - Fact Table, Dimensions, Measures, ROLAP, MOLAP, HOLAP tools - OLAP Operations - Rollup, Drill-down, Dice Slice, Pivot

TEXT BOOKS

Kimball, Ralph, Reeves and Laura et al. *Data warehousing lifecycle Toolkit: expert methods for designing, developing, and deploying data warehouses*. 2nd ed. Wiley, 2008.

Ponniah Paulraj. *Data Warehousing Fundamentals*. 2nd ed. John Wiley, 2010.

Silberschatz, A., Henry F. Korth and S. Sudarshan. *Database System Concepts*. 5th ed. McGraw Hill, 2006.

BOOKS FOR REFERENCE

Date C.J. *Introduction to Database Systems*. 7/e. Addison Wesley Longman Publishing Co., 1999.

Elmasri and Navathe. *Fundamentals of Database System*. 3/e. Tata McGraw Hill, 2002.

Ramakrishna, Raghu and Johannes Gerhke. *Database Management Systems*. 3/e. McGraw Hill, 2002.

WEB RESOURCES

<http://www.tutorialspoint.com/listtutorials/oracle/1>

<http://www.w3schools.com/sql/>

<http://www.oracle.com/technetwork/tutorials/index.html>

<http://beginner-sql-tutorial.com/sql-group-functions.htm>

<http://www.studytonight.com/dbms/database-normalization.php>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A - $10 \times 1 = 10$ marks (Answer all the questions)

(5 Multiple choice questions and 5 Fill in the Blanks)

Section B - $5 \times 2 = 10$ marks (Answer all the questions)

Section C - $4 \times 5 = 20$ marks (4 out of 5)

Section D - $1 \times 10 = 10$ marks (1 out of 2)

Third Component:

Seminars

Quiz

Open book tests

Assignments

Normalizing tables

Analysis and Optimisation of queries

Brain teasers

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A - $20 \times 1 = 20$ marks (Answer all the questions)

(10 Multiple choice questions and 10 Fill-in the Blanks)

Section B - $5 \times 2 = 10$ marks (Answer all the questions)

(1 question from each unit)

Section C - $8 \times 5 = 40$ marks (8 out of 10)

(2 questions from each unit)

Section D - $3 \times 10 = 30$ marks (3 out of 5)

(1 question from each unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

BACHELOR OF COMPUTER APPLICATIONS

SYLLABUS

(Effective from the academic year 2015-16)

OBJECT ORIENTED PROGRAMMING WITH JAVA

CODE: 15CS/MC/OP34

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To introduce the basic concepts of Object Oriented Programming
- To provide an understanding of concepts such as Packages, Interfaces, Exceptions, Threads and Applets

Unit 1 (8 hrs.)

1.1 Introduction

Fundamental OOPS concepts - Evolution of Java - Data Types – Variables – Arrays - Operators - Control statements – Scanner – String - Introduction to Classes and Objects

Unit 2 (14 hrs.)

2.1 Classes and Objects

Method Overloading – Constructors - Constructor Overloading - Usage of static with data and methods - Garbage Collection - Access Control – Recursion - Nested Classes - Inner Classes

Unit 3 (12 hrs.)

3.1 Inheritance

Concepts – Composition - Difference between Inheritances in Java - Usage of super keyword - Method Overriding - Abstract Classes - Dynamic Method Dispatch - Usage of final with data, methods and classes

3.2 Packages

Concepts - package and import keywords – classpath - Defining, Creating and Accessing a Package

3.3 Interfaces

Introduction - Differences between Classes and Interfaces - Applying Interfaces - Multiple Inheritance in Java - Extending and Initialising fields in Interfaces

Unit 4 (10 hrs.)

4.1 Exception Handling

Concepts - Types of Exceptions - Usage of try, catch, throw and finally keywords

4.2 Java Library

String handling - java.util – List, ArrayList, Random, Calendar, Iterator, HashTable, StringTokenizer

Unit 5 (8 hrs.)

5.1 Applet and Multithreading

Applet – Types, Basics, Architecture, Skeleton, Display methods, repaint, status window, HTML Applet tag - Multithreading – Overview, Life Cycle of a Thread, Synchronisation, Thread Priorities, Inter Thread Communication, Deadlocks

TEXT BOOKS

Lewis, John and William Loftus. *Java Software Solutions: Foundations of Program Design*. 8th ed. Pearson Education, 2011.

Schildt, Herbert. *The Complete Reference – Java*. 9th ed. McGraw Hill, 2014.

BOOKS FOR REFERENCE

Dietel & Dietel. *Java How to Program*. 8th ed. Pearson Education, 2009.

Eckel, Bruce. *Thinking in Java*. 4th ed. Pearson Education, 2008.

WEB RESOURCES

<http://docs.oracle.com/javase/tutorial/java/index.html/>

<http://www.java2s.com/Tutorial/Java/CatalogJava.htm/>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A - 10 × 1 = 10 marks (Answer all the questions)

(5 Multiple choice questions and 5 Fill-in the Blanks)

Section B - 5 × 2 = 10 marks (Answer all the questions)

Section C - 4 × 5 = 20 marks (4 out of 5)

Section D - 1 × 10 = 10 marks (1 out of 2)

Third Component:

Seminars

Quiz

Open book tests

Group discussion

Assignments

Code Reading

End Semester Examination:**Total Marks: 100****Duration: 3 hours**

- Section A - $20 \times 1 = 20$ marks (Answer all the questions)
(10 Multiple choice questions and 10 Fill-in the Blanks)
- Section B - $5 \times 2 = 10$ marks (Answer all the questions)
(1 question from each unit)
- Section C - $8 \times 5 = 40$ marks (8 out of 10)
(2 questions from each unit)
- Section D - $3 \times 10 = 30$ marks (3 out of 5)
(1 question from each unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
BACHELOR OF COMPUTER APPLICATIONS

SYLLABUS

(Effective from the academic year 2015 – 2016)

SOFTWARE ENGINEERING

CODE: 15CS/MC/SE34

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To apply software engineering theory, principles, tools and processes for the development and maintenance of complex, scalable software systems
- To understand the importance of development, adoption and sustained use of standards of excellence for software engineering practices

Unit 1 (10 hrs.)

1.1 Introduction

The Nature of Software - Defining Software - Software Application Domains – Legacy Software - The Unique Nature of WebApps - Software Engineering - The Software Process - Software Engineering Practice - The Essence of Practice – General Principles - Software Myths

1.2 Process Models

A Generic Process Model - Process Assessment and Improvement - Prescriptive Process Models – Waterfall model – Incremental Model – Evolutionary Process Model - Prototyping, Spiral Model – Concurrent Models - Specialized Process Models - The Unified Process

Unit 2 (12hrs.)

2.1 Principles

Communication Principles - Planning Principles - Modeling Principles - Construction Principles - Deployment Principles

2.2 Metrics

2.2.1 Product Metrics

Metrics for Design Model – Architectural Design Metrics- Metrics for Object Oriented Design- Class Oriented Metrics - CK Metrics, MOOD Metrics – OO Metrics – Component Level Design Metrics – Operation Oriented Metrics – User Interface Metrics

2.2.2 Process and Project Metrics

Metrics in the Process and Project Domains – Software Measurement – Metrics for Software Quality – Integrating Metrics within the Software Process

- Unit 3** (10 hrs.)
3.1 Analysis and Requirements Modeling
Requirements Analysis - Scenario-Based Modeling – UML Models - Data Modeling Concepts - Class-Based Modeling - Flow-Oriented Modeling - Creating a Behavioral Model
- Unit 4** (10 hrs.)
4.1 Design and Testing
The Design Process - The Design Model - User Interface Analysis and Design - Interface Analysis and Design Models – Verification and Validation - Strategic issues for Conventional and Object Oriented Software
- Unit 5** (10 hrs.)
5.1 Quality and Maintenance
Software Quality –Achieving Software Quality – Software Configuration Management – SCM Process –Risk Management - Software Risks -The RMMM Plan – Maintenance and Reengineering - Reengineering - Business Process Reengineering, Software Reengineering, Reverse Engineering

TEXT BOOKS

Pressman, Roger S.*Software Engineering: A Practitioner's Approach*.7/e. International edition. McGraw Hill, 2009.

Sommerville, Ian.*Software Engineering*.8th ed.Pearson Education, 2008.

BOOKS FOR REFERENCE

Pfleeger and Lawrence.*Software Engineering: Theory and Practice*. 2nded. PearsonEducation, 2001.

Schach, Stephan.*Software Engineering*.New Delhi: Tata McGraw Hill, 2007.

WEB RESOURCES

<http://www.slideshare.net/rhspcte/software-engineering-ebook-roger-s-pressman/>

<http://home.iitj.ac.in/~ug201210024/book/b/3.pdf/>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A - $10 \times 1 = 10$ marks (Answer all the questions)

(5 Multiple choice questions and 5 Fill in the Blanks)

Section B - $5 \times 2 = 10$ marks (Answer all the questions)

Section C - $4 \times 5 = 20$ marks (4 out of 5)

Section D - $1 \times 10 = 10$ marks (1 out of 2)

Third Component:

Quiz

Assignment

Seminar

Group Discussion

Case Study – UML diagrams to be drawn using a tool

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A - $20 \times 1 = 20$ marks (Answer all the questions)

(10 Multiple choice questions and 10 Fill-in the Blanks)

Section B - $5 \times 2 = 10$ marks (Answer all the questions)

(1 question from each unit)

Section C - $8 \times 5 = 40$ marks (8 out of 10)

(2 questions from each unit)

Section D - $3 \times 10 = 30$ marks (3 out of 5)

(1 question from each unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
BACHELOR OF COMPUTER APPLICATIONS

SYLLABUS

(Effective from the academic year 2015 - 16)

RELATIONAL DATABASE MANAGEMENT SYSTEMS - PRACTICAL

CODE: 15CS/MC/P432

CREDITS: 2

L T P: 0 0 4

TOTAL HOURS: 52

1. Table creation with relations
2. Altering tables
3. DML commands - insert, update, delete, select
4. DDL commands – drop, truncate
5. Single Row and Aggregate functions,
6. Set operations
7. Normalizing tables
8. Working with sub queries
9. Working with joins and its types
10. Creating index, synonyms and views
11. Generating sequences
12. Working with cursors using PL/SQL
13. Working with PL/SQL procedures
14. Working with PL/SQL functions
15. Creating and working with triggers
16. Handling Exceptions
17. Working with ORDBMS
18. Case study - OO, OR and OLAP databases
19. Mini Project

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

BACHELOR OF COMPUTER APPLICATIONS

SYLLABUS

(Effective from the academic year 2015-16)

OBJECT ORIENTED PROGRAMMING WITH JAVA - PRACTICAL

CODE: 15CS/MC/P532

CREDITS: 2

L T P: 0 0 4

TOTAL TEACHING HOURS: 52

1. Exercises based on Java basics
2. Exercises based on Classes and Objects
3. Creating Classes with Overloaded Methods
4. Creating Classes with Constructors
5. Creating Classes to demonstrate Composition and Inheritance in Java
6. Creating Classes in a Package and Importing Package
7. Exercises based on Interfaces
8. Exercises based on Exception Handling
9. Exercises using java.util
10. Exercises based on Multithreading
11. Exercises to create Applets
12. Mini Project

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

BACHELOR OF COMPUTER APPLICATIONS

SYLLABUS

(Effective from the academic year 2015 – 2016)

OPERATING SYSTEMS

CODE: 15CS/MC/OS44

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To provide an overview of the working and structure of an operating system
- To understand the concepts of Process management, Storage management, Secondary storage and File Management

Unit 1 (10 hrs.)

1.1 Operating Systems – Introduction

Introduction – Computer System Organisation – Computer System Architecture – Operating System - Structure, Operations – Process Management – Memory Management – Storage Management - Protection and Security

1.2 Operating System Structures

Operating System Services – System Calls – System Programs – Operating System Design and Implementation - Operating System Structure

Unit 2 (11 hrs.)

2.1 Processes

Process Concept – Process Scheduling – Operations on Processes – Interprocess Communication

2.2 Threads

Overview – Multithreading models – Threading issues

2.3 CPU Scheduling

Basic Concepts – Scheduling Criteria – Scheduling Algorithms

Unit 3 (10 hrs.)

3.1 Synchronisation

Background – The Critical-Section Problem – Peterson’s Solution – Synchronisation Hardware – Semaphores – Classic problems of Synchronisation – Monitors

3.2 Deadlocks

System Model – Deadlock Characterisation – Methods for handling Deadlocks - Deadlock Prevention – Deadlock Avoidance – Deadlock Detection – Recovery from Deadlock

Unit 4 (10 hrs.)

4.1 Main Memory

Background – Swapping – Contiguous Memory allocation – Paging – Structure of Page Table – Segmentation

4.2 Virtual Memory

Background – Demand Paging – Copy on Write – Page Replacement – Thrashing

Unit 5 (11 hrs.)

5.1 Secondary Storage Structure

Overview of Mass Storage Structure – Disk Structure – Disk Attachment – Disk Scheduling – Disk Management – Swap Space Management – RAID Structure

5.2 File Management

File System – File Concepts – Access Methods – Directory Structures

5.3 File System Implementation

File System Structures – Allocation Methods – Free Space Management

TEXT BOOKS

Silberschatz, Abraham, Peter B. Galvin and Greg Gagne. *Operating System Concepts*. 9 ed. Wiley, 2014.

BOOKS FOR REFERENCE

Madnick, Stuart E., John J. Donovan. *Operating Systems*. McGraw Hill International Edition, 1974.

Tanenbaum, Andrew. *Modern Operating Systems*, 9/e, Prentice Hall, 2014.

WEB RESOURCES

<https://www.linux.com/learn/new-user-guides/376-linux-is-everywhere-an-overview-of-the-linux-operating-system/>

<http://nptel.ac.in/courses/106108101//>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50 **Duration: 90 mins.**

Section A - 10 x 1 = 10 (Answer all the questions)

(5 Multiple choice questions and 5 Fill-in the Blanks)

Section B - 5 x 2 = 10 (Answer all the questions)

Section C - 4 x 5 = 20 (4 out of 5)

Section D - 1 x 10 = 10 (1 out of 2)

Third Component:

Quiz

Assignment

Seminar

Group Discussion

Problem solving

End Semester Examination

Total Marks: 100 marks

Duration: 3 hours

Section A - $20 \times 1 = 20$ (Answer all the questions)

(10 Multiple choice questions and 10 Fill in the Blanks)

Section B - $5 \times 2 = 10$ (Answer all the questions)

(1 question from each unit)

Section C - $8 \times 5 = 40$ (8 out of 10)

(1 questions from each unit)

Section D - $3 \times 10 = 30$ (3 out of 5 questions)

(1 question from each unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

BACHELOR OF COMPUTER APPLICATIONS

SYLLABUS

(Effective from the academic year 2015-16)

WEB PROGRAMMING

CODE: 15CS/MC/WP44

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To understand the principles of effective web page designing
- To create interactive web pages using JavaScript
- To build server-side programming using PHP
- To enable the creation and manipulation of databases with MySQL and PHP

Unit 1 (12 hrs.)

1.1 HTML

HTML rules, Structure of HTML documents - Limitations of HTML – Text – Lists - Links – Images – Tables – Forms - Extra markup- Comments, Block elements, Inline elements, Grouping text and elements in Block and Inline, iframes, Embedding multimedia

1.2 CSS

Design Principles- Introducing CSS – Color- TextBoxes – List – Tables – Forms - Images - Layout

Unit 2 (10 hrs.)

2.1 JavaScript

Introduction to JavaScript - Origin of JavaScript – Characteristics - JavaScript and Java - Embedding JavaScript – Functions- Variables - Scope of a Variable – Operators - Expressions and Comments -Controlling program flow - if ... else, switch, while, do ... while, for, break and continue statement - Event handling – Form validations

Unit 3(10 hrs.)

3.1 Objects

Object Hierarchy Model–Object - Window, Document, String, Math, Date, Boolean, Location and History - Regular Expressions

3.2 Exception Handling

Exception Handling- Handling Errors by using try, throw and catch statements

Unit 4 (10hrs.)

4.1 PHP Basics

Need for PHP – Characteristics – Server side Web Scripting – Adding PHP to HTML – Syntax and Variables – Control- Boolean Expressions - Branching and Looping – Functions – Operators- String functions - Arrays and its types

4.2 Passing Information between Pages

HTTP is stateless - GET arguments - Better use of GET- Style URLs - POST Arguments - Formatting form variables

Unit 5 (10 hrs.)

5.1 PHP and MySQL

Introduction and Need of a database - Choosing a database- PHP and MySQL Functions- Creating MySQL databases with PHP- Building forms from queries- Cookies – Session

TEXT BOOKS

Converse, Tim, Joyce Park and Clark Morgan.*PHP5 and MySQL Bible*.Wiley India, 2008.

Duckett, Jon.*HTML & CSS: Design and build websites*.John Wiley, 2011.

Goodman, Danny.*Javascript Bible*, 4thed.New Delhi:Wiley Dreamtech, 2001.

BOOKS FOR REFERENCE

Lerdorf, Rasmus, Kevin Taroe. *Programing in PHP*.O'Reilly, 2002.

Powell, Thomas A.*HTML The Complete Reference*,3rded.New Delhi: Tata McGraw Hill, 2010.

Schumann, Sascha, Deepak Veliath.*Professional PHP Programming*.WROX, 1999.

WEB RESOURCES

www.w3schools.com/html

<http://www.echoecho.com/javascript.htm>

<http://www.tizag.com/phpT/>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A - $10 \times 1 = 10$ (Answer all the questions)
(5 Multiple choice questions and 5 Fill-in the Blanks)

Section B - $5 \times 2 = 10$ (Answer all the questions)

Section C - $4 \times 5 = 20$ (4 out of 5)

Section D - $1 \times 10 = 10$ (1 out of 2)

Third Component:

Seminars

Quiz

Group discussion

Code Reading

Open Book Tests

End Semester Examination:

Total Marks :100

Duration : 3 hours

Section A - $20 \times 1 = 20$ (Answer all the questions)
(10 Multiple choice questions and 10 Fill-in the Blanks)

Section B - $5 \times 2 = 10$ (Answer all the questions)
(1 question from each unit)

Section C - $8 \times 5 = 40$ (8 out of 10)
(2 questions from each unit)

Section D - $3 \times 10 = 30$ (3 out of 5)
(1 question from each unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

BACHELOR OF COMPUTER APPLICATIONS

SYLLABUS

(Effective from the academic year 2015-16)

WEB PROGRAMMING - PRACTICAL

CODE: 15CS/MC/P642

CREDITS: 2

L T P: 0 0 4

TOTAL TEACHING HOURS: 52

HTML and CSS

1. Using HTML features - standard tags, fonts, headings, paragraphs, formatting, list, anchor tags, image linking and multimedia
2. Designing a web page with focus on tables and layers
3. Designing a web page with focus on forms and hands-on experience on different page layouts, web pages with interactivity
4. Exploring and learning the above concepts using Dreamweaver
5. Exercises on div tag, navigations, CSS

JavaScript

6. Programs using operators and control statements
7. Implementing text, number, date and email id validations
8. Exercises on events
9. Using arrays
10. Processing inputs and displaying messages incorporating system time
11. Programs implementing JavaScript objects
12. Programs to handle exceptions

PHP and MySQL

13. Using PHP functions, operators and arrays
14. Implementing get and post methods
15. Using PHP scripts and database - store, retrieve, update and search
16. Using cookies and session
17. Mini project

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

BACHELOR OF COMPUTER APPLICATIONS

SYLLABUS

(Effective from the academic year 2015 – 2016)

SOFTWARE TESTING

CODE: 15CS/MC/ST54

CREDITS: 4

L T P:400

TOTAL TEACHING HOURS:52

OBJECTIVES OF THE COURSE

- To enable the students to understand the need for software testing throughout the SDLC
- To familiarise the students on testing strategies
- To enable the students to effectively plan a test and write test cases

Unit 1

(10 hrs.)

1.1 Overview of Testing

Introduction -Objectives and Limits of Testing - The Value versus Cost of Testing- Relationship of Testing to the Software Development Life Cycle- Tester versus Developer Roles in Software Testing- Putting Software Testing in Perspective

1.2 The Software Development Life Cycle

Introduction- Methodologies and Tools-The Evolution of System Development Life Cycles-The Phased Development Methodology- The Preliminary Investigation Stage- The Analysis Stage-The Design Stage-The Preliminary Construction Stage-The Final Construction Stage -The Installation Stage- Putting Phased Development in Perspective

Unit 2

(10 hrs.)

2.1 Testing Strategy

Introduction-The Chess Pieces for Testing Strategies- The Two-Dimensional Testing Strategy Chess Board-The Three-Dimensional Testing Strategy Chess Board-Putting the Testing Strategy into Perspective

2.2 Verification Strategies

Review – Walkthrough – Inspection -Testing Types and Techniques-White Box Testing - Basis Path Testing - Flow Graph Notation-Cyclomatic Complexity-Graph Matrices-Control Structure Testing-Loop Testing-Black Box Testing-Graph Based Testing Methods-Error Guessing-Boundary Value Analysis-Equivalence Partitioning-Comparison Testing- Orthogonal Array Testing

2.3 Validation Phase

Unit Testing-Integration Testing-Top-Down Integration -Bottom-Up Integration-System Testing-Compatibility Testing-Recovery Testing-Usability Testing-Security Testing-Stress Testing-Performance Testing-Content Management Testing-Regression Testing-Alpha Testing-User Acceptance Testing-Installation Testing-Beta Testing-Understanding Exploratory Testing-Understanding Scenario Based Testing- Understanding Agile Testing- API Testing- Understanding Rapid Testing

Unit 3 (11 hrs.)

3.1 Performance Testing

Introduction- Workload Planning Techniques-Workload Execution Techniques-Component Performance Testing-Round Trip Performance-Putting Performance Testing in Perspective

3.2 Static Testing

Introduction - Goal of Static Testing-Candidate Documents for Static Testing-Static Testing Techniques-Tracking Defects Detected by Static Testing-Putting Static Testing in Perspective

3.3 Structural (Non-functional) Testing

Introduction-Interface Testing- Security Testing-Installation Testing-The Smoke Test-Administration Testing-Backup and Recovery Testing-Putting Structural Testing in Perspective

3.4 Test Ware Development

Test Strategy-Test Plan-Test Case Documents Designing - Test Cases Defect Management –Concept, Defect Taxonomies, Life Cycle of a Defect-Metrics for Testing

Unit 4 (11hrs.)

4.1 Test Process

The Test Planning and Control- Testing Analysis and Design-TestImplementation and Execution-Exit criteria and Reporting test-Test closure Test Management-Test ManagementDocumentation- Test Estimation-Test Progress Monitoring and Control- Testing andRisk

4.2 Test Design Techniques

Introduction-The Test Development process-The idea of test coverage - Categories of Test Case Design techniques-Specification-based (black-box) techniques-Structure-based (white-box) techniques-Experience-based techniques-Choosing Test techniques- Incident Management-People skills

Unit 5 (10 hrs.)

5.1 The Testing Environment

Introduction – Simulations – Benchmarking-Testing Environments-The Goal of a Testing Environment-Good Testing Environments and its need-Bad Testing Environments -Putting the Testing Environment in Perspective

5.2 Tool Support for Testing

Introduction -Test tools-Introducing a tool into an organisation

5.3 Automated Testing Tools

Introduction- Brief History of Automated Testing - Tools for Software- Test Tool Record/Playback Paradigm-Test Tool Touch point Paradigm-Test Tool Execution Paradigm- Benefits -The Liabilities that Testing Tools can impose- Putting Automated Testing Tools in Perspective

5.4 Testing Complex Applications

Introduction - Tier Applications - 2-Tier Applications, 3-Tier Applications, n-Tier Applications-Putting Testing Complex Applications in Perspective

TEXT BOOKS

Anne Mette Jonassen Hass. *Guide to Advanced Software Testing*. 2nd ed. Artech house, 2008. (Chapter 1, 2, 3, 4, 5, 7, 8, 10)

Gerald D. Everett and Raymond McLeod, Jr. *Software Testing Across the Entire Software Development Life Cycle*. 1st ed. New Jersey: John Wiley & Sons, 2007. (Chapter 1,2,3,4,5,6,7,8,9,11,14)

BOOKS FOR REFERENCE

Beizer, Boris. *Software Testing Techniques*. 2nd ed. New Delhi: Dreamtech Elfriede, 2009.

Burnstein, Jene. *Practical Software Testing*. Chennai: Springer International, 2003.

Desikan, Srinivasan and Gopalswamy Ramesh. *Software Testing – Principles and Practices*. New Delhi: Pearson education, 2006.

Dustin. *Effective Software Testing*. 1st ed. Pearson Education, 2003.

Mathur., Aditya P. *Foundations of Software Testing*. New Delhi: Pearson Education, 2008.

Rajani, Renu and Pradeep Oak. *Software Testing – Effective Methods, Tools and Techniques*. Tata McGraw Hill, 2004.

WEB RESOURCES

www.tutorialspoint.com/software_testing

www.testingbrain.com

www.onestoptesting.com

www.etestinghub.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

- Section A - $10 \times 1 = 10$ marks (Answer all the questions)
(5 Multiple choice questions and 5 Fill in the Blanks)
- Section B - $5 \times 2 = 10$ marks (Answer all the questions)
- Section C - $4 \times 5 = 20$ marks (4 out of 5)
- Section D - $1 \times 10 = 10$ marks (1 out of 2)

Third Component:

Quiz

Assignment

Case Study

Group Discussion

Seminar

Testing a software using a tool

End Semester Examination:

Total Marks: 100

Duration: 3 hours

- Section A - $20 \times 1 = 20$ marks (Answer all the questions)
(10 Multiple choice questions and 10 Fill-in the Blanks)
- Section B - $5 \times 2 = 10$ marks (Answer all the questions)
(1 question from each unit)
- Section C - $8 \times 5 = 40$ marks (8 out of 10)
(2 questions from each unit)
- Section D - $3 \times 10 = 30$ marks (3 out of 5)
(1 question from each unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

BACHELOR OF COMPUTER APPLICATIONS

SYLLABUS

(Effective from the academic year 2015-16)

ADVANCED JAVA PROGRAMMING

CODE: 15CS/MC/AJ54

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To introduce students to GUI programming and multi-tier web-based application
- To enable the understanding of distributed enterprise application

Unit 1 (11 hrs.)

1.1 Introducing GUI Programming with JavaFX

JavaFX Basic Concepts - Packages, Stage and Scene Classes, Nodes and Scene Graphs, Layouts, The Application Class and the Lifecycle Methods, Launching a JavaFX Application, JavaFX Application Skeleton - Compiling and Running - Application Thread - Drawing on a Canvas

1.2 JavaFX Controls

Controls - Label, Button, Image, ImageView, ToggleButton, RadioButton, CheckBox, ListView, ComboBox, TextField, ScrollPane

Unit 2 (10 hrs.)

2.1 Event and Database Connectivity

Event Handling – Input Event, Action Event and Window Event
JDBC Database Connectivity - Types of JDBC drivers - Executing Statements - Prepared statements - Callable statements - Mapping SQL types to Java- ResultSetMetadata

Unit 3 (12 hrs.)

3.1 Introduction to HTTP

HTTP Protocol - HTTP Request, GET, POST, HTTP Response, HTTP Response codes - Client side and Server side programming

3.2 Web Applications

Web Applications and Web Containers - Web components - Web Application Life Cycle - Creating, Building and Deploying - Web Archive Structure

3.3 Servlet Technology

Need for Servlets - Characteristics of Servlets - Comparison between Servlets and Applets - Comparison between Servlets and other Server side scripting languages - Working of Servlet - javax.servlet package - Life Cycle of Servlet - Interservlet communication – Request Dispatcher Interface

Unit 4 **(11 hrs.)**

4.1 Java Server Pages

Introduction – Comparison between JSP and Servlets – Life Cycle – Structure – Components - JSP Tags - JSP Session - Cookie – Static content- Dynamic content – Scripting Elements - Database Access

4.2 Basics of XML

Overview - Need for XML - Creating and displaying XML document - Well Formed XML Documents

4.3 JSP Custom Tags

Defining and Using Custom Tags

Unit 5 **(8 hrs.)**

5.1 Web Server Clustering

Cluster – Benefits - Scalability, High Availability -Key Capabilities of a Cluster - Application Failover, Load Balancing

5.2 Security

Basic Security Concepts - Authentication, Authorisation, Java Security framework - Security Manager, Security Policy - Java EE Security - Declarative Security - Basic Authentication, Form Based Authentication, Client Certificate based Authentication, Programmatic Security

5.3 SSL

Confidentiality - Data Integrity - Trust, Encryption - Message Digests - Establishing trust

TEXT BOOKS

Hall, Marty and Larry Brown. *Core Servlets and JavaServer Pages: Advanced Technologies.* 2nd ed. Prentice Hall, 2007.

Schildt ,Herbert. *The Complete Reference - Java.* 9nd ed. Mc Graw Hill, 2014

BOOKS FOR REFERENCE

Anderson , Paul and Gail Anderson. *JavaFX Rich Client Programming on the NetBeans Platform.* Addison-Wesley Professional, 2014.

WEB RESOURCES

<http://docs.oracle.com/javaee/6/tutorial/doc/gjrp.html>

<http://docs.oracle.com/cd/E19146-01/821-1828/gehht/index.html>

http://docs.oracle.com/cd/E11035_01/wls100/cluster/overview.html

http://docs.oracle.com/cd/E12839_01/core.1111/e10043/introjps.htm#JISEC1814

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

- Section A - $10 \times 1 = 10$ marks (Answer all the questions)
(5 Multiple choice questions and 5 Fill-in the Blanks)
- Section B - $5 \times 2 = 10$ marks (Answer all the questions)
- Section C - $4 \times 5 = 20$ marks (4 out of 5)
- Section D - $1 \times 10 = 10$ marks (1 out of 2)

Third Component:

Seminars
Quiz
Open book tests
Group discussion
Assignments
Code Reading

End Semester Examination:

Total Marks: 100

Duration: 3 hours

- Section A - $20 \times 1 = 20$ marks (Answer all the questions)
(10 Multiple choice questions and 10 Fill-in the Blanks)
- Section B - $5 \times 2 = 10$ marks (Answer all the questions)
(1 question from each unit)
- Section C - $8 \times 5 = 40$ marks (8 out of 10)
(2 questions from each unit)
- Section D - $3 \times 10 = 30$ marks (3 out of 5)
(1 question from each unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

BACHELOR OF COMPUTER APPLICATIONS

SYLLABUS

(Effective from the academic year 2015-16)

VISUAL PROGRAMMING

CODE: 15CS/MC/VP54

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To introduce students to object-oriented programming concepts using C#
- To enable the students to develop web based programs using C# and ASP.NET

Unit 1

1.1 Introduction to .NET (8 hrs.)

.NET Framework – Evolution - Benefits

1.2 Overview of .NET Framework

.NET Framework - CLR, CTS, Metadata and Assemblies, .NET Framework Class Library, Windows Forms, ADO.NET – Tools, Portable Class Libraries- ASP.NET vs ASP.NET AJAX

1.3 Introduction to Visual Studio IDE

HTML, JavaScript and CSS Editor - Publishing - Visual Studio IDE - Operations - Creating a Windows Application - Saving Code on the Toolbox- Changing the IDE Font and Color

Unit 2

(10 hrs.)

2.1 C# Fundamentals

Identifiers, Keywords, Variables and Constants - Value Types and Reference Types - Type Conversions - Boxing and Unboxing - Expressions and Operators - Variables – Constants - Specifying the Scope of a Variable - Declaring and Initialising Strings – Manipulating Strings - Single and Two-dimensional Arrays – Iterating Through an Array

2.2 Flow Control and Exception Handling

Control Flow Statements - if, nested if, switch, loops - Exception Handling

2.3 Namespaces, Classes, Objects

2.3.1 Namespaces

Introduction - Adding a Reference to the Namespace - Accessing a Predefined Namespace through the using Directive

2.3.2 Classes and Objects

Class, Object, Access Modifiers - Constructors and Destructors - Static Classes and Static Class Members – Properties - Array of Objects - Method with

Parameters - Method with Arguments - Passing a Reference Argument to a Method -Passing an Object as an Argument to a Method -Returning a Value from a Method -Parameterized Constructor -Calling the Destructor of a Class

Unit 3 (12 hrs.)

3.1 ASP.NET

Web Forms -Web Pages -ADO.NET Entity Framework - ASP.NET Life Cycle- Single-File Page Model -Code-Behind Page Model

3.2 Page Directives

Introduction-Creating a New Web Site - Setting the Title Bar Text of a Web Form - Adding a Background Color to a Web Form -Adding a Background Image to a Web Form

3.3 Web Application

Adding Controls - Multiform Web Application - Life Cycle of a Page - Web Forms Navigation and Cross-Page Posting -Standard Web Server Controls

Unit 4 (12 hrs.)

4.1 Validation Server Controls

Introduction- Validators-Validation techniques

4.2 Navigation Controls

TreeView Control -Adding Nodes to a TreeView Control Dynamically, DataSourcePropertyat Design Time -Menu Class- Menu Control-Menu Display Properties – Menu Styles–SiteMapPath Class – SiteMapPath Control

4.3 Login Controls

Login –LoginView - LoginName –LoginStatus - PasswordRecovery - ChangePassword-CreateUserWizard

4.4 Working with State, Cookies and URL Encoding

View state – Session state – Application state and Caching – Cookies - URL encoding

Unit 5 (10 hrs.)

5.1 Data Access with ADO.NET

Introduction -Architecture - Framework -Connection Strings - Connecting to a Database -SQL Server Database-Command Object -DataAdapters - Dataset - Paging and Updating with DataAdapters-DataView-DataReader

5.2 Data Binding Controls in ASP.NET Applications

GridView – DataList –DetailsView –FormView –ListView –Repeater – DataPager – Chart – SqlDataSource - SiteMapDataSource

TEXT BOOKS

Delamater ,Mary and Anne Boehm. *Murach's ASP.NET 4.5 Web Programming with C# 2012*. 2013.

Kogent Learning Solutions. *C# 2012 Programming Covers .NET 4.5 Black Book*. Dreamtech press publications, 2013.

BOOKS FOR REFERENCE

Gaylord ,Jason N. , Christian Wenz and et al, *Professional ASP.Net 4.5 in C# and VB*. Wiley, 2013.

Kogent Learning Solutions. *ASP.NET 4.5 in Simple Steps*. Wiley Publications, 2013.

WEB RESOURCES

<http://www.tutorialspoint.com/asp.net/>

<http://www.w3schools.com/aspnet/>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A - $10 \times 1 = 10$ marks (Answer all the questions)

(5 Multiple choice questions and 5 Fill-in the Blanks)

Section B - $5 \times 2 = 10$ marks (Answer all the questions)

Section C - $4 \times 5 = 20$ marks (4 out of 5)

Section D - $1 \times 10 = 10$ marks (1 out of 2)

Third Component:

Quiz

Assignment

Case Study

Debugging

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A - $20 \times 1 = 20$ marks (Answer all the questions)

(10 Multiple choice questions and 10 Fill-in the Blanks)

Section B - $5 \times 2 = 10$ marks (Answer all the questions)

(1 question from each unit)

Section C - $8 \times 5 = 40$ marks (8 out of 10)

(2 questions from each unit)

Section D - $3 \times 10 = 30$ marks (3 out of 5)

(1 question from each unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

BACHELOR OF COMPUTER APPLICATIONS

SYLLABUS

(Effective from the academic year 2015-16)

ADVANCED JAVA PROGRAMMING - PRACTICAL

CODE: 15CS/MC/P752

CREDITS: 2

L T P: 0 0 3

TOTAL TEACHING HOURS: 39

1. Basic Exercises in JavaFX
2. Exercises for drawing on Canvas
3. Exercise using JavaFX Controls - Label, Buttons, Image, ImageView, ToggleButton, RadioButton, CheckBox, ListView, ComboBox, TextField, ScrollPane
4. Exercises on Event Handling, Controls and Database Connectivity
5. Exercises on Servlet
 - i. Life Cycle of Servlet
 - ii. Servlet Sessions
 - iii. Cookie
 - iv. Interservlet communication using Request Dispatcher interface
6. Exercises on JSP
 - i. JSP Tags
 - ii. JSP Session
 - iii. Dynamic content using Scripting Elements and Database Access
7. Exercises on JSP Custom Tags
8. Mini Project

STELLAMARISCOLLEGE (AUTONOMOUS), CHENNAI - 600 086

BACHELOR OF COMPUTER APPLICATIONS

SYLLABUS

(Effective from the academic year 2015 – 2016)

VISUAL PROGRAMMING WITH C# - PRACTICAL

SUB CODE: 15CS/MC/P852

CREDITS: 2

L T P: 0 0 4

TOTAL TEACHING HOURS: 52

1. Creating a simple windows application
2. Programs to iterate through an one dimensional array
3. Exercises using various looping structures and control structures
4. Exercises implementing exception handling
5. Exercise to implement concepts such as class, object, constructor and destructor
6. Exercise to understand the life cycle of a web page
7. Exercise to create a web page using various web server controls
8. Exercise using CSS in web application
9. Exercise to implement navigation controls
10. Exercise to validate the data using validation controls
11. Exercise to implement login controls
12. Creating a web application to maintain the database in SQL Server
13. Program to implement data bound controls
14. Program to maintain state between different sessions and applications
15. Mini Project

STELLA MARIS COLLEGE (AUTONOMOUS) – CHENNAI – 600 086

BACHELOR OF COMPUTER APPLICATIONS

SYLLABUS

(Effective from the academic year 2015-16)

NETWORK CONCEPTS

CODE: 15CS/MC/NC64

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To provide an insight into various concepts of networking
- To introduce the latest networking technologies and mobile computing to students

Unit 1 (11 hrs.)

1.1 Introduction

Data Communication – Networks – Network Types – Internet History – Standard and Administration

1.2 Network Models

Protocol Layering – TCP/IP Protocol Suite – The OSI Model

Unit 2 (8hrs.)

2.1 Physical Layer

Data and Signals – Digital Signals – Performance - Transmission Modes – Multiplexing – Transmission Media – Switching

Unit 3(14hrs.)

3.1 Data Link Layer

Data Link Control – Framing - Fixed Size Framing, Variable size framing, Flow and Error Control, Random Access-CSMA, CSMA/CD, CSMA/CA, Controlled Access, Channelisation

3.2 Network Layer

Logical Addressing - IPV4 Addresses, Addressing, Network Address Translation - IPv6 Addresses - Structure, Address Space

Unit 4(9hrs.)

4.1 Transport Layer

Transport Layer Services - Connectionless and Connection-Oriented Protocols

4.2 Application layer

Domain Naming System – DNS Name Space, Distribution of name space, DNS in the Internet, Resolution, DNS messages, Remote logging, Email, File transfer

Unit 5

(10 hrs.)

5.1 Wired and Wireless LANs

Wired LANs – Ethernet, IEEE Standards, Standard Ethernet, Fast Ethernet, Giga bit Ethernet -Components of a Wireless Communication System – Architecture of a Mobile Telecommunication System -Wireless Networking Standards - Bluetooth Technology

5.2 Mobile Computing

Mobile Computing vs. Wireless Networking – Mobile Computing Applications – Characteristics of Mobile Computing – Structure of Mobile Computing Application – Cellular Mobile Communication – Global System for Mobile Communication- General Packet Radio Service

TEXTBOOKS

Forouzan, Behrouz. *Data Communications and Networking*. 5th ed. McGraw-Hill, 2012.

Pattnaik, Prashanth Kumar, Rajib Mall. *Fundamentals of Mobile Computing*. PHI, 2012.

BOOKS FOR REFERENCE

Bonaventure, Olivier. *Computer Networking: Principles, Protocols and Practice*. cnp3book, 2014.

Tanenbum, Andrew S. *Computer Networks Pearson publication*. 5th ed. 2011.

WEB RESOURCES

<http://compnetworking.about.com/od/basicnetworkingconcepts/>

<http://www.networkconceptsinc.com>

<http://computerguru.net/Network>

http://www.tutorialspoint.com/data_communication_computer_network

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A - $10 \times 1 = 10$ marks (Answer all the questions)

(5 Multiple choice questions and 5 Fill-in the Blanks)

Section B - $5 \times 2 = 10$ marks (Answer all the questions)

Section C - $4 \times 5 = 20$ marks (4 out of 5)

Section D - $1 \times 10 = 10$ marks (1 out of 2)

Third Component:

Quiz

Assignment

Case Study

Group Discussion

Seminar

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A - $20 \times 1 = 20$ marks (Answer all the questions)

(10 Multiple choice questions and 10 Fill-in the Blanks)

Section B - $5 \times 2 = 10$ marks (Answer all the questions)

(1 question from each unit)

Section C - $8 \times 5 = 40$ marks (8 out of 10)

(2 questions from each unit)

Section D - $3 \times 10 = 30$ marks (3 out of 5)

(1 question from each unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

BACHELOR OF COMPUTER APPLICATIONS

SYLLABUS

(Effective from the academic year 2015 – 2016)

EMERGING TRENDS IN INFORMATION TECHNOLOGY

CODE: 15CS/MC/ET64

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVE OF THE COURSE

- To familiarise the students with concepts and techniques of the emerging trends in Information Technology

Unit 1

Cloud Computing

(12 hrs.)

1.1 Introduction

Cloud computing- Vision - Defining a Cloud - The Cloud Computing Reference model - Characteristics and Benefits -Building cloud computing environments- Application development - Infrastructure and System development - Computing Platforms and Technologies

1.2 Cloud Computing Architecture

The Cloud Reference model - Types of Clouds -Open challenges- Google App Engine - Platform as a Service- Google App Engine - The App Engine runtime environment-The App Engine development environment

Unit 2

Pervasive Computing

(10hrs.)

2.1 Introduction

Pervasive Computing and its significance - Mobile Agent Technology - Introduction, Mobile Agent Security, Mobile Agent Platforms, Applications

2.2 Intelligent Environments

Definition and Components – Taxonomy, Trends, Limitations and Challenges, Applications and Case Studies - Smart Everyday Objects - Smart Home - Smart Office - Smart Room - Smart Car- Smart Laboratory - Smart Library

- Unit 3** (10 hrs.)
Wireless Sensor Networks
3.1 Introduction
 Vision of Ambient Intelligence - Application examples - Types of Applications - Challenges for WSNs - Enabling technologies for wireless sensor networks-Sensor network scenarios- Types of sources and sinks - Single-hop versus multihop networks - Multiple sinks and sources - Three types of mobility - Optimisation goals and figures of merit - Quality of service-Energy efficiency – Security - Fundamentals– Security considerations in wireless sensor networks - Denial-of-service attacks
- Unit 4** (11hrs.)
Big Data Analytics
4.1 Introduction
 Concept – Significance-Stages in data Systems-Big data vs. Regular data-Advanced Analytics-Three vs in Big Data-Big Data Analytics Applications - Social Media Command Center -Location-Based Services - Online Advertising
4.2 Understanding the data analytics project life cycle
 Identifying the problem- Designing data requirement- Preprocessing data- Performing analytics over data- Visualising data, Understanding data analytics problems
- Unit 5** (9hrs.)
Green Computing
5.1 Introduction
 Environmental drivers for Green Computing-What drivers the Green Agenda?-Key Roots of Environmentalism-Environmentalism and IT-What it means to “Go Green”. The end of PC Era-some new model IT Challenges-Why Green Computing fits the New Model-What Makes a Device Green?-Greenability and Cloud Computing-The Philosophical implications of green computing-The Zen of green computing.
5.2 Greening of Computing
 Data Centers- Power Usage Effectiveness, Low PUE Design, Computing for Greening - Smart Buildings- Monitoring Energy Usage-Controlling Energy Usage- Environment Monitoring

TEXT BOOKS

Buyya, Rajkumar, Christian Vecchiola and S. Thamarai Selvi. *Mastering Cloud Computing Foundations and Applications Programming*. Elsevier, 2013 [Chapters 1, 4]

Dr. Sathi, Arvind. *Big Data Analytics: Disruptive Technologies for Changing the Game*. IBM Corporation, 2012. [Chapter 3]

Karl, Holger and Andreas Willig. *Protocols and Architectures for Wireless Sensor Networks*. John Wiley & Sons, 2007. [Chapter 1, 3 & 14]

Minelli, Michael, Michele Chambers, Ambiga Dhiraj. *Big Data Big Analytics, 2013*. [Chapter 1]

Mohammad, S., Obaidat, Mieso Denko, Isaac Woungang. *Pervasive computing and Networking*. 1st ed. John Wiley and Sons, 2011. [Chapter 1, 2 & 13]

Prajapati, Vignesh. *Big Data Analytics with R and Hadoop*. Packet Publishing Ltd, 2013. [Chapter 5]

Smith, Bud E. *Green Computing: Tools and Techniques for Saving Energy, Money, and Resources*. 1st ed. Auerbach, 2013. [Chapter 3, 4 & 6]

BOOKS FOR REFERENCE

Anthony T, Velte Toby J, Velte and RobertElsenpeter. *Cloud Computing Practical Approach*. McGraw-Hill, 2010.

WEB RESOURCES

<https://cloud.google.com/appengine/docs/whatisgoogleappengine>

<https://it.books.in/bigdata/analytics>

<https://books.google.co.in/books>

http://lass.cs.umass.edu/~shenoy/courses/spring13/lectures/notes/677_lec21.pdf

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A - $10 \times 1 = 10$ marks (Answer all the questions)

(5 Multiple choice questions and 5 Fill in the Blanks)

Section B - $5 \times 2 = 10$ marks (Answer all the questions)

Section C - $4 \times 5 = 20$ marks (4 out of 5)

Section D - $1 \times 10 = 10$ marks (1 out of 2)

Third Component:

Quiz

Assignment

Seminar

Group Discussion

Problem solving

Case Study

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A - $20 \times 1 = 20$ marks (Answer all the questions)

(10 Multiple choice questions and 10 Fill-in the Blanks)

Section B - $5 \times 2 = 10$ marks (Answer all the questions)

(1 question from each unit)

Section C - $8 \times 5 = 40$ marks (8 out of 10)

(2 questions from each unit)

Section D - $3 \times 10 = 30$ marks (3 out of 5)

(1 question from each unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 86

BACHELOR OF COMPUTER APPLICATIONS

SYLLABUS

(Effective from the academic year 2015-2016)

PROJECT

CODE: 15CS/MC/PR64

CREDITS: 4

L T P: 0 0 8

OBJECTIVE OF THE COURSE

- To help students to apply the concepts learnt throughout the course and develop an application

GUIDELINES

One of the important stipulations regarding project for B.C.A. is that it should be in the area of Computer Science/ Computer Applications. Students are required to develop an application to suit the research/business needs.

The Dissertation must include the following. These are general guidelines which may differ slightly as per the demand of the study topic.

Introduction

- Existing System
- Proposed System
- Creating a set of Design principles to implement the proposed system

System Analysis

- Development Environment
- Requirement Specification
- Software Requirements Specification

System Design

- Logical Design of the System
- Database Design
- Screen Design
- Report Design

Implementation

- Database creation
- Coding

Code Review and Testing

- Code Review
- Testing Process

- Front-end Validation
- Back-end Validation

Deployment

Conclusion

- Conclusion and scope for future enhancement

Bibliography

Appendix

PATTERN OF EVALUATION

Internal Assessment – 50 marks

Based on the criteria listed below, internal marks will be awarded.

1. Timely completion of assigned tasks
2. Individual involvement and team work
3. Quality of the application and documentation (Design, Workflow, Testing, Precision, Relevance)
4. Achievement of project deliverables
5. Presentation of completed work
6. Viva-Voce

End Semester Examination – 50 marks

Project Document must be submitted at the end of the semester. The student must present the completed project work. A viva-voce based on the work will also be conducted.

Mark will be allotted based on the following criteria which may differ slightly as per the demand of the domain and converted to 50 marks

Requirement Analysis	– 10 marks
Database Design	– 10 marks
Screen Design	– 10 marks
Coding	– 10 marks
Validation	– 10 marks
Testing	– 10 marks
Reports	– 5 marks
Documentation	– 20 marks
Special Features	– 5 marks
Viva – Voce	– 10 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**Allied Elective Course offered by the Department of Computer Science for
B.Sc.(Mathematics) / B.Com. / B.S.W. Degree**

SYLLABUS

(Effective from the academic year 2015 – 2016)

CYBER SECURITY AND FORENSICS

CODE: 15CS/AE/SF45

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS:65

OBJECTIVES OF THE COURSE

- To familiarise students with the concepts of cyber security and forensics
- To introduce the basics of cyber law and its related issues

Unit 1 (10 hrs.)

1.1 Cyber Security Fundamentals

Network and Security Concepts - Information Assurance Fundamentals - Basic Cryptography - Symmetric Encryption - Public Key Encryption - The Domain Name System (DNS) - Firewalls

1.2 Mobilesecurity

Securing Smart Device – Device Security Component overview- Understanding on Device Anti-x protection- Controlling and Monitoring Applications- Enterprise management of Mobile Devices- Hacker Protection and Enforceable Encryption – Keeping device safe with on device Firewall- Protecting against Virus- Reducing Spam- Preventing Intrusion - Securing Mobile Applications

Unit 2 (13 hrs.)

2.1 Cyber Security Management Concepts

Security Governance, Management models, roles, and functions

2.2 Security Plans and Policies

Levels of planning, Planning misalignment, The System Security Plan (SSP), Policy development and implementation

2.3 Laws and Regulatory Requirements

Need of Cyberlaw in India - Laws related to Information Security -IT Act of India 2000, IT Amendment Bill 2006, IT Amendment Bill 2008

- Unit 3** (14 hrs.)
3.1 Attacker Techniques and Motivations
Covering the tracks by hackers (Antiforensics) - White Hat Hacker, Grey Hat Hacker, Black Hat Hacker, Fraud Techniques - Phishing, Smishing, Vishing, and Mobile Malicious Code, Rogue Antivirus, Click Fraud - Threat Infrastructure- DoS
- Unit 4** (13 hrs.)
4.1 Cyber Terrorism
Terrorist use of the internet- Internet as Weapon, Wireless threat
4.2 IPR Violations
Introduction to IPR - Intellectual Property Law - Patents, Trademarks and Copyright- Copyright Basics - Need and the method to protect the Intellectual Property
- Unit 5** (15 hrs.)
5.1 Cyber Forensics
Cyber Forensics Investigation- Introduction to Cyber Forensic Investigation, Investigation Tools, eDiscovery, Digital Evidence Collection, Evidence Preservation
5.2 E-Mail
E- Mail Investigation - E-Mail Tracking, IP Tracking, E-Mail Recovery, Search and Seizure of Computers, Recovering deleted evidences, Password Cracking
5.3 Tools
Demonstration -System Information Tool, Network Tool, Cryptography Tool, Hashing Tool, Steganography Tool

TEXT BOOKS

Campagna, Rich, Subbu Iyer. *Mobile Device Security for Dummies*. 1st ed. Wiley, 2011.

Graham, James, Richard Howard and Ryan Olson. *Cyber Security Essentials*. 1st ed. Taylor and Francis Group, 2011.

Rhodes-Ousley, Mark. *Information Security: The Complete Reference*, 2nd ed. McGraw-Hill Osborne Media, 2013.

Shema, Mike, Bradley C. Johnson. *Anti-hacker Tool Kit*, 4th ed. McGraw-Hill/Osborne, 2004.

Whitman, Michael, E., Herbert J. Mattord. *Roadmap to Information Security for IT and Infosec Managers*. Course Technology, Cengage Learning, 2011.

REFERENCE BOOKS

Clarke, Richard A., Robert Knake. *Cyberwar: The Next Threat to National Security & What to Do About It*. Ecco, 2012.

Gollmann, Dieter. *Computer Security*, 2nd ed. John Wiley & Sons, 2011.

WEB RESOURCES

<http://www.cyberlawsindia.net>

<http://nij.gov/topics/forensics/evidence/digital/pages/welcome.aspx>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50 **Duration: 90 mins.**

Section A - $10 \times 1 = 10$ (Answer all the questions)
(5 Multiple choice questions and 5 Fill-in the Blanks)

Section B - $5 \times 2 = 10$ (Answer all the questions)

Section C - $4 \times 5 = 20$ (4 out of 5)

Section D - $1 \times 10 = 10$ (1 out of 2)

Third Component:

Case study

Assignment

Seminar

End Semester Examination:

Total Marks: 100 **Duration: 3 hours**

Section A - $20 \times 1 = 20$ (Answer all the questions)
(10 Multiple choice questions and 10 Fill-in the Blanks)

Section B - $5 \times 2 = 10$ (Answer all the questions)
(1 question from each unit)

Section C - $8 \times 5 = 40$ (8 out of 10)
(2 questions from each unit)

Section D - $3 \times 10 = 30$ (3 out of 5)
(1 question from each unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
Allied Elective Course offered by the Department of Computer Science for
B.Sc.(Mathematics) / B.Com. / B.S.W. Degree

SYLLABUS
(Effective from the academic year 2015 – 2016)

DATA ANALYSIS

CODE: 15CS/AE/DA45

CREDITS: 5

L T P: 4 01TOTAL
TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To recognise different types of data and understand the implications of data type for subsequent analyses
- To enable the students to collect, clean, validate and summarise data
- To familiarise students on predictive analysis

Unit 1

1.1 Fundamentals of Data Analysis (12hrs.)

Purpose of Data Analysis- Different Types of Data-Primary and Secondary Data, Quantitative and Qualitative Data- Differences between Qualitative and Quantitative Data

1.2 Analytical Activity of Data

Analytical Activity of Data Users-Data Collection, Processing and Analysis -Steps in Data Collection-Tools and Techniques of Data Collection-Processing of Data- Interpreting the Information- Data Quality Issues

Unit 2

2.1 Data Collection (14hrs.)

Preparing, Inputting and Checking Data - DataTypes - Data Layout- Coding- Entering Data - Checking for Errors

2.2 Data Cleaning

Spell Checking - Removing Duplicate Rows - Finding and Replacing Text – Changing Case - Removing spaces and nonprinting characters -Fixing Numbers and Signs -Fixing Dates and Times -Merging and Splitting Columns - Transforming and Rearranging Columns and Rows -Reconciling Table Data by joining or matching

2.3 Importing Data

Importing Text, Microsoft Word Data into Excel - Importing Data from the Web into Excel-Validating Data

Unit 3

(12 hrs.)

3.1 Data Analysis

Exploring and Presenting Data- Exploring and Presenting Individual Variables- Comparing Variables-Describing Data using Statistics - Describing the Central Tendency - Describing the Dispersion- Examining Relationships, Differences and Trends using Statistics - Testing for significant Relationships and Differences-

Assessing the strength of Relationship - Examining Trends

3.2 Summarising Data

Summarising Data – Histogram, Descriptive Statistics, Database Statistical Functions-Using PivotTables to Describe Data

Unit 4

(15 hrs.)

4.1 Predictive Data Analysis

Sensitivity Analysis with Data Tables -Filtering Data- Consolidating Data -Using Correlations to Summarise Relationships - Incorporating Qualitative Factors into Multiple Regression Functions - Analysis of Variance - One-Way ANOVA, Randomised Blocks and Two-Way ANOVA

Unit 5

(12 hrs.)

5.1 Analysing Qualitative Data

Transcribing Qualitative Data- Using Electronic Textual Data including scanned Documents-The interactive nature of the process- Approaches to Qualitative Analysis - Using a Deductive approach- Using an Inductive approach-Types of Qualitative analysis processes-Analytical aids

5.2 Software Tools

A programming environment for scientific computation and data analysis- Software Tools

TEXT BOOKS

Janert, Philipp, K. *Data Analysis with Open Source Tools*. 1st ed. O'Reilly, 2010. (Chapters 16, 18 and Appendix)

Saunders, Mark, Philip Lewis and Adrian Thornhill. *Research methods for business students*. 5th ed. Pearson, 2009. (Chapters 12 & 13)

Winston, Wayne, L. *Microsoft Excel Data Analysis and Business Modeling*. 1st ed. Microsoft Press, 2004. (Chapters 15, 38, 37, 35, 44, 46, 48, 49)

BOOKS FOR REFERENCE

Dey, Ian. *Qualitative data analysis: A User Friendly Guide for Social Scientists*. New York: Taylor and Francis Group, 2005.

WEB RESOURCES

http://en.wikibooks.org/wiki/Statistics/Different_Types_of_Data

<https://support.office.com/en-nz/article/Top-ten-ways-to-clean-your-data-2844b620-677c-47a7-ac3e-c2e157d1db19>

<http://www.nios.ac.in/media/documents/316courseE/E-JHA-31-10A.pdf>

<http://scholarworks.lib.csusb.edu/cgi/viewcontent.cgi?article=1032&context=etd>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50 **Duration: 90 mins.**

- Section A - $10 \times 1 = 10$ marks (Answer all the questions)
(5 Multiple choice questions and 5 Fill-in the Blanks)
Section B - $5 \times 2 = 10$ marks (Answer all the questions)
Section C - $4 \times 5 = 20$ marks (4 out of 5)
Section D - $1 \times 10 = 10$ marks (1 out of 2)

Third Component:

- Component I - 25 marks
Collecting, Cleaning, Validating and Summarising Data
Component II - 25 marks
Predictive analysis with the data

End Semester Examination:

Total Marks: 100 **Duration: 3 hours**

- Section A - $20 \times 1 = 20$ marks (Answer all the questions)
(10 Multiple choice questions and 10 Fill-in the Blanks)
Section B - $5 \times 2 = 10$ marks (Answer all the questions)
(1 question from each unit)
Section C - $8 \times 5 = 40$ marks (8 out of 10)
(2 questions from each unit)
Section D - $3 \times 10 = 30$ marks (3 out of 5)
(1 question from each unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

BACHELOR OF COMPUTER APPLICATIONS

SYLLABUS

(Effective from the academic year 2015-2016)

LINUX PROGRAMMING

CODE: 15CS/ME/LP55

CREDITS: 5

L T P: 3 0 3

TOTAL TEACHING HOURS: 78

OBJECTIVES OF THE COURSE

- To familiarise with the open source operating system
- To enable the students to effectively use the UNIX/Linux utilities and to do shell programming
- To introduce Linux file system, file management and system calls

Unit 1 (15hrs.)

1.1 Introduction to UNIX /Linux

Architecture of UNIX / Linux - Features of UNIX and Linux - Basic Commands – PATH, man, echo, printf, script, passwd, uname, who, date, tty, pwd, cd, mkdir, rmdir, ls, cp, mv, rm, cat, more, ln, Links- Hard Links, Symbolic Links

1.2 General Utilities

Introduction to UNIX/Linux file system - File handling utilities - Security by file Permissions - Process utilities - Text processing utilities

Unit 2 (15hrs.)

2.1 Filters and Pipes

Concatenating files - Display Beginning and End of files - Cut and Paste – Join – Sorting - Translating Characters - Files with Duplicate lines - uniq, Count characters, words or lines - wc, nl, tee, comm, cmp, diff, find, grep - operation, grep family, Searching for file content

Unit 3 (20hrs.)

3.1 Introduction to Shells

Session - Standard Streams – Redirection – Pipes - Tee Command - Command Execution - Command-Line Editing – Quotes - Command Substitution - Job Control – Aliases – Variables - Predefined Variables – Options - Shell/Environment Customisation

3.2 Shell Programming

Introduction to vi editor – Writing Shell Script – Variables in shell – echo command – Shell Arithmetic – Exit Status – The read statement – Conditional statements – Loops in Shell scripts – Command using pipes and filters

Unit 4 (15hrs.)

4.1 Advanced Filters

sed - Scripts, Operation, Addresses, commands, Applications -awk -Execution, Fields and Records, Scripts, Operations, Patterns, Actions, Associative Arrays, StringFunctions, Mathematical Functions, User defined Functions, Using Systemcommands in awk

Unit 5 (13 hrs.)

5.1 Linux File System

File System - ext2, ext3, Boot block, super block, Inode table, data blocks, Linux access files System startup and shut-down process

5.2 File Management

File Structures - System Calls for File Management – create, open, close,read, write, lseek, stat,chmod, chown - Directory API – opendir, readdir, closedir, mkdir, rmdir

TEXT BOOKS

Das ,Sumitabha. *UNIX – Concepts & Applications*.3rd ed. TataMcGraw Hill, 2000.

Kanethkar,Yashwant.*UNIX Shell Programming*.BPB, 2002.

Negus ,Cristopher. *Red Hat Linux Bible*.India :Wiley Dreamtech, 2003.

Rosen , Kenneth H et al.*UNIX: The Complete Reference*. 2nd ed.Osborne :McGraw Hill, 2007.

BOOKS FOR REFERENCE

Glass ,Grahamand King Ables.*UNIX for programmers and users*.Pearson Education, 2003.

Mathew ,Neiland Richard Stones.*Beginning Linux Programming*, India :WileyDreamtech, 2011.

WEB RESOURCES

www.tutorialspoint.com/unix/

www.unixtutorial.org/

www.guru99.com/unix-linux-tutorial.html/

PATTERN OF EVALUATION

Continuous Assessment:

Theory- 25 marks Practical: 25 marks

Duration: 90 mins.

Theory Pattern

Section A- 10 x 1 = 10 marks (Answer all the Questions)

(5 Multiple choice questions and 5 Fill-in the Blanks)

Section B - 3 × 5 = 15 marks (3 out of 4)

Third Component:

Seminars

Quiz

Open book tests

Group discussion

Assignments

Linux Code Reading

Debugging

Project

End Semester Examination

Total Marks: 100

Duration: 3 hours

Theory - 50 marks

Duration – 1 ½ hrs.

Practical - 50 marks

Duration – 1 ½ hrs.

Section A-10 x 1 = 10 (Answer all the Questions)

(5 Multiple choice questions and 5 Fill-in the Blanks)

Section B - 5 × 2 = 10 (Answer all the Questions)

(atleast 1 question from the first four units)

Section C - 6 × 5 = 30 (6 out of 8)

(atleast 1 question from the first four units)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

BACHELOR OF COMPUTER APPLICATIONS

SYLLABUS

(Effective from the academic year 2015 - 16)

SOFTWARE AND INFORMATION SECURITY

CODE: 15CS/ME/SI55

CREDITS: 5

L T P : 5 1 0

TOTAL TEACHING HOURS: 78

OBJECTIVES OF THE COURSE

- To understand the software and information security's importance in our increasingly computer-driven world
- To provide with a background, foundation and insight into the various dimensions of software and information security

Unit 1 (13 hrs.)

1.1 Software Security Fundamentals

Overview of Security - Dealing with Security Failures - Technical trends affecting Software Security - The 'ilities - Security Goals

1.2 Software Security and Operations

Security vs Software – The three pillars of Software Security - Rise of Security Engineering

Unit 2 (15 hrs.)

2.1 Managing Software Security Risk

Overview of software Risk - Management for Security – Role of Security Personnel in life cycle – Software Risk - Management in practice - Guiding principles for Software Security

2.2 Software Vulnerabilities and Threats

Software Vulnerabilities – Technical Threats – Administrative and Physical Threats – Common Technical Safeguards - Buffer Overflows - Access Control – Authentication, Authorisation - Demonstration using tools to check for Vulnerabilities in Web Applications

- Unit 3** (17 hrs.)
- 3.1 Code review**
Code review – A taxonomy of coding errors - Input Validation and Representation - API Abuse - Security Features - Time and State - Error Handling - Code Quality – Encapsulation - Environment - Demonstration
- 3.2 Race Conditions**
Concept – Time-of-check - Time-of-Use - Broken passwd - Avoiding TOCTOU Problems – Secure File Access – Temporary Files – File Locking – Other Race Conditions - Demonstration
- Unit 4** (19 hrs.)
- 4.1 Software Penetration Testing**
Penetration Testing today – A better approach - Incorporating findings back into development – Using Penetration Tests to assess the application landscape – Need for Proper penetration testing
- 4.2 Password Authentication**
Password Storage - Adding users to a Password Database – Password Authentication - Password Selection – Passphrases - Application-Selected Passwords - One-time Passwords - Demonstration using tools to check for Vulnerabilities in Web Applications
- Unit 5** (14 hrs.)
- 5.1 Information Security**
Introduction to Information Security - Components of an Information System - Securing components - The need for security - Introduction, Business needs threats
- 5.2 Cryptography**
Principles of Cryptography - Cryptography tools- Public Key Infrastructure, Digital Signatures, Digital Certificates - Hybrid Cryptography Systems - Steganography - Protocols for Secure Communication

TEXT BOOKS

Daswani, Neil, Christoph Kern and Anita Kesavan. *Foundations of Security: What Every Programming Needs to Know*. Apress, 2007.

Gary and McGraw. *Software Security: Building Security In*. 1st ed. Addison-Wesley Software Security Series, 2006.

Viega, John, Gary and McGraw. *Building Secure Software: How to avoid security problems the right way*. 1st ed. Addison Wesley Professional Computing Series, 2002.

BOOKS FOR REFERENCE

American Bar Association (Section of Antitrust Law). *Data Security Handbook*. ABA Section of Antitrust Law, 2008.

WEB RESOURCES

https://www.owasp.org/index.php/Main_Page

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A - $10 \times 1 = 10$ marks (Answer all the questions)
(5 Multiple choice questions and 5 Fill-in the Blanks)

Section B - $5 \times 2 = 10$ marks (Answer all the questions)

Section C - $4 \times 5 = 20$ marks (4 out of 5)

Section D - $1 \times 10 = 10$ marks (1 out of 2)

Third Component:

Seminars

Quiz

Open book tests

Group discussion

Assignments

Web site auditing

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A - $20 \times 1 = 20$ marks (Answer all the questions)
(10 Multiple choice questions and 10 Fill-in the Blanks)

Section B - $5 \times 2 = 10$ marks (Answer all the questions)
(1 question from each unit)

Section C - $8 \times 5 = 40$ marks (8 out of 10)
(2 questions from each unit)

Section D - $3 \times 10 = 30$ marks (3 out of 5)
(1 question from each unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

BACHELOR OF COMPUTER APPLICATIONS

SYLLABUS

(Effective from the academic year 2015 – 2016)

HTML5 AND GAME PROGRAMMING

CODE: 15CS/ME/HG55

CREDITS: 5

L T P: 3 0 3

TOTAL TEACHING HOURS: 78

OBJECTIVES OF THE COURSE

- To familiarise the students with basic understanding on HTML5
- To enable the students to create games using HTML5

Unit 1

(14hrs.)

1.1 Basic HTML5 Structure

Syntax- Character Encoding - The Doctype, Language - New Elements- header, footer, figure, video, audio, canvas

1.2 Canvas

Canvas – Canvas Context, Event Handling, Using HTML Elements in a Canvas, A Brief Math Primer, Vectors - Text - Stroking and Filling Text, Positioning Text, Implementing Text Controls

1.3 Drawing

Drawing – Colors - Gradients and Patterns, Shadows, Paths, Stroking, and Filling - Basic Shapes –Rectangle, Lines, Arcs and Circles, Bezier Curves, Polygons – Transformation, Compositing, Clipping

Unit 2

(13hrs.)

2.1 Image and Video

Drawing Images - Scaling Images - Drawing a Canvas into a Canvas -Offscreen Canvases - Manipulating Images - Clipping Images - Animating Images - Performance – Shoots - A Magnifying Glass - Video Processing

2.2 Animation

Animation Loop - Calculating Frame Rates Scheduling Tasks at Alternate Frame Rates - Restoring the Background - Double Buffering - Time-Based Motion – Scrolling the Background - Parallax - User Gestures - Timed Animations - Animation Best Practices

Unit 3

(17hrs.)

3.1 Sprites

Overview – Painters - Sprite Behaviors - Sprite Animators - A Sprite-Based Animation Loop

3.2 Physics

Gravity - Warping Time - Time-Warp Functions - Warping Motion - Warping Animation

3.3 Collision Detection

Bounding Areas - Bouncing Off Walls - Ray Casting

Unit 4

(20hrs.)

4.1 Sound and Music

Create Sound and Music Files - Load Music and Sound Effects - Specific Sound and Music Control - Play Music - Play Music in a Loop - Play Sound Effects and turn Sound on and off

4.2 Game Development

A Game Engine - The Game Loop, Loading Images, Multitrack Sound, Keyboard Events, HighScores, The Game Engine Listing

Unit 5

(14 hrs.)

Project – Developing a Game

Note: Chrome Browser is the most suitable for HTML5 implementation

TEXT BOOKS

Castro, Elizabeth, Bruce Hyslop. *Visual Quickstart Guide HTML5 and CSS3*. 7th ed. Peachpit, 2012.

Greary, David. *Core HTML5 – Graphics, Animation and Game Development*. 9th ed. Prentice Hall, 2012.

Greary, David. *Core HTML5 – 2D Game Programming*. 1st ed. Prentice Hall, 2014. [Chapter 14]

BOOKS FOR REFERENCE

Makzan. *HTML5 Games Development by Example: Beginner's Guide*. Packet, 2011.

Rex van der Spuy. *Foundation Game Design with HTML5 and JavaScript*. 1st ed. APress, 2012.

Seidelin, Jacob. *HTML5 Games: Creating Fun with HTML5, CSS3 and WebGL*. 2nd ed. Wiley, 2014.

WEB RESOURCES

<http://www.w3.org/TR/html5-diff/> - Unit 1.1

<http://www.w3schools.com>

<http://www.tutorialpoint.com>

<http://www.html5gamedevelopment.com/html5-game-tutorials>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Theory- 25 marks

Practical: 25 marks

Section A - $10 \times 1 = 10$ (To answer all the Questions)

(5 Multiple choice questions and 5 Fill-in the Blanks)

Section B - $3 \times 5 = 15$ (To answer three out of Four Questions)

Third Component:

Quiz

Case Study

Storyboard

Project – Game development

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Theory - 50 marks Duration – 1 ½ hrs.

Practical - 50 marks Duration – 1 ½ hrs.

Section A- $10 \times 1 = 10$ (Answer all the Questions)

(5 Multiple choice questions and 5 Fill-in the Blanks)

Section B - $5 \times 2 = 10$ (Answer all the Questions)

(atleast 1 question from the first four units)

Section C - $6 \times 5 = 30$ (6 out of 8)

(atleast 1 question from the first four units)

STELLA MARIS COLLEGE (AUTONOMOUS) ,CHENNAI – 600 086

BACHELOR OF COMPUTER APPLICATIONS

SYLLABUS

(Effective from the academic year 2015-16)

MOBILE APP DEVELOPMENT FOR ANDROID

CODE: 15CS/ME/MA55

CREDITS : 5

L T P: 3 0 3

TOTAL TEACHING HOURS: 78

OBJECTIVES OF THE COURSE

- To enable the students to understand the app development environment
- To help them understand effective User interface creation
- To train the students to develop a complete Mobile App

Unit 1 (12 hrs.)

1.1 Introduction to Mobile App

Concept – Various App Development Platforms – Android - History, Versions - Overview of Android architecture - Android Stack - Linux, Dalvik Virtual Machine, Core Libraries, Application Framework, Applications

1.2 Setting up an Android Development Environment

Installing the Android Developer Tool - Installing the Android SDK - Using ADT tools from the command line - Creating Android Virtual Devices

1.3 Understanding an Android App

Creating an Example Android Application - Anatomy of Android Application

Unit 2 (20 hrs.)

2.1 Activities, Intents, Fragments

Activities and Activity Lifecycle - Activity state changes - Example, Saving and restoring UI state - Intents - Explicit and Implicit Intents, Example - Fragments- Creating, Adding and managing fragments, Handling Fragment events, Example

2.2 Android User Interface

Creating views and view groups - Layouts - Linear, Table, Relative, Absolute, Frame, Scroll view - Changing screen orientation - Creating GUI – button, text, checkbox, radio, Menus - Event Handling - ClickListener, FocusChangeListener, Touch Listener, MenuItemClickListener, LongClickListener

Unit 3 (16 hrs.)

3.1 Database Programming

SQLite - SQLite classes, Cursor, SQLite database, SQLite Queries – create, insert, select, update and delete - Connecting to a Remote database using MySQL/PHP

Unit 4

(15 hrs.)

4.1 Enhancing Android User Interface

Notification - Action Bar – Dialogs – Search - Styles and Themes – Defining, using Inheritance, Android themes, Default styles and themes, Android SMS - Deploying App in Play Store

4.2 Case Study

Case study on recent apps

Unit 5

(15 hrs.)

Project - Developing an Android App

TEXT BOOKS

Smyth,Neil. *Android App Development Essentials*. 1st ed. CreateSpace Independent Publishing Platform, 2014.

Wei, Jason. *Android database programming*. Packt, 2012.

Deitel, Paul, Harvey Deitel and Abbey Deitel. *Android™ for Programmers: An App-Driven Approach*. 2nd ed. Prentice Hall, 2014.

BOOKS FOR REFERENCE

Smith, Dave and Jeff Friesen. *Android Recipes: A Problem – Solution Approach*. 3rd ed. APress.

Gargenta, Marko. *Learning Android*. O’Rielly, 2011.

WEB RESOURCES

<https://developer.android.com/training/index.html/>

<http://www.mk Yong.com/tutorials/android-tutorial/>

http://www.vogella.com/tutorials/AndroidSQLite/article.html#databasetutorial_database/

http://www.tutorialspoint.com/android/android_php_mysql.htm/

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Theory- 25 marks

Practical: 25 marks

Section A - $10 \times 1 = 10$ (To answer all the Questions)

(5 Multiple choice questions and 5 Fill-in the Blanks)

Section B - $3 \times 5 = 15$ (To answer three out of Four Questions)

Third Component:

Seminars

Quiz

Open book tests

Group discussion

Assignments

Code Reading

Debugging

Project

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Theory - 50 marks Duration – 1 ½ hrs.

Practical - 50 marks Duration – 1 ½ hrs.

Section A- $10 \times 1 = 10$ (Answer all the Questions)

(5 Multiple choice questions and 5 Fill-in the Blanks)

Section B - $5 \times 2 = 10$ (Answer all the Questions)

(atleast 1 question from the first four units)

Section C - $6 \times 5 = 30$ (6 out of 8)

(atleast 1 question from the first four units)

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SYLLABUS

(Effective from the academic year 2015 – 2016)

ELECTRONIC DOCUMENTATION AND PRESENTATION

CODE : 15CS/GE/DP22

CREDITS : 2

L T P : 1 0 1

TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE

- To introduce students to the basics of documentation and presentation
- To initiate the implementation of user defined styles
- To highlight the importance of making an effective document and presentation

Unit 1 (10 hrs.)

1.1 Creating a Document

User Interface -Ribbons and things - Creating Documents – Typing text – Word Wrap-Default tabs – Paragraph – File template – Saving Formats

1.2 Formatting

Font/Character Formatting- Paragraph Formatting – Styles – Structured Formatting – Paragraph Decoration – Numbering/Bullets – Shading – Borders and Boxes

1.3 Styles and Page Set up

Styles – Style Group – Creating and Modifying styles – Quick style sets - Page setup and Sections – Page Set up basics – Page Borders – Header and footer – Page Numbers – Themes – Using Built-in themes

Unit 2 (8 hrs.)

2.1 Tables and Graphics

Tables and Graphics – Table basics – Layout and design –Pictures - Inserting, Manipulating, Wrapping, Dragging, Resizing, Cropping, Clip art -Charts – Formatting a chart

2.2 Mail Merge

Mail Merge –Attaching data sources – Assembling a data document – Sending Business Mails

2.3 Security

Password to open / modify

2.4 Table of Contents

Creation – Styles – Updating automatically

2.5 Introduction to Presentation

Introduction – Changing View – Creating a presentation

Unit 3

(8 hrs.)

3.1 Advanced features of Presentation

Layouts, Themes and Masters – Theme Vs Templates – Slide Master View – Changing slide layout – Applying a Theme – Colors, Fonts and Effects – Background – Managing Slide masters, Themes - Inserting tables and charts -Clip art and graphics - Animation Effects, Transitions.

TEXT BOOKS

Matthews ,Carole B and Marty Matthews. *Microsoft Office 2013 Quicksteps*. 3rd ed. McGraw Hill, 2013.

Walkenbach ,John,Herb Tyson, Michael R. Groh ,FaiheWempen andLisa A. Bucki.*Microsoft Office 2013 Bible*. 4th ed. Wiley, 2013.

BOOKS FOR REFERENCE

Cox ,Joyce and Joan Lambert. *Microsoft PowerPoint 2013 Step by Step*.Microsoft Press, 2013.

Napier ,Albert and Ollie Rivers.*Microsoft Word 2013 Getting Started with Word*.Napier-Rivers.

WEB RESOURCES

<https://www.microsoft.com/learning/en-us/book.aspx?ID=9600&locale=en-us>

<http://www.onlineprogrammingbooks.com/free-ebook-microsoft-office-powerpoint/>

<http://bookboon.com/en/microsoft-office-powerpoint-ebook#download>

PATTERN OF EVALUATION

Only Internal Assessment

Total of component I and component II will be taken as internal assessment

Component 1 – 25 marks

Preparing a Document with necessary data on a College Event

Component 2 – 25 marks

Creating a Presentation on the topic chosen in the component I and including data from the document appropriately

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SYLLABUS
(Effective from the academic year 2015 – 2016)

DIGITAL WORLD – TOOLS AND TECHNIQUES

CODE: 15CS/GE/DW22

CREDITS: 2

L T P: 1 0 1

TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE

- To enable students to utilize the internet and digital technology to the fullest
- To enable a better understanding of adapting web based tools to everyday life

Unit 1 (12 hrs.)

1.1 Web Tools

The Read/Write Web – Weblogs - Pedagogy and Practice, Get Started – Wikis– Easy Collaboration for all – Flickr - Creating, Publishing and Using Images Online– Podcasting, Video and Screencasting - Multimedia Publishing for the Masses

Unit 2 (10 hrs.)

2.1 Ways to improve one's digital life

Functionality –Security

Unit 3 (4hrs.)

3.1 Case Study

Case study on other available web tools

BOOKS FOR REFERENCE

Berger ,Pam and Sally Trexler. *Choosing Web 2.0 Tools for Learning and Teaching in a Digital World.*1st ed. Library of Congress Cataloging-in-Publication Data,2010.

Fadia ,Ankit. *Faster 100 ways to improve your digital life.*Penguin Books India, 2013.

Richardson,Will.*Blogs, Wikis, Podcasts, and Other Powerful Web Tools for Classrooms.*3rd ed.SAGE.

PATTERN OF EVALUATION

Only Internal Assessment

Total of component I and component II will be taken as Internal Assessment

Component I

Practical Application - Units 1 and 2 – 25 marks

Component II

Case Study on other available Web Tools - Unit 3 – 25 marks

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SYLLABUS
(Effective from the year 2015 – 2016)

SYSTEM ASSEMBLING, INSTALLATION & TROUBLESHOOTING

CODE : 15CS/GE/SA22

CREDITS : 2

L T P : 2 0 0

TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE

- To introduce students to different Hardware components of the PC and their functioning
- To provide hands-on experience in assembling a PC
- To expose the students to the steps of Operating System and application software installation
- To introduce students to the installation of OS, application software and
- hardware troubleshooting

Unit 1 (10hrs.)

1.1 Computer System Hardware

Introduction - Inside a Computer Cabinet - Motherboard, BIOS, CMOS, Ports and Interfaces, Expansion Slots, Ribbon cables, Memory Chips, Storage Devices, Processor-Primary Memory, Secondary Memory, Magnetic disk – Hard disk, Optical Disk – CD-ROM

1.2 Plug and Play Devices

Mouse – Keyboard – Printer – Scanner - WebCam - Digital Devices – Microphone – External Hard Drive

Unit 2 (7 hrs.)

2.1 PC Assembling in Practice

Unit 3 (9 hrs.)

3.1 Post Assembly Operations in Practice

Partitioning of Hard drive - Installation of Software - System and Application Software – Antivirus, MS Office package, Installing updates from internet, Control Panel Features - Programs, Manage User accounts, Network & Internet, Clock, Language and Region, Appearance and Personalisation, System and Security, Hardware and Sound

3.2 Troubleshooting Hardware problems

Approach towards Hardware problems - Troubleshooting - Mother Board, Processor, RAM, Hard drive, I/O Devices, Keyboards, Monitors and Video Cards

TEXT BOOKS

Andrews , Jean. *A+ Guide to Managing & Maintaining Your PC*.8th ed. Cengage Learning, 2013. (Chapter 13)

Balasubramanian D. *Computer Installation and Servicing*.2nd ed.Tata McGraw Hill,2005.

Goel ,Anita.*Computer Fundamentals*.Pearson Education India,2010.

Zacker, Craig and John Rourke, *PC Hardware, The Complete Reference*.Tata McGraw Hill Publications, 2001.

BOOKS FOR REFERENCE

Gookin ,Dan.*Troubleshooting your PC – For Dummies*.John Wiley, 2008.

PATTERN OF EVALUATION

Only Internal Assessment

Total of component I and component II will be taken as Internal Assessment

Component 1 – 25 marks

Identifying the different HardwareComponents

PC Assembling

Component 2– 25 marks

Installation of System Software and Application software

Troubleshooting hardware problems

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SYLLABUS

(Effective from the academic year 2015 – 2016)

SECURITY ISSUES IN INFORMATION TECHNOLOGY

CODE : 15CS/GE/SI23

CREDITS: 3

L T P: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To introduce the students to security issues in computing
- To familiarise the students with the core concepts and vocabulary of computer security

Unit 1 (6 hrs.)

1.1 Security Problem in Computing

Meaning of "Secure" – Attacks - Meaning of Computer Security - Computer Criminals
Methods of Defense

1.2 Elementary Cryptography

Terminology and Background - Substitution Ciphers - Transpositions (Permutations) –
Making "Good" Encryption Algorithms - The Data Encryption Standard (DES) - The
AES Encryption Algorithm - Public Key Encryption - The Uses of Encryption

Unit 2 (7 hrs.)

2.1 Program Security

Secure Programs - Nonmalicious Program Errors - Viruses and Other Malicious Code -
Targeted Malicious Code - Controls against Program Threats

2.2 Security Issues in Social Networking

Acceptable Use Policies-Reasons for social media being hazardous to the corporate
network-Balancing Security and Social Networking in business-Precautions that can
betaken to secure the private information

Unit 3 (8 hrs.)

3.1 Database and Data Mining Security

Introduction to Databases - Security Requirements - Reliability and Integrity - Sensitive
Data - Inference - Multilevel Databases -Proposals for Multilevel Security - Data
Mining

3.2 Security in Networks

Network Concepts - Threats in Networks - Network Security Controls - Firewalls –
Intrusion Detection Systems - Secure E-Mail

Unit 4 (8 hrs.)
4.1 Administering Security
Security Planning - Risk Analysis - Organisational Security Policies - Physical Security
4.2 The Economics of Cyber security
Making a Business Case - Quantifying Security - Modeling Cyber security

Unit 5 (10 hrs.)
5.1 Privacy in Computing
Privacy Concepts - Privacy Principles and Policies - Authentication and Privacy –
Data Mining - Privacy on The Web - E-Mail Security - Impacts on Emerging
Technologies
5.2 Legal and Ethical Issues in Computer Security
Protecting Programs and Data - Information and the Law - Rights of Employees and
Employers - Redress for Software Failures - Computer Crime - Ethical Issues in
Computer Security - Case Studies of Ethics

Demonstration on computer security

TEXT BOOKS

Pfleeger ,Charles P and Shari Lawrence Pfleeger.*Security in Computing*,4th ed. Consulting Group,
- Pearson, 2007.

Bahadur,Gary.*Securing the Clicks Network Security in the Age of Social Media*. 1sted. McGraw-
Hill, 2012.

WEB RESOURCES

<http://www.trendmicro.fr/media/wp/securityguide-social-networks-whitepaper-en.pdf>

http://paper.ijcsns.org/07_book/201306/20130619.pdf

PATTERN OF EVALUATION

Only Internal Assessment

Average of Component I and II will be taken as Internal Assessment

Component Pattern

Marks -50

Duration -1½hrs.

Section A - 10 x 1 = 10 marks(Answer all the questions)

Section B - 5 X 2 =10 marks(Answer all the questions)

Section C - 6×5 = 30 marks (6 out of 8)

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SYLLABUS

(Effective from the academic year 2015-2016)

PROGRAMMING IN C

CODE : 15CS/GE/PC23

CREDITS: 3

L T P: 2 0 1

TOTAL TEACHING HOURS: 39

OBJECTIVE OF THE COURSE

- To introduce students to the basics of Programming using C Language

Unit 1 (8 hrs.)

1.1 Programming Basics

Introduction to computers – Widely used languages – Development of C –
Introduction to C – Structure of C program

1.2 C Fundamentals

Character set – Identifiers and Keywords – Data types – Constants – Variables
and Arrays – Declarations – Expressions – Statements

1.3 Processing a Program

Compiling – Running – Debugging – Syntax errors – Run-time errors –
Logical errors – Testing a program

1.4 Operators and Expressions

Arithmetic – Unary – Relational – Logical – Assignment – Conditional
Operators

Unit 2 (8 hrs.)

2.1 Data Input and Output

getchar() – putchar() – scanf() – printf() – gets() – puts()

2.2 Control Statements

while – do...while – for – Nested Loops – Different kinds of if – switch –
break – continue – Comma Operator – goto Statement

Unit 3 (8 hrs.)

3.1 Arrays and Strings

Defining an Array – Processing an Array – String as Arrays – String
Manipulation

Unit 4 (8 hrs.)

4.1 Functions

Defining a function – Accessing a function – Function prototypes – Passing
arguments to functions

Unit 5

(7 hrs.)

5.1 Structures

Defining a structure – Processing a structure – User defined data types –
Basic Programming with Structures

TEXT BOOK

Balagurusamy. E. *Programming in ANSI C*. 6th ed. Tata McGraw-Hill, 2012.

BOOKS FOR REFERENCE

Gottfried ,Byron S. *Programming with C, Schaum's Outline Series*. New York: McGraw-Hill, 1999.

PATTERN OF EVALUATION

Only Internal Assessment

Average of Test and Component will be taken as Internal Assessment

Test Pattern

Theory - 25 marks Practical - 25 marks Duration - 1½ hrs.

Section A - 10 x 1 = 10 marks (Answer all the questions)

Section B - 3 x 5 = 15 marks (3 out of 4)

Component - 50 marks

Case Study on a topic relevant to student's major

Tracing the C Code

Implementation of a concept using C

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SYLLABUS

(Effective from the academic year 2015-2016)

IMAGE EDITING AND ANIMATION

CODE: 15CS/GE/IA23

CREDITS: 3

L T P: 2 0 1

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To provide an opportunity to pursue skills and applications using Multimedia
- To provide software skills and hands on experience in digital media

Unit 1 (6hrs.)

1.1 Introduction

Introduction to Multimedia – Applications of Multimedia - Multimedia Team- Hyper Media- Exploring file types- Multimedia on the web-Multimedia Hardware- Multimedia Software- Authoring tools

1.2 Understanding Photoshop Workspace

Workspace overview- Custom workspace- Cruising main menus – Panels-Color theory- Layers- Organising files- Saving the files - Creating slideshow

Unit 2 (10hrs.)

2.1 Photoshop Tools for Selection and Correction

Drawing tools- Painting- Selection tools-Lasso Options, Magic Wand, Quick Selection - Correction Tools- Heal and Spot Healing, Patch tool -Eyedropper tool – Brush- Clone Source- Rubber Stamp-Text Tool

Unit 3 (8hrs.)

3.1 Photoshop Tools to Enhance

Smudge - Blur and Sharpen -Dodge-Burn - Blending modes - Transparency- Dropping Shadows and Border, Mid tones and Highlights, Painting with Mixer Brush - Adding and Removing Anchor points - Moving Path –Filters- Masking – Designing a Collage

Unit 4 (10hrs.)

4.1 Animation tool

Flash work environment –Stage - Drawing tools and their modifiers – Basic drawing techniques – Animation – Timeline -Tweening and its types - The power of layers - Learning about symbols – Libraries – Onion skinning – Text tool

4.2 Action Scripting

Basic Action Scripting - Button behaviors – Navigation – Making presentation using Action Script – Symbols - Instances, Instance properties and methods – Dynamic input and text – Events – Button Event Handling - Adding sound to movies- Shock save files – Publishing movies

Unit 5

(5hrs.)

5.1 Mini Project

Mini Project using Photoshop and Flash

BOOKS FOR REFERENCE

Dayley ,Lisa DaNae and Brad Dayley. *Photoshop CS5 Bible*. 1st ed. Wiley Dreamtech India Pvt Ltd, 2010.

Parekh ,Rajan.*Principles of Multimedia*. 2nd ed. Tata McGraw Hill Publishing, 2013.

Perkins , Todd. *Flash Professional CS5 Bible*.1st ed. Wiley Dreamtech, 2010.

PATTERN OF EVALUATION

Only Internal Assessment

Average of component I and component II will be taken as internal assessment

Component 1 – 50 marks

Mini Project – Phase I - Story board, Designing using Photoshop

Component 2 – 50 marks

Mini Project- Phase II - Animation

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SYLLABUS

(Effective from the academic year 2015-2016)

E-COMMERCE WITH CONTENT MANAGEMENT SYSTEM

CODE: 15CS/GE/EC23

CREDITS: 3

L T P: 2 0 1

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To learn about the practical implementation of E-Commerce using an open source software
- To have hands-on experience on building a blog/forum/shopping cart

Unit 1 (6 hrs.)

1.1 Introduction

Discovering Drupal- The Drupal architecture- Programming languages used, Fundamental architecture concepts, Users, Nodes. Fields, Taxonomies, Comments, Modules, Hooks, Regions, blocks, and menus, The database

Unit 2 (7 hrs.)

2.1 Getting used to the Drupal environment

The Front End-Drupal's Public Interface - Menu structure, Main menu, Management menu , Navigation menu, User menu, Modules, Blocks and regions - The Back End - Drupal's Admin Interface- The Management menu, The Home option , The Dashboard option, The Content option, The Structure option, The Appearance option, The People option, The Modules option The Configuration option, The Reports option, The Help option, Working with the dashboard, Customizing the admin interface

Unit 3 (8 hrs.)

3.1 Drupal's Site building tools

Using Drupal's Site Building Tools- The Default Drupal Themes - Working with the Default Modules-Block, Dashboard, Image, List, Menu, Node Working with Blocks - Working with the Menus Manager -Creating and Managing Menus, Creating and Managing Menu Items

Unit 4 (8 hrs.)

4.1 Creating New Content

Drupal Content Types and Fields -Controlling How Content is Created ,Configuring standard content-item defaults, Understanding field settings and field instance settings, Creating New Content ,Managing Existing Content, Formatting Content and Media - Working with Images , Using WYSIWYG Editors - Managing the Front Page of Your Site

Unit 5 (10 hrs.)

5.1 Implementing eCommerce with Ubercart

Implementing eCommerce with Ubercart - Understanding Ubercart - Obtaining and Installing Ubercart - Configuring Ubercart- Managing Cart settings, Checkout settings, Order settings, Price handler settings, Product settings, Store settings - Store Administration - Enhancing Ubercart

TEXT BOOKS

Shreves ,Ric and Brice Dunwoodie. *Drupal 7 Bible*.1st ed. John Wiley, 2011.

BOOKS FOR REFERENCE

Noble ,Mark . *Drupal 7 First Look*. Packt Publishing, 2010.

Tomlinson ,Todd . *Beginnning Drupal*.Apress, 2010.

PATTERN OF EVALUATION

Only Internal Assessment

Average of Test and Component will be taken as internal assessment

Test Pattern

Theory - 25 marks Practical - 25 marks Duration -1½hrs.
Section A - 10 x 1 = 10 marks(Answer all the questions)
Section B - 3 x5 = 15 marks (3 out of 4)

Component –50 marks

Mini Project – Building a blog/shopping cart/forum

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BACHELOR OF COMPUTER APPLICATIONS

SYLLABUS

(Effective from the academic year 2015-2016)

WIRELESS SENSOR NETWORKS

CODE: 15CS/UI/WN23

CREDITS: 3

OBJECTIVES OF THE COURSE

- To introduce the importance of Wireless Sensor Networks to students
- To enable an understanding of the technology behind WSNs

Unit 1

1.1 Introduction and Overview of Wireless Sensor Networks

Introduction-Overview of the Technology

1.2 Applications of Wireless Sensor Networks

Introduction – Background-Range of Applications-Examples of Category 2 WSN
Applications-Examples of Category 1 WSN Applications-Another Taxonomy of
WSN Technology

Unit 2

2.1 Basic Wireless Sensor Technology

Introduction-Sensor Node Technology-Sensor Taxonomy-WN Operating
Environment-WN Trends

2.2 Wireless Transmission Technology and Systems

Introduction-Radio Technology Primer-Available Wireless Technologies

Unit 3

3.1 Medium Access Control Protocols for Wireless Sensor Networks

Introduction – Background- Fundamentals of MAC Protocols-MAC Protocols for
WSNs-Sensor-MAC Case Study

Unit 4

4.1 Routing Protocols for Wireless Sensor Networks

Introduction – Background-Data Dissemination and Gathering-Routing Challenges
and Design Issues in Wireless Sensor Networks-Routing Strategies in Wireless
Sensor Networks

4.2 Transport Control Protocols for Wireless Sensor Networks

Traditional Transport Control Protocols-Transport Protocol Design Issues-
Examples of Existing Transport Control Protocols-Performance of Transport
Control Protocols

Unit 5

5.1 Network Management for Wireless Sensor Networks

Introduction-Network Management Requirements-Traditional Network Management Models-Network Management Design Issues-Example of Management Architecture - MANNA-Other Issues Related to Network Management

5.2 Operating Systems for Wireless Sensor Networks

Introduction-Operating System Design Issues-Examples of Operating Systems

TEXT BOOKS

Sohraby, Kazem, Daniel Minoli and Taieb Znati. *Wireless Sensor Networks: Technology, Protocols, and Applications*. Wiley, 2007.

REFERENCE BOOKS

Khan Shafiullah, Al-Sakib Khan Pathan and Nabil Ali Alrajeh. *Wireless Sensor Networks: Current Status and Future Trends*. CRC Press, 2012.

PATTERN OF EVALUATION

End Semester Examination

Total Marks: 100

Duration : 3 hours

Section A - 20 x 1 = 20 (Answer all the questions)

(10 Multiple choice questions and 10 Fill-in the Blanks)

Section B - 5 x 2 = 10 (Answer all the questions)

(1 question from each unit)

Section C - 8 x 5 = 40 (8 out of 10)

(2 questions from each unit)

Section D - 3 x 10 = 30 (3 out of 5)

(One question from each unit)

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BACHELOR OF COMPUTER APPLICATIONS

SYLLABUS

(Effective from the academic year 2015 – 2016)

CLOUD COMPUTING

CODE: 15CS/UI/CC23

CREDITS : 3

OBJECTIVES OF THE COURSE

- To understand the current trends and basics of cloud computing
- To introduce cloud architecture and services concepts
- To facilitate the learning of security issues in cloud computing and collaboration of cloud services

Unit 1

1.1 Defining Cloud Computing

Cloud Types-The NIST model-The Cloud Cube Model-Deployment models-Service models-Benefits of cloud computing-Disadvantages of Cloud Computing-Assessing the Role of Open Standards

1.2 Cloud Architecture

Exploring the Cloud Computing Stack – Composability-Infrastructure-Platforms-Virtual Appliances-Communication Protocols – Applications-Connecting to the Cloud

Unit 2

2.1 Services and Applications by Type

Defining Infrastructure as a Service (IaaS)-Defining Platform as a Service (PaaS)-Defining Software as a Service (SaaS)-Defining Identity as a Service (IDaaS)-Defining Compliance as a Service (CaaS)

2.2 Platforms

Understanding Abstraction and Virtualization-Using Virtualization Technologies-Load Balancing and Virtualization-Understanding

Unit 3

3.1 Exploring Platform as a Service

Defining Services-Application development-Using PaaS Application Frameworks – Drupal-EccentexAppBase 3.0 – LongJump – Squarespace – WaveMaker-Wolf Frameworks

3.2 Understanding Cloud Security

Securing the Cloud-Securing Data-Establishing Identity and Presence

Unit 4

4.1 Understanding Service Oriented Architecture

Introducing Service Oriented Architecture-Event-driven SOA or SOA 2.0-Defining SOA Communications-Managing and Monitoring SOA-Relating SOA and Cloud Computing

4.2 Moving Applications to the Cloud

Applications in the Clouds-Applications and Cloud APIs

Unit 5

5.1 Cloud services Collaboration

Collaborating on Calendars - Schedules and Task Management – Exploring Online Scheduling Applications – Exploring Online Planning and Task Management – Collaborating on Event Management – Collaborating on Contact Management – Collaborating on Project Management – Collaborating on Word Processing – Collaborating on Databases – Storing and Sharing Files

TEXTBOOKS

Sosinsky,Barrie. *Cloud Computing Bible*.Wiley.

Cloud Computing: Web-Based Applications That Change the Way You Work and Collaborate Online.Que Publishing, 2009.

PATTERN OF EVALUATION

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A - 20 x 1 = 20marks (Answer all the questions)

(10 Multiple choice questions and 10 Fill-in the Blanks)

Section B - 5 × 2 = 10marks (Answer all the questions)

(1 question from each unit)

Section C - 8 ×5 = 40 marks (8 out of 10)

(2 questions from each unit)

Section D - 3 x 10= 30 marks (3 out of 5)

(1 question from each unit)

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BACHELOR OF COMPUTER APPLICATIONS

SYLLABUS

(Effective from the academic year 2015-2016)

BIG DATA ANALYTICS

CODE: 15CS/UI/BD23

CREDITS: 3

OBJECTIVES OF THE COURSE

- To understand the significance of big data analytics as the next wave for businesses looking for competitive advantage
- To understand the financial value of big data analytics
- To explore the tools for working with big data

Unit 1

1.1 Introduction

Significance - Big Data Reaches Deep - Data Continue to Evolve - Data and Data Analysis Are Getting More Complex - Big Data and the Business Case - Realizing Value - The Rise of Big Data Options - Beyond Hadoop - Big Data characteristics - Volume, Veracity, Velocity, Variety

1.2 Big Data Analytics Applications

Social Media Command Center - Product Knowledge Hub - Infrastructure and Operations Studies - Product Selection, Design, and Engineering - Location-Based Services - Online Advertising

Unit 2

2.1 Architecture Components

Massively Parallel Processing (MPP) Platforms - Unstructured Data Analytics and Reporting - Big Data and Single View of Customer/Product - Data Privacy Protection - Real-Time Adaptive Analytics and Decision Engines

2.2 Advanced Analytics Platform

Real-Time Architecture for Conversations - Orchestration and Synthesis Using Analytics Engines - Discovery Using Data at Rest - Integration Strategies

Unit 3

3.1 The Nuts and Bolts of Big Data

The Storage Dilemma - Building a Platform - Bringing Structure to Unstructured Data - Processing Power - Choosing among In-house, Outsourced, or Hybrid Approaches

3.2 Security, Compliance, Auditing, and Protection

Pragmatic Steps to Securing Big Data - Classifying Data - Protecting Big Data Analytics - Big Data and Compliance - The Intellectual Property Challenge - The Evolution of Big Data - Big Data - The Modern Era- Today, Tomorrow, and the Next Day - Changing Algorithms

Unit 4

4.1 Implementation of Big Data Analytics

Revolutionary, Evolutionary, or Hybrid - Big Data Governance - Integrating Big Data with MDM - Journey, Milestones and Maturity Levels - Analytics Business Maturity Model

4.2 Best Practices for Big Data Analytics

Start Small with Big Data- Thinking Big - Avoiding Worst Practices - The Value of Anomalies - Expediency versus Accuracy - In-Memory Processing - Bringing It All Together - The Path to Big Data - The Realities of Thinking Big Data - Hands-on Big Data - The Big Data Pipeline in Depth - Big Data Visualization - Big Data Privacy

Unit 5

5.1 Big Data Tools and Techniques

Understanding Big Data Storage - A General Overview of High Performance Architecture – HDFS - Map Reduce and YARN Expanding the Big Data Application Ecosystem - Zookeeper –Hbase-Hive-Mahout

TEXT BOOKS

Dr. Sathi, Arvind. *Big Data Analytics: Disruptive Technologies for Changing the Game*, 1st ed. IBM Corporation, 2013.

Loshin, David. *Big Data Analytics from Strategic Planning to Enterprise Integration with Tools, Techniques, NoSQL, and Graph*, 1st ed. Elsevier, 2013.

Ohlhorst, Frank J. *Big Data Analytics: Turning Big Data into Big Money*. Wiley publications, 2012.

BOOKS FOR REFERENCE

Warden, Pete. *Big Data Glossary*. O'Reilly, 2011.

Zikopoulos, Paul, Dirk deRoos, Krishnan Parasuraman, Thomas Deutsch , James Giles and David Corrigan. *Harness the Power of Big data – The big data platform*. McGraw Hill, 2012.

WEB RESOURCES

http://www.sas.com/en_us/insights/analytics/big-data-analytics.html/

<http://www-01.ibm.com/software/data/infosphere/hadoop/what-is-big-data-analytics.html/>

PATTERN OF EVALUATION

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A - $20 \times 1 = 20$ (Answer all the questions)

(10 Multiple choice questions and 10 Fill in the Blanks)

Section B - $5 \times 2 = 10$ (Answer all the questions)

(1 question from each unit)

Section C - $8 \times 5 = 40$ (8 out of 10)

(2 questions from each unit)

Section D - $3 \times 10 = 30$ (3 out of 5)

(1 question from each unit)

STELLAMARISCOLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.A. DEGREE: BRANCH IV -ECONOMICS

SYLLABUS
(Effective from the academic year 2015 -2016)

MICRO ECONOMICS- I

CODE: 15EC/MC/ME14

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS:52

OBJECTIVES OF THE COURSE

- To offer a comprehensive view of the price theory emphasising the interaction between the households and business firms
- To study consumer behaviour in relation to demand for products
- To understand the behaviour of firms in perfect and in monopoly market.

Unit 1

Introduction

(4 hrs.)

- 1.1 Basic Economic Issue- Resource Allocation
- 1.2 The Simple theory of demand of households –the demand function –Elasticity of Demand and its significance
- 1.3 The Simple Theory of supply of firms –the supply function –Elasticity of supply –Marshall’s classification of time and elasticity of supply
- 1.4 The elementary theory of price determination –Static, Comparative static and dynamic explanations, Lagged Adjustment of supply and demand to price changes
- 1.5 Application: Analysis using current and temporal Indian agricultural data

Unit 2

Demand Analysis and Consumer Behaviour

(12 hrs.)

- 2.1 Cardinal Utility Approach –Conceptual Framework
- 2.2 Ordinal Utility Approach –Assumptions, Properties
- 2.3 Budget Constraint and consumer equilibrium
- 2.4 Income, Substitution and Price Effects – Slutsky’s Theorem, Derivation of demand curve
- 2.5 Application: Empirical estimation of demand

Unit 3

Production and Cost

(16 hrs.)

- 3.1 Production function –meaning and kinds
- 3.2 The law of variable proportions
- 3.3 Cobb-Douglas Production function
- 3.4 Isoquants and Iso-cost lines
- 3.5 Laws of Returns
- 3.6 Producers choice of least cost combination of inputs
- 3.6 Production function and cost function –Interrelationship
- 3.8 The theory of costs- cost concepts, long run and short run cost curves
- 3.9 Application: Fitting production function using Indian Industrial/Agricultural data base

- Unit 4** **Equilibrium of the Firm** (8 hrs.)
- 4.1 TR and TC functions
 - 4.2 Conditions for equilibrium of a profit maximising firm
 - 4.3 Revenue functions and their relation to demand and elasticity
 - 4.4 Application –Calculation of cost using Industrial data

- Unit 5** **Market Structure and Competitive Strategy** (12 hrs.)
- 5.1 Classification of markets –Meaning of perfect and imperfect competition
 - 5.2 Price and Output determination in Perfect competition
 - 5.3 Short Run equilibrium of firm and industry
 - 5.4 Long run equilibrium of firm and industry –Concepts of normal price and normal profit
 - 5.5 Equilibrium of the monopolist
 - 5.6 Price discrimination –Equilibrium of a discriminating monopolist
 - 5.7 Application: Study of the current market scenario using both primary and secondary data (market survey and presentation)

BOOKS FOR STUDY

Pindyck, Robert. S. and Rubinfeld. L. Daniel. *Micro Economics*. 8thed. Boston: Pearson, 2013.

Nicholson, Walter & Christopher. Snyder. M. *Micro Economic Theory. Basic Principles and Extensions*. 11thed. Ohio: South Western, 2011.

BOOKS FOR REFERENCE

Baumol, J. William. *Micro Economics Principles and Policy*. New York: Dryden. Harcourt Brace College Publishers, 2000.

Bardhan, Pranab and Udry. Christopher. *Development Micro Economics*. 1sted. New York: Oxford University Press, 1999.

Browning, Edgar. K. and Zupan. Mark. A. *Micro Economic theory and Applications*. USA: Addison Wesley Educational Publishers, 1999.

Cohen, S. I. *Microeconomic Policy*. 1st ed. New York: Routledge, 2001.

Hirshleifer, Jack. *Price Theory and Applications*. New Delhi: Prentice Hall of India, 1978.

Samuelson, P. A. and Nordhaus, W. D. *Economics*. New York: McGraw Hill, 1995.

Varian, Hal R. *Intermediate Micro Economics*. New Delhi: Affiliated East West Press, 1997.

JOURNALS

Journal of Applied Economics

Studies in Microeconomics

WEB RESOURCES

<http://www.stern.nyu.edu/networks/micnotes/micnotes.pdf>

<http://ocw.mit.edu/courses/economics/14-01-principles-of-microeconomics-fall-2007/lecture-notes/>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $5 \times 2 = 10$ marks (Any 5 out of 6 questions to be answered in 50 words each)

Section B – $2 \times 10 = 20$ marks (2 out of 3 questions to be answered in 400 words each)

Section C – $1 \times 20 = 20$ marks (1 out of 2 questions to be answered in 1000 words)

Third Component:

List of evaluation modes:

Seminars

Quiz

Group discussion

Assignments

Problem solving

Case studies

END SEMESTER EXAMINATION

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ marks (Any 10 out of 12 questions to be answered in 50 words each)

Section B – $5 \times 8 = 40$ marks (5 out of 8 questions to be answered in 400 words each)

Section C – $2 \times 20 = 40$ marks (2 out of 4 questions to be answered in 1000 words each)

STELLAMARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

B.A DEGREE: BRANCH IV – ECONOMICS

SYLLABUS

(Effective from the academic year 2015 -2016)

INDIAN ECONOMIC DEVELOPMENT-I

CODE: 15EC/MC/IE14

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To develop in the student, an awareness of the basic issues and problems pertaining to the Indian Economy
- To motivate the students to take an active interest in the current economic policies operating in India

Unit 1

Indian Economy at the Time of Independence (6 hrs.)

- 1.1 Features of a developing economy with reference to India
- 1.2 Framework of the Indian Economy

Unit 2

National Income and Per Capita Income (10 hrs.)

- 2.1 Concepts, Trends and distribution of National Income
- 2.2 Measurement of National Income and Problems in computing

Unit 3

Human Resources (12 hrs.)

- 3.1 Theory of Demographic Transition
- 3.2 Population trends, composition, sex and occupation wise classification
- 3.3 Population as a retarding factor
- 3.4 Population Policy

Unit 4

Planning in India (10 hrs.)

- 4.1 Objectives and Priorities
- 4.2 Critical analysis of planning – an overall assessment
- 4.3 An overview of Five Year Plans, Current Five Year Plans

Unit 5

Place of Agriculture in the Indian Economy (14 hrs.)

- 5.1 Causes for low productivity
- 5.2 Green Revolution –Merits and Demerits, Impact of Green Revolution, Need for Second Green Revolution
- 5.3 Food Security –Public Distribution System, Food Policy
- 5.4 Agricultural Price Policy
- 5.5 Application –Article review from leading journals and newspapers to enable them to relate theory to current issues..

BOOKS FOR STUDY

Agarwal, A.N. *Indian Economy: Problems of Development and Planning*. New Delhi: WishwaPrakashan Publishing House, 2010.

Datt, Ruddar and K.P.M. Sundaram. *Indian Economy*. New Delhi: Sultan Chand, 2010.

Ishwar, C. Dhingra. *Indian Economy, Environment and Policy*. New Delhi: Sultan Chand, 2010.

BOOKS FOR REFERENCE

Kuchhal, S.C. and Puri. *The Industrial Economy of India*. New Delhi: Chaitanya Publishing House, 1996.

Misra S.K. and V.K. Puri. *Development and Planning: Theory and Practice*. New Delhi: Himalaya Publishing House, 2006.

Parikh, Kirit. *India Development Report (ed.)*. New Delhi: Indira Gandhi Institute of Research and Development. Oxford University Press, 2004.

Dhar P.K. *Indian Economy*. Ludhiana: Kalyani Publishers, 2010.

Misra, S.K. and V.K. Puri. *Structure and Problems of Indian Economy*. Bombay: Himalaya Publishing House, 1993.

REPORTS

Human Development Reports - UNDP publications 2000 onwards

WEB RESOURCES

<http://mhrd.gov.in/>

www.rbi.org.in

www.planningcommission.nic.in

www.agricoop.nic.in

JOURNALS

The Economist

International Journal of Human Resource Development and Management

South Asian Journal of Human Resources Management

The Indian Journal of Agricultural Sciences

International Journal of Agriculture Innovations and Research

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $5 \times 2 = 10$ marks (Any 5 out of 6 questions to be answered in 50 words each)

Section B – $2 \times 10 = 20$ marks (2 out of 3 questions to be answered in 400 words each)

Section C – $1 \times 20 = 20$ marks (1 out of 2 questions to be answered in 1000 words)

Third Component

List of evaluation modes:

Seminars

Quiz

Group discussion

Assignments

Case studies

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ marks (Any 10 out of 12 questions to be answered in 50 words each)

Section B – $5 \times 8 = 40$ marks (5 out of 8 questions to be answered in 400 words each)

Section C – $2 \times 20 = 40$ marks (2 out of 4 questions to be answered in 1000 words each)

SYLLABUS

(Effective from the academic year 2015 -2016)

STATISTICS FOR ECONOMICS

CODE: 15EC/AC/SE15 CREDITS : 5

L T P :500

TOTAL TEACHING HOURS:65

OBJECTIVES OF THE COURSE

- To understand the theoretical underpinnings of the subject
- To comprehend the application of statistical methods in analysing the data

Unit 1

Summary Statistics (10 hrs.)

- 1.1 Measures of Central Tendency
- 1.2 Measures of Dispersion
- 1.3 Measures of deviation from normality –Skewness and Kurtosis
- 1.4 Frequency distributions
- 1.5 Exploring data with graphs

Unit 2

Simple Linear Correlation and Regression Analysis (15 hrs.)

- 2.1 Introduction to correlation analysis
- 2.2 Types of correlation
- 2.3 Methods to estimate correlation
- 2.4 Testing the significance of correlation coefficient
- 2.5 Introduction to regression analysis
- 2.6 Methods of least squares – estimation
- 2.7 Goodness of fit measures
- 2.8 Testing overall significance of the model –ANOVA

Unit 3

Theory of Probability (15 hrs.)

- 3.1 Introductory concepts
- 3.2 Additive and Multiplicative theorems, Conditional probability , Baye's theorem
- 3.3 Random variables and Probability distribution –Concepts
- 3.4 Mathematical Expectation
- 3.5 Some important theoretical probability distribution –Binomial, Poisson and Normal Distribution

Unit 4

Testing of Hypothesis – Small and Large Sample Test (15 hrs.)

- 4.1 Comparing two means –'t' test
- 4.2 Sampling several means – one-way ANOVA
- 4.3 Large Sample Test – Standard Error

Unit 5

Time Series Analysis

(10 hrs.)

5.1 Concepts and Components of time series data

5.2 Measurement of trends – Graphical, Moving Average Method, Least Square Method, Fitting of Linear Trend Curves

BOOKS FOR STUDY

Gupta, S.P. *Statistical Methods*, 43rd edition. New Delhi: Sultan Chand.

Gupta, S.C. & V.K. Kapoor. *Fundamentals of Applied Statistics*. New Delhi: Sultan Chand, 2014.

A.L, Nagar & R.K. Da. *Basic Statistics*, 2nd Edition. New Delhi: Oxford University Press.

BOOKS FOR REFERENCE

Salvatore, D. *Mathematics and Statistics, Schaum's Series*. New Delhi: Tata McGraw Hill.

Padmalochan, Hazarika. *Essential Statistics for Economics and Commerce*. New Delhi: Akansha Publishing House, 2006.

Monga, G.S. *Mathematics and Statistics for Economics*, Second revised edition. Vikas Publishing House.

JOURNALS

International Journal of Statistics & Economics

The Review of Economics and Statistics

Oxford Bulletin of Economics and Statistics

WEB RESOURCES

<http://www.economics.utoronto.ca/jfloyd/stats/ecstats.pdf>

<http://ocw.mit.edu/courses/economics/14-30-introduction-to-statistical-method-in-economics-spring-2006/lecture-notes/>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $5 \times 2 = 10$ marks (Any 5 out of 6 questions to be answered in 50 words each)

Section B – $2 \times 10 = 20$ marks (2 out of 3 questions to be answered in 400 words each)

Section C – $1 \times 20 = 20$ marks (1 out of 2 questions to be answered in 1000 words)

Third Component:

List of evaluation modes:

Quiz

Minor Project (Unit 1)

Problem solving

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ marks (Any 10 out of 12 questions to be answered in 50 words each)

Section B – $5 \times 8 = 40$ marks (5 out of 8 questions to be answered in 400 words each)

Section C – $2 \times 20 = 40$ marks (2 out of 4 questions to be answered in 1000 words each)

Unit 1 Not to be tested

STELLAMARISCOLLEGE (AUTONOMOUS), CHENNAI - 600 086

B.A. DEGREE: BRANCH IV -ECONOMICS

SYLLABUS

(Effective from the academic year 2015 -2016)

ENVIRONMENTAL STUDIES

CODE: 15EC/GC/ES12

CREDITS : 2

L T P : 2 0 0

TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE

- To provide a fundamental knowledge of the environment
- To create an awareness about environmental issues

Unit 1

Introduction (4 hrs.)

- 1.1 Components of the environment –technological, social, natural. Classification and characteristics of resources – K_N, K_M, K_H , Renewable and non-renewable
- 1.2 Material Balance Approach
- 1.3 Energy Flow under ecosystems

Unit 2

Pollution and Socio Economic Aspects of the Environment (11 hrs.)

- 2.1 Types of Pollution –Air, Water, Solid Waste, Noise
- 2.2 Sources, Effects and Consequences of Pollution
- 2.3 Policy measures with respect to India
- 2.4 Human behaviour- Population- urbanization- poverty (as cause and result of pollution and degradation)
- 2.5 Technology- Agriculture and industry –deforestation. Use, Misuse and Abuse of the resources
- 2.6 Religion, tradition and Culture

Unit 3

Sustainable Development, Remedies and Policy Implications (11 hrs.)

- 3.1 Problems –greenhouse effect –depletion of the ozone layer –climate change
- 3.2 Loss of biodiversity – impact on women –Ecofeminism
- 3.3 Impact on Livelihood and Health –Environmental Disasters – Natural and Manmade- Bhopal gas tragedy –Chernobyl Accident-Gulf War _love Canal Episode –Tsunami
- 3.4 Methods evolved to measure and check environmental degradation and pollution – carbon footprint, carbon credit, ecological footprint, and ecological shadow.
- 3.5 Environmental movements in India –Chipko movement, Narmada BachaoAndolan, SethuSamudram Project
- 3.6 International Environmental agreement – Stockholm Conference – Montreal Protocol –RIO Meet –Kyoto Conference

BOOKS FOR REFERENCE

Igancimuthu, S. *Environmental Awareness and Protection*. New Delhi: Phoenic Publishing House, 1997.

Jadhav,H. and V.M. Bhosale. *Environmental Protection and Laws*. New Delhi: Himalaya Publication House,1995.

Odum, E.P. *Fundamentals of Ecology*, USA: W.B Sauders,1971.

Mies,M. and V. Shiva. *Ecofeminism*,London: Zed Books, 1989.

JOURNALS

The National Geographic

International Journal of Environmental Studies

WEB RESOURCES

http://collegesat.du.ac.in/UG/Envinromental%20Studies_ebook.pdf

<http://www.slideshare.net/ruchispandey/introduction-to-environmental-studies>

PATTERN OF EVALUATION

Third Component:

Seminars

Quiz

Group discussion

Assignments

Case studies

No End Semester Examination

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
Allied Core offered by the Department of Economics for the
B.Com Degree Program

SYLLABUS
(Effective from the academic year 2015 -2016)

INDIAN ECONOMY

CODE: 15EC/AC/IE15 CREDITS : 5

L T P : 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To develop in the students an awareness of the basic issues and problems relating to the Indian Economy
- To help in critically analysing economic problems in the Indian context

Unit 1

Introduction (12 hrs.)

- 1.1 Basic features of an underdeveloped economy –India
- 1.2 India as a developing economy
- 1.3 Planning –Definition, Objectives –XII plan- Objectives, Targets
- 1.4 National Income –Concepts –Trends in National income

Unit 2

Poverty and Unemployment (13 hrs.)

- 2.1 Poverty –Relative and Absolute
- 2.2 Magnitude of Poverty in India
- 2.3 Causes of Poverty in India
- 2.4 Anti-Poverty Programmes –Objectives and Features –EAS, PMRY, SGSY
- 2.5 Nature and types of unemployment
- 2.6 Causes and Measures

Unit 3

Population (9 hrs.)

- 3.1 Trends in population growth in India
- 3.2 Statistics relating to population, sex ratio, density, literacy, birth rate and death rate
- 3.3 National Population Policy 2000

Unit 4

Agriculture and Industry (16 hrs.)

- 4.1 Role of agriculture in Indian Economy
- 4.2 Development Strategy in Indian Agriculture –Institutional Reforms –Land
- 4.3 Reforms, Price Policy (Main features) –Technological Reforms- Green Revolution –Features, merits and demerits
- 4.4 Role of Industry in Indian Economy
- 4.5 Small Scale Industries
- 4.6 Role of Public Sector

Unit 5

External Sector of the Indian Economy

(15 hrs.)

- 5.1 Role of Foreign trade in a developing economy
- 5.2 Balance of Payments –Meaning
- 5.3 Disequilibrium in Balance of Payments –Causes and Measures
- 5.4 Liberalization –Main Features
- 5.5 Impact of New Economic Policy on the Indian Economy

BOOKS FOR STUDY

Dhingra, Ishwar C. *The Indian Economy, Environment and Policy*. New Delhi: Sultan Chand and Sons, 2010.

Misra, S.K. and Puri, V.K. *A Test Book of Indian Economy*. New Delhi: Himalaya Publishing, 2006.

BOOKS FOR REFERENCE

Agrawal, A.N. *Indian Economy Problem of Development and Planning*. New Delhi: New International, 2010.

Datt, R. and Sundaram, K.P.M. *Indian Economy*. New Delhi: Sultan Chand, 2014.

Dhar, P.K. *Indian Economy*. New Delhi: Kalyani Publishers, 2010.

Jhingan, M.L. *The Economics of Development and Planning*. New Delhi: Vrinda Publications, 2007.

JOURNALS

The Indian Economic Journal

Indian Economic Review

Journal of Social and Economic Development

Indian Journal of Economics and Development

WEB RESOURCES

<http://www.slideshare.net/mamtabhaurya1/recent-development-in-indian-economy-rivha>

http://populationcommission.nic.in/Publication/11_1.aspx

<http://www.economist.com/news/books-and-arts/21576372-how-get-india-moving-again-capitalist-manifesto>

<http://yaleglobal.yale.edu/content/why-growth-matters-how-economic-growth-india-reduced-poverty-and-lessons-other-developing-co>

http://www.dgciskol.nic.in/annualreport/book_3e.pdf

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $5 \times 2 = 10$ marks (Any 5 out of 6 questions to be answered in 50 words each)

Section B – $2 \times 10 = 20$ marks (2 out of 3 questions to be answered in 400 words each)

Section C – $1 \times 20 = 20$ marks (1 out of 2 questions to be answered in 1000 words)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open book tests

Group discussion

Assignments

Case studies

End Semester Examination

Total Marks: 100

Duration: 3 hours.

Section A – $10 \times 2 = 20$ marks (Any 10 out of 12 questions to be answered in 50 words each)

Section B – $5 \times 8 = 40$ marks (5 out of 8 questions to be answered in 400 words each)

Section C – $2 \times 20 = 40$ marks (2 out of 4 questions to be answered in 1000 words each)

STELLAMARISCOLLEGE (AUTONOMOUS), CHENNAI - 600 086

B.A.DEGREE: BRANCH IV-ECONOMICS

SYLLABUS

(Effective from the academic year 2015 -2016)

MICRO ECONOMICS - II

CODE: 15EC/MC/ME25 CREDITS : 5

L T P : 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To comprehend issues related to product pricing
- To analyse the interrelation between the product and the factor markets and understand the nature of factor pricing
- To give an insight into the functioning of all markets and their interaction, with a brief exposition of the general equilibrium analysis

Unit 1

Product Pricing under Imperfect Competition (11 hrs.)

- 1.1 A critique of perfect completion –Meaning of Imperfect Competition
- 1.2 Monopolistic Competition –Meaning and Features
- 1.3 Price and Output Determination in the short run and in the long run
- 1.4 Selling Costs, Product Differentiation and their impact on demand curves
- 1.5 Wastes of Monopolistic Competition
- 1.6 Application: Applying the Market Model to the current Indian Market situation through market survey

Unit 2

Oligopoly (15 hrs.)

- 2.1 Features of Oligopoly
- 2.2 Price determination under non-collusive Oligopoly: Cournot, Edgeworth
- 2.3 Kinked Demand Curve
- 2.4 Price determination under collusive Oligopoly: Cartels and Price Leadership
- 2.5 Game Theory: An elementary concept exposition –Nash, Dominant, Maximin strategies
- 2.6 Application: Applying the different market models to the current Indian Market Situation through market survey

Unit 3

The Factor Market and the Theory of Factor Pricing (12 hrs.)

- 3.1 Four fold classification of factors
- 3.2 The demand for factors – Marginal Productivity Theory
- 3.3 The supply of factors
- 3.4 Determination of factor pricing under Perfect and Imperfect Competition in Factor and Product Markets
- 3.5 Adding-up problem

Unit 4**Wages, Rent, Interest and Profits****(12 hrs.)**

- 4.1 Wage determination under perfect competition
- 4.2 Wage determination with Trade unions –role of collective bargaining
- 4.3 Wage differentials
- 4.4 Economic rent, scarcity and differential rent
- 4.5 Transfer earnings and quasi rent
- 4.6 Interest rate
- 4.7 Profits – innovation, dynamic changes, uncertainty and risk theories
- 4.8 Application: study of the Indian government's intervention in the betterment of Labour in India through wage legislations and policies

Unit 5**Information, Market failure and role of Government****(15 hrs.)**

- 5.1 General Equilibrium and economic efficiency
- 5.2 Markets with Asymmetric information
- 5.3 Market failure – Externalities
- 5.4 Application: Analysis of the Indian Markets

BOOKS FOR STUDY

Pindyck, Robert, S. and Rubinfeld, L. Daniel. *Micro Economics*. 8thed. Boston: Pearson, 2013.

Nicholson, Walter & Christopher, Snyder. M. *Micro Economic Theory. Basic Principles and Extensions*. 11thed. Ohio: South Western, 2011.

BOOKS FOR REFERENCE

Baumol, J. William. *Micro Economics Principles and Policy*. New York: Dryden, Harcourt Brace College Publishers, 2000.

Bardhan, Pranab and Udry, Christopher. *Development Micro Economics*. 1sted. New York: Oxford University Press, 1999.

Browning, Edgar K. and Zupan, Mark A. *Micro Economic theory and Applications*. USA: Addison Wesley Educational Publishers, 1999

Cohen, S. I. *Microeconomic Policy*. 1st ed. New York: Routledge, 2001

Hirshleifer, Jack. *Price Theory and Applications*. New Delhi: Prentice Hall of India, 1978.

Samuelson, P. A. and Nordhaus, W. D. *Economics*. New York: McGraw Hill, 1995.

Varian, Hal R. *Intermediate Micro Economics*. New Delhi: Affiliated East West Press, 1997.

JOURNALS

Studies in Microeconomics

Applied Economics

WEB RESOURCES

<http://www.slideshare.net/salasvelasco/microeconomics-production-theory>

<http://www.slideshare.net/MrRed/ap-micro-monopolistic-competition-and-oligopoly>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $5 \times 2 = 10$ marks (Any 5 out of 6 questions to be answered in 50 words each)

Section B – $2 \times 10 = 20$ marks (2 out of 3 questions to be answered in 400 words each)

Section C – $1 \times 20 = 20$ marks (1 out of 2 questions to be answered in 1000 words)

Third Component:

List of evaluation modes:

Seminars

Quiz

Group discussion

Assignments

Problem solving

Case studies

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ marks (Any 10 out of 12 questions to be answered in 50 words each)

Section B – $5 \times 8 = 40$ marks (5 out of 8 questions to be answered in 400 words each)

Section C – $2 \times 20 = 40$ marks (2 out of 4 questions to be answered in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI 600 086
B.A DEGREE: BRANCH IV - ECONOMICS
SYLLABUS
(Effective from the academic year 2015 -2016)

INDIAN ECONOMIC DEVELOPMENT -II

CODE: 15EC/MC/IE24

CREDITS:4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVE OF THE COURSE

- To develop an awareness of the basic issues and problems pertaining to the Indian Economy

Unit 1

Industries

(14 hrs.)

- 1.1 Industrial Policy – Industrial Policy since 1991 – Legal framework for Industry – Industrial (Development and Regulation) Act (IDRA) – Competition Act 2002 – Foreign Exchange Management Act (FEMA)
- 1.2 Large Scale Industries – Iron and Steel, Cotton Textiles, Engineering and IT – Performance of Public Sector
- 1.3 Small Scale Industries – Case for Small Scale Industries – Problems of Small Scale sector – Policy for the Small Scale sector.

Unit 2

Infrastructure and Labour

(10 hrs.)

- 2.1 Economic Infrastructure – Transport & Power
- 2.2. Labour – Trade Unions – Labour legislation – Social Security

Unit 3

Poverty

(14 hrs.)

- 3.1. Poverty – Relative & Absolute poverty – Inequalities in income distribution – Anti-poverty programmes (MNREGA, SGSY, SGRY, EAS, PMGY) – implementation and appraisal.
- 3.2. Unemployment – Magnitude, Types and Causes of Unemployment – Policy measures

Unit 4

India's External Sector

(8 hrs.)

- 4.1. Foreign trade – Structure, Direction and Trends – New Trade Regime
- 4.2. External Sector Reforms

Unit 5

Economic Reforms since 1991

(6 hrs.)

- 5.1. New Economic Policy – Globalization, Liberalisation and Privatisation
- 5.2. Application – Seminar presentation and assignments on the various units.

BOOKS FOR STUDY

Agarwal, A.N. *Indian Economy: Problems of Development and Planning*. New Delhi: WishwaPrakashanPublishing House, 2010.

Datt, Ruddar. and K.P.M. Sundaram. *Indian Economy*. New Delhi: Sultan Chand, 2010.

Ishwar C. Dhingra. *Indian Economy, Environment and Policy*. New Delhi: Sultan Chand & Sons, 2010.

BOOKS FOR REFERENCE

Dhar P.K. *Indian Economy*. Ludhiana: Kalyani Publishers, 2010.

Jhingan M.L. *The Economics of Development and Planning*. New Delhi: Vrinda Publications, 2007.

Kuchhal, S.C. and Puri. *The Industrial Economy of India*. New Delhi: Chaitanya Publishing House, 1996.

Misra S.K. and V.K. Puri. *Development and Planning: Theory and Practice*. New Delhi: Himalaya Publishing House, 2006.

Misra S.K. and V.K. Puri. *Structure and Problems of Indian Economy*. Bombay: Himalaya Publishing House, 1993.

Parikh, Kirit. *India Development Report* (ed.). New Delhi: Indira Gandhi Institute of Research and development, Oxford University Press, 2004.

REPORTS:

Economic Survey – Various issues since 2000

Tamil Nadu Economic Appraisal since 2000

WEB RESOURCES:

www.dipp.nic.in

www.labour.nic.in

www.labourbureau.nic.in

www.msme.gov.in

www.rbi.org.in

<http://mhrd.gov.in/>

www.morth.nic.in

<http://www.indianrailways.gov.in/>

www.dgft.gov.in

<http://commerce.nic.in/>

JOURNALS:

Indian Trade Journal

Indian Labour Journal

Indian Journal of Labour Economics

Journal of Development Studies

Monthly Statistics of Foreign Trade of India Volume-I & II

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration:90mins.

Section A – $5 \times 2 = 10$ marks (Any 5 out of 6 questions to be answered in 50 words each)

Section B – $2 \times 10 = 20$ marks (2 out of 3 questions to be answered in 400 words each)

Section C – $1 \times 20 = 20$ marks (1 out of 2 questions to be answered in 1000 words)

Third Component:

List of evaluation modes:

Seminars

Quiz

Assignments

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 hours

Question Paper Pattern:

Section A – $10 \times 2 = 20$ marks (Any 10 out of 12 questions to be answered in 50 words each)

Section B – $5 \times 8 = 40$ marks (5 out of 8 questions to be answered in 400 words each)

Section C – $2 \times 20 = 40$ marks (2 out of 4 questions to be answered in 1000 words each)

STELLAMARISCOLLEGE (AUTONOMOUS), CHENNAI - 600 086

B.A DEGREE: BRANCH IV - ECONOMICS

SYLLABUS

(Effective from the academic year 2015 -2016)

MATHEMATICAL METHODS FOR ECONOMICS

CODE: 15EC/AC/MM25

CREDITS : 5

L T P :5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVE OF THE COURSE

- To familiarise the use of mathematical techniques in the field of Economics

Unit 1

Analytical Geometry (15 hrs.)

- 1.1 Definition of the Cartesian system of coordinates, distance formula, coordinates of the point dividing the line joining two points in a given ratio, coordinates of the mid-point.
- 1.2 Equations of straight lines in slope intercept form, slope and a given point form, X and Y intercept form, two point form.
- 1.3 Angle between straight lines and conditions for parallelism and perpendicularism point of intersection of two straight lines
- 1.4 Linear demand and supply curves, savings and investment curves, equilibrium of demand and supply.
- 1.5 Equation of parabola and identification of vertex, focus directrix, axis and latus rectum and problems on the application of parabola. Equation of rectangular hyperbola. Unitary elasticity of demand and average fixed cost

Unit 2

Matrix and Determinants (10 hrs.)

- 2.1 Various types of matrices. Matrix operations- addition, subtraction and multiplication
- 2.2 Determinants, properties of determinants, solving equations using Cramer's Rule.
- 2.3 Matrix inversion and solving equations using inverse of a matrix
- 2.4 Structure of input-output table, Static Leontief system
- 2.5 Solving open input output models and Hawkin-Simon Condition

Unit 3

Differential Calculus (15 hrs.)

- 3.1 Variables, constants and functions
- 3.2 Concept of limits, Continuous and Discontinuous functions
- 3.3 Definition of derivatives and rules of differentiation. Derivatives of $y=x^n$, $y = e^x$, $y = \log x$
- 3.4 Function of a function rule, logarithmic, parametric and implicit differentiation
- 3.5 Partial Derivatives

Unit 4**Calculus – Economics Application (15 hrs.)**

- 4.1 Application to elasticity of demand and supply
- 4.2 Derivation of marginal and average cost and revenue functions
- 4.3 Inter-relationship among total, marginal and average functions
- 4.4 Cross elasticity of demand and MC, MR, MP with two or more inputs
- 4.5 Production Function, homogenous functions and Euler's Theorem

Unit 5**Maxima and Minima (10 hrs.)**

- 5.1 Increasing and Decreasing functions, interpretation of slope as the first derivative
- 5.2 Unconstrained maxima and minima with single explanatory variable
- 5.3 Application to cost minimization, revenue maximization
- 5.4 Profit maximization and equilibrium of firm

BOOKS FOR STUDY

Chiang, A.C. *Fundamentals Methods of Mathematical Economics*. New York: McGraw Hill, 1999

Mehta, B.C. and Madnani, G.M. *Mathematics for Economists*. New Delhi: Sultan Chand, 2000.

BOOKS FOR REFERENCE

Allen, R.G.D. *Mathematical Economics*, Madras: English Language Book Society and Macmillan Press, 1973.

Basal, Anjali. *Mathematical Methods for Economics*. New Delhi: Nath Enterprises, 1995.

Narayanan, S. and Manicavachagam Pillay T.K. *Calculus*. Madras: Viswanthan Printers and Publishers, 1995.

Natarajan and Manicavachagam Pillay. *A Text Book of Analytical Geometry*, Madras: S. Viswanthan Printed and Publishers, 1981.

Sancheti, D.C. and V.K. Kapur, *Business Mathematics*, New Delhi: Sultan Chand, 1981.

Sydsaetar, Knut and Peter. Hammond. *Mathematics for Economic Analysis*. Singapore: Pearson Education, 2005.

JOURNALS

Journal of Mathematical Economics and Finances

WEB RESOURCES

<http://www.econ2.uni-bonn.de/mitarbeiter/downloads/mathnotes.pdf>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 5 x 2 = 10 marks (Any 5 out of 6 questions to be answered in 50 words each)

Section B – 2 x 10 = 20 marks (2 out of 3 questions to be answered in 400 words each)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1000 words)

Third Component:

List of evaluation modes:

Quiz

Assignments

Problem solving

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 hours.

Question Paper Pattern:

Section A – 10 x 2 = 20 marks (Any 10 out of 12 questions to be answered in 50 words each)

Section B – 5 x 8 = 40 marks (5 out of 8 questions to be answered in 400 words each)

Section C – 2 x 20 = 40 marks (2 out of 4 questions to be answered in 1000 words each)

STELLAMARISCOLLEGE (AUTONOMOUS), CHENNAI - 600 086
Allied Core offered by the Department of Economics for the
B.Com Degree Program

SYLLABUS
(Effective from the academic year 2015 -2016)

ECONOMICS FOR BUSINESS

CODE: 15EC/AC/EB25

CREDITS: 5

L T P :5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce the fundamental concepts of economic theories.
- To help in the analysis and logical working of principles underlying economic decisionmaking

Unit 1

Demand and

Supply Analysis

(18 hrs.)

- 1.1 Law of demand, determinants of demand, change in demand and amount demanded
- 1.2 Elasticity of demand –Types – Price elasticity –factors influencing elasticity of demand, importance of price elasticity of demand, Income and Cross elasticity. Applications of elasticity of demand
- 1.3 Estimating demand –Importance and Scope of demand forecasting – Techniques of demand forecasting -complete enumeration survey, sample survey, Delphi Technique, Statistical methods –trend analysis, regression: Features of a good forecasting method
- 1.4 Law of Supply and its determinants
- 1.5 Elasticity of supply
- 1.6 Economies of scale (internal and external economies and diseconomies)

Unit 2

Theory of Production

(14 hrs.)

- 2.1 Law of diminishing returns
- 2.2 Returns to Scale
- 2.3 Isoquants
- 2.4 Least cost combination of factors

Unit 3

Cost and Cost Curves

(12 hrs.)

- 3.1 Concepts of cost
- 3.2 Relation between average and marginal cost curves
- 3.3 Long run Average Cost Curves and Marginal Cost Curves
- 3.4 Concept of AR and MR and relation between AR and MR curve

Unit 4

Market Structure and Competition (12 hrs.)

- 4.1 Equilibrium and price determination under perfect competition
- 4.2 Equilibrium and price determination under monopoly
- 4.3 Price discrimination – meaning, types and equilibrium
- 4.4 Equilibrium and price determination under monopolistic competition
- 4.5 Oligopoly –Features, concept of ‘Kinky demand’ curve
- 4.6 Importance of advertising and selling costs

Unit 5

Objectives of the Firm (9 hrs.)

- 5.1 Profit, Growth, Sales, Utility Maximization (Brief Knowledge – Assignment)
- 5.2 Break Even Analysis –Overview
- 5.3 Application –Entails a project on the relevance of imperfect competition and case study on firms operating under such markets

BOOKS FOR STUDY

Ahuja H.L. *Business Economics Micro*, New Delhi:S. Chand and Co,2010.

BOOKS FOR REFERENCE

Robert, S.Pindyck, Daniel and L. Rubinfeld, Prem L.*Micro Economics*.New Delhi: Pearson Education,2005

Samuelson, Paul. A. and Nordhaus William D.*Economics*,New York: McGraw Hill.

Sundharam K.P.M and E.N Sundharam.*Micro Economics*.New Delhi: Sultan Chand, 2009.

Seth, M.L. *Micro Economics*,Agra:Lakshmi NarainAgarwal Educational Publishers, 2009.

JOURNALS

Journal of Economics and Business

Journal of Microeconomics

WEB RESOURCES

<http://home.manhattan.edu/~fiona.maclachlan/costcurves.pdf>

<http://www.nber.org/chapters/c2662.pdf>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $5 \times 2 = 10$ marks (Any 5 out of 6 questions to be answered in 50 words each)

Section B – $2 \times 10 = 20$ marks (2 out of 3 questions to be answered in 400 words each)

Section C – $1 \times 20 = 20$ marks (1 out of 2 questions to be answered in 1000 words)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open book tests

Group discussion

Assignments

Case studies

End Semester Examination

Total Marks: 100

Duration: 3 hours

Question Paper Pattern:

Section A – $10 \times 2 = 20$ marks (Any 10 out of 12 questions to be answered in 50 words each)

Section B – $5 \times 8 = 40$ marks (5 out of 8 questions to be answered in 400 words each)

Section C – $2 \times 20 = 40$ marks (2 out of 4 questions to be answered in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI 600 086
B.A DEGREE: BRANCH IV –ECONOMICS

SYLLABUS
(Effective from the academic year 2015-16)

MONETARY ECONOMICS- I

CODE: 15EC/MC/MO34

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To understand the various monetary theories
- To give an insight into the integration between Monetary Theory and Practice

Unit 1

Introduction (8 hrs.)

- 1.1 Evolution of Money: Defects of Barter System, Origin of Money
- 1.2 Classification of money: Commodity, Metallic, Paper and Credit Money
- 1.3 Functions of Money: - Primary, Secondary, Contingent and Miscellaneous – Static and Dynamic
- 1.4 Definition of Money: - Classical, Keynesian, Post Keynesian -Friedman, Gurley Shaw (Inside and Outside Money), Radcliff Report
- 1.5 Role of Money – Developed and Developing economies

Unit 2

Monetary Standards (8 hrs.)

- 2.1 Metallic Standard- Mono-Metallism (Silver and Gold), Bi-Metallism- types, Gresham's Law
- 2.2 Gold Standard – Types, Rules, Operation and Collapse
- 2.3 Paper Standard- Definition, Characteristics, Merits and Demerits
- 2.4 Note Issue Standard – Principles (Currency and Banking Principle), Types, Note Issue System in India since the Inception of RBI.

Unit 3

Demand and Supply of Money (12 hrs.)

- 3.1 Value of Money: - Relationship between Value of Money and General Price level, Measurement of Money
- 3.2 Demand for Money: - Determinants of Demand for Money
- 3.3 Supply of Money: -Determinants of supply of money
- 3.4 Monetary Aggregates: Money Stock in India
- 3.5 High Power Money: - Money Multiplier and Monetary Base

Unit 4

Theories of Demand for Money – Classical and Keynesian (14 hrs.)

- 4.1 Classical Theory- Quantity Theory of Money: Transaction Approach (Fisher)
- 4.2 Quantity Theory Of Money: Cambridge Approach (Marshall, Pigou, Robertson)
- 4.3 Keynesian Theory: Income Theory

4.4 Keynesian Theory: Liquidity Preference Theory

Unit 5

Post Keynesian Theories of Demand for Money

(10 hrs.)

5.1 Baumol's Inventory Theoretic Approach

5.2 Tobin's Portfolio Balance Approach

5.3 Friedman's Restatement of the Quantity Theory

BOOKS FOR STUDY

Hajela T.N. *Money, Banking and International Trade*. New Delhi: Konark Publishers, 2002.

Paul, R.R. *Monetary Economics*. New Delhi: Kalyani Publishers, 2005.

Sethi, T.T. *Monetary Economics*. New Delhi: Sultan Chand, 2003.

Sundharam, K.P.M. *Money Banking Trade and Finance*. New Delhi: Sultan Chand, 2004.

BOOKS FOR REFERENCE

Crowther, G. *An Outline of Money*. London: Thomas Nelson, 1958.

Friedman, Milton. *Studies in the Quantity Theory of Money*. London: Ed, Chicago: The University of Chicago Press, 1956.

Ghosh, B.N. and Ghosh. Rama, *Fundamentals of Monetary Economics*. Mumbai: Himalaya Publishing House, 2007.

Reddy, Y.V. *Lectures on Economic and Financial Sector Reform in India*. New Delhi: Oxford University Press, 2002.

Suraj, B. Gupta. *Monetary Economics, Institutions, Theory and Policy*. New Delhi: Sultan Chand, 2000.

Vaish, M.C. *Monetary Theory*, New Delhi: RatanPrakashanMandi, 2004.

JOURNALS

RBI Bulletins

WEBSITES

www.rbi.org.in

www.mospi.nic.in

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 5 x 2 = 10 marks (Any 5 out of 6 questions to be answered in 50 words each)

Section B – 2 x 10 = 20 marks (2 out of 3 questions to be answered in 400 words each)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1000 words)

Third Component:

List of evaluation modes:

Seminars

Quiz

Concept Test

Group discussion,

Assignments

Case studies

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 hours

Question Paper Pattern:

Section A – 10 x 2 = 20 marks (Any 10 out of 12 questions to be answered in 50 words each)

Section B – 5 x 8 = 40 marks (5 out of 8 questions to be answered in 400 words each)

Section C – 2 x 20 = 40 marks (2 out of 4 questions to be answered in 1000 words each)

SYLLABUS
(Effective from the academic year 2015 -2016)

DEVELOPMENT THEORY

CODE: 15EC/MC/DT34

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To understand the concept and issues concerning development
- To reinforce analytical and critical approach to the subject

Unit 1

Economics of Development - Introduction (11 hrs.)

- 1.1 Economics, Institutions and Development
- 1.2 Measures and patterns of development
- 1.3 Definition of developing economy, characteristics of a developing economy.
- 1.4 Poverty and inequality –meaning – economic and social dimension of poverty

Unit 2

Process of Development – Theoretical Perspective (10 hrs.)

- 2.1 Theories of Transition - Rostow's stages of economic Growth,
- 2.2 Clark and Fisher, Kuznet
- 2.3 Kaldor and the Neoclassical approach to market and growth.

Unit 3

Factors in Economic Development (10 hrs.)

- 3.1 Land: Ownership and Tenancy System – Role of agriculture in development
- 3.2 Labour – population and labour force growth, casual and long term labour, Permanent labour market
- 3.3 Capital: Role of capital accumulation in economic development – significance of capital-output ratio – role of technological progress, learning, human capital

Unit 4

Development Strategies (12 hrs.)

- 4.1 Complementarity and Coordination
- 4.2 Poverty trap – Nurske and Big push theory
- 4.3 Backward and forward linkages - Interdependence of Agriculture and Industry
- 4.4 Choice of Technology – choices of scale – criteria for investment
- 4.5 Gains from trade – Prebisch doctrine, Prebisch-Singer thesis of Terms of Trade

Unit 5

Development in a Labour Surplus Economy

(9 hrs.)

- 5.1 The concept of economic dualism
- 5.2 Lewis' Model of Economic Development – Unlimited Supply of Labour.
Disguised Unemployment
- 5.3 The Informal Sector
- 5.4 Rural Urban Migration

BOOKS FOR REFERENCE

Debraj, Ray. *Development Economics*. London: Oxford University Press

Ghatak, Surata. *Introduction to Development Economics*. London: Routledge, 2007.

Meier, G. M. and J. E. Rauch. *Leading Issues in Economic Development*. London: Oxford University Press, 8th Edition.

Mishra & Puri. *Economics of Development and Planning*. New Delhi: Himalaya, 1989.

Taneja, M.L & Myer. R.M. *Economics of Planning and Development*. Jalandhar: Vishal Publishers, 2007.

Thirwall A.P. *Economics of Development*. New York: Palgrave MacMillan, 2011.

Todaro, Michael P. & Smith. Stephen C. *Economic Development*. New Delhi: Pearson, 2012.

Todaro, Michael P. *Economic Development*. London: Longman, 1985.

JOURNALS

Journal of Development Economics

Journal of Economics and Development Studies

Indian Journal of Economics and Development

The Journal of Social and Economic Development

WEB RESOURCES

http://www.sagepub.in/upm-data/29044_Nederveen_Pieterse__chapter_One.pdf

http://www.aw-bc.com/info/todaro_smith/Chapter4.pdf

<http://www.yale.edu/leitner/resources/docs/ssrn-id551645.pdf>

<https://www.rienner.com/uploads/47e2d55b15183.pdf>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $5 \times 2 = 10$ marks (Any 5 out of 6 questions to be answered in 50 words each)

Section B – $2 \times 10 = 20$ marks (2 out of 3 questions to be answered in 400 words each)

Section C – $1 \times 20 = 20$ marks (1 out of 2 questions to be answered in 1000 words)

Third Component:

List of evaluation modes:

Quiz

Group Presentation

Assignments

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Question Paper Pattern:

Section A – $10 \times 2 = 20$ marks (Any 10 out of 12 questions to be answered in 50 words each)

Section B – $5 \times 8 = 40$ marks (5 out of 8 questions to be answered in 400 words each)

Section C – $2 \times 20 = 40$ marks (2 out of 4 questions to be answered in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI 600 086
B.A DEGREE: BRANCH IV – ECONOMICS

SYLLABUS
(Effective from the academic year 2015-16)

MONETARY ECONOMICS – II

CODE: 15EC/ MC/MO45

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVE OF THE COURSE

- To understand the functioning of the Financial System
- To help comprehend the working of the Indian Financial Institutions

Unit 1

Money and Capital Markets (12 hrs.)

- 1.1 Money Market- Definition, Features, Structure and Functions, Instruments
- 1.2 Capital Market: - Definition, Structure and Function, Instruments
- 1.3 Money and Capital Market: Developed and Developing Economies
- 1.4 Money and Capital Markets in India

Unit 2

Banking (10 hrs.)

- 2.1 Commercial Banks: Definition, Function, Assets and Liabilities
- 2.2 Central Bank: Definition, Functions
- 2.3 Credit Creation
- 2.4 Rationale for Nationalization of Banks

Unit 3

Non-Banking Financial Intermediaries (15 hrs.)

- 3.1 NBFI's:- Definition, Function and Role
- 3.2 Growth of NBFI's in India
- 3.3 Gurley & Shaw Theory
- 3.4 Institutions:- Mutual Funds, Insurance, Pension and Provident Fund

Unit 4

Reforms in Financial Market in India (16 hrs.)

- 4.1 Banking Reforms:-Narasimham Committee Report
- 4.2 NBFI's Reform:-Narasimham Committee Report
- 4.3 Reforms in Interest Rates
- 4.4 Impact of Financial Reforms

Unit 5

Monetary Policy (12 hrs.)

- 5.1 Monetary Policy: Definition, Targets and Indicators
- 5.2 Objectives
- 5.3 Instruments and Lags
- 5.4 Monetary Policy in India

BOOKS FOR STUDY

Hajela, T.N. *Money, Banking and International Trade*. New Delhi: Konark Publishers, 2002.

Kunjukunju, Benson and Mohanan S, *Financial Markets and Financial Services in India*. New Delhi: New Century Publication, 2012.

Paul, R.R. *Monetary Economics*. New Delhi: Kalyani Publishers, 2005.

Sethi, T.T. *Monetary Economics*. New Delhi: Sultan Chand, 2003.

Sundharam, K.P.M. *Money Banking Trade and Finance*. New Delhi: Sultan Chand, 2004.

BOOKS FOR REFERENCE

Jadhav, N. *Monetary Policy- Financial Stability and Central Banking in India*. New Delhi: MacMillan, 2006.

Khan, M.Y. *Indian Financial System, 7th Ed*. New Delhi: Tata McGraw Hill, 2011.

Majumdar, N.A. *Financial Sector reforms and India's Economic Development*. Vol 1. New Delhi: Academic Foundation, 2002.

Mishkin, F.S. and S.G. Eakins, *Financial Markets and Institutions*. 6th Ed. Pearson Education Asia, 2009.

Rakesh, Mohan. *Growth with Financial Stability – Central Banking in an Emerging Market*. New Delhi: Oxford University Press, 2011.

Reddy, Y.V. *Lectures on Economic and Financial Sector Reform in India*. New Delhi: Oxford University Press, 2002.

Suraj, B Gupta. *Monetary Economics, Institutions, Theory and Policy*. New Delhi: Sultan Chand, 2000.

Vaish, M.C. *Monetary Theory*. New Delhi: Ratan Prakashan Mandir, 2004.

Wilson, J.S.G. *Monetary Policy and the Development of the Money Market*. London: Kindle Publishing House, 2008.

WEB RESOURCES

www.rbi.org.in

www.mospi.nic.in

<https://prezi.com/nqadt5-xobnq/m2-analyse-the-effects-of-fiscal-and-monetary-policies-for-a/>

JOURNALS

RBI Bulletins

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $5 \times 2 = 10$ marks (5 out of 6 questions to be answered in 50 words each)

Section B – $2 \times 10 = 20$ marks (2 out of 3 questions to be answered in 400 words each)

Section C – $1 \times 20 = 20$ marks (1 out of 2 questions to be answered in 1000 words)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments,

Case studies

Article Review

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ marks (10 out of 12 questions to be answered in 50 words each)

Section B – $5 \times 8 = 40$ marks (5 out of 8 questions to be answered in 400 words each)

Section C – $2 \times 20 = 40$ marks (2 out of 4 questions to be answered in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI 600 086
B.A DEGREE: BRANCH IV –ECONOMICS

SYLLABUS
(Effective from the academic year 2015-16)

MACRO ECONOMICS-I

CODE: 15EC/MC/MA55

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS:65

OBJECTIVE OF THE COURSE

- To understand the macro-economic concepts involving the functioning of the Macro economy
- To compare and contrast classical and Keynesian models

Unit 1

Introduction to Macro Economics (10 hrs.)

- 1.1 Definition, nature, scope of macro economics, Distinction between micro and macro economics
- 1.2 Basic concepts- stock, flow, function, statics, comparative statics, dynamics, equilibrium and disequilibrium
- 1.3 National income - Concept, measurement, uses and difficulties
- 1.4 Social Accounting – Concept of net economic welfare

Unit 2

Classical Theory (13 hrs.)

- 2.1 Classical Theory of Output and Employment:
Production
Employment: Demand and Supply of Labour
Equilibrium: Output and Employment
- 2.2 Classical Theory of Money, Prices and Interest
Quantity theory of money
Classical theory of interest rate
- 2.3 Policy implication of Classical Equilibrium Model

Unit 3

Keynesian Theory (14 hrs.)

- 3.1 Keynesian model of income and employment determination: aggregate demand and supply
- 3.2 Concept of Effective Demand
- 3.3 Under employment equilibrium
- 3.4 Classical vs. Keynesian
- 3.5 Relevance of Keynesian economics to India

Unit 4

Consumption and Saving Function (16 hrs.)

- 4.1 Meaning, attributes, factors affecting, consumption

- 4.2 Theories of consumption - Absolute, Relative, Permanent, and Life cycle hypothesis
- 4.3 Saving Function – its attributes

Unit 5

Investment Function, Multiplier and Accelerator (12 hrs.)

- 5.1 Investment function- Nature of investment, factors affecting investment- MEC, MEI, and rate of interest
- 5.2 Multiplier – definition, types, operation
- 5.3 Acceleration Principle
- 5.4 Interaction between multiplier and accelerator

BOOKS FOR STUDY

Ahuja, H.L. *Macro Economics, Theory and Policy*. New Delhi: S.Chand,2009.

Froyen, Richard T. *Macroeconomics: Theories and Policies*. New Delhi: Pearson Education,2012.

Shapiro, Edward. *Macro Economic Analysis*. New York: Harcourt Brace Jovanovich,1999.

BOOKS FOR REFERENCE

Duilo, E.*Schaum Series.Macro Economic Theory*. New York: McGraw Hill Company,1974.

Errol D'Souza. *Macro Economics*. Delhi: Pearson Education, 2008.

Gardner, Ackley. *Macro Economics theory and Policy*, New York: Macmillan Publishing, 1992.

Gupta, R.D.*Keynes and Post Keynesian Economics*. New Delhi :Kalyani Publisher, 1980.

Heijdra, Ben J. *The Foundation of Modern Macroeconomics*. Oxford University Press, 2009.

Hubbard, Glenn R. and Anthony. Patrick O' Brien. *Macro Economics*. New Delhi: Pearson, 2012.

Jha, Raghendra.*Contemporary Macroeconomic Theory and Policy*. Wiley Eastern,2009.

Rajahit, M.*Studies in Macroeconomics of Developing Countries*. New Delhi: Oxford University Press,1998.

Rana,Verma. *Macro Economic Analysis*. 10th ed. Jalandhar: Vishal Publishing, 2013.

Snowdon, Brian.and Vane. Howard R. A, *Macro Economic Reader*. London: Routledge.

JOURNALS

Journal of Macroeconomics

Cambridge Journals –Macroeconomics Dynamics

WEB RESOURCES

www.rbi.org.in

www.mospi.nic.in

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $5 \times 2 = 10$ marks (Answer any 5 out of 6 questions in 50 words each)

Section B – $2 \times 10 = 20$ marks (Answer any 2 out of 3 questions in 400 words each)

Section C – $1 \times 20 = 20$ marks (Answer any 1 out of 2 questions in 1000 words)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open book tests

Group discussion

Assignments

Case studies

End Semester Examination:

Total Marks: 100

Duration: 3 hours.

Question Paper Pattern:

Section A – $10 \times 2 = 20$ marks (Answer any 10 out of 12 questions in 50 words each)

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STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI 600 086
B.A DEGREE: BRANCH IV – ECONOMICS

SYLLABUS
(Effective from the academic year 2015-16)

PUBLIC FINANCE -I

CODE: 15EC/MC/PF55

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVE OF THE COURSE

- To understand the theoretical aspects of fiscal instruments supported by empirical evidences
- To help critically analyse the fiscal operations of the Indian Fiscal system

Unit 1

Introduction

(8 hrs.)

- 1.1 Definition Private and Public Finance
- 1.2 Nature and scope of Public Finance- Classical Vs Keynesian

Unit 2

Scope of Government Activity

(11 hrs.)

- 2.1 Types of goods and bads – Private, Public – Merits – Demerits – Club goods
- 2.2 Pareto Optimality
- 2.3 Theoretical arguments for the Public Sector
- 2.4 Theory of Second Best
- 2.5 Pricing Theory of the Public Sector – MC and AC pricing
- 2.6 Role and Performance of the Public Sector in India

Unit 3

Public Expenditure

(16 hrs.)

- 3.1 Classification and Principles of Public Expenditure
- 3.2 Growth of Public Sector – Wagner, Wiseman and Peacock, Colin Clark
Growth of Public Expenditure in India
- 3.3 Principle of Maximum Social Advantage
- 3.4 Effects of Public Expenditure

Unit 4

Public Revenue

(20 hrs.)

- 4.1 Sources of Public Revenue
- 4.2 Types of Taxes – Direct and Indirect - their merits and demerits
- 4.3 Theories of Taxation – Cost of Service Theory, Benefit Principle, and Ability to Pay Theory
- 4.4 Taxable Capacity – Definition and measurement – Taxable capacity in India
- 4.5 Tax shifting and Incidence of taxation – Theories of incidence -
- 4.6 Effects of Taxation
- 4.7 Role of taxation in a developing economy.

Unit 5

Indian Fiscal System

(10 hrs.)

- 5.1 Structure of Tax and Non tax revenues- centre and state
- 5.2 Development and Non Development expenditure of Centre and State
- 5.3 Recent Tax Reforms (since 1991)
- 5.4 The application of the various theories and concepts to the Indian Fiscal set up – growth of public expenditure, nationalization – disinvestments – Liberalization, Privatization and Globalization

BOOKS FOR STUDY

Lekhi, R.K. *Public Finance*. New Delhi: Kalyani Publishers, 2010 -2011.

Tyagi, B.P. *Public Economics*. Meerut (U.P.): Jai Prakash Nath, 2010-2011.

BOOKS FOR REFERENCE

Bhargava, R.N. *The Theory & Working of Union Finance in India*. George Allen and Unwin, 1956.

Bhatia, H. L. *Public Finance*, New Delhi: Vikas Publishing House, 1988.

Chelliah, Raja. *Fiscal Policy in Underdeveloped Countries*. London: George Allen and Unwin, 1969.

Herber, Bernard, P. *Modern Public Finance, The Study of Public Sector Economic*, Illinois: Richard D. Irwin, 1975.

Singh, S.K. *Public Finance in Development and Developing Countries*. New Delhi: S.Chand, 1991.

Tripathy, R.N. *Public Finance in Underdeveloped Countries*. Calcutta: The World Press, 1991.

JOURNALS

South Asian Journal of Macroeconomics and Public Finance

Public Finance – World Bank

Public Finance Review

WEB RESOURCES

<https://prezi.com/nqadt5-xobnq/m2-analyse-the-effects-of-fiscal-and-monetary-policies-for-a/>

<https://economics.stanford.edu/courses/public-finance-and-taxation-ii>

http://www.andrew.cmu.edu/user/rs9f/pf04_9_12_04_vol_1.pdf

<http://ocw.mit.edu/courses/economics/14-471-public-economics-i-fall-2012/lecture-notes/>

http://obs.rc.fas.harvard.edu/chetty/public_economics_lectures.pdf

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 5 x 2 = 10 marks (Answer any 5 out of 6 questions in 50 words each)

Section B – 2 x 10 = 20 marks (Answer any 2 out of 3 questions in 400 words each)

Section C – 1 x 20 = 20 marks (Answer any 1 out of 2 questions in 1000 words)

Third Component:

Quiz

Open book tests

Assignment

Seminar Presentation,

Viva Voce

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Question Paper Pattern:

Section A – 10 x 2 = 20 marks (Answer any 10 out of 12 questions in 50 words each)

Section B – 5 x 8 = 40 marks (Answer any 5 out of 8 questions in 400 words each)

Section C – 2 x 20 = 40 marks (Answer any 2 out of 4 questions in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.A DEGREE: BRANCH IV –ECONOMICS

SYLLABUS
(Effective from the academic year 2015 -2016)

ECONOMIC THOUGHT

CODE: 15EC/MC/ET55

CREDITS : 5

L T P : 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To trace the evolution of economic science and evaluate the contributions of various thinkers and schools of thought
- To analyse the impact of prevailing circumstances on the evolution of economic thought

Unit 1

Introduction (10 hrs.)

- 1.1 Economic Thought – Meaning, Need for study of Economic Thought
- 1.2 Origin of Modern Economic Thought –Mercantilism –Physiocracy
- 1.3 Application –Relevance of mercantilism in the globalised world

Unit 2

The Classical Political Economy (14 hrs.)

- 2.1 Adam Smith
- 2.2 David Ricardo
- 2.3 Thomas Robert Malthus
- 2.4 J.S.Mill
- 2.5 Application –Comparison of current capitalism with 18th century capitalism

Unit 3

Alternative Schools of Thought (14 hrs.)

- 3.1 Marxian Socialism
- 3.2 Institutional School –ThorsteinBunde Veblen
- 3.3 German Historical School –Critical and Positive ideas
- 3.4 Marginal Revolution –William Stanley Jevons –Carl Menger –Leon Walras
- 3.5 Keynesian Economics- Main Features of Keynesian Revolution – Contributions of Lord Keynes to Macro Economics
- 3.6 Application –Collapse of the communist regime in the 90's

Unit 4

Neo Classical Economics and Welfare Economics (14 hrs.)

- 4.1 Neo Classical Economics –Main Features –Alfred Marshall –Critique of Neoclassical School
- 4.2 Welfare Economics –Old Welfare School –A.C. Pigou
- 4.3 New Welfare School –Vilfred Pareto

- 4.4 J .R.Hicks
- 4.5 Paul A Samuelson
- 4.6 Kenneth K Arrow
- 4.7 Application –Market Failure

Unit 5

Indian Economic Thought

(13 hrs.)

- 5.1 DadabhaiNaoroji
- 5.2 MahadevGovindRanade
- 5.3 GopalakrishnaGokhale
- 5.4 M. K.Gandhi
- 5.5 Amartya Sen
- 5.6 Application – ‘Limiting Wants’

BOOKS FOR STUDY

Dasgupta, Ajit.*A History of Indian Economic Thought*.London & New York: Routledge, 1993.

Gide, Charles. and Rist. Charles.*A History of Economic Doctrines*.London: George G. Harrp,1967.

Haney, Lewis H. *History of Economic Thought*.New York: The Macmillan,1962.

Lokanathan V.*A History of Economic Thought*.New Delhi:S. Chand, 2007.

BOOKS FOR REFERENCE

Brue, Stanley L& Grant. Randy. *The Evolution of Economic Thought*, 8th Ed. Ohio: South Western, 2013.

Roll, Eric.*History of Economic Thought*.London: Faber & Faber, 2006.

Blaug, Mark.*Economic History and The History of Economics*. Sussex:Wheatsheaf Books, 1986.

Deane, Phyllis.*The Evolution of Economic Ideas*.London:Cambridge University Press,1978.

Seligman B. *Main Current Trends In Modern Economics*.New York: The Press of Golencoe,1963.

JOURNALS

Journal of the History of Economic Thought
The European Journal of the History of Economic Thought

WEB RESOURCES

<https://www.etcases.com/media/clnews/14214979671707593998.pdf>

<http://digamo.free.fr/backhaus122.pdf>

<http://modernecon.org/wp-content/uploads/2012/12/history-of-thought-Final-print-book-3.pdf>

http://cobe.boisestate.edu/lreynol/WEB/PDF_HET/CHAPTER1INTRO.pdf

http://mises.org/sites/default/files/Austrian%20Perspective%20on%20the%20History%20of%20Economic%20Thought_Vol_2_2.pdf

http://economics.uwo.ca/people/laidler_docs/theroleof.pdf

http://is.vsfs.cz/el/6410/zima2013/BA_ETD/um/4176060/-An-Outline-of-the-History-of-Economic-Thought-Screpanti-and-Zamagni-Oxford-2005-2nd-Ed.pdf

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $5 \times 2 = 10$ marks (Answer any 5 out of 6 questions in 50 words each)

Section B – $2 \times 10 = 20$ marks (Answer any 2 out of 3 questions in 400 words each)

Section C – $1 \times 20 = 20$ marks (Answer any 1 out of 2 questions to in 1000 words)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open book tests

Group Discussion

Assignments

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Question Paper Pattern:

Section A – $10 \times 2 = 20$ marks (Answer any 10 out of 12 questions in 50 words each)

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Section C – $2 \times 20 = 40$ marks (Answer any 2 out of 4 questions in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI 600 086
B.A DEGREE: BRANCH IV – ECONOMICS

SYLLABUS
(Effective from the academic year 2015-16)

MACRO ECONOMICS - II

CODE: 15EC/MC/MA65

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS:65

OBJECTIVE OF THE COURSE

- To help in analysing the macroeconomic goals and methods of achieving stabilization

Unit 1

Rate of Interest (14 hrs.)

- 1.1 Approaches to Interest Rate:- Stock & Flow
- 1.2 Theories of structure of Interest Rates:- Segmented Market Theory, Expectations Theory, The Liquidity Premium Theory, Preferred Habitat Theory
- 1.3 Effect of interest rate of demand for and supply of money
- 1.4 Interest Rates –The Indian Context

Unit 2

Neo- Classical Keynesian Synthesis (13 hrs.)

- 2.1 Hicks-Hansen IS-LM functions
- 2.2 General Equilibrium
- 2.3 Effectiveness of Monetary and Fiscal policy
- 2.4 IS-LM in open economy

Unit 3

Business Cycles (13 hrs.)

- 3.1 Definitions, characteristics, Types of business cycle & Phases of business cycle
- 3.2 Theories of Business cycle: Hobson; Hawtrey, Keynes, Samuelson, Hicks & Kaldor – Monetary & Non monetary
- 3.3 Real Business Cycle
- 3.4 Measures of Stabilisation

Unit 4

Inflation (12 hrs.)

- 4.1 Definition, Types, Causes, Effects.
- 4.2 Theories of Inflation:- Excess DD –Inflationary gap; Bent Hansen Excess Demand, Cost push – Wage Mark Up Pricing, Profit Push
- 4.3 Control of Inflation:- Monetary, fiscal and General Control

- 4.4 Stagflation
- 4.5 Phillips Curve:- Augmented Phillips Curve
- 4.6 Inflation in India: Recent Experience

Unit 5

Macro Economic Policy

(13 hrs.)

- 5.1 Objectives, Techniques, Instruments
- 5.2 Achievements of internal and external balance
- 5.3 Application- Macro Economic objectives of Indian economy

BOOKS FOR STUDY

Ahuja, H.L. *Macro Economics Theory and Policy*. New Delhi: S Chand, 2010.

Froyen, T. Richard. *Macroeconomics Theories and Policies*. New Delhi: Pearson Education, 2002.

Rana, K.C and Verma.K.N. *Macro Economic Analysis*. Jalandar: Vishal Publishing, 2004.

Shapiro, Edward. *Macro Economic Analysis*. New York: Harcourt Barce Jovanovich, 1998.

BOOKS FOR REFERENCE

Crouch, Robert. *Macro Economics*. New York: Harcourt Brace Jovanovich, 1972.

Duilo, E. *Macro Economic Theory. Schaum Series*. New York: McGraw Hill Company, 1974.

Errol D'Souza. *Macro Economics*. New Delhi: Pearson Education, 2008.

Gardner, Ackley. *Macro Economics theory and Policy*. New York: Macmillan Publishing, 1992.

Gupta, R.D. *Keynes and Post Keynesian Economics*. New Delhi: Kalyani Publisher, 1980.

Heijdra, Ben.J. *The Foundation of Modern Macroeconomics*. Oxford University Press, 2009.

Hubbard, Glenn.R. and Anthony. Patrick O' Brien, *Macro Economics*, New Delhi: Pearson, 2012.

Jha, Raghavendra. *Contemporary Macroeconomic Theory and Policy*. Wiley Eastern, 2009.

Rajahit, M. *Studies in Macroeconomics of Developing Countries*. New Delhi: Oxford University Press, 1998.

Rana, Verma. *Macro Economic Analysis*. 10th ed., Jalandhar: Vishal Publishing, 2013.

Rangarajan, C. *India: Monetary Policy, Financial Stability & Other Essays*, ed. Vol.1 & 2.
New Delhi: Academic Foundation, 2009.

Snowdon, Brian and Vane, Howard R. A, *Macro Economic Reader*. London: Routledge.

WEB RESOURCES

www.rbi.org.in

www.mospi.nic.in

REPORTS

RBI Bulletins

JOURNALS

Journal of Macroeconomics

Cambridge Journals – Macroeconomic Dynamics

South Asian Journal of Macroeconomics and Public Finance

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 5 x 2 = 10 marks (Answer any 5 out of 6 questions in 50 words each)

Section B – 2 x 10 = 20 marks (Answer any 2 out of 3 questions in 400 words each)

Section C – 1 x 20 = 20 marks (Answer any 1 out of 2 questions in 1000 words)

Third Component:

List of evaluation modes:

Seminars

Quiz,

Open book tests

Group discussion

Assignments

Case studies

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Question Paper Pattern:

Section A – 10 x 2 = 20 marks (Answer any 10 out of 12 questions in 50 words each)

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STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI 600 086
B.A DEGREE: BRANCH IV – ECONOMICS

SYLLABUS
(Effective from the academic year 2015-16)

PUBLIC FINANCE -I

CODE: 15EC/MC/PF55

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVE OF THE COURSE

- To understand the theoretical aspects of fiscal instruments supported by empirical evidences
- To help critically analyse the fiscal operations of the Indian Fiscal system

Unit 1

Introduction

(8 hrs.)

- 1.1 Definition Private and Public Finance
- 1.2 Nature and scope of Public Finance- Classical Vs Keynesian

Unit 2

Scope of Government Activity

(11 hrs.)

- 2.1 Types of goods and bads – Private, Public – Merits – Demerits – Club goods
- 2.2 Pareto Optimality
- 2.3 Theoretical arguments for the Public Sector
- 2.4 Theory of Second Best
- 2.5 Pricing Theory of the Public Sector – MC and AC pricing
- 2.6 Role and Performance of the Public Sector in India

Unit 3

Public Expenditure

(16 hrs.)

- 3.1 Classification and Principles of Public Expenditure
- 3.2 Growth of Public Sector – Wagner, Wiseman and Peacock, Colin Clark
Growth of Public Expenditure in India
- 3.3 Principle of Maximum Social Advantage
- 3.4 Effects of Public Expenditure

Unit 4

Public Revenue

(20 hrs.)

- 4.1 Sources of Public Revenue
- 4.2 Types of Taxes – Direct and Indirect - their merits and demerits
- 4.3 Theories of Taxation – Cost of Service Theory, Benefit Principle, and Ability to Pay Theory
- 4.4 Taxable Capacity – Definition and measurement – Taxable capacity in India
- 4.5 Tax shifting and Incidence of taxation – Theories of incidence -
- 4.6 Effects of Taxation
- 4.7 Role of taxation in a developing economy.

Unit 5

Indian Fiscal System

(10 hrs.)

- 5.1 Structure of Tax and Non tax revenues- centre and state
- 5.2 Development and Non Development expenditure of Centre and State
- 5.3 Recent Tax Reforms (since 1991)
- 5.4 The application of the various theories and concepts to the Indian Fiscal set up – growth of public expenditure, nationalization – disinvestments – Liberalization, Privatization and Globalization

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Tyagi, B.P. *Public Economics*. Meerut (U.P.): Jai Prakash Nath, 2010-2011.

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Bhatia, H. L. *Public Finance*, New Delhi: Vikas Publishing House, 1988.

Chelliah, Raja. *Fiscal Policy in Underdeveloped Countries*. London: George Allen and Unwin, 1969.

Herber, Bernard, P. *Modern Public Finance, The Study of Public Sector Economic*, Illinois: Richard D. Irwin, 1975.

Singh, S.K. *Public Finance in Development and Developing Countries*. New Delhi: S.Chand, 1991.

Tripathy, R.N. *Public Finance in Underdeveloped Countries*. Calcutta: The World Press, 1991.

JOURNALS

South Asian Journal of Macroeconomics and Public Finance

Public Finance – World Bank

Public Finance Review

WEB RESOURCES

<https://prezi.com/nqadt5-xobnq/m2-analyse-the-effects-of-fiscal-and-monetary-policies-for-a/>

<https://economics.stanford.edu/courses/public-finance-and-taxation-ii>

http://www.andrew.cmu.edu/user/rs9f/pf04_9_12_04_vol_1.pdf

<http://ocw.mit.edu/courses/economics/14-471-public-economics-i-fall-2012/lecture-notes/>

http://obs.rc.fas.harvard.edu/chetty/public_economics_lectures.pdf

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

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Section B – 2 x 10 = 20 marks (Answer any 2 out of 3 questions in 400 words each)

Section C – 1 x 20 = 20 marks (Answer any 1 out of 2 questions in 1000 words)

Third Component:

Quiz

Open book tests

Assignment

Seminar Presentation,

Viva Voce

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Question Paper Pattern:

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Section C – 2 x 20 = 40 marks (Answer any 2 out of 4 questions in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.A.DEGREE: BRANCH IV –ECONOMICS

SYLLABUS
(Effective from the academic year 2015 -2016)

INTERNATIONAL ECONOMICS

CODE: 15EC/MC/IN65

CREDITS: 5

L T P :5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To understand the theoretical basis of international trade
- To understand the working of international organisations related to trade

Unit 1

Introduction (10 hrs.)

- 1.1 Basis of trade –Mercantilist argument: Zero Sum Game –a critique: Positive Sum Game
- 1.2 Classical theories of International Trade: Adam Smith, David Ricardo, J.S Mill

Unit 2

The Endowment Theory (18 hrs.)

- 2.1 The Hecksher-Ohlin Theory
- 2.2 Factor prices and Factor Reversals test
- 2.3 Samuelson –Stolper Theory
- 2.4 Leontief Paradox

Unit 3

Economic Growth and Trade Policy (12 hrs.)

- 3.1 Trade and impact on growth: The Foreign Trade Multiplier
- 3.2 Johnson's Model
- 3.3 Terms of Trade –Offer Curves –Factors which affect TOT
- 3.4 Singer –Prebisch Argument –Secular terms of trade
- 3.5 Bhagwati's Immiserizing Growth
- 3.6 Free trade vs. Protection: Kinds of protection –Tariff, Non tariff, Customs Union
- 3.7 SAARC, EU, Dumping in brief

Unit 4

Balance of Payments and the Foreign Exchange Market (15 hrs.)

- 4.1 Concepts – equilibrium and disequilibrium. Factors that affect BOP – Adjustment mechanism –Devaluation
- 4.2 Foreign Exchange Market – Determination of the Foreign Exchange Rate: Purchasing Power Parity Theory and the Demand and Supply Theory

- 4.3 Classification of Exchange rates and Exchange Control
- 4.4 Emergence of the EURO
- 4.5 Application –Country specific study of trade policy and the relevance of regional groupings

Unit 5

International Institutions, Interdependence and Policies (10 hrs.)

- 5.1 IMF- Objective, Functions, India and the IMF
- 5.2 The World Bank – Objective, Functions, India and the World Bank
- 5.3 UNCTAD & GATT – A brief overview
- 5.4 WTO – Objectives, Functions and Impact on trade, India and the WTO

BOOKS FOR STUDY

Appleyard, D.R. and Field. A.J. *International Economics*, New York: Irwin McGraw Hill, 1998.

Carbaugh, R.J. *International Economics*. Singapore: Thompson Asia, 2002.

Cherunilam, Francis. *International Economics*. New Delhi: Tata- McGraw, 1988

Kenen, Peter B. *International Economics*. Cambridge. Cambridge University Press, 1996.

Mithani, D.M. *International Economics*. New Delhi: Himalaya Publishing, 2002.

BOOKS FOR REFERENCE

Bo Sodersten, *International Economics*. New Delhi: Macmillan Press, 2002.

Bourdreaux, Dorold, J. *Globalisation*. London: Greenwood Press, 2008.

Dasgupta, B. *Globalisation – India's Adjustments Experience*, New Delhi: Sage, 2005.

Krugman, P.R. *International Economics*. New Delhi: Pearson, 2007.

Salvatore, D. *International Economics*. Singapore: John Wiley & Sons, 2002.

JOURNAL

The Journal of International Trade & Economic Development
International Journal of Trade, Economics and Finance

WEB RESOURCES

<http://www.saylor.org/site/textbooks/International%20Trade%20%20Theory%20and%20Policy.pdf>

https://www.wto.org/english/res_e/statis_e/its2014_e/its2014_e.pdf

http://unctad.org/en/PublicationsLibrary/itcdtab57_en.pdf

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

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Section B – $2 \times 10 = 20$ marks (Answer any 2 out of 3 questions in 400 words each)

Section C – $1 \times 20 = 20$ marks (Answer any 1 out of 2 questions in 1000 words)

Third Component:

List of evaluation modes:

Seminars

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Open book tests

Group discussion

Assignments

Case studies

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Question Paper Pattern:

Section A – $10 \times 2 = 20$ marks (Answer any 10 out of 12 questions in 50 words each)

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Section C – $2 \times 20 = 40$ marks (Answer any 2 out of 4 questions in 1000 words each)

STELLAMARISCOLLEGE (AUTONOMOUS), CHENNAI - 600 086
Allied Elective offered by the Department of Economics for the
B.A. Sociology, B.Com and B.Sc. Mathematics Degree Program

SYLLABUS
(Effective from the academic year 2015 -2016)

THE ECONOMIC BUDGET

CODE: 15EC/AE/BU45

CREDITS : 5

L T P : 50 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To understand the terms and concepts related to the Economic budget
- To help grasp the method in which the budget is passed in India

Unit 1

Introduction

(10 hrs.)

- 1.1 Defining –Federal state –India as a union of states
- 1.2 Layers of Governments in India –Union, State, Local
- 1.3 Lists division of responsibilities – finance

Unit 2

Expenditure of the Government

(13 hrs.)

- 2.1 The government's expenditure - role
- 2.2 Types of public expenditure – reasons for the growth of public expenditure
- 2.3 Growth of public expenditure in India – Causes

Unit 3

Revenue of the Government

(15 hrs.)

- 3.1 Tax Revenue – Defining a tax base, rate, yield, net of a tax. Direct and indirect tax impact – incidence of a tax – shifting of the burden – types of shifting - a brief overview of tax revenue in India
- 3.2 Effects of taxation – Preliminary Idea
- 3.3 Non tax revenue - types- a brief overview of non tax revenue in India
- 3.4 Public Debt – Government borrowing – Types of debt- redemption of debt
- 3.5 Deficit financing – meaning and impact – inflation, deflation

Unit 4

Devolution of Finance in India

(15 hrs.)

- 4.1 Finance Commission –roles and objectives
- 4.2 Sharing of money between centre – state and local governments
- 4.3 Funds of the Government of India-Consolidates, Contingency Funds, Public Accounts
- 4.4 Sharing of Funds –Centre State Financial Relations

Unit 5

The Budget

(12 hrs.)

- 5.1 Meaning and Importance
- 5.2 Types of Budget –Capital –Concurrent ,Centre State Local
- 5.3 Performance – Programme Budgeting Systems, Zero based Budgeting systems – brief description
- 5.4 Accounts in the Budget
- 5.5 Passing of the Budget in India – The Mechanism

BOOKS FOR STUDY

Hajela, T.N.*Public Finance*. New Delhi: Ane Books,2014.

Singh, S.K.*Public Finance in Development and Developing Countries*. New Delhi: Sultan Chand,1991.

Tripathy, R.N.*Public Finance in Underdeveloped Countries*. Calcutta: The World Press,1991.

BOOK FOR REFERENCE

Tyagi, B.P.*Public Economics*. Meerut (U.P.): Jai PrakashNath,2010-2011.

JOURNALS

Economic and Political Weekly

WEB RESOURCES

<http://indiabudget.nic.in/>

<http://www.indiabudget.nic.in/glance.asp>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A - $5 \times 2 = 10$ marks (Any 5 out of 6 questions to be answered in 50 words each)

Section B - $2 \times 10 = 20$ marks (2 out of 3 questions to be answered in 400 words each)

Section C - $1 \times 20 = 20$ marks (1 out of 2 questions to be answered in 1000 words)

Third Component:

Quiz

Open book tests

Assignment

Seminar

Presentation,

Viva voce

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 hours.

Question Paper Pattern:

Section A - $10 \times 2 = 20$ marks (All 10 questions to be answered in 50 words each)

Section B - $5 \times 8 = 40$ marks (5 out of 7 questions to be answered in 300 words each)

Section C - $2 \times 20 = 40$ marks (2 out of 4 questions to be answered in 1200 words each)

SYLLABUS

(Effective from the academic year 2015 -2016)

ENVIRONMENTAL ECONOMICS

CODE: 15EC/ME/EE55

CREDITS: 5

L T P :41 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To understand the theoretical basis and implications of environmental economics
- To grasp all nuances involved in adopting the sustainable path to development

Unit 1

Fundamentals of environmental economics (12 hrs.)

- 1.1 Definition, scope and significance.
- 1.2 Environment – economy linkages – material balance approach
- 1.3 Malthusian and neoclassical perspective of environment
- 1.4 Environment Kuznet Curve

Unit 2

Market failure (12 hrs.)

- 2.1 Environment as a public good
- 2.2 Externalities
- 2.3 Pigovian fee and Coase theorem on Property rights
- 2.4 Tragedy of commons

Unit 3

Economics of natural resources (15 hrs.)

- 3.1 Classification of natural resources
- 3.2 Scarcity and measurement
- 3.3 Economics of exhaustible resources – Hotelling Rule
- 3.4 Economics of renewable resources –Static model of fishing.

Unit 4

Economics of Pollution control (12 hrs.)

- 4.1 Optimal level of pollution
- 4.2 Regulation of pollution through economic instruments
- 4.3 Command and Control

Unit 5

Valuing Environment (14 hrs.)

- 5.1 Total Economic value
- 5.2 Contingent valuation method – stated preference
- 5.3 Travel cost model and hedonic pricing
- 5.4 Economics of sustainable development.
- 5.5 Green accounting – ecological footprint, carbon footprint, ecological shadow

BOOKS FOR REFERENCE

Hussen, Ahmed.M.*Principles of Environmental Economics: Economics, Ecology and Public Sector*. London: Routledge,1999.

Kolestad, Charles D.*Environmental Economics*, New York: Oxford University Press, 2000.

Singh, Katar. And Shishodia. Anil.*Environmental Economics: An Indian Perspectives*. New Delhi: Oxford University Press, 2007.

JOURNALS

Annual Review of Resource Economics

Environmental and Resource Economics

WEB RESOURCES

<http://www2.econ.iastate.edu/classes/econ380/zhao/lecnotes-index.htm>

<http://ocw.mit.edu/courses/economics/14-42-environmental-policy-and-economics-spring-2011/lecture-notes/>

<https://dutraeconomicus.files.wordpress.com/2014/01/roger-perman-yue-ma-michael-common-david-maddison-james-mcgilvray-natural-resource-and-environmental-economics-3rd-edition-2003.pdf>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 5 x 2 = 10 marks (Any 5 out of 6 questions to be answered in 50 words each)

Section B – 2 x 10 = 20 marks (2 out of 3 questions to be answered in 400 words each)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1000 words)

Third Component:

List of evaluation modes:

Quiz

Group Presentation

Assignment

End Semester Examination

Total Marks: 100

Duration: 3 hours

Question Paper Pattern:

Section A–10 x 2= 20 marks (Any 10 out of 12 questions to be answered in 50 words each)

Section B – 5 x 8 = 40 marks (5 out of 8 questions to be answered in 400 words each)

Section C – 2 x 20 = 40 marks (2 out of 4 questions to be answered in 1000 words each)

STELLAMARISCOLLEGE (AUTONOMOUS), CHENNAI - 600 086

B.A DEGREE: BRANCH IV - ECONOMICS

SYLLABUS

(Effective from the academic year 2015 -2016)

RESEARCH METHODS AND ECONOMIC ANALYSIS

CODE: 15EC/ME/RM55

CREDITS: 5

L T P : 2 0 3

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To enable students to take the first step into the world of research
- To equip them with the understanding of knowledge
- To introduce them to empirical research and to work with data
- To furnish them to think logically and infer correctly

Unit 1

Introduction

(10 hrs.)

- 1.1 Meaning, Objectives & Significance of research
- 1.2 Meaning, Objectives & Significance of social research, Problems of significance of scientific social research
- 1.3 Research Types

Unit 2

Research Process

(20 hrs.)

- 2.1 Research Problem – Meaning and how to state a research problem
- 2.2 Literature Review – Meaning, Purpose of literature review, -Kinds of sources, Documenting sources, Writing a Literature review
- 2.3 Specification of hypothesis and working hypothesis
- 2.4 Research Design –Meaning and types
- 2.5 Sampling techniques
- 2.6 Data Collection Techniques
- 2.7 Processing of data –Description (Presenting of data, editing, coding, classification, tabulate), Statistics, Core analysis

Unit 3

Logic

(10 hrs.)

- 3.1 Logic of Reasoning
- 3.2 Propositions, Arguments, Premises
- 3.3 Deduction and Induction
- 3.4 Validity and Truth, Fallacies Syllogism

Unit 4

Qualitative Methods

(10 hrs.)

- 4.1 Defining Qualitative Methods – Meaning of Knowledge – Epistemology Modern (Cartesian) – A Critique – Standpoint Epistemology – Ontology – Ontological Assumptions
- 4.2 Four major Qualitative Approaches –Ethnography, Phenomenology, Field Research, Grounded Theory

- 4.3 Methods of Qualitative measurements –Participant Observation, Direct Observation, Interview method, Case Studies, Vignettes

Unit 5

Quantitative Techniques – Computer Session (15 hrs.)

- 5.1 Measure of Central Tendency
- 5.2 Measure of Dispersion
- 5.3 Measures of deviation from normality –Skewness and Kurtosis
- 5.4 Frequency distributions
- 5.5 Exploring data with graphs
- 5.6 Correlation and Regression –Simple, Partial, Multiple
- 5.7 Non-Linear relationships –Alternate Functional form specifications
- 5.8 Regression using Dummy Variable Techniques
- 5.9 Comparing two means –‘t’ Test
- 5.10 Comparing several means -ANOVA: One way and Two way

BOOKS FOR STUDY

Gupta, S.P. *Statistical Methods*, 43rded. New Delhi: Sultan Chand. 2014.

Kothari, C.R. *ResearchMethodology*. New Delhi: Wiley Eastern Ltd. 1991.

BOOKS FOR REFERENCE

Cochran, W.G. *Sampling Techniques*. New York: John Wiley & Sons, 1977.

Earl R. Babbie. *The Practice of Social Research*, 13th Edition. London: Wadsworth Cengage Learning, 2013.

Goode, W.J and Hatt P.K, *Methods in Social Research*. New York: McGraw Hill, 1952.

Neuman, W.L. *Social Research Methods: Qualitative and Quantitative Approach*. Washington: Pearson Education, 2009.

Wilkinson, T.S. &Bhandarkar. P.L. *Methodology and Techniques of Social Research*, 24th Edition. New Delhi: Himalaya Publishing House, 2013.

JOURNALS

International Journal of Social Research Methodology

International Journal of Qualitative Methods

WEB RESOURCES

http://www.seu.ac.lk/public_access/Research_Methodology.pdf

<http://www.cles.org.uk/wp-content/uploads/2011/01/Research-Methods-Handbook.pdf>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

PRACTICAL EXAM ONLY

Third Component:

List of evaluation modes:

Problem solving, Presentation of Article Summaries: - Article Summary to answer the following questions:

1. What is the central economic issue in the article?
2. What hypothesis/ objective were tested?
3. Discussion of the conceptual model
4. Empirical Model
5. Description of the variables, functional form, summary of findings
6. How to improve the study or follow up this study

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – (Theory -2 hours) – $5 \times 10 = 50$ marks (Answer any 5 out of 8 questions to be answered in 300 words each)

Section B – (Practicals – 1 hour) – $5 \times 10 = 50$ marks (Answer any 5 out of 8 questions to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A DEGREE: BRANCH IV – ECONOMICS

SYLLABUS
(Effective from the academic Year 2015-2016)

PROJECT

CODE: 15EC/ME/PR55

CREDITS: 5

Guidelines

➤ **Page Limit:**

The Project shall be within a space of about 50 – 75 pages typed in font size 12, with 1 ½ line spacing on A4 Size paper

➤ **Title of the Project :**

Each Project should contain the following – ‘Project submitted to Stella Maris College (Autonomous), Chennai in partial fulfillment of the requirement for the Degree of Bachelor of Arts in Economics by name of the candidate, Department of Economics, Place, Month, Year’

➤ **The Project shall contain :**

- Contents Page
- The Project Copy will include Certificate of the Supervisor, Declaration, and Acknowledgement.
- Four or Five Chapters
- Introductory chapter comprising of scope & significance, objectives, hypothesis, methodology, limitations, review of literature/background of the study (can be a separate chapter also) Chapterization, definitions and concepts if any.
- The student can use Quantitative or Qualitative/Descriptive or both methods.
- The final chapter shall contain “Summary and Conclusions”,
- At the end of the Project ‘Bibliography’ must be given in alphabetical/chronological order and necessary appendix may be added.
-

➤ **Submission:**

Each student may prepare two soft bound copies of the project, one for her and one copy to be submitted to the Head of the Department duly signed by the supervisor, 15 days before the commencement of the end semester examination.

➤ **Guidelines for Evaluation:**

- | | |
|--|----|
| • Style, format and neatness in presentation | 15 |
| • Methodology, review of literature/background of the study and identification of significant issues | 15 |
| • Chapterization, presentation of the theme | 15 |

There will be double valuation for the project by the guide and an external examiner, who will also conduct the viva- voce. The viva voce marks are given only by the external examiner. The norms for valuation will be the same as applicable for theory papers

STELLAMARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.A DEGREE: BRANCH IV-ECONOMICS

SYLLABUS
(Effective from the academic year 2015 -2016)

HUMAN RESOURCE DEVELOPMENT

CODE: 15EC/ME/HR55

CREDITS : 5

L T P :41 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To comprehend the concepts and theories of human capital
- To highlight the significance of Human Resource Development (HRD) and provide an insight into the HRD strategies and initiatives.

Unit 1

Introduction to Human Capital (8 hrs.)

- 1.1 Definition, Significance of HRD
- 1.2 Trace historical development of Human Capital
- 1.3 Human Capital –The contributions of Schultz, Becker
- 1.4 Human development paradigm and capability approach –Mahbub-ulHaq and Sen.
- 1.5 Human Capital and economic growth –Denison growth accounting framework, A K Model
- 1.6 Role of technology, Knowledge and Growth –Solow and Romer

Unit 2

Measurement of Human Resource Development(6 hrs.)

- 2.1 Harbison and Meiers
- 2.2 UNDP Measures – Human Development Index –Human Poverty Index – Gender Empowerment Measure – Gender – related development index
- 2.3 Millennium Development Goals –Goals, Targets, Indicators
- 2.4 Country specific studies with respect to HDI, HPI, GDI, GEM, EDI

Unit 3

Education (17 hrs.)

- 3.1 Approaches to Education – Human Capital, Screening, Signalling
- 3.2 Investment in education and Rate of Return – Mincer, Blaug, Private and Social ROR
- 3.3 Investment in Human Capital Criteria
- 3.4 Challenges in Education – Expansion, Equity and Inclusion
- 3.5 Education policy in India
- 3.6 Country Specific studies with respect to education

Unit 4
Health (17 hrs.)

- 4.1 Roles of Health and Nutrition in Development
- 4.2 Determinants of Health Care
- 4.3 Health services – Role of Private and Public Sector
- 4.4 Health Care financing and Health insurance

Unit 5
Other Dimensions of Human Resource Development (17 hrs.)

- 5.1 Training, Skill Development and Vocationalisation –Becker's – On the Job Training Model
- 5.2 Policies and Programmes with respect to Skill Development in India
- 5.3 Manpower –Meaning, Planning and Forecasting methods and problems

BOOKS FOR REFERENCE

Blaug, Mark. *Economics of Education Selected Reading*, ed. Vol-I, England: Penguin Modern Economics Readings Penguin Books, 1970.

Perkins. Dwight H, et. al. *Economics of Development*, New York and London: W.W. Norton & Company, (Chapters 2,8,9) 2006.

Sakiko Fukuda –Parr and Kumar, Shiva A.K. *Readings in Human Development*, 2nd ed., New Delhi: Oxford University Press, 2005.

JOURNALS

The Scandinavian Journal of Economics

The Economic Journal

Indian Journal of Industrial Relations

REPORTS

Human Development Reports -2000 Onwards

WEB RESOURCES

www.mhrd.gov.in

www.undp.org

www.nber.org

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $5 \times 2 = 10$ marks (Answer any 5 out of 6 questions in 50 words each)

Section B – $2 \times 10 = 20$ marks (Answer any 2 out of 3 questions in 400 words each)

Section C – $1 \times 20 = 20$ marks (Answer any 1 out of 2 questions in 1000 words)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open book tests

Group discussion

Assignments

Case studies

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Question Paper Pattern:

Section A – $10 \times 2 = 20$ marks (Answer any 10 out of 12 questions in 50 words each)

Section B – $5 \times 8 = 40$ marks (Answer any 5 out of 8 questions in 400 words each)

Section C – $2 \times 20 = 40$ marks (Answer any 2 out of 4 questions in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI 600 086
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SYLLABUS
(Effective from the academic year 2015 -2016)

ECONOMIC ISSUES

CODE: 15EC/GE/EI22

CREDITS:2

L T P: 200

TOTAL TEACHING HOURS:26

OBJECTIVES OF THE COURSE

- To develop an awareness of the basic issues and problems pertaining to the Indian Economy
- To help identify the various causes of current economic issues

Unit 1

India as a developing Economy

(8 hrs.)

- 1.1. Meaning of development.
- 1.2. Features of Indian Economy as a developing economy
- 1.3. National Income of India - Problems in computing national income in India.
- 1.4. An overview of Infrastructure development – Problems of Transport development – Status of Health care and Education in India.

Unit 2

Poverty & Unemployment

(8 hrs.)

- 2.1. Meaning of Poverty – Types of poverty - Causes of poverty and measures to reduce poverty.
- 2.2. Inequalities in income distribution.
- 2.3. Unemployment – Types of unemployment – Causes – Measures

Unit 3

Agriculture & Industrial Development

(10 hrs.)

- 4.1. Role of agriculture in India – Causes for low productivity
- 4.2. An overview of Green Revolution – Success and Failures
- 4.3. Industrial development in India – Major problems faced by the Indian industries.
- 4.4. Problems of Small Scale and Cottage Industries in India

BOOKS FOR STUDY

Agarwal, A.N. *Indian Economy: Problems of Development and Planning*. New Delhi: WishwaPrakashanPublishing House. 2010

Gupta, K. R. *Studies in Indian Economy*. New Delhi: Atlantic Publishers & Distributors. 2005.

BOOKS FOR REFERENCE

Dhar P.K. *Indian Economy*. Ludhiana: Kalyani Publishers, 2010.

Jhingan M.L. *The Economics of Development and Planning*, New Delhi : Vrinda Publications, 2007.

Misra, S.K. and V.K. Puri. *Structure and Problems of Indian Economy*, Bombay: Himalaya Publishing House., 1993.

JOURNALS

Journal of Economic Issues

International Journal of Economics and Financial issues

WEB RESOURCES

http://finmin.nic.in/workingpaper/EGES_impact_indiatrade_policyissue.pdf

<http://aida.econ.yale.edu/~srinivas/Indian%20Economy%20Current%20Problems%20and%20Future%20Prospects.pdf>

<http://www.kaushikbasu.org/Italian%20Economic%20Association%20Lecture.pdf>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

List of evaluation modes:

Seminars, Quiz, Assignments, etc.,

No end semester examination

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
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SYLLABUS
(Effective from the academic year 2015 -2016)

ECOFEMINISM

CODE: 15EC/GE/EF22

CREDITS: 2

L T P : 2 0 0

TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE

- To introduce the meaning and relevance of the subject matter of Ecofeminism
- To understand the interdependence of the environment, women and the economy

Unit 1 Introduction
to concepts in Economics and Environmental
Economics (6 hrs.)

- 1.1 Meaning of Ecofeminism – Ecofeminism vs Environmentalism
- 1.2 Meaning of Economics - Defining Economic Development and Economic Growth
- 1.3 Economics and the Environment – Scope of Environmental Economics

Unit 2
Introductory concepts of Women's Studies and Role of Women in the
Economy (11 hrs.)

- 2.1 Defining and conceptualizing - Patriarchy, Feminism, Sexism
- 2.2 Gender –Meaning, Concepts, Definition
- 2.3 Gender Stereotypes –Gender based hierarchical dualisms: man/woman, nature/nurture, nature/culture, outside/inside
- 2.4 Development vs. Anti-Development
- 2.5 Women – visible work but invisible workers
- 2.6 Impact of globalization on women –feminization of work and feminization of poverty
- 2.7 Impoverishment of the Environment –Impact on Women. Biodiversity and Women

Unit 3
Ecofeminism and Deep Ecology (9 hrs.)

- 3.1 The Myth of Catching up Development Model - Maria Mies
- 3.2 Deep vs Shallow Ecology - Arnie Naess
- 3.3 Gaia –The Revenge of Gaia –Relationship between Growth and Gaia
- 3.4 The Need for a new vision –An Ecologically sound, non-exploitative, self-sustaining society

BOOKS FOR REFERENCE

Agarwal, Bina. *Capabilities, Freedom and Equality: Amartya Sen's Work from a Gender Perspective*. London: Asia Cambridge University Press, 2006.

Bhasin, Kamala. *Patriarchy*. New Delhi: Kali for Women., 1991.

Bhasin, Kamala. *Feminism*. New Delhi: Kali for Women, 1991.

John, Florence, (ed.) *Gender Matter*. Chennai: Semmoodhai, 2013.

Mies, M & Vandana Shiva. *Eco feminism*, London: Zed Books, 1989.

Shiva, V. *Staying Alive*. New Delhi: Kali for Women, 1988.

JOURNALS

European American Journal

WEB

RESOURCES http://uaf.edu.pk/faculties/social_sci/courses/gender_and_development/09.pdf

http://www.uvm.edu/rsenr/nr6/Readings/Warren_ecofeminism_article.pdf

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

List of evaluation modes: Seminars, Assignments, Group Discussions

No End Semester Examination

STELLAMARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
General Elective Course offered by the Department of Economics for the
B.A /B.Sc. /B.Com. /B.V.A /B.S.W. Degree Programme

SYLLABUS
(Effective from the academic year 2015 -2016)

WOMEN AND WORK

CODE: 15EC/GE/WW23

CREDITS: 3

L T P :3 0 0

TOTAL TEACHING HOURS :39

OBJECTIVES OF THE COURSE

- To present an overview of issues related to women and economy.
- To understand the economic and non-economic contribution of women to the economy

Unit 1

Introduction to Women and Economy (8 hrs.)

- 1.1 Gender, Patriarchy, Feminism
- 1.2 Development Models: WID,WAD and GAD
- 1.3 Gender Analysis

Unit 2

Health and Education (10 hrs.)

- 2.1 School enrolment, missing girls at higher level, women in professional and technical education
- 2.2 Health – Population –Demographic features
- 2.3 Reproductive and Occupational health issues of women

Unit 3

Women and Work (6 hrs.)

- 3.1 Definition of work –paid and unpaid work
- 3.2 Invisibility of women
- 3.3 Gender Stereotypes – Feminisation of work
- 3.4 Glass Ceiling

Unit 4

Marginalization of Women (8 hrs.)

- 4.1 Marginalization of women, their invisibility in the labour market
- 4.2 Sexual division of labour and wage differentials
- 4.3 Impact of Globalisation on women – feminisation of poverty

Unit 5

Policy Issues (6hrs.)

- 5.1 Gender Budgeting
- 5.2 Micro Finance and SHG
- 5.3 Role of State and NGO's

BOOKS FOR REFERENCE

Poonacha, Veena. *Understanding Women's Studies*. Mumbai: RCWS, SNDT University, 1999.

Bhasin, Kamala. *Patriarchy*. New Delhi: Kali for Women, 1991.

Bhasin, Kamala. *Feminism*. New Delhi: Kali for Women, 1991.

Geetha, V. *Gender*. Kolkata: StreeSamya, 2002.

John, Florence, (ed.). *Gender Matters*. Chennai: Semmoodhai, 2013.

JOURNALS

Gender Perspective on International Development

The Ahfad Journal: Women and Change

Gender & Development

Feminist Economics

WEB RESOURCES

http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_067595.pdf

<http://www.vanneman.umd.edu/papers/Cotter01.pdf>

<http://library.fes.de/pdf-files/iez/global/06399.pdf>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 1x10 = 10 marks (Answer 10 objective questions)

Section B – 4 x 5 = 20 marks (Answer any 4 out of 6 in about 100 words each)

Section C – 2 x 10 =20 marks (Answer any 2 out of 4 in about 1000 words each)

Third Component:

Quiz

Project/Assignments

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B.A /B.Sc. /B.Com. /B.V.A /B.S.W. Degree Programme

SYLLABUS
(Effective from the academic year 2015 -2016)

PUBLIC POLICY

CODE: 15EC/GE/PP23

CREDITS : 3

L T P :3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- This course provides an introduction to the field of public policy and the exciting and complex work of policy analysis
- Introduces key concepts, issues, process and analysis of public policy
- To help analyse policies across a range of issues and cases, including several generated by students in the class

Unit 1

Nature of Public Policy (8 hrs.)

- 1.1 Public Policy - Definition
- 1.2 Policy studies as a science
- 1.3 Brief review of the official and unofficial actors and their roles in public policy –legislature, Government and Bureaucracy, Judiciary, individual, interest group, political parties and media
- 1.4 Case Study- Normative and Empirical Analysis in the Abortion Debate

Unit 2

Policymaking (10 hrs.)

- 2.1 Brief introduction to the types of policies – Distributive policies, Regulatory policies and Redistributive policies
- 2.2 Elements of Policy Design
- 2.3 Case Study: Women’s Reservation Bill /Right to Education Act

Unit 3

Implementation (10 hrs.)

- 3.1 Approaches to implementation – Top Down, bottom up and synthesis – A third generation of implementation research
- 3.2 Policy failure and learning from it
- 3.3 Case Study: Analysis of the implementation and failures of the Public Distribution System

Unit 4

Memo-Writing (4 hrs.)

- 4.1 Guidelines to memo-writing
- 4.2 Application: Students to frame three short policy memos

Unit 5

Project

(7 hrs.)

- 5.1 Students to Submit a team project on anyone of the following areas of policy:
Environment Policy, Criminal Justice Policy, Education Policy, Human Rights Policy, Health and Welfare Policy and Social Policy

BOOKS FOR STUDY

Birkland Thomas A., *An Introduction to the Policy Process: Theories, Concepts and Models of Public Policy Making*, 2nd Edition Armonk: M.E Sharpe 2005

BOOKS FOR REFERENCE

Anderson, J.E. *Public Policy – Making : An Introduction*. Boston: Houghton,2006

Dreze, Jean.andAmartya. Sen.*India: Development and Participation*. New Delhi: Oxford University Press,2002.

Dye, Thomas.*Understanding Public Policy*. Singapore: Pearson Education,2008

Eugene, Bardach's. *A Practical Guide for Policy Analysis: the Eightfold Path to More Effective Problem Solving* (C Q press; any edition is acceptable)

Kingdon.*Agendas, Alternatives and Public Policies*, 2nd updated edition,2011

Kraft and Furlong.*Public Policy: Politics, Analysis and Alternatives*, 4th edition, 2013.

Stella Z. Theodoulou and Matthew. A. Cahn, eds. *Public Policy: The Essential Readings*. New York: Prentice Hall,1995.

Additional Reading list

Kaushik, Basu.*The New Oxford Companion to Economics*, London: OxfordUniversity Press,2012.

Reetika, Khara, “*India’s Public Distribution System: Utilisation and Impact*”, Journal of Development Studies,2011.

JOURNALS

International Journal of Public Policy
Public Policy and Administration

WEB RESOURCES

<http://www.beinformed.com/BeInformed/webdav-resource/binaries/pdf/publications/public-policy-making.pdf?webdav-id=/Be%20Informed%20Bibliotheek/0000%20WEBDAV/WebDAV%20StatContent.bxml>

http://www.uoguelph.ca/omafra_partnership/ktt/en/worktogether/resources/understandingandapplyingbasicpublicpolicyconcepts.pdf

[http://www.untag-smd.ac.id/files/Perpustakaan_Digital_2/PUBLIC%20POLICY%20\(Public%20Administration%20and%20public%20policy%20125\)%20Handbook%20of%20Public%20Policy%20Analysis%20Th.pdf](http://www.untag-smd.ac.id/files/Perpustakaan_Digital_2/PUBLIC%20POLICY%20(Public%20Administration%20and%20public%20policy%20125)%20Handbook%20of%20Public%20Policy%20Analysis%20Th.pdf)

<https://www.e-education.psu.edu/drupal6/files/geog432/images/American%20Public%20Policy%20Chapter%201.pdf>

<http://www.jsgp.edu.in/content/india-public-policy-report-ippr>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 5 x 2 = 10 marks (Answer any 5 out of 6 questions in 50 words each)

Section B – 2 x 10 = 20 marks (Answer any 2 out of 3 questions in 400 words each)

Section C – 1 x 20 = 20 marks (Answer any 1 out of 2 questions in 1000 words)

Third Component:

List of evaluation modes:

Writing policy memos

Open Book Tests

Group Discussion

Assignments

Class Participation

Case Studies

Project

Seminar

STELLAMARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
General Elective Course offered by the Department of Economics for the
B.A /B.Sc. /B.Com. /B.V.A /B.S.W. Degree Programme

SYLLABUS
(Effective from the academic year 2015 -2016)

MONEY MATTERS

CODE: 15EC/GE/MM23

CREDITS : 3

L T P : 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To understand the concept of money and its role in the functioning of an economy
- To understand how governments use various policy instruments to correct imbalances that occur in an economy

Unit 1
of Money

(5 hrs.)

Introduction

- 1.1 Definition, Types of money
- 1.2 Evolution of money
- 1.3 Aggregates of money

Unit 2

Functions of Money

(6 hrs.)

- 2.1 Static Functions- primary and secondary
- 2.2 Dynamic functions –contingency and miscellaneous
- 2.3 Role of money in developing countries

Unit 3

Measurement of Money

(10 hrs.)

- 3.1 Value of money and price level
- 3.2 Measurement of money – Index numbers
- 3.3 Inflation –types, demand pull and cost push inflation, causes and impact of inflation

Unit 4

Exchange Rates

(8 hrs.)

- 4.1 Forex –demand and supply –over valuation , under valuation
- 4.2 Corrective Mechanism –Devaluation, Depreciation
- 4.3 Money laundering

Unit 5

Policy Instruments

(10 hrs.)

- 5.1 Interest Rates, Repo, Reverse Repo, SLR, CRR, PRR, discount rate, deposit rate, lending rate, call money rate
- 5.2 Quantitative Instruments
- 5.3 Qualitative Instruments

BOOKS FOR STUDY

Sundharam, K.P.M. *Money Banking Trade and Finance*. New Delhi: Sultan Chand, 2004.

BOOKS FOR REFERENCE

Crowther G. *An Outline of Money*, Revised, London: Thomas Nelson, 1958.

Friedman, Milton. *Studies in the Quantity Theory of Money* (Ed.) Chicago, London: The University of Chicago Press, 1956.

Reddy, Y.V. *Lectures on Economic and Financial Sector Reform in India*. New Delhi: Oxford University Press, 2002.

Suraj, B. Gupta. *Monetary Economics, Institutions, Theory and Policy*. New Delhi: S Chand, 2002.

Vaish, M.C. *Monetary Theory*, New Delhi: Ratan Prakashan Mandir, 2004.

NEWSPAPER

Economic Times

Business Line

Financial Express

WEB RESOURCES

www.rbi.org.in

JOURNALS

Journal of Money, Banking and Finance

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 5 x 3 = 15 marks (Answer any 5 out of 7 questions in 50 words each)

Section B – 2 x 10 = 20 marks (Answer any 2 out of 4 questions in 300 words each)

Section C – 1 x 15 = 15 marks (Answer any 1 out of 2 questions in 800 words)

III Component Tests:

List of evaluation modes:

Seminars

Quiz

Concept Test

Group discussion

Assignments

Article Review

STELLAMARISCOLLEGE (AUTONOMOUS), CHENNAI - 600 086

B.A. DEGREE: BRANCH IV – ECONOMICS

SYLLABUS

(Effective from the academic year 2015 -2016)

NOBEL LAUREATES IN ECONOMICS

CODE: 15EC/UI/NL23

CREDITS: 3

OBJECTIVES OF THE COURSE

- To provide a deeper understanding of the contributions made by select Economists in the field of economic theory and policy
- To facilitate a better comprehension of the relevance of the contributions of select Nobel Laureates, Women Economists and Indian Economists to the current economic issues

Unit 1

Amartya Sen

- 1.1 Work for which Nobel Prize was awarded
- 1.2 Analysis
- 1.3 Relevance of the work to the current economic scenario

Unit 2

George Akerlof

- 2.1 Work for which Nobel Prize was awarded
- 2.2 Analysis
- 2.3 Relevance of the work to the current economic scenario

Unit 3

John Nash

- 3.1 Work for which Nobel Prize was awarded
- 3.2 Analysis
- 3.3 Relevance of the work to the current economic scenario

Unit 4

Paul Krugman

- 4.1 Work for which Nobel Prize was awarded
- 4.2 Analysis
- 4.3 Relevance of the work to the current economic scenario

Unit 5

Ronald Coase

- 5.1 Work for which Nobel Prize was awarded
- 5.2 Analysis
- 5.3 Relevance of the work to the current economic scenario

BOOKS FOR REFERENCE

Akerlof, George A & Yellen. Janet. *Efficiency Wage Models of the Labor Market*, Orlando: Academic Press, 1986.

Brue, Stanley L & Grant. Randy. R. *The Evolution of Economic Thought*, 8th Ed., Ohio: South Western, 2013.

Boudreaux Donald. J. *The Coase Theorem and Strategic Bargaining in (ed)3 (Advances in Austrian Economics, Vol.3)*, Emerald Group Publishing, 1996.

Fudenberg, Drew & Tirole. Jean. *Game Theory*. Cambridge: MIT Press, 1991.

Krugman, Paul R. Elhanan, Helpman, *Market Structure and Foreign Trade: Increasing Returns, Imperfect Competition and the International Economy*, Cambridge: MIT Press, 1985.

Krugman Paul R. *Rethinking International Trade*. Cambridge: MIT Press, 1990.

Lindbeck Assar (ed.). *Nobel Lectures in Economic Sciences 1969-1980*, London: World Scientific, 1992.

Maler Karl-Goram (ed.). *Nobel Lectures in Economic Sciences 1981-1990*, London: World Scientific, 1992.

Myerson Roger. B. *Game Theory- Analysis of Conflict*, Harvard University Press, 1997

Puttaswamaiah. *Nobel Economists, Vol. 2 1975-85*. New Delhi: Indus Publishing, 1995.

Amartya Sen. *Choice, Welfare and Measurement*. Basil Blackwell Oxford, 1982

WEB RESOURCES

www.nobelprize.org

PATTERN OF EVALUATION

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Question Paper Pattern:

Section A – 10 x 2 = 20 marks (Answer any 10 out of 12 questions in 50 words each)

Section B – 5 x 8 = 40 marks (Answer any 5 out of 8 questions in 400 words each)

Section C – 2 x 20 = 40 marks (Answer any 2 out of 4 questions in 1000 words each)

SYLLABUS

(Effective from the academic year 2015 -2016)

MANAGERIAL ECONOMICS

CODE: 15EC/UI/MG23

CREDITS : 3

OBJECTIVES OF THE COURSE

- To understand the basic concepts and equip them with tools to analyze economic quantities
- To impart the use of evaluative and forecasting techniques

Unit 1

Introduction and Demand Analysis

- 1.1 Nature, meaning and scope of managerial economics
- 1.2 Decision making and the role of a managerial economist
- 1.3 Demand Distinctions
- 1.4 Demand Forecasting
- 1.5 Problems and case studies

Unit 2

Cost Decisions and Profit Planning

- 2.1 Cost Concepts
- 2.2 Cost output relationship
- 2.3 Cost control and cost reduction
- 2.4 Profit planning and Break even analysis
- 2.5 Problems and case study

Unit 3

Pricing and Market Promotion

- 3.1 Objectives of pricing
- 3.2 Pricing Practices – Cost Oriented pricing. Competition oriented pricing and Pricing based on other economic consideration
- 3.3 Peak load pricing and Pricing over the life cycle of a product

Unit 4

Linear Programming

- 4.1 Linear programming: Applications and Assumptions
- 4.2 Constrained Profit Maximization and Constrained Cost minimization – Structuring the problem, the feasible region, graphic and algebraic solution
- 4.3 Special problems in Linear Programming – Multiple Solutions, redundant constraints with no feasible solution
- 4.4 The Dual Problem – Structuring the Dual problem, solving the dual problem
- 4.5 Problems and case study

Unit 5

Capital Budgeting

- 5.1 Cost of Capital
- 5.2 Investment evaluation – Project Appraisal methods
- 5.3 Capital Rationing
- 5.4 Problems and Case Study

BOOKS FOR STUDY

Dean, Joel. *Managerial Economics*. New Delhi: Prentice Hall of India, 1951.

Mehta, P.L. *Business and Management Economics*. New Delhi: Sultan Chand, 1996.

Petersen, H. Craig and Lewis, W. Chris. *Managerial Economics*. New Delhi: Prentice Hall of India, 1995.

Varshney, R.L and Maheswari, K.L. *Managerial Economics*. New Delhi: Sultan Chand, 1996.

BOOKS FOR REFERENCE

Ibrahim I.B, Seo K.K and Vlachos P.G. *Readings in Managerial Economics*. Winston: Holt Rinehart, 1971.

Julian, Simon L. *Applied Managerial Economics*. New Jersey: Prentice, 1975

Spencer, Milton H. *Managerial Economics – Text Problems and Short Cases*, USA: Richard Irwin, 1968.

JOURNALS

Journal of Managerial Economics

Managerial and Decision Economics

WEB RESOURCES

<http://www.saylor.org/site/textbooks/Principles%20of%20Managerial%20Economics.pdf>

<http://financephd.typepad.com/files/managerial-economics-lecture-notes.pdf>

PATTERN OF EVALUATION

End Semester Examination:

Total Marks: 100

Duration: 3 hrs.

Question Paper Pattern:

Section A – 10 x 2 = 20 marks (Answer any 10 out of 12 questions in 50 words each)

Section B – 5 x 8 = 40 marks (Answer any 5 out of 8 questions in 400 words each)

Section C – 2 x 20 = 40 marks (Answer any 2 out of 4 questions in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

B.A. DEGREE - ENGLISH AND COMMUNICATION SKILLS

COURSES OF STUDY

(Effective from the academic year 2018 - 2019)

CHOICE BASED CREDIT SYSTEM

Subject Code	Title of Course	Credits	Total Hours			Exam Hours	Marks		
			Lecture Hours (L)	Tutorial Hours (T)	Practical Hours (P)		Continuous Assessment	End Semester	Maximum
Semester - I									
18CE/MC/PS14	Presentation Skills	4	4	0	0	3	50	50	100
18CE/MC/PP14	Introduction to Prose and Poetry	4	4	0	0	3	50	50	100
18CE/AC/SW15	Introduction to Subaltern Writing	5	5	0	0	3	50	50	100
18CE/GC/ES12	Environmental Studies	2	2	0	0	-	50	-	100
Semester - II									
18CE/MC/AW24	Academic Writing	4	4	0	0	3	50	50	100
18CE/MC/DF25	Introduction to Drama and Fiction	5	5	0	0	3	50	50	100
18CE/AC/LG25	Introduction to Linguistics	5	5	0	0	3	50	50	100
Semester - III									
18CE/MC/WM34	Writing for the Media	4	4	0	0	3	50	50	100
18CE/MC/BL34	British Literature	4	4	0	0	3	50	50	100
18CE/AC/LI35	Literature and Ideas	5	5	0	0	3	50	50	100
Semester - IV									
18CE/MC/LC45	Literary Criticism	5	5	0	0	3	50	50	100
18CE/AC/GD45	Literature and Gender	5	5	0	0	3	50	50	100
Semester - V									
18CE/MC/LT55	English Language Teaching	5	5	0	0	3	50	50	100
18CE/MC/AL55	American Literature	5	5	0	0	3	50	50	100
18CE/MC/EA55	English for Advertising	5	5	0	0	3	50	50	100
Semester - VI									
18CE/MC/WC65	World Classics in Translation	5	5	0	0	3	50	50	100
18CE/MC/IE65	Indian Literature in English	5	5	0	0	3	50	50	100
18CE/MC/TW65	Technical Writing	5	5	0	0	3	50	50	100
Allied Elective Course Offered to CM(Gen),CS, A&F, BBA and PY									
18CE/AE/FF45	Fiction and Film	5	5	0	0	3	50	50	100

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

B.A. DEGREE - ENGLISH AND COMMUNICATION SKILLS

COURSES OF STUDY

(Effective from the academic year 2018 - 2019)

CHOICE BASED CREDIT SYSTEM

Subject Code	Title of Course	Credits	Total Hours			Exam Hours	Marks		
			Lecture Hours (L)	Tutorial Hours (T)	Practical Hours (P)		Continuous Assessment	End Semester	Maximum
Major Elective Courses									
18CE/ME/IL55	Indian Writing in Translation	5	5	0	0	3	50	50	100
18CE/ME/LA55	Literatures of Asia	5	5	0	0	-	50	50	100
18CE/ME/AB55	Advanced Business Writing	5	5	0	0	3	50	50	100
General Elective Courses									
18CE/GE/CL22	Introduction to Children's Literature	2	2	0	0	-	50	-	100
18CE/GE/EA22	English for Advertising	2	2	0	0	-	50	-	100
18CE/GE/EW23	English for the Workplace	3	3	0	0	-	50	-	100
18CE/GE/WM23	Writing for the Media	3	3	0	0	-	50	-	100
18CE/GE/BE23	Basic English	3	3	0	0	-	50	-	100

DESCRIPTION OF THE PROGRAMME

The English and Communication Skills Programme has been designed to expose to a range of literatures across the globe. They will gain an understanding of various cultural and social contexts and multiple literary genres. The Programme will also provide students with opportunities to learn and practice communication skills in various professional contexts. While the courses cover a wide spectrum of skills for employment in specific corporate and creative sectors, they also seek to prepare students for higher studies in the discipline.

OBJECTIVES

- To provide them with the critical faculties necessary to enable them to analyse and interpret literary texts
- To train students to communicate effectively in English in various contexts
- To help them enhance their employability through acquisition of skills appropriate for their chosen field

INTENDED GRADUATE ATTRIBUTES/LEARNING OUTCOMES

By the end of the programme, graduates will be able to

- Read, understand and respond to a variety of texts, both academic and non-academic
- Grasp the purpose of a text, its argument, its audience
- Construct, develop and deliver writing that is appropriate to a set task
- Produce writing that is researched, referenced and cited appropriately
- Communicate effectively in corporate, creative and other professional contexts
- Exercise critical thinking and decision making skills
- Engage in lifelong, independent learning
- Write critically in a variety of formats, including essays, reports, research papers and critical reviews

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

DEPARTMENT OF ENGLISH (SELF-FINANCED)

B.A. DEGREE: ENGLISH AND COMMUNICATION SKILLS

SYLLABUS

(Effective from the academic year 2018-2019)

PRESENTATION SKILLS

CODE: 18CE/MC/PS14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF COURSE

- To train students in oral presentation skills, good organisation and effective delivery
- To use audio-visual aids effectively in oral presentation
- To make student aware of the importance of the effective use of paralinguistic features

Unit 1	Creating a Presentation	(10 hrs.)
1.1	Features of an Information and Persuasion Presentation	
1.2	Basic Presentation Patterns	
1.3	Creating Visual Information	
1.4	Citing Sources	
Unit 2	Delivering a Presentation	(10 hrs.)
2.1	Paralinguistic Features – Eye Contact, Body Language, Voice Modulation	
2.2	Using a Note Card for a Presentation	
2.3	Handling Post-Presentation Interaction	
2.4	Using Rhetorical Devices	
Unit 3	Active Participation in a Presentation	(12 hrs.)
3.1.	Understanding Presentations on a Familiar/Unfamiliar Subject, Vocabulary Related to Business	
3.2.	Providing Constructive Positive/Negative Feedback	
3.3.	Observing Etiquette in Post-Presentation Interactions	
Unit 4	IT Skills	(12 hrs.)
4.1	Using Appropriate Presentation Software	
4.2	Choosing an Effective Design in Presentation Software	
4.3	Using Slide Transitions and Animation Effectively	
4.4	Word-Processing Software to Create a Handout	
4.5	Using Data-Processing Software to Create a Chart or Graph	

Unit 5 Practical Application Tasks (8 hrs.)
Specific tasks relevant to the concepts and techniques discussed in Units 1 to 4 will be assigned as class work

BOOKS FOR REFERENCE

Chivers, Barbera and Michael Shoolbred. *A Student's Guide to Presentations: Making your Presentation Count*. London: Sage Publications. 20017.

Lundberg , Debbie . *Presenting Powerfully: Ideas, Outlooks & Actions for Empowering Presentations*. Florida : Debbie Lundberg Inc., 2011.

Mattiske, Catherine. *Persuasive presentation Skills: Create, Prepare and design with confidence*. Australia: The performance Company Pvt. Ltd., 2011.

McCarthy, Patsy and Caroline Hatcher. *Presentation Skills: the essential guide for students*. Australia: Sage Publications, 2002.

Negrino, Tom. *Creating a Presentation in Powerpoint*. California: Peachpit Press, 2005.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Section A – 100-words essay- three out of five

10x3=30 marks

Section B – plan for a presentation

20x1=20 marks

Other Components:

25 marks

Assignment

Presentation

Group Presentation

End Semester Examination:

Total Marks: 100

Section A – 150-words essay - four out of six

15x4=60 marks

Section B – two plans for presentations

20x2=40 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

DEPARTMENT OF ENGLISH (SELF-FINANCED)

B.A. DEGREE: ENGLISH AND COMMUNICATION SKILLS

SYLLABUS

(Effective from the academic year 2018-2019)

INTRODUCTION TO PROSE AND POETRY

CODE: 18CE/MC/PP14

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS : 52

OBJECTIVES OF THE COURSE

- To develop an understanding of the generic features of varied prose forms
- To help the student read poetry with reference to context, content and form

Unit 1	Essays		(12 hrs.)
1.1	Francis Bacon	Of Ambition	
1.2	Charles Lamb	Dream Children	
Unit 2	Poetry: A Selection		(12 hrs.)
2.1	John Keats	Ode to a Nightingale	
2.2	Robert Frost	Mending Wall	
2.3	Maya Angelou	Phenomenal Woman	
2.4	Jackie Kay	In My Country	
Unit 3	Speeches		(8 hrs.)
3.1	Abraham Lincoln	The Gettysburg Address	
3.2	Kevin Rudd	Apology to Australia's Indigenous Peoples	
Unit 4	Newspaper Columns		(10 hrs.)
4.1	Ramchandra Guha	"The Locality and the Nation", <i>The Hindu, Sunday Magazine</i> , 31 August 2003	
4.2	Shashi Tharoor	"Violence and its Manifestations", <i>The Hindu, Sunday Magazine</i> , 7 July 2002	
Unit 5	Practical Application Tasks		(10 hrs.)
	Specific tasks relevant to the concepts and techniques discussed in Units 1 to 4 will be assigned as class work		

BOOKS FOR REFERENCE

Eagleton, Terry. *How to Read a Poem*. Victoria: Blackwell Publishing Ltd, 2007.

Matterson, Stephen and Darryl Jones. *Studying Poetry*. New York. Oxford UP, 2000.

Shelston, Alan. *Biography*. London: Methuen, 1977

Walker, Hugh. *The English Essays and Essayists*. New Delhi: S. Chand & Co. 1966.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Section A—short essays- two out of four (250words)

2×10 = 20 marks

Section B –Long essays- two out of four (600words)

2×15= 30 marks

Two out of four writing tasks including drafting and proof-reading

2x25=50

Other Components:

25 marks

Assignment

Seminar

Presentation

Take Home Test

Open Book Test

Scheduled Class Work –Passage Analysis etc

Quiz

Panel Discussion

Group Presentation

Role-Play

Dramatisation

Creative Writing

End Semester Examination:

Total Marks: 100

Section A—short essays- three out of five (350words)

3x15 = 45 marks

Section B –Long essays- two out of four (600words)

2x20= 40 marks

Section C –Passage analysis from units 2 and 3

1x15= 15 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

DEPARTMENT OF ENGLISH (SELF-FINANCED)

B.A. DEGREE: ENGLISH AND COMMUNICATION SKILLS

SYLLABUS

(Effective from the academic year 2018 – 2019)

SUBALTERN WRITING

CODE: 18CE/AC/SW15

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To understand the concept of subalternity
- To help position subaltern identities in texts

Unit 1	Background Reading	(20 hrs.)
1.1	Paulo Freire	Introduction, <i>Pedagogy of the Oppressed</i> . New Delhi: Sage Publications, 1976.
1.2	Frantz Fanon	“On Violence” <i>The Wretched of the Earth</i> (p 1-13)
Unit 2		(15 hrs.)
2.1	Saeed Akhtar Mirza	“The First Lady and the Terrorist: A Film Script in Five Acts.” <i>Ammi: Letter to a Democratic Mother</i> . Chennai: Tranquebar, 2008. 250-307.
Unit 3		(10 hrs.)
3.1	Maheswata Devi	“Kunti and the Nishadin,” <i>After Kurukshetra</i> . Calcutta: Seagull, 2005.
Unit 4		(15 hrs.)
4.1	Nellie Wong	When I was Growing up
	Cherrie Moraga	The Welder
	Sugirtha Rani	The Smell of Meat
Unit 5	Practical Application Tasks	(5 hrs.)
	Specific tasks relevant to the concepts and techniques discussed in Units 1 to 4 will be assigned as class work	

BOOKS FOR REFERENCE

Anazaldua, Gloria. *This Bridge Called My Back: Writing by Radical Women of Color*. New York: Kitchen Table: Women of Colour, 1983, 165-173.

Fanon, Frantz. *Black Skin, White Mask*, New York: Grove, 1967.

Gramsci, Antonio. "History of the Subaltern Classes", Prison Notebooks Vol. II, (Ed. &Tr.) Joseph A. Buttigieg, 1996, 24-25.

Milner, Andrew and Jeff Browitt. *Race and Ethnicity in Black and Latino Cultural Studies: Contemporary Critical Theory*. III Ed. New Delhi: Rawat, 2003.

Spivak, Gayatri Chakrabarti. "Subaltern Studies: Deconstructing Historiography" Vol IV. (Ed.) Ranajit Guha, *Writings on South Asian History and Society*. Delhi: OUP, 1985, 330-363.

Gail Omvedt "Chapter 11: Sita's Curse and Shambuk's Silence," *Dalit Visions* Chennai: Orient Longman, 2006.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – Short essays- two out of four (200 words each)

2x10=20 marks

Section B – Long essays- one out of two (350 words)

1x15=15 marks

Section C – Passage analysis applying critical concepts learnt

1x15=15 marks

Third Components

Assignment

Seminar

Presentation

Take Home Test

Open Book Test

Scheduled Class Work – Passage Analysis et cetera

Quiz

Panel Discussion

Group Presentation

Role-Play

Dramatisation

Creative Writing

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Section A – Three out of five short essays (200 words each)

3x15= 45marks

Section B – Two out of four essays (600 words each)

2x20=40 marks

Section C – Passage analysis – with concepts given

1x15=15 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

DEPARTMENT OF ENGLISH (SELF-FINANCED)

B.A. DEGREE: ENGLISH AND COMMUNICATION SKILLS

SYLLABUS

(Effective from the academic year 2018-2019)

ENVIRONMENTAL STUDIES

CODE :18CE/GC/ES12

CREDIT : 2

L T P: 2 0 0

TOTAL TEACHING HOUR: 26

OBJECTIVES OF THE COURSE

- To create an awareness on current environmental issues
- To educate the students about conservation and management of natural resources
- To train the students to be eco sensitive

Unit 1	Introduction	(6 hrs.)
1.1	Components of The Environment – Classification and Characteristics of Resources – Renewable and Non – Renewable Resources	
1.2	Need for Public Awareness in Conservation of Natural Resources	
1.3	Energy Flow in Ecosystems – Aquatic and Terrestrial – Food Chain and Food Web	
Unit 2	Pollution and Socio Economic Aspects of the Environment	(10 hrs.)
2.1	Types of Pollution – Air, Water, Solid Waste, Noise	
2.2	Problems - Greenhouse Effect – Depletion of The Ozone Layer – Climate Change	
2.3	Bio Diversity - Definition - Loss of Bio Diversity – Threats to Biodiversity and Conservation of Biodiversity.	
2.4	Human Behaviour: - Population – Urbanisation – Poverty (as cause and result of pollution and degradation)	
2.5	Technology: - Agriculture and Industry – Deforestation. Use, Misuse and Abuse of the Resources	
2.6	Effects and Consequences Of Environmental Problems	
Unit 3	Sustainable Development, Remedies And Policy Implications	(10 hrs.)
3.1	Environmental Disasters Natural and Human Made – Bhopal Gas Tragedy – Chernobyl Accident – Fukushima Nuclear Crisis - Gulf War – Love Canal Episode – Tsunami – Volcanic Eruptions	
3.2	Methods Evolved to Measure and Check Environmental Degradation and Pollution – Carbon Footprint, Carbon Credit, Ecological Footprint, and Ecological Shadow	

- 3.3 Environmental Movements in India – Chipko Movement, Narmada Bachao Andolan, Sethu Samudram Project
- 3.4 Environmental Acts – Policy Measures with Respect to India
- 3.5 International Environmental Agreement – Stockholm Conference – Montreal Protocol – RIO Meet – Kyoto Conference – UN Conference on Climate Change (Copenhagen)

Field visit

Eco initiatives at the campus : Garbage segregation and Vermicomposting – Graywater recycling – Rainwater harvesting – Solar powered lights – Bio diversity

BOOK FOR STUDY

Bharucha, E., *Textbook of Environmental Studies*. (1st edition), Hyderabad: Universities Press, 2005.

BOOKS FOR REFERENCE

Ignacimuthu, S. *Environmental Awareness and Protection*. New Delhi: Phoenix, 1997.

Jadhav, H and. Bhosale V. M. *Environmental Protection and Laws*. New Delhi: Himalaya, 1995.

Mies, M. and V. Shiva. *Ecofeminism*. London: Zed Books, 1989.

Odum, E.P. *Fundamentals of Ecology*. U.S.A: W.B. Saunders Co. 1971.

Singh, H.R. *Environmental Biology*. (1st edition), New Delhi: S.Chand, 2005.

PATTERN OF EVALUATION (Totally Internal)

CONTINUOUS ASSESSMENT (CA): One Hour Test – 25 Marks

Objective Quiz – 25 Marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

DEPARTMENT OF ENGLISH (SELF-FINANCED)

B.A. DEGREE: ENGLISH AND COMMUNICATION SKILLS

SYLLABUS

(Effective from the academic year 2018-2019)

ACADEMIC WRITING

CODE: 18CE/MC/AW24

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To hone the academic writing skills of students
- To train the students in writing analytical essays, reports and proposals

Unit 1	Introduction	(10 hrs.)
1.1	What is Academic Writing? 1.1.1 Ethics of Academic Writing 1.1.2 Proposals 1.1.3 Research Papers—Articles, Assignments, Term papers, Projects	
1.2	Basics of Writing 1.2.1 Writing a Plan 1.2.2 Outlines 1.2.3 Introduction, Body and Conclusion	
Unit 2	Analytical Writing	(10 hrs.)
2.1	What is Analytical Writing?	
2.2	Brainstorming	
2.3	Pre-writing—Background and Research	
2.4	Stages in Writing an Academic Paper	
2.5	Planning the Arguments	
2.6	Mechanics of Documentation	
Unit 3	Writing Reports	(15 hrs.)
3.1	Different Parts of a Report	
3.2	Analysing Data	
3.3	Writing a Feasibility Report	
3.4	Writing a Survey Report	
3.5	Writing a Project Completion Report	

Unit 4 Writing Proposals (12 hrs.)

- 4.1 What are Proposals?
- 4.2 Different Kinds of Proposals
 - 4.2.1 Project Proposal
 - 4.2.2 Research Proposal
 - 4.2.3 Grant Proposal

Unit 5 Practical Application Tasks (5 hrs.)
Specific tasks relevant to the concepts and techniques discussed in Units 1 to 4 will be assigned as class work

BOOKS FOR REFERENCE

- Bowden, John. *Writing a Report*. Oxford: Howtobooks, 2004.
- Cooley, Thomas. *The Norton Guide to Writing*. New York: W.W. Norton and Company, 1992.
- Day, Trevor. *Success in Academic Writing*. New York: Palgrave Macmillan, 2013.
- McWhorter, Kathleen and Candalene J McCombs. *Write to Read and Read to Write*. Boston and Toronto: Little, Brown and Company, 1983.
- Reid, Stephen. *The Prentice Hall Guide for College Writers*. New Jersey: Prentice Hall Inc., 1989.
- Swales, John. *Academic Writing for College Students*. Michigan: University of Michigan Press, 1994.

PATTERN OF EVALUATION

Continuous Assessment:	Total Marks 50
Two out of four report writing tasks	2x25=50 marks
Other Components:	Total Marks:25
Presentation	
Group Presentation	
Writing tasks	
End Semester Examination:	Total Marks: 100
Section A – Two out of four report writing tasks	2x25=50 marks
Section B – Two out of four proposal writing tasks	2x25=50 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

DEPARTMENT OF ENGLISH (SELF-FINANCED)

B.A. DEGREE: ENGLISH AND COMMUNICATION SKILLS

SYLLABUS

(Effective from the academic year 2018-2019)

INTRODUCTION TO DRAMA AND FICTION

CODE: 18CE/MC/DF25

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce drama as a social product and a literary form
- To train learners to read, interpret and understand dramatic texts
- To train learners to identify and interpret dramatic texts as vehicles for communication of ideas, socio-political and cultural contexts

Unit 1	Elements of Drama		(10 hrs.)
1.1.	Plot		
1.2.	Character		
1.3.	Setting		
1.4.	Structure		
1.5.	Symbolism		
Unit 2	Aspects of Fiction		(10 hrs.)
2.1	Plot		
2.2	Characterisation		
2.3	Focalisation / Point of View		
2.4	Stream of Consciousness		
Unit 3	Text		(20 hrs.)
3.1	Henrik Ibsen	<i>A Doll's House</i>	
3.2	Mahesh Dattani	<i>Dance Like a Man</i>	
Unit 4	Text		(20 hrs.)
4.1	Jane Austen	<i>Pride and Prejudice</i>	
4.2	Kate Chopin	Story of an Hour	
Unit 5	Practical Application Tasks		(5 hrs.)
	Specific tasks relevant to the concepts and techniques discussed in Units 1 to 4 will be assigned as class work		

BOOKS FOR REFERENCE

Bloom, Harold ed. *Greek Drama*. Philadelphia: Chealsea House, 2004

Elam, Keir. *The Semiotics of Theatre and Drama*. London: Routledge, 2009

Macaulay.cuny.edu/eportfolios/lklichfall13t/files/2013/09/Esslin.pdf

Scholes, Robert ed. *Elements of Literature: Fiction, Poetry, Drama*. Canada: Oxford University Press, 2007

Styan J.L. *Elements of Drama*. Cambridge: Cambridge University Press, 1967

www.anglistik.uni-freiburg.de/intranet/englishbasics/PDF/Drama.pdf

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Section A – 100-words essay- three out of five

10x3=30 marks

Section B – 250-words essay- one out of two

20x1=20 marks

Other Components:

Total Marks: 25

Assignment

Seminar

Presentation

Take Home Test

Quiz

Panel Discussion

Group Presentation

Role-Play

Dramatisation

Creative Writing

End Semester Examination:

Total Marks: 100

Section A – 150-words essay- four out of six

15x4=60 marks

Section B – 300-words essay - two out of four

20x2=40 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

DEPARTMENT OF ENGLISH (SELF-FINANCED)

B.A. DEGREE: ENGLISH AND COMMUNICATION SKILLS

SYLLABUS

(Effective from the academic year 2018-2019)

INTRODUCTION TO LINGUISTICS

CODE: 18CE/AC/LG25

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce the fundamental concepts of linguistics to the students
- To inculcate in the students a scientific approach to language

Unit 1	Language as Communication	(15 hrs.)
1.1	Characteristics of Human Language	
1.2	Human Language as a Signifying System Saussure: Langue and Parole, Syntagm and Paradigm, Arbitrary Nature of Sign, Linear Nature of the Signifier	
1.3	Varieties of Language – Dialect, Idiolect, Register	
Unit 2	Phonology	(15 hrs.)
2.1	Segmental Phonemes 2.1.1 Cardinal Vowel Scale 2.1.2 Classification of Vowels and Consonants in English	
2.2	Supra-Segmental Features 2.2.1 Word and Sentence Stress 2.2.2 Intonation	
Unit 3	Morphology	(10 hrs.)
3.1	Morphemes 3.1.1 Bound and Free Morphemes 3.1.2 Derivatives – Root and Affix 3.1.3 Zero and Empty Morph	
Unit 4	Grammar	(15 hrs.)
4.1	Traditional Grammar	
4.2	Five Basic Sentence Patterns	
4.3	I.C. Analysis	

Unit 5	Semantics	(10 hrs.)
5.1	Synonymy, Antonymy, Polysemy	
5.2	Hyponymy and Homonymy	

BOOKS FOR REFERENCE

Balasubramanian, T. *A Text Book of English Phonetics for Indian Students*. Macmillan India Ltd, 1981.

Crystal, David. *The Cambridge Encyclopaedia of the English Language*. Cambridge: Cambridge UP, 2003.

Palmer, Frank. *Semantics: A New Outline*. Cambridge: Cambridge UP, 1977.

---. *Grammar*, second ed. London: Penguin, 1971.

Yule, George. *The Study of Language – An Introduction*. Oxford: Oxford UP, 1970.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Section A - Phonemic transcription/ IC analysis/ Identifying sentence patterns / Morphemic analysis –no choice	20 marks
Section B - Three short notes out of five	15 marks
Section C – One long essay out of three	15 marks

Other Components

Total Marks:25

Oral test on phonetics
Transcription
I.C. Analysis
Identifying Sentence Patterns

End Semester Examination

Total Marks: 100

Section A – Phonemic transcription of ten words	10x1= 10 marks
Section B – Identifying sentence pattern of five sentences	5x2=10 marks
Morphemic analysis of ten words	10x1=10 marks
IC Analysis of two sentences	2x2½=5 marks
Section C – Four out of six short notes	4x5=20 marks
Three out of five essays	3x15=45 marks

**STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
DEPARTMENT OF ENGLISH (SELF-FINANCED)**

B.A. DEGREE: ENGLISH AND COMMUNICATION SKILLS

SYLLABUS

(Effective from the academic year 2018-2019)

WRITING FOR THE MEDIA

CODE: 18CE/MC/WM34

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVE OF THE COURSE

- To train students in writing news and features for various media
- To train students to write for the audio/visual media

Unit 1	Introduction	(10 hrs.)
1.1	Different Kinds of Media and Their Characteristics	
1.2	Differences between Writing for the Media and Other Kinds of Writing	
1.3	Differences between Writing for the Audio/Visual Media and Print Writing	
Unit 2	Print media – Writing News Reports and Features	(12 hrs.)
2.1	What is News? What is a Feature?	
2.2	Using Resources	
2.2	The Inverted Pyramid Structure	
2.3	Writing the Lead	
2.4	Developing the News Story	
Unit 3	Broadcast Media	(10 hrs.)
3.1	Radio	
	3.1.1 Writing Anchor Scripts for Radio Programmes	
3.2	Television	
	3.2.1 Writing Anchor Scripts for Television Programmes	
Unit 4	New Media	(10 hrs.)
4.1	Writing Reports and Features for the Web	
Unit 5	Social Media	(10 hrs.)
5.1	Blogs	
5.2	Twitter, etc	

BOOKS FOR REFERENCE

- Chapman, Nigel. *Digital Multimedia*. New York: John Wiley and Sons, 2000.
- Hohenberg, John. *The Professional Journalist*. Calcutta: Oxford & IBH Publishing Co. Fourth Edition, 1978
- Mass Media and Mass Communication*. Cambridge, Chdadwick Healy, 1991.
- Mass Media in India 2000*. New Delhi: Ministry of Information and Broadcasting, 2000.
- Mencher, Melvin. *Basic Media Writing*. London: Brown and Benchmark, 1996.
- Rivers, L. William. *The Mass Media: Reporting, Writing, Editing*. New York, Harper & Row Publishers, Second Edition, 1964
- Sharples, Mike. *How We Write: Writing as Creative Design*. New York, Routledge, 1998.
- Webster's, Merriam Collegiate Dictionary. *Manual for Writers & Editors*. Massachusetts : Merriam-Webster, 2003
- Wells, Gordon. *Be a Successful Writer: 99 Surefire Checklists*. London, Allison & Busby, 2001.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

- Section A – 100-words essay- two out of four
- Section B – writing tasks

10x2=20 marks
30 marks

Other Components:

Total Marks:25

- Assignment
- Presentation
- Take Home Test
- Quiz

End Semester Examination:

Total Marks: 100

- Section A – 150-words essay- four out of six
- Section B – writing tasks

10x4=40 marks
60 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

DEPARTMENT OF ENGLISH (SELF-FINANCED)

B.A. DEGREE: ENGLISH AND COMMUNICATION SKILLS

SYLLABUS

(Effective from the academic year 2018-2019)

BRITISH LITERATURE

CODE: 18CE/MC/BL34

CREDITS : 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To develop an analytical and critical approach to select literary texts from the sixteenth to the twenty first centuries
- To develop an understanding of writers within the socio-cultural and political background of the age

Unit 1	Sixteenth and Seventeenth Centuries		(6 hrs.)
1.1	Edmund Spenser	Sonnet 75 (from <i>Amoretti</i>)	
1.2	Francis Bacon	Of Friendship	
Unit 2	Eighteenth Century		(10 hrs.)
2.1	Daniel Defoe	<i>Robinson Crusoe</i>	
2.2	Alexander Pope	<i>The Rape of the Lock</i>	
2.3	William Blake	The Chimney Sweeper	
Unit 3	Nineteenth Century		(12 hrs.)
3.1	William Wordsworth	Upon Westminster Bridge	
3.2	Charlotte Bronte	<i>Jane Eyre</i>	
3.3	G. M. Hopkins	God's Grandeur	
Unit 4	Twentieth and Twenty first Centuries		(15hrs.)
4.1	D. H. Lawrence	Snake	
4.2	Harold Pinter	<i>The Birthday Party</i>	
4.3	Julian Barnes	<i>The Sense of an Ending</i>	
4.4	Ian Russell McEwan	On Chesil Beach	
Unit 5	Practical Application Tasks		(9 hrs.)
	Group Discussions		
	Seminars		
	Analysis		

BOOKS FOR REFERENCE

- Alexander, Michael. *A History of English Literature*. New York: Palgrave, 2000. Print
- Bowra, C. M. *The Romantic Imagination*. London: Oxford University Press, 1973. Print
- Esslin, Martin. *Theatre of the Absurd*. London: Penguin, 1991. Print.
- Gilbert, Sandra and Susan Gubar. *Mad Woman in the Attic: The Woman Writer and the Nineteenth Century Literary Imagination*. 1979. 2nd ed. New Haven & London: Yale University Press, 1986. Print.
- Lodge, David. *The Modes of Modern Writing*. London: Edward Publishers, 1977. Print.
- Martines, Lauro. *Society and History in English Renaissance Verse*. New York: Basil Blackwell, 1985. Print.
- Mathews, Greg J. *Literary Research and Irish Literature*. Maryland: Scarecrow Press, 2008. Print.
- Prince, Martin. "The Restoration and the Eighteenth Century." *The Restoration and the Eighteenth Century*. London: Oxford University Press, 1973. Print.
- Steane, J. B. *Marlow: A Critical Study*. Cambridge University Press, 1964. Print.
- Thwaite, Anthony. *Poetry Today: A Critical Guide to British Poetry*. England: Longman Group, 1985. Print.

JOURNALS

- Journal of Commonwealth Literature
- ARIEL: A Review of International English Literature
- Wasafiri
- Postcolonial Studies
- <http://criticalflame.org/>
- <https://www.aprweb.org/>

WEBSITES

- <http://www.bartleby.com/224/index.html#9>
- <http://www.janeausten.org>
- <http://www.poetryfoundation.org>>poems&poets

PATTERN OF EVALUATION

Continuous Assessment:

- | | |
|---|--------------------|
| Total Marks: 50 | Duration: 90 mins. |
| Section A – Short essays- three out of five | 3x5=15 marks |
| Section B – Long essays- two out of four | 2x10=20 marks |
| Section C – Passage analysis- no choice | 1x15=15 marks |

Third Components:

- Assignment
- Seminar
- Presentation
- Take Home Test
- Open Book Test
- Scheduled Class Work – Passage Analysis etc
- Quiz

Panel Discussion
Group Presentation
Role-Play
Dramatisation
Creative Writing

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – Three short essays out of five (350 words)

3x15 = 45 marks

Section B – Two long essays out of four (800words)

2x20= 40 marks

Section C – Passage analysis from prescribed texts

1x15= 15 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

DEPARTMENT OF ENGLISH (SELF-FINANCED)

B.A. DEGREE: ENGLISH AND COMMUNICATION SKILLS

SYLLABUS

(Effective from the academic year 2018-2019)

LITERATURE AND IDEAS

CODE: 18CE/AC/LI35

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To acquaint the students with the major schools of thought that have impacted literature
- To train the students to analyse literary texts using these ideas as frames of reference

Unit 1	Romanticism	(14 hrs.)
1.1	Jean Jacques Rousseau	The Social Contract
1.2	Emmanuel Kant	Critique of Pure Reason
1.3	G.W.F. Hegel	Phenomenology of the Mind
	Text: William Wordsworth	<i>The Prelude Book I</i> (Lines: 147-249)
Unit 2	Marxism and Psychoanalysis	(13 hrs.)
2.1	Freud and Jung	Id, Ego and Superego; Collective Unconscious
2.2	Karl Marx	Base and Superstructure
	Text: Charles Dickens	<i>Hard Times</i> (Chapters 1-5); Sylvia Plath – <i>Mirror</i>
Unit 3	Existentialism	(15 hrs.)
3.1	Schopenhauer	The World as Will
3.2	Nietzsche	Apollonian and Dionysian Principles
3.3	Sartre	Awful Freedom
	Texts: Ted Hughes	“Tiger Psalm”
	Kafka	<i>Metamorphosis</i>
Unit 4	Feminist Thought	(13 hrs.)
4.1	Toril Moi	Feminine, Feminist, Female
4.2	Bell hooks	Black Women - Shaping Feminist Theory
	Text: Makbula Manzoor	On the Road (in Galpa; Short Stories by Women from Bangladesh, Azim, Firdous and Niaz Zaman)

Unit 5	Ecocriticism		(10 hrs.)
5.1	Arne Naess	Deep Ecology	
	Text: Margaret Atwood	Marsh Languages	

BOOKS FOR REFERENCE

- Bhandari, D. R. *History of European Political Philosophy*. Bangalore: Bangalore Printing and Publishing, 1994. Print.
- Beauvoir, Simone De. *The Second Sex*. London: Vintage Books, 1949. Print.
- Coplestone, F. *A History of Philosophy*. London: Burn and Odes, 1959. Print.
- Durant, Will. *The Story of Philosophy*. London: Simon and Schuster, 1926. Print.
- Howells, Christina. Ed. *The Cambridge Companion to Sartre*. London: Cambridge UP, 1992. Print.
- Lavine, T.S. *From Socrates to Sartre: The Philosophical Quest*. New York: Bantam Books, 1984. Print.
- Millet, Kate. *Sexual Politics*. New York: Doubleday, 1970. Print.
- Russell, Bertrand. *History of Western Philosophy*. (1946). London: Unwin, 1979. Print.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50	Duration: 90 mins.
Section A – Short essays- three out of five	3x5=15 marks
Section B – Long essays-one out of three	1x15=15 marks
Section C –Passage Analysis	1x20=20 marks

Third Components

- Assignment
- Seminar
- Presentation
- Take Home Test
- Open Book Test
- Scheduled Class Work – Passage Analysis etc
- Quiz
- Panel Discussion
- Group Presentation
- Role-Play
- Dramatisation
- Creative Writing

End Semester Examination

Total Marks: 100	Duration: 3 Hours
Section A – Five out of seven short notes on ideas studied	5x4=20 marks
Section B – Four out of six essays of about 650 words each	4x15=60 marks
Section C – Passage analysis of a passage from an unseen literary text based on ideas studied	1x20=20 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

DEPARTMENT OF ENGLISH (SELF-FINANCED)

B.A. DEGREE: ENGLISH AND COMMUNICATION SKILLS

SYLLABUS

(Effective from the academic year 2018-2019)

LITERARY CRITICISM

CODE: 18CE/MC/LC45

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS:65

OBJECTIVE OF THE COURSE

- To introduce students to Literary Criticism and its relevance to Literature
- To acquaint students with the development of modern criticism and theory
- To help students apply theoretical concepts to literary texts

Unit 1

(10 hrs.)

1.1 Introduction to Literary Criticism

V.S. Sethuraman. Introduction. *The English Critical Tradition*, Macmillan India Ltd., Madras. 1977pp vii–xiviii

1.2 Aristotle

Poetics
Chapters 1,2,4,5,6,7,8
(Penguin Translation)

Text for Analysis

Sophocles

Antigone

Unit 2

(15 hrs.)

2.1 Philip Sidney

Extract from *Apology for Poetry*
from V.S. Sethuraman : “Among the Roman...to teach and delight”. (46 –49)

2.2 Samuel Taylor Coleridge

Biographia Literaria
Chapter XIII (section on Fancy and Imagination) and *Chapter XIV*(The poet in ideal perfection ...

2.3 Mathew Arnold

The Study of Poetry
 (“Indeed there can be no more useful help...high poetic seriousness are absent from his substance and matter”)

Unit 3 New Criticism, Structuralism and Semiotics

(15 hrs.)

3.1 T.S Eliot

Tradition and Individual Talent

3.2 Cleanth Brooks

Keats’ Sylvan Historian

3.3 Raman Selden

Binary Oppositions - Arthur Miller

3.4 Tzvetan Todorov

The Typology of Detective Fiction

Unit 4 Reader Response Theory (15 hrs.)
4.1 Wolfgang Iser Interaction Between Text and Reader

Unit 5 Practical Application Tasks (10 hrs.)
Practical analysis of literary texts/passages applying relevant critical concepts

BOOKS FOR REFERENCE

- Barthes, Roland. *Mythologies*. Trans. Annette Lavers. London: Vintage, 1993. Print.
Calcutta: Oxford & IBH Publishing Co., 1957.
- Guerin Wilfred et al. *A Handbook of Critical Approaches to Literature*. Oxford: Oxford
- Habib, M.A.R. *A History of Literary Criticism and Theory: From Plato to the*
Habib, M.A.R. *A History of Literary Criticism and Theory: From Plato to the*
Kentucky, 1993. Print.
- Lodge, David. *Modern Criticism & Theory*. London: Longman, 1991. Print.
Present. Oxford, Wiley-Blackwell, 2005. Print.
Present. Oxford: Wiley-Blackwell, 2005.
- Ramanujan, A.K. "On Ancient Tamil Poetics". *Indian Literary Criticism*. Ed. G.N. Devy
Hyderabad: Orient Longman. 2006.
- Selden and Widdowson. *Contemporary Critical Theory*. Lexington: The UP of
Selden, Raman. *The Theory of Criticism*. Longman, London & New York. 1998. Print.
- Sethuraman, V.S. *Indian Aesthetics*. Madras: Macmillan India Ltd., 1977.
UP, 1992. Print.
- Wimsatt, William and Cleanth Brooks. *Literary Criticism: A Short History*.
- Wordsworth, William. "Preface to the Lyrical Ballads." *English Critical Texts*. Ed. Enright and
Chickera, New Delhi: OUP, 1962.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50	Duration: 90 mins.
Section A – Short essays- three out of five	3x5=15 marks
Section B – Long essays- two out of four	2x10=20 marks
Section C – Passage analysis applying critical concepts	1x15=15 marks

Third Components

- Analysis of unseen passages applying critical concepts learnt
- Analysis of movies based on Aristotle's criteria
- Oral presentations on texts of literary criticism (not prescribed in the syllabus) from the period covered in the syllabus

End Semester Examination

Total Marks: 100	Duration: 3 Hours
Section A – Three out of five short notes (200 words each)	3x15= 45marks
Section B – Two out of four essays (600 words each)	2x20=40 marks
Section C – One analysis – with concepts given	
Or	
One analysis – choosing any concept	1x15=15 marks

Unit 1 is not for testing.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

DEPARTMENT OF ENGLISH (SELF-FINANCED)

B.A. DEGREE: ENGLISH AND COMMUNICATION SKILLS

SYLLABUS

(Effective from the academic year 2018-2019)

LITERATURE AND GENDER

CODE: 18CE/AC/GD45

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVE OF THE COURSE

- To enable students to explore select literary texts that draw attention to gender relations and gendered ways of thinking
- To help students study gender construction and perpetuation in society

Unit 1 Introduction (10 hrs.)

1.1 Woolf, Virginia *A Room of One's Own*, Penguin, London, 1945.

Unit 2 Poetry and Fiction (15 hrs.)

2.1 Adrienne Rich Snapshots of a Daughter-in-law
2.2 Grace Nichols The Fat Black Woman Goes Shopping
2.3 Shashi Deshpande *Small Remedies*

Unit 3 Autobiography (12 hrs.)

3.1 Revathi *Truth About My Life* (Penguin 2010)

Unit 4 Drama (13 hrs.)

4.1 Caryl Churchill *Top Girls*

Unit 5 Practical Application Tasks (15 hrs.)

Specific tasks relevant to the concepts and techniques discussed in Units 1 to 4 will be assigned as class work

BOOKS FOR REFERENCE

Bhasin, Kamla. *Understanding Gender*. New Delhi: Kali for Women. 2000. Print.

Bhuthalia, Urvashi. "Confrontation and Negotiation: The Women's Movement's Response to Violence Against Women," *The Politics of Gender, Identity and Social Equality in India*. New Delhi: Kali for Women, 2002. 207-33. Print.

Foran, John. "Alternatives to Development: Of Love, Dreams and Revolution," *Feminist Futures: Reimagining Women Culture and Development*. Ed. Kumkum Bhavnani, John Foran and Priya Kurian, New Delhi: Zubaan, 2003. 268-274. Print.

Mackinnon, Catherine. "Towards a Feminist theory of State" *Feminisms*. Ed. Sandra Kemp and Judith Squires, Oxford, New York, 1997, 351-58. Print.

Mies, Maria and Vandana Shiva. *Ecofeminism*. London: Zed Books, New Jersey, 1993. Print.
Rich, Adrienne. "When We Dead Awaken: Writing as Re-vision," *Adrienne Rich's Poetry*, Ed. Barbara Charles and Albert Gelpi, Norton, New York, 1995, 90-98. Print.
Sen, Amartya. "Gender and Co-operative Conflicts," *Capabilities, Freedom and Equality*, Ed. Bina Agarwal, Jane Humphries, Ingrid Robeyns, 2006, 458-84. Print.

JOURNALS

Indian Journal of Gender Studies (Sage)
A Journal of Feminist Cultural Studies
Feminist Review
A Journal of Women Studies

WEBSITES

<http://www.feministreview.com>
<http://ftv.sagepub.com>
<http://dukeupress.edu/cameraobscura>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50	Duration: 90 mins.
Section A – Short essays- three out of five	3x5=15 marks
Section B – Long essays- two out of four	2x10=20 marks
Section C – Passage analysis- no choice	1x15=15 marks

Third Components

Assignment
Seminar
Presentation
Take Home Test
Open Book Test
Passage Analysis
Quiz
Panel Discussion
Group Presentation
Role-Play
Dramatisation
Creative Writing

End Semester Examination

Total Marks: 100	Duration: 3 hours
Section A - Two essay questions (750 words) Out of four	2 x 20 = 40 marks
Section B - Three short essays (300 words) Out of five	3 x 15 = 45 marks
Section C - Passage analysis from the novel or poems prescribed (no choice)	1 x 15 = 15 marks

Unit 1 is not for testing.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

DEPARTMENT OF ENGLISH (SELF-FINANCED)

B.A. DEGREE: ENGLISH AND COMMUNICATION SKILLS

SYLLABUS

(Effective from the academic year 2018-2019)

ENGLISH LANGUAGE TEACHING

CODE: 18CE/MC/LT55

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To acquaint the students with the psychology of language learning
- To enable students to acquire a knowledge of the methods and approaches in language teaching
- To help students prepare materials for teaching the four skills of language

Unit 1	Introduction Difference between Language Acquisition and Language Learning – L1 and L2.	(5hrs.)
Unit 2	Psychology of Learning 2.1 Behaviorism 2.2 Cognitivism 2.3 Humanism	(15 hrs.)
Unit 3	Approaches and Methods of Teaching English 3.1 Grammar Translation Methods 3.2 Situational Method 3.3 Audiolingual Method 3.4 Communicative Approach 3.5 Use of Technology in Teaching of English (Using The Language Lab)	(20 hrs.)
Unit 4	Materials Design 4.1 Needs Analysis 4.2 Defining the Objectives 4.3 Preparation of Materials to Teach the Four Language Skills	(10hrs.)
Unit 5	Practical Application Tasks 5.1 Preparation of Tasks to Teach the Four Language Skills 5.2 Teaching Practice	(15hrs.)

BOOKS FOR REFERENCE

- Hutchinson, Tom and Alan Waters. *English for Specific Purposes: A Learner Centred Approach*. Cambridge: Cambridge UP, 1987. Print.
- Krashen, Stephen D. *Second Language Acquisition and Second Language Learning*. Oxford: Pergamon Press, 1981. Print.
- Lefrançois, Guy R. *Psychology for Teaching*. California: Wordsworth Publishing Co., 1975. Print.
- Prabhu, N.S. *Second Language Pedagogy*. Oxford: Oxford UP, 1987. Print.
- Richards, Jack C. and T.S. Rodgers. *Approaches and Methods in Language Teaching: A Description and Analysis*. Cambridge: Cambridge UP, 1986. Print.
- Rivers, Wilga. M. *Interactive Language Teaching*. Cambridge: Cambridge UP, 1987. Print.

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

- Section A – Three out of five short answers (about 200 words each)
3x5=15 marks
- Section B – one out of three questions on theory
(about 500 words each) 1 x15=15 marks
- Section C - One application-oriented question
(framing tasks for a given passage) 1x20=20 marks

Other Components:

Total Marks:25

- Materials Production
Practice Teaching

End Semester Examination

Total Marks: 100

- Section A – Five out of seven short answers (about 200 words each)
5x6=30 marks
- Section B – Three out of five questions on theory
(about 500 words each) 3 x15=45 marks
- Section C - One application-oriented question
(framing tasks for a given passage) 1x25=25 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
DEPARTMENT OF ENGLISH (SELF-FINANCED)

B.A. DEGREE: ENGLISH AND COMMUNICATION SKILLS

SYLLABUS

(Effective from the academic year 2018-2019)

AMERICAN LITERATURE

CODE: 18CE/MC/AL55

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVE OF THE COURSE

- To introduce the students to the diverse socio-cultural aspects and multiplicities of expression in American Literature
- To help students understand American Literature as an outcome of its traditions and cultures

Unit 1	Introduction to Transcendentalism	(4 hrs.)
1.1.	Emerson <i>Self-Reliance</i>	
Unit 2	Poetry	(16 hrs.)
2.1.	Robert Frost Fire and Ice Birches	
2.2.	e e cummings next to of course god America	
2.3.	Langston Hughes The Negro Speaks of Rivers Dream Deferred	
2.4.	Joy Harjo Equinox	
2.5.	Maya Angelou Caged Bird	
2.6.	Elizabeth Bishop The Fish	
Unit 3	Drama	(12 hrs.)
3.1.	Arthur Miller <i>Death of a Salesman</i>	
Unit 4	Fiction	(25 hrs.)
4.1.	Mark Twain <i>The Adventures of Huckleberry Finn</i>	
4.2.	Hemingway <i>The Old Man and the Sea</i>	
4.3.	Amy Tan <i>Two Kinds</i>	
Unit 5	Practical Application Tasks	(8 hrs.)
	Specific tasks relevant to the concepts and techniques discussed in Units 1 to 4 will be assigned as class work	

BOOKS FOR REFERENCE

Bigsby, C.S. *A Critical Introduction to Twentieth Century American Drama Vol II*. New York: Cambridge University Press. 1984. Print.

- Hoffman, Daniel. *Harvard Guide to American Writing*. Harvard University Press, Boston. 1979. Print.
- Miller, Arthur. "Introduction", *Collected Plays of Arthur Miller*. New Delhi: Allied Publishers. 1973. Print.
- Perkins, David. *Modern American Poetry 1945-2000 –An Introduction*. Blackwell Publishers. 2006. Print.
- Porter, Joy and Kenneth M. Roemer. *The Cambridge Companion to Native American Literature*. New York, Cambridge University Press. 2005. Print.

JOURNALS

americanliterature.dukejournals.org/

WEBSITES

www.wsu.edu/~campbelld/amlit/sites.htm
www.wsu.edu/~campbelld/amlit/sites.htm
www.library.rochester.edu/subject/.../web-resources
americanliteratureassociation.org
www.lang.nagoya-u.ac.jp/~matsuoka/AmeLit-G.html

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Section A – Short essays- three out of five

Section B – Long essays- two out of four

Section C – Passage analysis- no choice

Duration: 90 mins.

3x5=15 marks

2x10=20 marks

1x15=15 marks

Third Components:

Assignment

Seminar

Presentation

Take Home Test

Open Book Test

Scheduled Class Work – Passage Analysis etc

Quiz

Panel Discussion

Group Presentation

Role-Play

Dramatisation

Creative Writing

End Semester Examination

Total Marks: 100

Section A – Three short essays (350 words)

Section B – Two long essays (600 words)

Section C – Passage analysis from units 2 and 3

Duration: 3 Hours

3x15 = 45 marks

2x20= 40 marks

1x15=15 marks

***Note: Unit 1 is not for testing.**

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

DEPARTMENT OF ENGLISH (SELF-FINANCED)

B.A. DEGREE: ENGLISH AND COMMUNICATION SKILLS

SYLLABUS

(Effective from the academic year 2018-2019)

ENGLISH FOR ADVERTISING

CODE: 18CE/MC/EA55

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To help students understand the various factors that go into the creation of an advertisement
- To train them in forming concepts
- To train them to create different types of advertisements

Unit 1	Introduction to Advertising	(12hrs.)
1.1.	The Need For Advertisements	
1.2	Kinds of Advertisements	
1.3	Social and Ethical Aspects of Advertising	
1.4	Ethical Issues in Advertising	
Unit 2	Preparing to create Advertisements	(14hrs.)
2.1	Reading Advertisements as a Sign of Social Values and Beliefs, Reading for Hidden Messages and Implications	
2.2	The Advertising Agency	
	2.2.1 The Role of the Advertising Agency	
	2.2.2 Various Departments and their Functions	
2.3	The Promotional Mix	
2.4	Advertiser's Pyramid	
2.5	Copywriter's Pyramid	
Unit 3	Creating Print Advertisements	(14hrs.)
3.1	Parts of a Print Ad	
	3.1.1 Headlines	
	3.1.1.2 Kinds of Headlines – Straight-Sell, Announcement, Word-Play, Before-After, Question	
	3.1.2 Body Copy	
	3.1.2.1 Body Copy Styles	
	3.1.2.2 Sections of a Body Copy	

	3.1.3 Logo	
	3.1.4 Certification	
	3.1.5 Contact Information	
3.2	Text-Visual Relationship	
Unit 4	Creating Radio Advertisements	(13 hrs.)
4.1	Radio Jingles	
	4.1.1 Jingles, Spots and Commercials	
	4.1.2 Writing Scripts	
	4.1.3 Using Sound Effects	
	4.1.4 Language in Radio Jingles	
Unit 5	Creating Television Advertisements	(12 hrs.)
5.1	Creating Television Storyboard	
	5.1.1 Storyboard Format	
	5.1.2 Showing and Telling	

BOOKS FOR REFERENCE

Chapman, Nigel. *Digital Multimedia*. New York: John Wiley and Sons, 2000

Mass Media and Mass Communication. Cambridge, Chdadwick Healy, 1991

Mass Media in India 2000. New Delhi: Ministry of Information and Broadcasting, 2000

Mencher, Melvin. *Basic Media Writing*. London: Brown and Benchmark, 1996

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

- | | |
|---|---------|
| 1. One out of two 300 word essays on theory of advertisements: | 1x15=15 |
| 2. Short notes (two out of four): | 3x5=15 |
| 3. Creating product, brand name and headline for a given visual
Creating print ad on a given topic | 2x10=20 |

Other Components:

Total Marks:25

Presentation
Take Home Test
Quiz
Panel Discussion
Group Presentation
Role-Play
Dramatisation
Creating a Storyboard

End Semester Examination**Total Marks: 100**

- Three out of five 300 word essays on theory of advertisements: $3 \times 15 = 45$
1. Short notes (two out of four): $2 \times 5 = 10$
 2. Creating product, brand name and headline for a given visual (two out of four) $2 \times 5 = 10$
 3. Creating print ad on a given topic (one out of two): $1 \times 10 = 10$
 4. Creating radio jingle on a given topic (one out of two): $1 \times 10 = 10$
 5. Creating television storyboard on a given topic (one out of two): $1 \times 15 = 15$

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

DEPARTMENT OF ENGLISH (SELF-FINANCED)

B.A. DEGREE: ENGLISH AND COMMUNICATION SKILLS

SYLLABUS

(Effective from the academic year 2018-2019)

WORLD CLASSICS IN TRANSLATION

CODE: 18CE/MC/WC65

CREDITS: 5

L T P: 5 0 0

TOTAL HOURS: 65

OBJECTIVES OF THE COURSE

- To examine some works of World Literature across multiple genres and cultures
- To understand and appreciate the qualities that make a work of literature a classic

Unit 1 The Epic (20 hours)

- | | |
|-------------------|---|
| 1.1 Homer | <i>The Iliad Book I</i> |
| 1.2 Ilango Atikal | <i>Cilappatikaram</i> Trans. R. Parthasarathy
Book 1 – Cantos 1–3; Book 2 – Cantos 18–22 |

Unit 2 Ritual and Drama: The Noh Play (5 hours)

- | | |
|---------------------|-----------------|
| 2.1. Zeami Motokiyo | <i>Hagoromo</i> |
|---------------------|-----------------|

Unit 3 Sufi Poetry (20hours)

- | | |
|---|--|
| 3.1 Rumi | |
| 3.1.1 The Worm's Waking | |
| 3.1.2 Wean Yourself | |
| 3.1.3 Story Water | |
| 3.1.4 The Night Air | |
| 3.1.5. In Baghdad dreaming of Cairo, In Cairo Dreaming of Baghdad
(from <i>The Essential Rumi</i> (1995) Trans.Coleman Barks. San Francisco:
HarperCollins) | |

Unit 4 Short Fiction (10 hours)

- | | |
|----------------|--|
| 4.1. Boccaccio | <i>The Decameron</i>
Book I: 3 rd day: IX story |
| 4.2 Somadeva | <i>The Kathasaritsagara</i> Trans. Arshia Sattar
“Visamasila” |

Unit 5 Practical Application Tasks (10 Hours)

Specific tasks relevant to the concepts and techniques discussed in Units 1 to 4 will be assigned as class work

Recommended Reading

Eliot, T. S. "What is a Classic?" Selected Prose of T.S.Eliot.(Ed.) Frank Kermode.
Kermode, Frank. *The Classic*. London: Faber, 1975.
Shulman, David. *The Wisdom of Poets: Studies in Tamil, Telugu and Sanskrit*. New
Delhi: OUP, 2001.
Fadiman, James. *Essential Sufism*. San Francisco: HarperCollins, 2000.
Choo, Lim Beng. "They Came to Party: An Examination of the Social Status of the
Medieval Noh Theatre" Japan Forum, 16(1) 2004, 111-113.
Dubois, Page. *History, Rhetorical Description and the Epic: From Homer to Spenser*.
Cambridge: Brewer,

Pattern of Evaluation

Continuation Assessment 50 marks

Section A – 100-words essay- three out of five	10x3=30 marks
Section B – 250-words essay- one out of two	20x1=20 marks

Other Components:

Assignment
Seminar
Presentation
Take Home Test
Quiz
Panel Discussion
Group Presentation
Role-Play
Dramatisation
Creative Writing

Three-hour End-semester Examination on 100 marks

Analysis of one passage out of two from Unit 1	1x20=20marks
Four short essays (250-300 words each)	4x10=40 marks
Two long essays (750 words each)	2x20=40 marks

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STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

DEPARTMENT OF ENGLISH (SELF-FINANCED)

B.A. DEGREE: ENGLISH AND COMMUNICATION SKILLS

SYLLABUS

(Effective from the academic year 2018-2019)

INDIAN LITERATURE IN ENGLISH

CODE: 18CE/MC/IE65

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To appreciate evolution and trends in Indian Literature in English
- To enable students to understand identity politics and culture inherent in Indian Literature in English

Unit 1	Introduction		(12 hrs.)
1.1	Sarojini Naidu	Pardah Nashin	
1.2	Aurobindo Ghose	The Tiger and the Deer	
1.3	Rabindranath Tagore	from Gitanjali XI, XXXV, XXXVI	
Unit 2	Poetry		(13 hrs.)
2.1	Nissim Ezekiel	Background, Casually Poet, Lover, Birdwatcher	
2.2	A.K. Ramanujan	The Striders Bosnia	
2.3	Arun Kolatkar	Chaitanya Jejuri-The Bus	
2.4	Jeet Thayil	At Kabul Zoo, the Lion My Grandmother's Funeral (poem VI from Genesis Godown)	
2.5	Kamala Das	The Old Playhouse	
Unit 3	Drama		(13hrs.)
3.1	Girish Karnad	<i>The Fire & The Rain</i>	
Unit 4	Fiction		(17hrs.)
4.1	R.K.Narayan	<i>The Guide</i>	
4.2	Shashi Deshpande	<i>Small Remedies</i>	
4.3	Salman Rushdie	At the Auction of the Ruby Slippers	

Unit 5 Practical Application Tasks (10 hrs.)
Specific tasks relevant to the concepts and techniques discussed in Units 1 to 4 will be assigned as class work

BOOKS FOR REFERENCE

- Bruce King, "Ezekiel and His Influence," *Modern Indian Poetry in English*. Oxford UP, New Delhi. 91-109
- De Souza, Eunice. *Talking Poems: Conversations with Poets*. Oxford UP, 1999
- Kakkar, Sudhir and Katharina Kakkar. *The Indians: Portrait of a People*. New Delhi: Penguin, 2007
- Mehrotra, Arvind Krishna. Ed. *An Illustrated History of Indian Literature in English*. Delhi: Permanent Black, 2003
- Naik, M K. *A History of Indian Literature*. New Delhi: SahityaAkademi, 2005
- RadhaRamaswamy, "Towards a Multicultural Theatre: Mahesh Dattani and the Changing Audience for Contemporary Indian Drama in English," *Mahesh Dattani's Plays: Critical Perspectives*. Ed. AngelieMultani.
- RanjitHoskote, "Introduction," *Reasons for Belonging: Fourteen Contemporary Indian Poets*. Ed. Hoskote, New Delhi: Penguin, 2004.
- VinayDharwadker, "Afterword: Modern Indian Poetry and its contexts," *The Oxford Anthology of Modern Indian Poetry*. New Delhi: Oxford University Press, 2008

JOURNALS

The Journal of Commonwealth Literature
Literary Criterion
Indian Journal of English Studies

WEB RESOURCES

www.indianruminations.com
certindia.gov.in/literaryarts.php
literarism.blogspot.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Section A – short essays- three out of four	3x5=15 marks
Section B – Long essays- two out of four	2x10=20marks
Section C– Passage analysis- no choice	1x15=15 marks

Other Components:**Total Marks: 25 marks**

Assignment
Seminar
Presentation
Take Home Test
Open Book Test
Scheduled Class Work –Passage Analysis etc
Quiz
Panel Discussion
Group Presentation
Role-Play
Dramatisation
Creative Writing

End Semester Examination:**Total Marks: 100**

Section A–Three short essays out of five (350words)	3x15 = 45 marks
Section B –Two long essays out of four (600words)	2x20= 40 marks
Section C –Passage analysis from units 2 and 3	1x15= 15 marks

*Note: Unit1 - Only for Other Components and not for CA tests and End Semester Exam.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

DEPARTMENT OF ENGLISH (SELF-FINANCED)

B.A. DEGREE: ENGLISH AND COMMUNICATION SKILLS

SYLLABUS

(Effective from the academic year 2018-2019)

TECHNICAL WRITING

CODE: 18CE/MC/TW65

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce students to various styles and methods in technical writing
- To train students in using basic online packages and applications as tools for technical writing

Unit 1	Introduction	(10Hrs.)
1.1.	What is Technical Writing?	
1.2.	Difference between Technical and Academic Writing	
1.3.	The scope of Technical Writing	
Unit 2	Clarity, Precision and Appropriacy	(15Hrs.)
2.1.	Using Appropriate Vocabulary	
2.2.	Grammatical Accuracy	
2.3.	Formal and Informal Style	
2.4.	Writing with Clarity and Precision	
2.5.	The Fog Factor	
Unit 3	The Writing Process	(15Hrs.)
3.1	Pre-writing	
3.2	Re-writing	
3.3	Editing (using track changes)	
Unit 4	Application of Technical Writing	(15Hrs.)
4.1	Writing Proposals	
4.2	Technical Reports: Survey – Report	
Unit 5	Practical Application Tasks	(10Hrs.)
5.1.	Users' Manuals	
5.2.	Writing for the Web	

BOOKS FOR REFERENCE

Blicq, Ronald, S and Lisa Moretto. *Technically Write!* London: Prentice Hall, 2004.

Reddy, Devaki and Shreesh Chaudhary. *Technical English*. New Delhi: Macmillan, 2009.

Rizvi, Ashraf M. *Effective Technical Communication*. New Delhi: Tata McGraw-Hill, 2006.

Samson, C Donald. *Editing Technical Writing*. London: Oxford Uni. Press, 1995.

Electronic Resource

Business Writing – Clarity, UK

PATTERN OF EVALUATION

Continuous Assessment:

Classwork for Portfolio preparation

Total Marks: 50

Project

Total Marks: 100

No End Semester Examination

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

DEPARTMENT OF ENGLISH (SELF-FINANCED)

B.A. DEGREE: ENGLISH AND COMMUNICATION SKILLS

SYLLABUS

(Effective from the academic year 2018-2019)

INDIAN LITERATURE IN TRANSLATION

CODE: 18CE/ME/IL55

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVE OF THE COURSE

- To establish continuity from classical to contemporary times in Indian Literature in Translation
- To help students appreciate aspects of change in Indian Literature in Translation

Unit 1	Folk and Classical Literature	(18 hrs.)
1.1	Folk Tale (from Ramanujan, A.K. <i>The Flowering Tree and Other Oral Tales from India</i> . Ed. Stuart Blackburn and Alan Dundes)	A Flowering Tree
1.2	Bhasa	<i>Karnabharam</i>
1.3	Sangam poetry	
	1.3.1 Akam	
	a. Kuruntokai 25	Only the thief was there
	b. Narrinai 63	On the new sand
	c. Narrinai 179	If a calving cow
	1.3.2 Puram	
	a. Purannanuru 235	If he found a little liquor
	b. Purananuru 69	Dear singer
	(from Ramanujan A.K., <i>Poems of Love and War</i> . OUP)	
1.4	Therigatha	
	1.4.1 Punna or Punnika	
	1.4.2 Ambapali	
	(from David C.A.F. Rhys and Norman K.R. Trans. <i>Poems of Early Buddhist Nuns</i> . Oxford: The Pali Text Society, 1997.)	
Unit 2	Medieval Literature	(18 hrs.)
2.1	Bulle Shah	I have been pierced by the arrow of love, what shall I do? Remove duality and do away with all disputes There is only one thread of all cotton.
2.2	Chokhamela	They Thrash me, Vithu, Vedas and the Shastras

Unit 3	Modern Literature - I		(9 hrs.)
3.1	Na. Muthusami	<i>Narkkalikkarar</i>	
Unit 4	Modern Literature - II		(12 hrs.)
4.1	Kaifi Azmi	The Last Night (from Azmi, Kaifi. Selected Poems. (Trans.) Pavan K. Varma.)	
	Amrita Pritam	Creative Process	
	Daya Pawar	The Buddha (from Vinay Dharwadker <i>The Oxford Anthology of Modern Indian Poetry</i>)	
	Chandra Kanta Murasingh	A Poem (from <i>Anthology of Contemporary Poetry from the Northeast</i> , 2003 255)	
4.2	Indira Goswami	Under the Shadow of the Kamakhya	
Unit 5	Practical Application Tasks		(8 hrs.)
	Specific tasks relevant to the concepts and techniques discussed in Units 1 to 4 will be assigned as class work		

BOOKS FOR REFERENCE

- Bhat, G.K. "Two plays of Tragic Design and Tragic Intent," *Tragedy and Sanskrit Drama*. Pune: Bhandarkar Oriental Institute, 1976. Print.
- Chakravathy, Uma. "The Rise of Buddhism as Experienced by Women." *Manushi*, 8. Mokashi-Punekar, Rohini. "Bhakti as Protest". Print.
- Ramanujan A.K. Afterword. *Poems of Love and War*. New Delhi: Oxford University Press. 1996. Print.
- . Afterword. *The Flowering Tree and Other Oral Tales from India*. Ed. Stuart Blackburn and Alan Dundes. New Delhi: Penguin Books, 1997. Print.
- . "Is there an Indian Way of Thinking?" *Collected Essays of A K Ramanujan*. Oxford University Press. 1999. Print.
- and Vinay Dharwadker, ed. *The Oxford Anthology of Modern Indian Poetry*. New Delhi: OUP, 1008. Print.
- Devy G N. *After Amnesia*. Hyderabad: Orient Longman, 1994. Print.

JOURNALS

Indian Literature
Kavya Bharathi
The Little Magazine

WEBSITES

www.sawnet.com
www.ntm.org.in

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Section A – Short essays - two out of four

Section B – Long essays - two out of four

Section C – Passage analysis

Duration: 90 mins.

2x5=10 marks

2x10=20 marks

1x20=20 marks

Third Component Tests

Assignment

Seminar

Presentation

Take Home Test

Open Book Test

Scheduled Class Work – Passage Analysis etc

Quiz

Panel Discussion

Group Presentation

Role-Play

Dramatisation

Creative Writing

End Semester Examination

Total Marks: 100

Section A – 2 out of 4 four short essays of 200 words each

Section B – 2 out of 4 long essays of 750 words each

Section C – Analysis of one passage out of two from the prescribed texts

Duration: 3 Hours

4x10=40 marks

2x20=40 marks

1x20=20 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

DEPARTMENT OF ENGLISH (SELF-FINANCED)

B.A. DEGREE: ENGLISH AND COMMUNICATION SKILLS

SYLLABUS

(Effective from the academic year 2018-2019)

LITERATURES OF ASIA

CODE: 18CE/ME/LA55

CREDITS : 5

L T P : 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce the student to a selection from the East Asian and South Asian regions
- To explore the similarities and differences between literatures and cultures in this region
- To introduce students to writing from the West Asian region
- To sensitise students to the writing that emerges from conflict zones

Unit 1 Pakistan, Afghanistan & Bangladesh (12 hrs.)

1.1 Sadat Hasan Manto	Khol Do
1.2 Khaled Hosseini	<i>The Kite Runner</i>
1.3 Khaleda Salahuddin	Relief Camp

Unit 2 Sri Lanka, China & Japan (15 hrs.)

2.1 Shanmugalingam	Land of our Parents
2.2 Xue Mo	Old Man Xingjang
2.3 Masoka Shiki	Selected Haiku (4)

Unit 3 Palestine Israel and Syria (15 hrs.)

3.1 Palestine	
3.1.1 Mahmoud Darwish	The Passport
3.1.2 Falastine Dwikat	Beit Byout (Play House)
	Alignment
3.2 Israel	
3.2.1 Yehuda Amichai	It's a Long Time Since Anybody's Asked Spy I Am Big and Fat
3.2.2 Amos Oz	<i>A Tale of Love and Darkness</i>

Unit 4 Lebanon & Saudi Arabia (13 hrs.)

4.1 Lebanon	
4.1.1 Emily Nasrallah	The Green Bird

4.2 Saudi Arabia

4.2.1 Mohammad Hassan Alwan Oil Field

Unit 5 Practical Application Tasks

(10 hrs.)

Writing from Nepal, Mongolia, Thailand, Singapore, Philippines, Mauritius, Tibett, Myanmar, Vietnam, Indonesia, Korea, Malaysia

BOOKS FOR REFERANCE

- Bhasin, Kamala, et al. *Against All Odds*. New Delhi: Kali for Women, 1994. Print.
- Bhuthalia, Urvashi. *The Other Side of Silence*. New Delhi: Penguin, 1998. Print.
- Cooke, Miriam. "Talking Democracy", *Women and the War Story*. California: University of California, 1996. Print.
- Dabashi, Hamid. *The Arab Spring: The End of Postcolonialism*. London: Zed Books, 2012. Print.
- de Silva, K. M. "Language, Ehtnicity and Politics in South Asia". *Ethnic Studies Report*. Vol. XIV No.1, January 1996. Colombo and Kandy: International Centre for Ethnic Studies, 1996. 1-10. Print.
- Goonasekere, Savitri, ed. *Violence, Law and Women's Rights in South Asia*. New Delhi: Sage Publications, 2004. Print.
- Hasan, Mushirul. *Inventing Boundries*. New Delhi: Oxford University Press, 2000. Print.
- Nongkynrih, Kynpham Sing and Ngangom, Robin S. ed. *Anthology of Contemporary Poetry from the North East*. Shillong: NEHU Publications, 2003. Print.
- Notes on West Asia*. Chennai: Department of English, Stella Maris College, 2007. Print.
- Riaz, Ali. *Religion and Politics in South Asia*. London and New York: Routledge, 2010. Print.
- Said, Edward W. *Reflections of Exile and Other Literary and Cultural Essays*. London: Penguin Books, 2001. Print.
- Shamsie, Muneeza, ed. *And the World Changed*. New Delhi: Women Unlimited, 2005. Print.
- Shanmugalingam. *Shanmugalingam Three Plays*. Trans. S. Pathmanathan. Colombo and Chennai: Kumaran Book House, 2007. Print.
- Singh, Karan. *History, Culture and Society in India and West Asia*. Delhi: Shipra, 2003. Print.
- Sisodia, N.S. *West Asia in Turmoil*. New Delhi: Academic Foundation, 2007. Print.
- Trivedi, Harish. "South Asian Literature: Reflections in a Confluence." *Indian Literature*: 229. 186-194. Print.
- Wijesinha Rajiva, ed. *Bridging Connections: An Anthology of Sri Lankan Short Stories*. New Delhi: National Book Trust. 2007. Print.
- Zaman, Niaz and Azim, Fidous. *Galpa Short Stories by Women from Bangladesh*. Ed. London: Stanza, 2007. Print.

JOURNALS

Fayad, Mona. *Reinscribing Identity: Nation and Community in Arab Women's Writing*.

WEBSITES

<http://www.sawnet.com>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Section A – Short essays- three out of five

Section B – Long essays- two out of four

Section C – Passage analysis- no choice

Duration: 90 mins.

3x5=15 marks

2x10=20 marks

1x15=15 marks

Third Components

Assignment

Seminar

Presentation

Take Home Test

Open Book Test

Scheduled Class Work – Passage Analysis etc

Quiz

Panel Discussion

Group Presentation

Role-Play

Dramatisation

Creative Writing

End Semester Examination

Total Marks: 100

Section A – Three short essays out of five (350 words)

Section B – Two long essays out of four (600 words)

Section C – Passage analysis from prescribed texts

Duration: 3 hours

3x15 = 45 marks

2x20= 40 marks

1x15=15 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

DEPARTMENT OF ENGLISH (SELF-FINANCED)

B.A. DEGREE: ENGLISH AND COMMUNICATION SKILLS

SYLLABUS

(Effective from the academic year 2018-2019)

ADVANCED BUSINESS WRITING

CODE: 18CE/ME/AB55

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

By the end of the semester, students will be able to:

- Listen for specific information in workplace contexts (interpersonal and telephonic).
- Listen to oral presentations and take appropriate notes.
- Engage in a group discussion.
- Read and identify main ideas and specific information in business articles in newspapers and magazines.
- Interpret and summarise information from business articles in newspapers and magazines.
- Demonstrate the ability to understand and use vocabulary in business contexts.
- Write letters and e-mails to communicate effectively in business contexts.
- Apply for a job and draft a CV.
- Write short reports based on visual and verbal inputs

Unit 1	Application and CV	(15 hrs.)
1.1	Letter of Application	
1.2	Preparation of Curriculum Vitae	
Unit 2	Report Writing	(15 hrs.)
2.1	Events	
2.2	Production	
2.3	Sales	
2.4	Performance/Self-Appraisal	
Unit 3	Bank Correspondence	(15 hrs.)
3.1	Request for Loan	
3.2	Extension of Loan	
3.3	Request for Overdraft Facility	
3.4	Request for Stop Payment	

Unit 4	Trade Letters and E-mails	(10 hrs.)
4.1	Offers	
4.2	Quotations	
4.3	Orders - Placing an Order, Execution, Refusal and Cancellation	
4.4	Sales Letters	
4.5	Complaints & Replies	
4.6	Reminders (payment)	
Unit 5	Workplace Communication	(10 hrs.)
5.1	Memo	
5.2	Notice	

BOOKS FOR REFERENCE

Ghose P.C. *Commercial English and Correspondence*. Calcutta: World Press, 1957

Gilling, Desmond A. *The Essential Handbook for Business Writing*. Canada: Greenlink Consulting, 2013.

Jasmin S and Bright J.S. *Business Letter Writing*. New Delhi: Universal, 1984

Saunders, Alta Gwinn. *Effective Business English*. 3rd ed. New York: Macmillan, 1957.

www.businessenglishpod.com

www.learn-english-today.com/business-english/A-business-english-contents.html

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Section A – two of four writing tasks
 Section B – one of two writing tasks

2x15=30 marks
 20 marks

Other Components:

Total Marks:25

Assignment
 Take Home Test
 Quiz

End Semester Examination:

Total Marks: 100

Section A – four of six writing tasks
 Section B – two of four writing tasks

4x15=60 marks
 2x20=40 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

DEPARTMENT OF ENGLISH (SELF-FINANCED)

B.A. DEGREE: ENGLISH AND COMMUNICATION SKILLS

SYLLABUS

(Effective from the academic year 2018-2019)

FICTION AND FILM

CODE: 18CE/AE/FF45

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To enable learners to understand the different ways in which the two mediums communicate similar stories
- To facilitate language teaching using film and fiction as a language teaching resource
- To explore inter-cultural communication through fiction and film

Unit 1	Narrative in Fiction and Film		(12hrs.)
1.1	Genre		
1.2	Point of view		
1.3	Settings in Fiction and Film		
1.4	Form and Narrative Structure		
1.5	Authorship		
1.6	Narrative techniques in Fiction and Narrative Technology in Films		
Unit 2	Cultural and Social Aspects in Fiction and Film		(14hrs.)
2.1	Kinds of Adaptation – Translation, Transformation, Transcreation		
2.2	Issues in Cultural Aspects of Adaptation		
2.3	Fiction, Film, and the Socio-Historic Context		
2.4	Ideology in Fiction and Film		
Unit 3	Novel		(14 hrs.)
3.1	Text	<i>Harry Potter and The Philosopher's Stone</i>	
3.2	Film	<i>Harry Potter and The Philosopher's Stone</i> Directed by Chris Columbus	
Unit 4	Comic Book		(13 hrs.)
4.1.	Text	<i>Tintin</i>	
4.2.	Film	Animation Film <i>The Adventures of Tintin</i> Directed by Steven Spielberg	
Unit 5	One Text Two Visions		(12 hrs.)
5.1	Text	<i>Sense and Sensibility</i>	

- 5.2 Film *Sense and Sensibility* (English version)
Directed by Ang Lee
- 5.3 Film *Kandukondein Kandukondein* (Tamil version)
Directed by Rajiv Menon

BOOKS FOR REFERENCE

Chatman, Seymour. *Story and Discourse: Narrative Structure in Fiction and Film*. Ithaca: Cornell University Press, 1978. Print.

Corrigan, Timothy. *Film and Literature: An Introduction and Reader*. London: Pearson, 1998. Print.

Giannetti, Louis. *Understanding Movies*. London: Pearson, 2008. Print.

Lothe, Jakobs. *Narrative in Fiction and Film*. New Delhi: OUP. Print.

Seeger, Linda. *The Art of Adaptation: Turning Fact and Fiction into Film*. Print.

Synder, Mary. *Analyzing Literature to Film Adaptations*. New York: Continuum, 2011. Print.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Section A – 100-words essay- three out of five

10x3=30 marks

Section B – 250-words essay- one out of two

20x1=20 marks

Other Components:

Total Marks:25

Assignment

Seminar

Presentation

Take Home Test

Quiz

Panel Discussion

Group Presentation

Role-Play

Dramatisation

Creative Writing

End Semester Examination:

Total Marks: 100

Section A – 150-words essay- four out of six

15x4=60 marks

Section B – 300-words essay - two out of four

20x2=40 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

GENERAL ELECTIVE COURSE OFFERED BY THE DEPARTMENT OF ENGLISH AND
COMMUNICATION SKILLS FOR
B.Sc./ B.Com / B.S.W. /B.C.A Degree Programmes

SYLLABUS

(Effective from the academic year 2018-2019)

INTRODUCTION TO CHILDREN'S LITERATURE

CODE: 18CE/GE/CL22

CREDITS : 2

L T P : 2 0 0

TOTAL TEACHING HOURS :26

OBJECTIVES OF THE COURSE

- To help students appreciate the diversity of children's literature
- To introduce them to its structures, conventions and effects

Unit 1 Introduction to Children's Literature (5 hrs.)

- 1.1 Defining Children's Literature
- 1.2 How to Read Children's Literature

Unit 2 Fairy Tales (5 hrs.)

- 2.1 Features of Fairy Tales
- 2.2 Fairy Tale Motifs across Cultures: **Cinderella** Stories across the World

Unit 3 The Picture Book (5 hrs.)

- 3.1. Picture and Text – Coherence, Extension, Discord
- 3.2. Metafiction and The Picture Book
(*The Stinky Cheese Man and Other Fairly Stupid Tales*)

Unit 4 Fantasy (5 hrs.)

- 4.1 Definitions of Fantasy
- 4.2 *Harry Potter and The Philosopher's Stone*

Unit 5 Practical Application Tasks (6 hrs.)

Specific tasks relevant to the concepts and techniques discussed in Units 1 to 4 will be assigned as class work

BOOKS FOR REFERENCE

Cullingford, Cedric. *Children's Literature and its Effects: The Formative Years*.
London, Cassel, 1998

Haviland, Virginia, ed. *Children and Literature: Views and Reviews*. London: Bodley
Head, 1973

Hume, Kathryn. *Fantasy and Mimesis*. London: Methuen, 1984
Hunt, Peter. *Understanding children's Literature: Key Essays from the International Companion Encyclopedia of X Children's Literature*. London: Routledge, 1999. Print.
Kakar, Sudhir. *Indian Childhood: Cultural Ideals and Social Reality*. Delhi: Oxford UP, 1979.

Lurie, Alison. *Boys and Girls Forever: Children's Classics from Cinderella to Harry Potter*. London: Chatto, 2003. Print.
Reynolds, Kimberley. *Children's Literature in the 1890s and the 1990s*. London: Northcote House, 1994. Print.

PATTERN OF EVALUATION

Continuous Assessment CA Test

Section A – two of four short notes

Section B – two of four essays

50 marks

2x10=20 marks

2x15=30 marks

Other Components:

25 marks

End Semester Assessment

One Term Paper – critical/creative (2000 words)

50 marks

No End-semester Examination

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI-600086

**GENERAL ELECTIVE COURSE OFFERED BY THE DEPARTMENT OF ENGLISH
AND COMMUNICATION SKILLS FOR
B.Sc./B.Com / B.S.W. / B.C.A Degree Programmes**

**SYLLABUS
(Effective from the academic year 2018-2019)**

BASIC ENGLISH

CODE: 18CE/GE/BE23

CREDITS : 3

L T P : 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To master basic competency levels in English language use
- To introduce learners to and train them in basic skills of listening and reading and the use of basic grammar items

Unit 1

Grammar

(8 hrs.)

1.1 Prepositions

1.2 Relative Clauses

1.3 Mixed tenses (Exercises in application of basic tenses)

1.4 Subject –verb agreement

Unit 2

Syntax

(6 hrs.)

2.1 Active and passive

2.2 Direct and indirect speech

Unit 3

Speaking Skills

(7 hrs.)

3.1 Introduction of self and others

3.2 Oral presentation (5 sentences) on specified topics

3.3 Introducing, Requesting, Seeking/ Giving information, Inviting, Apologising,
Describing and Narrating

3.4 Dialogue

Unit 4

Writing Skill

(14hrs.)

4.1 Sequencing (jumbled sentences)

4.2 Completion – filling in missing sentences in a paragraph.

4.3 Reordering sentences into paragraphs

4.4 Writing a paragraph (5 sentences)

4.5 Rewriting a passage in the simple present using simple past or vice-versa

4.6 Letter Writing – formal

4.7 Expanding hints

Unit 5

Vocabulary

(4 hrs.)

5.1 word webs, antonyms, synonyms and so on

BOOKS FOR REFERENCE

Swan, Michael. *Practical English Usage*. New Delhi: OUP, 1995. Print.

Ur, Penny. *Teaching Listening Comprehension*. Cambridge: CUP, 1984. Print.

---. *Grammar Practice Activities*. Cambridge: CUP, 1988. Print.

---. *Five- Minute Activities: A Resource Book of Short Activities*. Cambridge: CUP, 1992. Print.

Ur, Penny and S. Thornbury. *Vocabulary Activities*. Cambridge: CUP, 2012. Print.

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

One CA Test

25 marks

Third Components

25 marks

Oral Presentation

Quiz

Group Presentation

Role-Play

Dramatisation

Creative Writing

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI-600086
GENERAL ELECTIVE COURSE OFFERED BY THE DEPARTMENT OF
ENGLISH AND COMMUNICATION SKILLS FOR
B.Sc / B.Com / B.B.A/ B.S.W / B.C.A. Degree Programme

SYLLABUS
(Effective from the academic year 2018-2019)

ENGLISH FOR ADVERTISING

CODE:18CE/GE/EA22

CREDITS:2

L T P:2 0 0

TOTAL TEACHING HOURS:26

OBJECTIVES OF THE COURSE

- To introduce students to the basic concepts in advertising
- To enable students to understand the relationships between market forces and advertising
- To train students to think in creative ways to advertise for products
- To train students to use language creatively and appropriately to create advertisements in the print and broadcast mediums

COURSE LEARNING OUTCOMES

On successful completion of the course, students will be able to

- demonstrate an understanding of some of the basic concepts related to advertising
- identify the relationships between advertising and market forces
- formulate creative ways in which to advertise a product/service based on its position in the market
- use English creatively and appropriately to produce advertisements in the print and broadcast mediums

Unit 1

Introduction

(6 Hours)

- 1.1 Classification of advertisements
- 1.2 Market segmentation
- 1.3 Product life-cycle and advertising

Unit 2

Print Advertisements

(10 Hours)

- 2.1 Parts of a print ad
 - 2.1.1 Kinds of headlines
 - 2.1.2 Kinds of body copy
- 2.2 Creating print ads

Unit 3

Broadcast Advertisements

(10 Hours)

- 3.1 Radio ads
 - 3.1.1 Components of radio ads
 - 3.1.2 Writing scripts for radio ads
- 3.2 Television ads
 - 3.2.1 Components of TV ads
 - 3.2.2 Creating storyboards for TV ads

BOOKS FOR REFERENCE

Ogilvy, David. *Ogilvy on Advertising*. Vintage, 1985.

Toth, Mike et al. *The Art of Advertising*. Aspatore Books, 2003.

Brierley, Sean. *The Advertising Handbook*. Routledge, 1995.

Goddard, Angela. *The Language of Advertising*. Routledge, 1998.

Verlegh, Peter et al. Ed. *Advances in Advertising Research (Vol VI). The Digital, The Classic, The Subtle and the Alternative*. Gabler Verlagh, 2016.

Warwitz, Claudius. *Location Based Advertising*. Gabler Verlagh, 2016.

PATTERN OF ASSESSMENT:

Continuous Assessment:

Total Marks: 25

Creating a Print/Radio Ad

End Semester Evaluation:

Total Marks: 25

Portfolio Submission

No End-Semester Examination

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

**GENERAL ELECTIVE COURSE OFFERED BY THE DEPARTMENT OF
ENGLISH AND COMMUNICATION SKILLS FOR
B.Sc./ B.Com / B.S.W. /B.C.A Degree Programmes**

**SYLLABUS
(Effective from the academic year 2018-2019)**

ENGLISH FOR THE WORKPLACE

Code: 18CE/GE/EW23

CREDITS: 3

L T P: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To help students improve their employability skills
- To improve learner's confidence in using workplace English, particularly speaking and writing

Unit 1

Introduction

(4 hrs.)

- 1.1. Meeting and Greeting
- 1.2. Introducing self and others

Unit 2

Jobs and Responsibilities

(5 hrs.)

- 2.1. Collecting information about and describing a company and its organization
- 2.2. Job description and responsibilities
- 2.3. Completing forms with personal or company details

Unit 3

Business Communication

(10 hrs.)

- 3.1. Exchanging information and taking instructions over telephones
- 3.2. Writing letters/e-mails, reports, memos and messages
- 3.3. Tele-conferencing

Unit 4

Presentations

(15 hrs.)

- 4.1. One-minute presentations on selected work place topics
- 4.2. PowerPoint presentation
- 4.3. Collaborative discussion

Unit 5 Practice Tests

(5 hrs.)

BOOKS FOR REFERENCE

Business Times/ Economic Times

Bob Dignen, Steve Flinders, Simon Sweeny , *For Work and Life English 365, Personal Study Book 1&2*, Cambridge University Press,2010.Print.

Collins & Porras 'Built To Last' *Harper Business Essentials: An Imprint of Harper Collins Publishers*, 2012.Print.

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment:

Total Marks: 50

One CA Test

Duration: 90 mins.

50 marks

Third Components

Oral Presentation

PowerPoint presentation

50 marks

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SYLLABUS

(Effective from the academic year 2018-2019)

WRITING FOR THE MEDIA

CODE: 18CE/GE/WM23

CREDITS: 3

L T S: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVE OF THE COURSE

- To train students in writing news and features for various media

Unit 1		
Introduction		(4 hrs.)
1.1 Different Kinds of Media and Their Characteristics		
1.2 Differences between Writing for the Media and Other Kinds of Writing		
Unit 2		
Print media – Writing News Reports		(8 hrs.)
2.1 What Is News		
2.2 The Inverted Pyramid Structure		
2.3 Writing the Lead		
2.4 Developing the News Story		
Unit 3		
Print Media – Writing Features		(10 hrs.)
3.1 What is a Feature?		
3.2 Using Resources		
3.3 Writing the Lead		
3.4 Developing the News Story		
3.5 Attribution		
Unit 4		
Broadcast Media		(10 hrs.)
4.1 Radio		
4.1.1 Writing Anchor Scripts for Radio Programmes		
4.2 Television		
4.2.1 Writing Anchor Scripts for Television Programmes		
Unit 5		
New Media		(7 hrs.)
5.1 Writing Reports and Features for the Web		

BOOKS FOR REFERENCE

Chapman, Nigel. *Digital Multimedia*. New York: John Wiley and Sons, 2000. Print.
Mass Media and Mass Communication. Cambridge, Chdadwick Healy, 1991. Print.
Mass Media in India 2000. New Delhi: Ministry of Information and Broadcasting, 2000.
Print.
Mencher, Melvin. *Basic Media Writing*. London: Brown and Benchmark, 1996. Print

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment:

Total Marks: 50

One CA Test

Duration: 90 mins.

50 marks

Third Components

Writing a script in any one medium

Analysis of scripts

50 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

B.A. DEGREE: BRANCH XII – English

SYLLABUS

(Effective from the academic year 2015 – 2016)

PROSE

CODE: 15EL/MC/PR14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To develop an understanding of the generic features of varied prose forms
- To train the student in the skill of reading for ideas

Unit 1

Essays

(15 hrs.)

1.1 Kinds of Essays

1.2 Cynthia Ozick

The Essay as a Warm Body

1.3 Paul Colinaux

Why Japan Bombed Pearl Harbor

1.4 Ramchandra Guha

The Locality and the Nation, *The Hindu*,
Sunday Magazine, 31 August 2003

1.5 George Mikes

Tea

Unit 2

Speeches & Letters

(8 hrs.)

2.1 Features of Speeches and Letters

2.2 Abraham Lincoln

The Gettysburg Address

2.3 J K Rowling

Commencement Address at Harvard

University, June 2008

2.4 Charles Dickens

Letter to his wife

Unit 3

Life Writing

(9 hrs.)

3.1 Introduction to Biography, Autobiography, Memoirs, Diaries

3.2 Rajmohan Gandhi

from *The Good Boatman*, pp 179-187

3.3 Maya Angelou

I Know Why the Caged Bird Sings,
Chapters 1-5

3.4 Tamsula Ao

Once Upon a Life: Burnt Curry and Bloody
Rags, Part III, "Evening College", "A New
Identity"

Unit 4

Travel Writing

(12 hrs.)

4.1 Kinds of Travel Writing and their Features

4.2 Pico Iyer

Falling off the Map (chapters on Bhutan,
Australia)

4.3 Hugh and Colleen Gantzer

Lapland Tales: Saga of the Shaman's Stone,
The Hindu, 21 Feb 2015.

Unit 5

Academic Writing

(8 hrs.)

5.1 Vocabulary, Register, Basic Grammar

5.2 Paragraph: Topic Sentence, Sequencing, Cohesion, Coherence

5.3 Essay: Organisation; Beginning, Emphasis, Transition, Ending

BOOKS FOR REFERENCE

Cooley, Thomas. *The Norton Sampler*. New York: W W Norton & Co., 2005. Print.

Gandhi, M.K. *The Story of My Experiments with Truth*. Trans. Mahadev Desai, Ahmedabad: Navjivan Publishing House, 1948. Print.

Obama, Barack. *Dreams from my Father: A Story of Race and Inheritance*. New York: Times Books, 1995. Print.

Ozick, Cynthia. *The Best American Essays 1998*. New York: Houghton Mifflin, 1998. Print.

Shelston, Alan. *Biography*. London: Methuen, 1977. Print.

Walker, Hugh. *The English Essays and Essayists*. New Delhi: S. Chand & Co. 1966. Print.

Winkler, Antony C. *Readings for Writers*. New York: Harcourt Brace Jovanovich, 1988. Print.

WEB RESOURCES

<http://www.grammarcheck.net/how-write-essay-like-pros/>

http://www.bucks.edu/media/bcccmcdialibrary/pdf/HOWTOWRITEALITERARYANALYSISSESSAY_10.15.07_001.pdf

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – Two Short essays

2x10=20 marks

Section B – One Long essay

1x15=15 marks

Section C – Passage analysis

15x1=15 marks

Third Component:

Assignment

Seminar

Presentation

Take Home Test

Open Book Test

Scheduled Class Work – Passage Analysis etc

Quiz

Panel Discussion

Group Presentation

Role-Play

Dramatisation

Creative Writing

End Semester Examination

Total Marks: 100

Section A -- Three short essays (200 words)

Section B -- Two long essays (500 words)

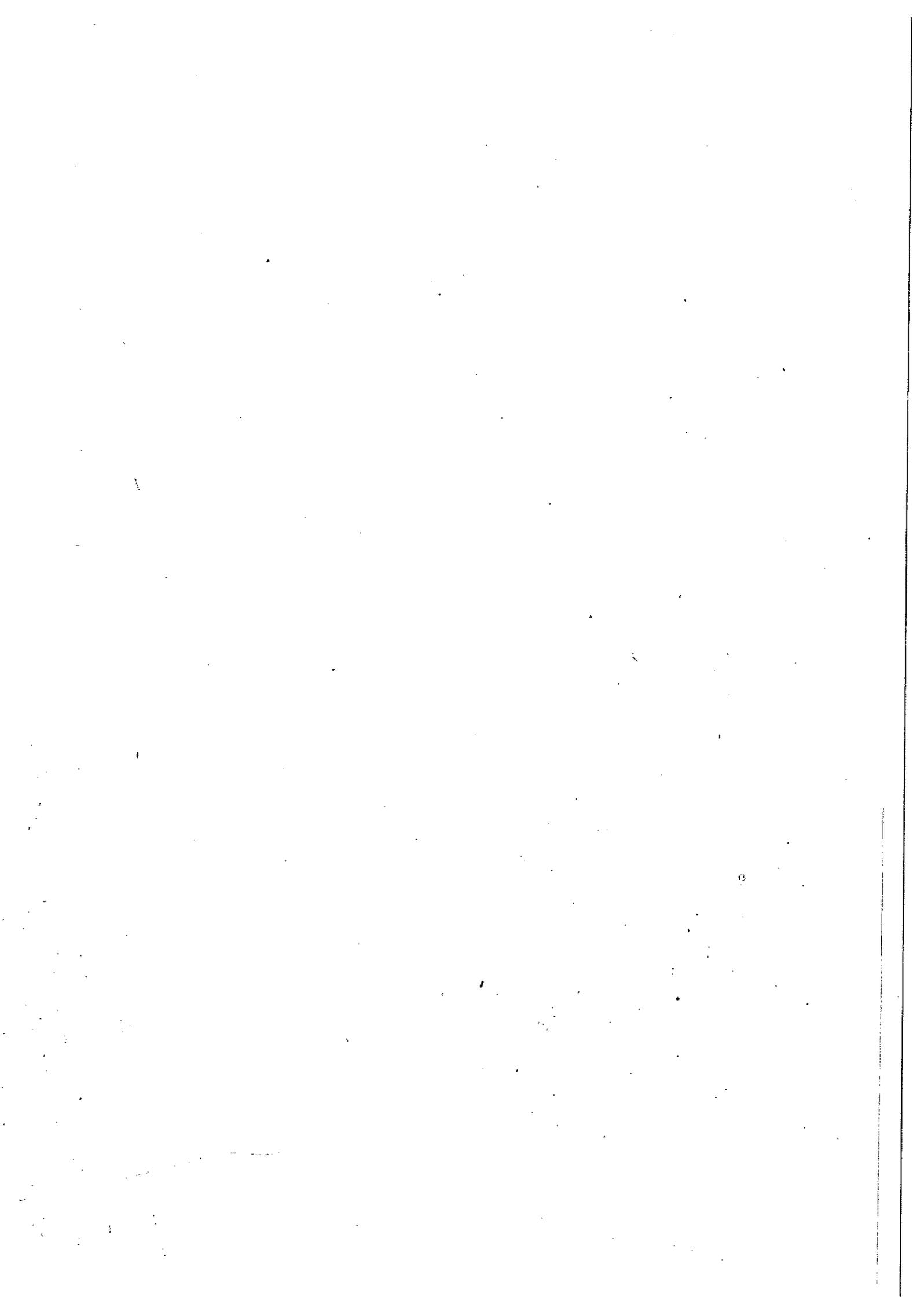
Section C -- Passage analysis

Duration: 3 Hours

3x15 = 45 marks

2x20 = 40 marks

15 marks



STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

B.A. DEGREE: BRANCH XII – English

SYLLABUS

(Effective from the academic year 2015 – 2016)

PROSE

CODE: 15EL/MC/PR14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

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(15 hrs.)

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Why Japan Bombed Pearl Harbor

1.4 Ramchandra Guha

The Locality and the Nation, *The Hindu*,
Sunday Magazine, 31 August 2003

1.5 George Mikes

Tea

Unit 2

Speeches & Letters

(8 hrs.)

2.1 Features of Speeches and Letters

2.2 Abraham Lincoln

The Gettysburg Address

2.3 J K Rowling

Commencement Address at Harvard
University, June 2008

2.4 Charles Dickens

Letter to his wife

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Life Writing

(9 hrs.)

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Chapters 1-5

3.4 Temsula Ao

Once Upon a Life: Burnt Curry and Bloody
Rags, Part III, "Evening College", "A New
Identity"

Unit 4

Travel Writing

(12 hrs.)

4.1 Kinds of Travel Writing and their Features

4.2 Pico Iyer

Falling off the Map (chapters on Bhutan,
Australia)

4.3 Hugh and Colleen Gantzer

Lapland Tales: Saga of the Shaman's Stone,
The Hindu, 21 Feb 2015.

Unit 5

Academic Writing

(8 hrs.)

5.1 Vocabulary, Register, Basic Grammar

5.2 Paragraph: Topic Sentence, Sequencing, Cohesion, Coherence

5.3 Essay: Organisation; Beginning, Emphasis, Transition, Ending

BOOKS FOR REFERENCE

Cooley, Thomas. *The Norton Sampler*. New York: W W Norton & Co., 2005. Print.

Gandhi, M.K. *The Story of My Experiments with Truth*. Trans. Mahadev Desai, Ahmedabad: Navjivan Publishing House, 1948. Print.

Obama, Barack. *Dreams from my Father: A Story of Race and Inheritance*. New York: Times Books, 1995. Print.

Ozick, Cynthia. *The Best American Essays 1998*. New York: Houghton Mifflin, 1998. Print.

Shelston, Alan. *Biography*. London: Methuen, 1977. Print.

Walker, Hugh. *The English Essays and Essayists*. New Delhi: S. Chand & Co. 1966. Print.

Winkler, Antony C. *Readings for Writers*. New York: Harcourt Brace Jovanovich, 1988. Print.

WEB RESOURCES

<http://www.grammarcheck.net/how-write-essay-like-pros/>

http://www.bucks.edu/media/bcccmcdialibrary/pdf/HOWTOWRITEALITERARYANALYSISSESSAY_10.15.07_001.pdf

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – Two Short essays

2x10=20 marks

Section B – One Long essay

1x15=15 marks

Section C – Passage analysis

15x1=15 marks

Third Component:

Assignment

Seminar

Presentation

Take Home Test

Open Book Test

Scheduled Class Work – Passage Analysis etc

Quiz

Panel Discussion

Group Presentation

Role-Play

Dramatisation

Creative Writing

End Semester Examination

Total Marks: 100

Section A -- Three short essays (200 words)

Section B -- Two long essays (500 words)

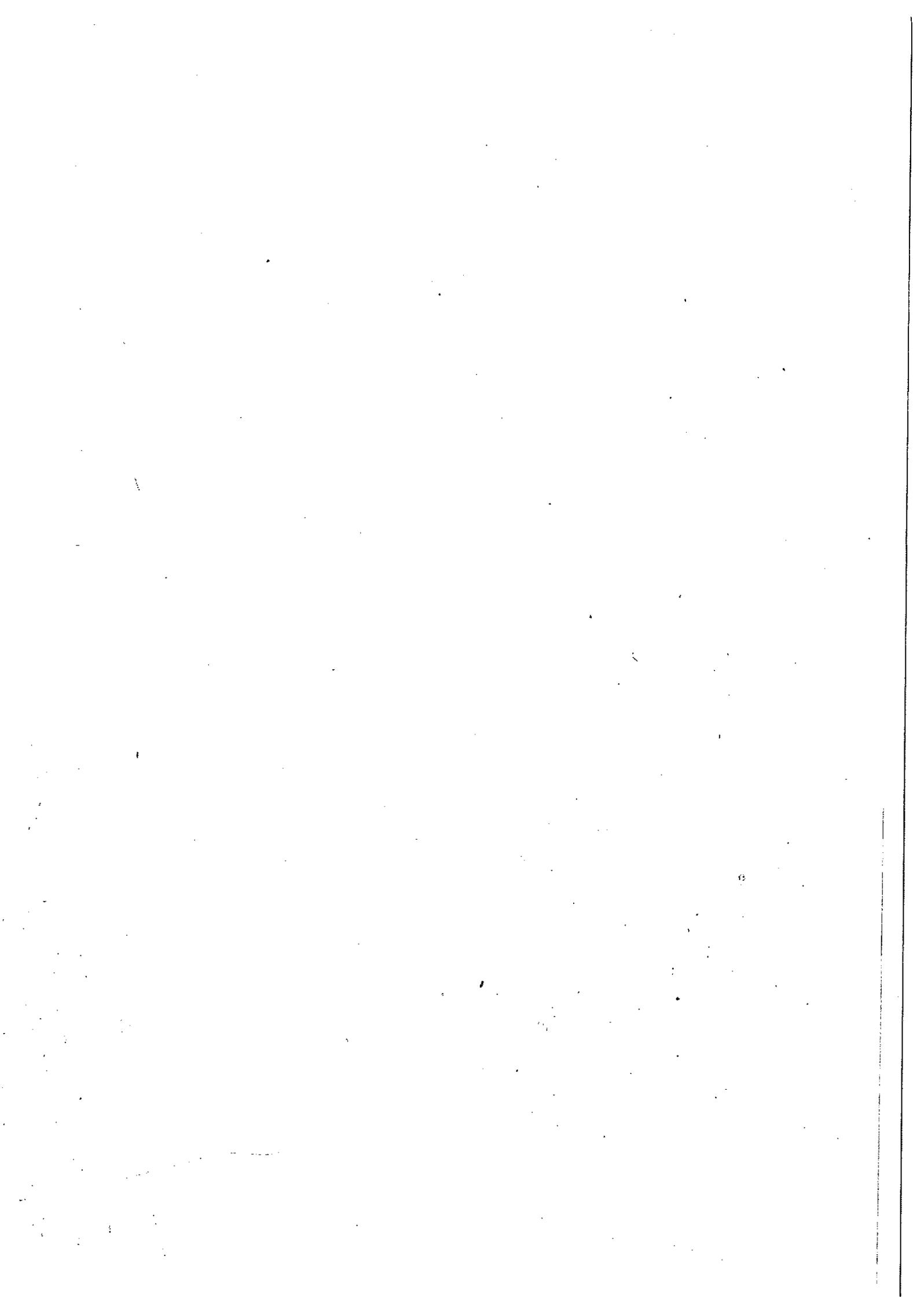
Section C -- Passage analysis

Duration: 3 Hours

3x15 = 45 marks

2x20 = 40 marks

15 marks



STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A. DEGREE: BRANCH XII – ENGLISH

SYLLABUS
(Effective from the academic year 2015 – 2016)

INTRODUCTION TO LINGUISTICS

CODE: 15EL/AC/LG15

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce the fundamental concepts of linguistics to the students
- To inculcate in the students a scientific approach to language

Unit 1

Language as Communication (15 hrs.)

1.1 Characteristics of Human Language

1.2 Human Language as a Signifying System

Saussure: Langue and Parole, Syntagm and Paradigm, Arbitrary Nature of Sign, Linear Nature of the Signifier

1.3 Varieties of Language – Dialect, Idiolect, Register

Unit 2

Phonology (15 hrs.)

2.1 Segmental Phonemes

2.1.1 Cardinal Vowel Scale

2.1.2 Classification of Vowels and Consonants in English

2.2 Supra-Segmental Features

2.2.1 Word and Sentence Stress

2.2.2 Intonation

Unit 3

Morphology (10 hrs.)

3.1 Morphemes

3.1.1 Bound and Free Morphemes

3.1.2 Derivatives – Root and Affix

3.1.3 Zero and Empty Morph

Unit 4

Grammar (15 hrs.)

4.1 Traditional Grammar

4.2 Five Basic Sentence Patterns

4.3 I.C. Analysis

Unit 5

Semantics

(10 hrs.)

- 5.1 Synonymy, Antonymy, Polysemy
- 5.2 Hyponymy and Homonymy

BOOKS FOR REFERENCE

- Balasubramanian, T. *A Text Book of English Phonetics for Indian Students*. Macmillan India Ltd, 1981.
- Crystal, David. *The Cambridge Encyclopaedia of the English Language*. Cambridge: Cambridge UP, 2003.
- Palmer, Frank. *Semantics: A New Outline*. Cambridge: Cambridge UP, 1977.
- . *Grammar*, second ed. London: Penguin, 1971.
- Yule, George. *The Study of Language – An Introduction*. Oxford: Oxford UP, 1970.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A - Phonemic transcription/ IC analysis/

Identifying sentence patterns / Morphemic analysis –no choice

20 marks

Section B - Three short notes out of five

15 marks

Section C – One long essay out of three

15 marks

Third Components

Oral test on Phonetics

Transcription

I.C. Analysis

Identifying Sentence Patterns

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Section A – Phonemic Transcription of ten words

10x1= 10 marks

Section B – Identifying Sentence Pattern of five sentences

5x2=10 marks

Morphemic Analysis of ten words

10x1=10 marks

IC Analysis of two sentences

2x2½=5 marks

Section C – Four out of six short notes

4x5=20 marks

Three out of five essays

3x15=45 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A. DEGREE: BRANCH XII – ENGLISH

SYLLABUS

(Effective from the Academic Year 2015 – 2016)

ENVIRONMENTAL STUDIES

CODE :15EL/GC/ES12

CREDIT : 2

L T P: 2 0 0

TOTAL TEACHING HOUR: 26

OBJECTIVES OF THE COURSE

- To create an awareness on current environmental issues
- To educate the students about conservation and management of natural resources
- To train the students to be eco sensitive

Unit 1

Introduction

(6 hrs.)

- 1.1 Components of The Environment – Classification and Characteristics of Resources – Renewable and Non – Renewable Resources
- 1.2 Need for Public Awareness in Conservation of Natural Resources
- 1.3 Energy Flow in Ecosystems – Aquatic and Terrestrial – Food Chain and Food Web

Unit 2

Pollution and Socio Economic Aspects of the Environment

(10 hrs.)

- 2.1 Types of Pollution – Air, Water, Solid Waste, Noise
- 2.2 Problems - Greenhouse Effect – Depletion of The Ozone Layer – Climate Change
- 2.3 Bio Diversity - Definition - Loss of Bio Diversity – Threats to Biodiversity and Conservation of Biodiversity.
- 2.4 Human Behaviour: - Population – Urbanisation – Poverty (as cause and result of pollution and degradation)
- 2.5 Technology: - Agriculture and Industry – Deforestation. Use, Misuse and Abuse of The Resources
- 2.6 Effects and Consequences Of Environmental Problems

Unit 3

Sustainable Development, Remedies And Policy Implications

(10 hrs.)

- 3.1 Environmental Disasters Natural and Human Made – Bhopal Gas Tragedy – Chernobyl Accident – Fukushima Nuclear Crisis - Gulf War – Love Canal Episode – Tsunami – Volcanic Eruptions
- 3.2 Methods Evolved to Measure and Check Environmental Degradation and Pollution – Carbon Footprint, Carbon Credit, Ecological Footprint, and Ecological Shadow
- 3.3 Environmental Movements in India – Chipko Movement, Narmada Bachao Andolan, SethuSamudram Project
- 3.4 Environmental Acts – Policy Measures with Respect to India

3.5 International Environmental Agreement – Stockholm Conference – Montreal Protocol – RIO Meet – Kyoto Conference – UN Conference on Climate Change (Copenhagen)

Field visit

Eco initiatives at the campus : Garbage segregation and Vermicomposting – Graywater recycling – Rainwater harvesting – Solar powered lights – Bio diversity

BOOKS FOR STUDY

Bharucha, E., *Textbook of Environmental Studies*. (1st edition), Hyderabad: Universities Press, 2005.

BOOKS FOR REFERENCE

Ignacimuthu, S. *Environmental Awareness and Protection*. New Delhi: Phoenix, 1997.

Jadhav, H and. Bhosale V. M. *Environmental Protection and Laws*. New Delhi: Himalaya, 1995.

Mies, M. and V. Shiva. *Ecofeminism*. London: Zed Books, 1989.

Odum, E.P. *Fundamentals of Ecology*. U.S.A: W.B. Saunders Co. 1971.

Singh, H.R. *Environmental Biology*. (1st edition), New Delhi: S.Chand, 2005.

PATTERN OF EVALUATION (Totally Internal)

CONTINUOUS ASSESSMENT (CA): One Hour Test – 25 Marks
Objective Quiz – 25 Marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A / B.SC / B.V.A / B. Com/B.S.W./B.C.A DEGREE PROGRAMMES

SYLLABUS

(Effective from the academic year 2015 – 2016)

SOFT SKILLS

CODE: 15EL/GC/SS12

CREDITS: 2

L T P: 2 0 0

TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE

- To equip students with competencies to achieve personal and academic excellence
- To raise confidence levels

Unit 1

Self Awareness (5 hrs.)

- 1.1. Knowing One's Strengths and Weaknesses
- 1.2. Self-esteem and Self-worth

Unit 2

Work place Behavioural Training (6 hrs.)

- 2.1 Listening Skills
- 2.2 Interpersonal Skills
- 2.3 Team Work and Group dynamics
- 2.4 Personal Effectiveness
- 2.5 Creative Thinking

Unit 3

Planning Ahead (5 hrs.)

- 3.1 Time Management
- 3.2 Goal Setting

Unit 4

Career Mapping (5 hrs.)

- 4.1 Concept of Career
- 4.2 Career Options
- 4.3 Choice of Right Career

Unit 5

Adaptability Skills (5 hrs.)

- 5.1 Working independently
- 5.2 Working as a team
- 5.3 Multi-tasking
- 5.4 Innovation
- 5.5. Adapting to Change and Criticism

PATTERN OF EVALUATION

Internal Assessment

Total Marks: 50

Duration: **2 hrs.**

One Test Only – Oral or Written

Role play
Presentation
Group Discussion
Debate
Case Studies
Quiz

No End-semester Examination

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A / B.SC / B.V.A / B. Com/B.S.W./B.C.A DEGREE: BRANCH – XII – ENGLISH

SYLLABUS
(Effective from the academic year 2015 – 2016)
SOFT SKILLS AND ENGLISH FOR COMMUNICATION

CODE: 15EL/GC/SE12

CREDITS: 2

L T P: 2 0 0

TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE

- To develop communication skills
- To raise confidence levels
- To equip students with competencies to achieve personal and academic excellence

Unit 1

Self-Awareness (5hrs.)

- 1.1. Knowing One's Strengths and Weaknesses
- 1.2. Self-esteem and Sense of Self-worth
- 1.3 Communication Skills - Introductions
 - 1.3.1 Introducing Oneself and Others
 - 1.3.2 Talking about Oneself and Others

Unit 2

People Skills (6 hrs.)

- 2.1. Listening Skills
- 2.2. Interpersonal Skills
- 2.3 Communication Skills – Listening and Speaking
 - 2.3.1 Following Directions/Instructions
 - 2.3.2 Giving Directions/Instructions
 - 2.3.3 Requesting, Thanking, Apologizing

Unit 3

Group Dynamics (6 hrs.)

- 3.1. Team Work
- 3.2. Personal Effectiveness
- 3.3. Creative Thinking
- 3.4 Communication Skills – Discussion and Debate
 - 3.4.1 Discussion, Debate, Negotiation, Prioritization, Persuasion, Presentation

Unit 4

Adaptability Skills (3 hrs.)

- 4.1. Adapting to Change
- 4.2. Accepting and Negotiating Differences
- 4.3. Accepting and Expressing Criticism
- 4.4 Communication Skills – Discussion and Debate

- 4.4.1. Accepting and Negotiating Differences
- 4.4.2 Role play - Accepting and Expressing Criticism

Unit 5

Planning Ahead

(6 hrs.)

- 5.1. Time Management
- 5.2. Goal Setting
- 5.3. Communication Skills – Narration and Description
 - 5.3.1 Talking on a Specific Topic/Event

PATTERN OF EVALUATION

Internal Assessment

Total Marks: 50

Duration: 2 hrs.

One test only - Oral or Written

Role play
Presentation
Group Discussion
Debate
Case Studies
Quiz

No End-semester Examination

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A. DEGREE: BRANCH XII – ENGLISH

SYLLABUS
(Effective from the academic year 2015-2016)

DRAMA

CODE: 15 EL/MC/DR24

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To introduce drama as a social product and a literary form
- To familiarize students with representative samples and to facilitate understanding of the text

Unit 1		
Aspects of Drama		(7 hrs.)
1.1 Plot		
1.2 Character		
1.3 Setting		
1.4 Structure		
1.5 Unities		
Unit 2		
Types of Drama		(7 hrs.)
2.1 Comedy		
2.2 Tragedy		
Unit 3		(10 hrs.)
3.1 Shakespeare	<i>As You Like it</i>	
Unit 4		(20 hrs.)
4.1 Henrik Ibsen	<i>A Doll's House</i>	
4.2 Bertolt Brecht	<i>Caucasian Chalk Circle</i>	
Unit 5	Practical Application Tasks	(8 hrs.)

BOOKS FOR REFERENCE

Bartram, Graham and Anthony Waive, Ed. Brecht in Perspective. London: Longman, 1982.

Ellis-Fermor, Una. The Frontiers of Drama. London: Methuen, 1964.

Esslin, Martin. Theatre of the Absurd. London: Penguin, 1991.

Gascoigne, Bamber. Twentieth Century Drama. London: Hutchinson, 1974.

- Leech, Clifford. Tragedy. The Critical Idiom, Ed. John D Jump, New York: Routledge, 1989.
- Merchant, Moelwyn. Comedy. The Critical Idiom Series, Ed. John D Jump, London: Methuen, 1972.
- Norwegian Ministry of Foreign Affairs. Ed. Nora's Sisters. Oslo: NMFA, 2006.
- Stott, A. Comedy, London: Routledge, 2007.
- Williams, Raymond. "Introduction" Drama from Ibsen to Eliot. London: Chatto and Windus, 11-38.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50	Duration: 90 mins.
Section A – One essays of 200 words	1x10=10 marks
Section B – One long essay	1x20=20 marks
Section C – Passage analysis	1x20=20 marks

Third Components

- Assignment
- Seminar
- Presentation
- Take Home Test
- Open Book Test
- Scheduled Class Work – Passage Analysis etc
- Quiz
- Panel Discussion
- Group Presentation
- Role-Play
- Dramatisation
- Creative Writing

End Semester Examination

Total Marks: 100	Duration: 3 Hours
Section A – Two short essays (200 words) from Units 1 and 2	2x10=20 marks
Section B – Three essays with internal choice (500 words each) from units 3 and 4	3x20=60 marks
Section B – Two passages for analysis from Units 3 and 4	1x20=20 marks

STELLAMARISCOLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A. DEGREE: BRANCH XII – ENGLISH

SYLLABUS
(Effective from the academic year 2015 – 2016)

LITERARY CRITICISM – I

CODE: 15EL/MC/LC25

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVE OF THE COURSE

- To introduce students to Literary Criticism and its relevance to Literature
- To help students apply theoretical concepts to literary texts

Unit 1		(10 hrs.)
1.1 Introduction to Literary Criticism		
	V.S. Sethuraman. Introduction. <i>The English Critical Tradition</i> , Macmillan India Ltd., Madras. 1977pp vii–xiviii	
Unit 2		(10hrs.)
2.1. Aristotle	<i>Poetics</i> Chapters 1,2,4,5,6,7,8 (Penguin Translation)	
Text for Analysis		
Sophocles	<i>Antigone</i>	
2.2 Indian Aesthetics		
2.2.1 Rasa & Sahrdaya	Bharata On Natya and Rasa: Aesthetics of Dramatic Experience. (from <i>The Natya</i> (in fact) to having only one act, from A person who can, . . . to in this manner, Trans. from Sanskrit by G.K. Bhatt. <i>Indian Literary Criticism</i> . Ed. G.N. Devy)	
2.2.2 Akattinaiyiyal	from <i>Porulatikaram</i> 1-20 (trans. Ilakkuvanar/Kamil Zvelebil/Murugan)	
Unit 3		(15hrs.)
3.1 Philip Sidney	Extract from <i>Apology for Poetry</i> from V.S. Sethuraman : “Among the Roman...to teach and delight”. (46 –49)	
3.2. Samuel Johnson	Extracts from <i>Preface to Shakespeare</i> from V.S. Sethuraman : “Nothing can please many and please long...progress of the passion.” (247 – 249)	
Unit 4		(15hrs.)
4.1 Samuel Taylor Coleridge	<i>Biographia Literaria</i>	

4.1 Mathew Arnold

Chapter XIII(section on Fancy and Imagination)
and *Chapter XIV*(The poet in ideal perfection ...
The Study of Poetry
("Indeed there can be no more useful help...high poetic seriousness are absent from his substance and matter")

Unit 5

Practical Application Tasks

(15 hrs.)

Practical Analysis of Literary Texts/Passages Applying Relevant Critical Concepts

BOOKS FOR REFERENCE

- Habib, M.A.R. *A History of Literary Criticism and Theory: From Plato to the Present*. Oxford: Wiley-Blackwell, 2005.
Ramanujan, A.K. "On Ancient Tamil Poetics". *Indian Literary Criticism*. Ed. G.N. Devy Hyderabad: Orient Longman. 2006.
Sethuraman, V.S. *Indian Aesthetics*. Madras: Macmillan India Ltd., 1977.
Wimsatt, William and Cleanth Brooks. *Literary Criticism: A Short History*. Calcutta: Oxford & IBH Publishing Co., 1957.
Wordsworth, William. "Preface to the Lyrical Ballads." *English Critical Texts*. Ed. Enright and Chickera, New Delhi: OUP, 1962.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50	Duration: 90 mins.
Section A – One essay of 250 words	1x15=15 marks
Section B – One long essay of 500 words	1x20=20 marks
Section C – Passage Analysis Applying Critical Concepts	1x15=15 marks

Third Components

Analysis of Unseen Passages Applying Critical Concepts Learnt
Analysis of Movies Based On Aristotle's Criteria
Oral presentations on Texts of Literary Criticism (Not Prescribed In the Syllabus) from the Period Covered in the Syllabus

End Semester Examination

Total Marks: 100	Duration: 3 Hours
Section A – Three out of five short notes (200 words each)	3x15= 45marks
Section B – Two out of four essays (600 words each)	2x20=40 marks
Section C – One analysis – with concepts given	
Or	
One analysis – choosing any concept	1x15=15 marks

Unit 1 is not for testing.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A. DEGREE: BRANCH XII – ENGLISH

SYLLABUS
(Effective from the academic year 2015 – 2016)

SUBALTERN WRITING

CODE: 15EL/AC/SW25

CREDITS: 5

LTP: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To understand the concept of subalternity
- To help position subaltern identities in texts

Unit 1

Background Reading (20 hrs.)

- 1.1 Paulo Freire Introduction, *Pedagogy of the Oppressed*. New Delhi: Sage Publications, 1976.
- 1.2 Frantz Fanon "On Violence" *The Wretched of the Earth* (p1-13)

Unit 2

(15 hrs.)

- 2.1 Saeed Akhtar Mirza "The First Lady and the Terrorist: A Film Script in Five Acts." *Ammi: Letter to a Democratic Mother*. Chennai: Tranquebar, 2008. 250-307.

Unit 3

(10 hrs.)

- 3.1 Maheswata Devi "Kunti and the Nishadin," *After Kurukshetra*. Calcutta: Seagull, 2005.

Unit 4

(15hrs.)

- 4.1 Cherrie Moraga and Gloria Anzaldua *This Bridge Called My Back: Writing by Radical Women of Colour*. New York: Kitchen Table: Women of Color Press, 1983.
- 4.2 Nellie Wong *When I was Growing up*
Cherrie Moraga *The Welder*
Sugirtha Rani *The Smell of Meat*

Unit 5 Practical Application Tasks

(5 hrs.)

BOOKS FOR REFERENCE

- Anzaldua, Gloria. *This Bridge Called My Back: Writing by Radical Women of Color*. New York: Kitchen Table: Women of Colour, 1983, 165-173.
- Fanon, Frantz. *Black Skin, White Mask*, New York: Grove, 1967.

- Gramsci, Antonio. "History of the Subaltern Classes", Prison Notebooks Vol. II, (Ed. &Tr.) Joseph A. Buttigieg, 1996, 24-25.
- Milner, Andrew and Jeff Browitt. *Race and Ethnicity in Black and Latino Cultural Studies: Contemporary Critical Theory*. III Ed. New Delhi: Rawat, 2003.
- Spivak, GayatriChakraborti. "Subaltern Studies: Deconstructing Historiography" Vol IV. (Ed.) RanajitGuha, *Writings on South Asian History and Society*.Delhi: OUP, 1985, 330-363.
- Gail Omvedt "Chapter 11: Sita's Curse and Shambuk's Silence," *Dalit Visions* Chennai: Orient Longman, 2006.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50	Duration: 90 mins.
Section A – Two essays of 200 words	2x10=20 marks
Section B – One essay of 350 words	1x15=15 marks
Section C – Passage analysis applying critical concepts learnt	1x15=15 marks

Third Components

Assignment
Seminar
Presentation
Take Home Test
Open Book Test
Scheduled Class Work – Passage Analysis etc
Quiz
Panel Discussion
Group Presentation
Role-Play
Dramatisation
Creative Writing

End Semester Examination

Total Marks: 100	Duration: 3 Hours
Section A – Three out of five short essays (200 words each)	3x15= 45marks
Section B – Two out of four essays (600 words each)	2x20=40 marks
Section C – Passage analysis – with concepts given	1x15=15 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

B.A. DEGREE: BRANCH XII – ENGLISH

SYLLABUS

(Effective from the academic year 2015 – 2016)

FICTION

CODE: 15EL/MC/FN34

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To help the student read fiction with an understanding of the various aspects of fiction as a genre
- To introduce students to the various sub-genres of fiction

Unit 1

Introduction to Fiction

(10 hrs.)

1.1 Aspects of the Novel

1.1.1 Plot

1.1.2 Characterisation

1.1.3 Point of View / Focalisation

1.1.4 Theme

1.2. Sub-genres of the Novel

1.2.1. The Epistolary Novel

1.2.2. The Picaresque Novel

1.2.3. The Gothic Novel

1.2.4. The Historical Novel

1.2.5. The Novel of Social Realism

1.2.6 The Bildungsroman

1.2.7 The Stream-of-Consciousness Novel

1.3 Features of the Short Story

Unit 2

Novel

(12 hrs.)

2.1. Jane Austen

Pride and Prejudice

Unit 3

Novel

(12 hrs.)

3.1. John Fowles

The French Lieutenant's Woman

Unit 4

The Short Story

(10 hrs.)

4.1. Guy de Maupassant

The Charm Dispelled

- | | |
|----------------------|----------------------|
| 4.2. Virginia Woolf | The Mark on the Wall |
| 4.3 William Faulkner | A Rose for Ms. Emily |
| 4.4 Hariko Murakami | Sheherezade |

Unit 5 Practical Application Tasks

(8 hrs.)

BOOKS FOR REFERENCE

- Bardbury, Malcolm. Ed. *The Novel Today*. London: Fontana Press, 1961. Print.
- Correa, Delia Da Sousa. Ed. *The Nineteenth Century Novel*. New York. Routledge, 2000. Print.
- Eagleton, Terry. *The English Novel: An Introduction*. USA: Blackwell Publishing, 2005.
- Forster, E.M. *Aspects of the Novel*, Chapters II, III, IV, V. Harcourt Brace Jovanovich, 1985. Print
- Goonaratne, Yasmine. *Jane Austen*. London: Cambridge UP, 1970. Print.
- Kettle, Arnold. *An Introduction to the English Novel*. London: Hutchinson and Co., 1951. Print.
- Lodge, David. *The Art of Fiction*. New York: Penguin Books, 1992.
- Matthews, Steven. Ed. *Modernism: A Source Book*. New York: Palgrave Macmillan, 2009. Print.
- Nicholls, Peter. *Modernisms: A Literary Guide*. New York: Palgrave Macmillan, 1995. Print.
- Waugh, Patricia. "What is Metafiction and Why are They Saying Such Awful Things About it?" *Metafiction* Ed. Mark Currie. Print.

WEB RESOURCES

- Schorer, Mark. "Technique as Discovery". *The Hudson Review*. Vol. 1, No. 1 (Spring, 1948), pp. 67-87. <<http://www.jstor.org/stable/3847209>>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50	Duration: 90 mins.
Section A – Short notes- Two out of four	2x10=20 marks
Section B – Long essay-One out of two	1x15=15 marks
Section C – Passage analysis	1x15=15 marks

Third Components

- Assignment
- Seminar
- Presentation
- Take Home Test
- Open Book Test
- Scheduled Class Work – Passage Analysis etc
- Quiz
- Panel Discussion
- Group Presentation
- Role-Play

Dramatisation
Creative Writing

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Section A – Four out of six short notes (100 words each) from Unit 1

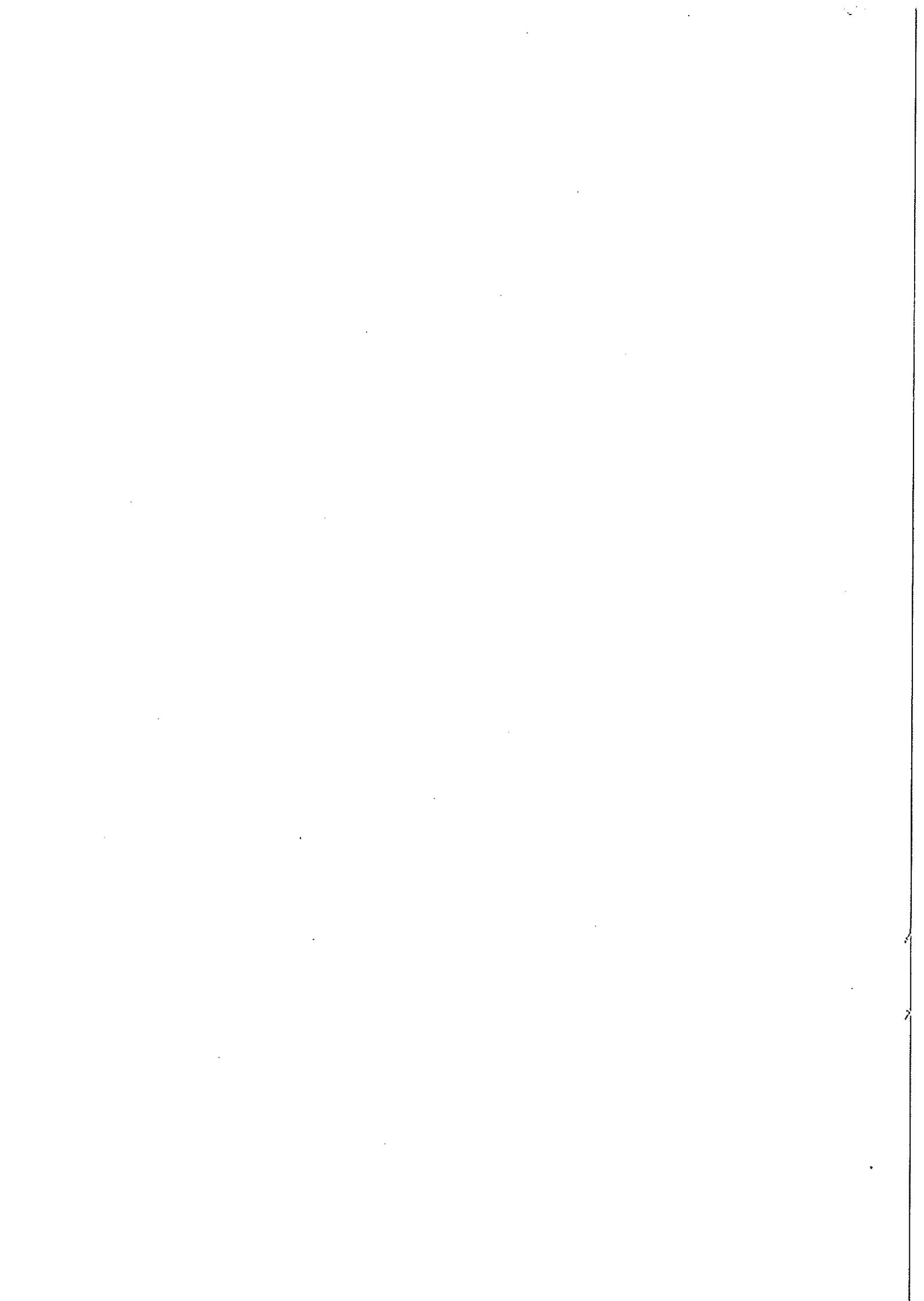
4x5=20 marks

Section B – Three essays (500 words each) – with internal choice from
Units 2,3 and 4

3x20=60 marks

Section C – Analysis of one out of two passages from Units 2 and 3

1x20=20 marks



STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A. DEGREE: BRANCH XII – ENGLISH

SYLLABUS
(Effective from the academic year 2015 – 2016)

INDIAN LITERATURE IN TRANSLATION

CODE: 15EL/MC/IL34

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVE OF THE COURSE

- To establish continuity from classical to contemporary times in Indian Literature in Translation
- To help students appreciate aspects of change in Indian Literature in Translation

Unit 1

Folk and Classical Literature

(14hrs.)

1.1 Folk Tale

A Flowering Tree

(from Ramanujan, A.K. *The Flowering Tree and Other Oral Tales from India*. Ed. Stuart Blackburn and Alan Dundes)

1.2 Bhasa

Karnabharam

1.3 Sangam Poetry

1.3.1 Akam

a. Kuruntokai 25

Only the thief was there

b. Narrinai 63

On the new sand

c. Narrinai 179

If a calving cow

1.3.2 Puram

a. Purannanuru 235

If he found a little liquor

b. Purananuru 69

Dear singer

(from Ramanujan A.K., *Poems of Love and War*. OUP)

1.4 Therigatha

1.4.1 Punna or Punnika

1.4.2 Ambapali

(from David C.A.F. Rhys and Norman K.R. Trans. *Poems of Early Buddhist Nuns*. Oxford: The Pali Text Society, 1997.)

Unit 2

Medieval Literature

(14hrs.)

2.1 Bulle Shah

I have been pierced by the arrow of love, what shall I do?

Remove duality and do away with all disputes

There is only one thread of all cotton.

2.2 Chokhamela

They Thrash me, Vithu,
Vedas and the Shastras

Unit 3

Modern Literature- I

3.1 Na. Muthusami

Narkkalikkarar

(8hrs.)

Unit 4

Modern Literature-II

4.1 KaifiAzmi

The Last Night

(from Azmi, Kaifi. *Selected Poems*. (Trans.) Pavan
K. Varma.)

Amrita Pritam

Creative Process

DayaPawar

The Buddha

(from VinayDharwadker *The Oxford Anthology of
Modern Indian Poetry*)

Chandra KantaMurasingh

A Poem

(from *Anthology of Contemporary Poetry from the
Northeast*, 2003 255)

4.2 Indira Goswami

Under the Shadow of the Kamakhya

Unit 5 Practical Application Tasks

(8 hrs.)

BOOKS FOR REFERENCE

Bhat, G.K. "Two plays of Tragic Design and Tragic Intent," *Tragedy and Sanskrit Drama*. Pune: Bhandarkar Oriental Institute, 1976. Print.

Chakravathy, Uma. "The Rise of Buddhism as Experienced by Women." *Manushi*, 8. Mokashi-Punekar, Rohini. "Bhakti as Protest". Print.

Ramanujan A.K. Afterword. *Poems of Love and War*. New Delhi: Oxford University Press. 1996. Print.

---. Afterword. *The Flowering Tree and Other Oral Tales from India*. Ed. Stuart Blackburn and Alan Dundes. New Delhi: Penguin Books, 1997. Print.

---. "Is there an Indian Way of Thinking?" *Collected Essays of A K Ramanujan*. Oxford University Press. 1999. Print.

--- and Vinay Dharwadker, ed. *The Oxford Anthology of Modern Indian Poetry*. New Delhi: OUP, 1008. Print.

Devy, G N. *After Amnesia*. Hyderabad: Orient Longman, 1994. Print.

JOURNALS

Indian Literature

KavyaBharathi

The Little Magazine

WEB RESOURCES

www.sawnet.com

www.ntm.org.in

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Section A – Short essays - two out of four

Section B – Long essays - one out of two

Section C – Passage analysis

Duration: 90 mins.

2x10=20 marks

1x15=15 marks

1x15=15 marks

Third Component Tests

Assignment

Seminar

Presentation

Take Home Test

Open Book Test

Scheduled Class Work – Passage Analysis etc

Quiz

Panel Discussion

Group Presentation

Role-Play

Dramatisation

Creative Writing

End Semester Examination

Total Marks: 100

Section A – 2 out of 4 four short essays of 200 words each

Section B – 2 out of 4 long essays of 750 words each

Section C – Analysis of one passage out of two from the prescribed texts

Duration: 3 Hours

4x10=40 marks

2x20=40 marks

1x20=20 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A. DEGREE: BRANCH XII – ENGLISH

SYLLABUS
(Effective from the academic year 2015 – 2016)

LITERATURE AND IDEAS

CODE: 15EL/AC/LI35

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To acquaint the students with the major schools of thought that have impacted literature
- To train the students to analyse literary texts using these ideas as frames of reference

Unit 1

Romanticism

(14 hrs.)

1.1 Jean Jacques Rousseau

The Social Contract

1.2 Emmanuel Kant

Critique of Pure reason

1.3 G.W.F. Hegel

Phenomenology of the Mind

Text: William Wordsworth

The Prelude Book I (Lines: 147-249)

Unit 2

Marxism and Psychoanalysis

(13 hrs.)

2.1 Freud and Jung

Id, Ego and Superego; Collective Unconscious

2.2 Karl Marx

Base and Superstructure

Text: Charles Dickens

Hard Times (Chapters 1-5);

Sylvia Plath

Mirror

Unit 3

Existentialism

(15 hrs.)

3.1 Schopenhauer

The World as Will

3.2 Nietzsche

Apollonian and Dionysian Principles

3.3 Sartre

Awful freedom

Texts: Ted Hughes

"Tiger Psalm"

Kafka

Metamorphosis

Unit 4

Feminist Thought

(13 hrs.)

4.1 Toril Moi

Feminine, Feminist, Female

4.2 bell hooks

Black Women - Shaping Feminist Theory

Text: Makbula Manzoor

On the Road (in Galpa; Short Stories by Women from Bangladesh, Azim, Firdous and Niaz Zaman)

Unit 5

Eco-criticism

(10 hrs.)

5.1 Arne Naess

Deep Ecology

Text: Margaret Atwood

Marsh Languages

BOOKS FOR REFERENCE

- Bhandari, D. R. *History of European Political Philosophy*. Bangalore: Bangalore Printing and Publishing, 1994. Print.
- Beauvoir, Simone De. *The Second Sex*. London: Vintage Books, 1949. Print.
- Copplestone, F. *A History of Philosophy*. London: Burn and Odes, 1959. Print.
- Durant, Will. *The Story of Philosophy*. London: Simon and Schuster, 1926. Print.
- Howells, Christina. Ed. *The Cambridge Companion to Sartre*. London: Cambridge UP, 1992. Print.
- Lavine, T.S. *From Socrates to Sartre: The Philosophical Quest*. New York: Bantam Books, 1984. Print.
- Millet, Kate. *Sexual Politics*. New York: Doubleday, 1970. Print.
- Russell, Bertrand. *History of Western Philosophy*. (1946). London: Unwin, 1979. Print.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Section A – Short essays- Two out of four

Section B – Long essays-one out of three

Section C – Passage Analysis

Duration: 90 mins.

2x5=10 marks

1x20=20 marks

1x20=20 marks

Third Components

Assignment

Seminar

Presentation

Take Home Test

Open Book Test

Scheduled Class Work – Passage Analysis etc

Quiz

Panel Discussion

Group Presentation

Role-Play

Dramatisation

Creative Writing

End Semester Examination

Total Marks: 100

Section A – Four out of seven short notes on ideas studied

Section B – Three out of six essays of about 650 words each

Section C – Passage analysis of a passage from an unseen literary text based on ideas studied

Duration: 3 Hours

4x5=20 marks

3x20=60 marks

1x20=20 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A. DEGREE: BRANCH XII – ENGLISH

SYLLABUS
(Effective from the academic year 2015 – 2016)

LITERARY CRITICISM – II

CODE: 15EL/MC/LC45

CREDITS: 5

L T P: 500

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To acquaint students with the development of modern criticism and theory
- To relate criticism and theory to practice in the classroom

Unit 1			
New Criticism			(15 hrs.)
1.1 T.S Eliot	Tradition and Individual Talent		
1.2 Cleanth Brooks	Keats' Sylvan Historian		
Unit 2			
Structuralism and Semiotics			(15 hrs.)
2.1. Raman Selden	Binary Oppositions - Arthur Miller		
2.2 Tzvetan Todorov	The Typology of Detective Fiction		
2.3. Roland Barthes	Myth as a Semiological System		
	(For mythology ... it imposes it on us, from <i>Mythologies</i>)		
Unit 3			
Reader Response Theory			(15 hrs.)
3.1 Wolfgang Iser	Interaction Between Text and Reader		
Unit 4			
Deconstruction			(10 hrs.)
4.1 M.H. Abrams	How to do Things with Texts		
Unit 5	Practical Application Tasks		(10 hrs.)

BOOKS FOR REFERENCE

- Barthes, Roland. *Mythologies*. Trans. Annette Lavers. London: Vintage, 1993. Print.
- Guerin Wilfred et al. *A Handbook of Critical Approaches to Literature*. Oxford: Oxford UP, 1992. Print.
- Habib, M.A.R. *A History of Literary Criticism and Theory: From Plato to the Present*. Oxford, Wiley-Blackwell, 2005. Print.
- Lodge, David. *Modern Criticism & Theory*. London: Longman, 1991. Print.
- Selden and Widdowson. *Contemporary Critical Theory*. Lexington: The UP of

Kentucky, 1993. Print.

Selden, Raman. *The Theory of Criticism*. Longman, London & New York. 1998. Print.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Section A – Short essays- three out of five

Section B – Long essays- two out of four

Section C – Passage analysis

Duration: 90 mins.

3x5=15 marks

2x10=20 marks

1x15=15 marks

Third Components:

Assignment

Seminar

Presentation

Take Home Test

Open Book Test

Passage Analysis

Quiz

Panel Discussion

Group Presentation

Role-Play

Dramatisation

Creative Writing

End Semester Examination

Total Marks: 100

Section A – Three short notes (250 words each, internal choice)

Section B – Two out of four long essays (500 words each)

Section C – Analysis of an unseen passage

using any critical/theoretical perspective prescribed for study

Duration: 3 hours

3x15=45 marks

2x20=40 marks

1x15=15 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A. DEGREE: BRANCH XII – ENGLISH

SYLLABUS
(Effective from the academic year 2015-2016)

LITERATURE AND GENDER

CODE: 15EL/AC/GD45

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVE OF THE COURSE

- To enable students to explore select literary texts that draw attention to gender relations and gendered ways of thinking
- To help students study gender construction and perpetuation in society

Unit 1			
Introduction			(10 hrs.)
1.1 Virginia Woolf		<i>A Room of One's Own</i> , (Penguin, London, 1945)	
Unit 2			
Poetry and Fiction			(15 hrs.)
2.1 Adrienne Rich		Snapshots of a Daughter-in-law	
2.2 Grace Nichols		The Fat Black Woman Goes Shopping	
2.3 Shashi Deshpande		<i>Small Remedies</i>	
Unit 3			
Autobiography			(12 hrs.)
3.1 Revathi		<i>Truth About My Life</i> (Penguin 2010)	
Unit 4			
Drama			(13hrs.)
4.1 Caryl Churchill		<i>Top Girls</i>	
Unit 5	Practical Application Tasks		(15hrs.)

BOOKS FOR REFERENCE

- Bhasin, Kamla. *Understanding Gender*. New Delhi: Kali for Women. 2000. Print.
- Bhuthalia, Urvashi. "Confrontation and Negotiation: The Women's Movement's Response to Violence Against Women," *The Politics of Gender, Identity and Social Equality in India*. New Delhi: Kali for Women, 2002. 207-33. Print.
- Foran, John. "Alternatives to Development: Of Love, Dreams and Revolution," *Feminist Futures: Reimagining Women Culture and Development*. Ed. Kumkum Bhavnani, John Foran and Priya Kurian, New Delhi: Zubaan, 2003. 268-274. Print.
- Mackinnon, Catherine. "Towards a Feminist theory of State" *Feminisms*. Ed. Sandra Kemp and Judith Squires, Oxford, New York, 1997, 351-58. Print.
- Mies, Maria and Vandana Shiva. *Ecofeminism*. London: Zed Books, New Jersey, 1993. Print.

- Rich, Adrienne. "When We Dead Awaken: Writing as Re-vision," *Adrienne Rich's Poetry*, Ed. Barbara Charles and Albert Gelpi, Norton, New York, 1995, 90-98. Print.
- Sen, Amartaya. "Gender and Co-operative Conflicts," *Capabilities, Freedom and Equality*, Ed. Bina Agarwal, Jane Humphries, Ingrid Robeyns, 2006, 458-84. Print.

JOURNALS

Indian Journal of Gender Studies (Sage)
A Journal of Feminist Cultural Studies
Feminist Review
A Journal of Women Studies

WEB RESOURCES

<http://www.feministreview.com>
<http://ftypub.sagepub.com>
<http://dukeupress.edu/cameraobscura>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50	Duration: 90 mins.
Section A – Short essays- three out of five	3x5=15 marks
Section B – Long essays- two out of four	2x10=20 marks
Section C – Passage analysis- no choice	1x15=15 marks

Third Components

Assignment
Seminar
Presentation
Take Home Test
Open Book Test
Passage Analysis
Quiz
Panel Discussion
Group Presentation
Role-Play
Dramatisation
Creative Writing

End Semester Examination

Total Marks: 100	Duration: 3 hours
Section A - Two essay questions (750 words)	2 x 20 = 40 marks
Section B - Three short essays (300 words)	3 x 15 = 45 marks
Section C - Passage analysis from the novel or poems prescribed	1 x 15 = 15 marks

Unit 1 is not for testing.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

B.A. DEGREE: BRANCH – XII – English

SYLLABUS

(Effective from the academic year 2015 – 2016)

INDIAN LITERATURE IN ENGLISH

CODE: 15EL/MC/IE55

CREDITS : 5

L T P : 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To appreciate evolution and trends in Indian Literature in English
- To enable students to understand identity politics and culture inherent in Indian Literature in English

Unit 1

Introduction

(15 hrs.)

1.1. Revisiting Early Writing

1.1.1. Sarojini Naidu

PardahNashin

1.1.2. AurobindoGhose

The Tiger and the Deer

1.1.3. Rabindranath Tagore

from Gitanjali XI, XXXV, XXXVI

1.1.4. Toru Dutt

The Tree of Life

1.2. The Idea of India

1.2.1. RamachandraGuha

“Epilogue: Why India Survives,” India

After Gandhi: The History of the World’s Largest Democracy 744-71.

Unit 2

Poetry

(13 hrs.)

2.1. Nissim Ezekiel

Background, Casually

Poet, Lover, Birdwatcher

2.2. A.K. Ramanujan

The Striders

Bosnia

2.3. ArunKolatkarr

Chaitanya

Jejuri- The Bus

2.4. JeetThayil

At Kabul Zoo, the Lion

My Grandmother’s Funeral (poem VI from *Genesis Godown*)

2.5. Kamala Das

The Old Playhouse

Unit 3

Drama

(8hrs.)

3.1. Mahesh Dattani

Tara

Unit 4		
Fiction		(17hrs.)
4.1 R.K.Narayan	<i>The Guide</i>	
4.2 Amitav Ghosh	<i>The Hungry Tide</i>	
4.3 Urvashi Butalia	<i>The Other Side of Silence</i>	

Unit 5		
Practical Application Tasks(not for testing)		(12 hrs.)
5.1 Arundathi Roy	<i>The God of Small Things</i>	
5.2 Kavery Nambisan	<i>The Scent of Pepper</i>	
5.3 Kiran Desai	<i>The Inheritance of Loss</i>	
5.4 Temsula Ao	<i>These Hills Called Home</i>	
5.5 Amandeep Sandhu	<i>Roll of Honour</i>	

BOOKS FOR REFERENCE

- Bruce King, "Ezekiel and His Influence," *Modern Indian Poetry in English*. Rev ed, Oxford UP, New Delhi. 91-109. Print.
- de Souza, Eunice. *Talking Poems: Conversations with Poets*. New Delhi: Oxford UP, 1999. Print.
- Kakkar, Sudhir and Katharina Kakkar. *The Indians: Portrait of a People*. New Delhi: Penguin, 2007. Print.
- Mehrotra, Arvind Krishna. Ed. *An Illustrated History of Indian Literature in English*. Delhi: Permanent Black, 2003. Print.
- Naik, M K. *A History of Indian Literature*. New Delhi: Sahitya Akademi, 2005. Print.
- Radha Ramaswamy, "Towards a Multicultural Theatre: Mahesh Dattani and the Changing Audience for Contemporary Indian Drama in English," *Mahesh Dattani's Plays: Critical Perspectives*. Ed. Angelie Multani. Print.
- Ranjit Hoskote, "Introduction," *Reasons for Belonging: Fourteen Contemporary Indian Poets*. Ed. Hoskote, New Delhi: Penguin, 2004. Print.
- Vinay Dharwadkar, "Afterword: Modern Indian Poetry and its contexts," *The Oxford Anthology of Modern Indian Poetry*. New Delhi: OUP, 1008. Print.

JOURNALS

- The Journal of Commonwealth Literature
 Literary Criterion
 Indian Journal of English Studies

WEB RESOURCES

www.indianruminations.com
ccrtindia.gov.in/literaryarts.php
literarism.blogspot.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50
Section A – Short essays- three out of five
Section B – Long essays- two out of four
Section C – Passage analysis- no choice

Duration: 90 mins.
3x5=15 marks
2x10=20 marks
1x15=15 marks

Third Components:

Assignment
Seminar
Presentation
Take Home Test
Open Book Test
Scheduled Class Work – Passage Analysis etc
Quiz
Panel Discussion
Group Presentation
Role-Play
Dramatisation
Creative Writing

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Section A – Three short essays out of five (350 words)
Section B – Two long essays out of four (600 words)
Section C – Passage analysis from units 2 and 3

3x15 = 45 marks
2x20= 40 marks
1x15=15 marks

***Note: Units 1 & 5 - Only for Third Component and not for CA tests and End Semester Exam.**

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.A DEGREE: BRANCH XII- ENGLISH

SYLLABUS
(Effective from the academic year 2015-2016)

EAST AND SOUTH ASIAN LITERATURES

CODE: 15EL/MC/ES55

CREDITS : 5

L T P : 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce the student to a selection from the East Asian and South Asian region
- To explore the similarities and differences between literatures and cultures in this region

Unit 1

Pakistan, Afghanistan & Tibet

(20 hrs.)

- | | |
|----------------------|-----------------------|
| 1.1 Sadat HasanManto | Khol Do |
| 1.2 KhaledHosseini | <i>TheKite Runner</i> |
| 1.3 Tenzin Tsundue | Refugee |

Unit 2

Bangladesh, Myanmar & Vietnam

(10 hrs.)

- | | |
|-----------------------|-------------------------|
| 2.1 KhaledaSalahuddin | Relief Camp |
| 2.2 KhinMyo Chit | Her Infinite Variety |
| 2.3 Tran Khac | An Altar for Young Gion |

Unit 3

Sri Lanka, Malaysia & Indonesia

(15 hrs.)

- | | |
|--------------------------|----------------------------|
| 3.1 Shanmugalingam | Land of our Parents |
| 3.2 Muhammad Haji Salleh | <i>The Teller of Tales</i> |
| 3.3 TitisBasino | Her |

Unit 4

China, Japan& Korea

(10 hrs.)

- | | |
|------------------|--------------------|
| 4.1 Xue Mo | Old Man Xingjang |
| 4.2 Masoka Shiki | Selected Haiku (4) |
| 4.3 KoUn | The Little Spring |

Unit 5

Practical Application Tasks

(10 hrs.)

Writing from Nepal, Mongolia, Thailand, Singapore, Philippines, Mauritius

BOOKS FOR REFERENCE

Bhasin, Kamala, et al. *Against All Odds*. New Delhi: Kali for Women, 1994. Print.

- Bhuthalia, Urvashi. *The Other Side of Silence*. New Delhi: Penguin, 1998. Print.
- de Silva, K. M. "Language, Ethnicity and Politics in South Asia". *Ethnic Studies Report*. Vol. XIV No.1, January 1996. Colombo and Kandy: International Centre for Ethnic Studies, 1996. 1-10. Print.
- Goonasekere, Savitri, ed. *Violence, Law and Women's Rights in South Asia*. New Delhi: Sage Publications, 2004. Print.
- Hasan, Mushirul. *Inventing Boundaries*. New Delhi: Oxford University Press, 2000. Print.
- Nongkynrih, Kynpham Sing and Ngangom, Robin S. ed. *Anthology of Contemporary Poetry from the North East*. Shillong: NEHU Publications, 2003. Print.
- Riaz, Ali. *Religion and Politics in South Asia*. London and New York: Routledge, 2010. Print.
- Shamsie, Muneeza, ed. *And the World Changed*. New Delhi: Women Unlimited, 2005. Print.
- Shanmugalingam. *Shanmugalingam Three Plays*. Trans. S. Pathmanathan. Colombo and Chennai: Kumaran Book House, 2007. Print.
- Trivedi, Harish. "South Asian Literature: Reflections in a Confluence." *Indian Literature*: 229. 186-194. Print.
- Wijesinha Rajiva, ed. *Bridging Connections: An Anthology of Sri Lankan Short Stories*. New Delhi: National Book Trust. 2007. Print.
- Zaman, Niaz and Azim, Fidous. *Galpa Short Stories by Women from Bangladesh*. Ed. London: Stanza, 2007. Print.

WEB RESOURCES

<http://www.sawnet.com>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50	Duration: 90 mins.
Section A – Short essays- three out of five	3x5=15 marks
Section B – Long essays- two out of four	2x10=20 marks
Section C – Passage analysis- no choice	1x15=15marks

Third Components

Assignment
 Seminar
 Presentation
 Take Home Test
 Open Book Test
 Scheduled Class Work – Passage Analysis etc
 Quiz
 Panel Discussion
 Group Presentation
 Role-Play
 Dramatisation
 Creative Writing

End Semester Examination

Total Marks: 100

Section A – Three short essays out of five (350 words)

Section B – Two long essays out of four (600 words)

Section C – Passage analysis from prescribed texts

Duration: 3 hours

3x15 = 45 marks

2x20 = 40 marks

1x15 = 15 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B. A. DEGREE: BRANCH XII – ENGLISH

SYLLABUS
(Effective from the academic year 2015 -2016)

BRITISH LITERATURE: SIXTEENTH CENTURY TO TWENTY FIRST CENTURY

CODE: 15EL/MC/BL55

CREDITS : 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To develop an analytical and critical approach to select literary texts from the sixteenth to the twenty first centuries
- To develop an understanding of writers within the socio-cultural and political background of the age

Unit 1

Sixteenth and Seventeenth Centuries (10 hrs.)

- | | |
|--------------------|-----------------------------------|
| 1.1 Edmund Spenser | Sonnet 75 (from <i>Amoretti</i>) |
| 1.2 Francis Bacon | Of Friendship |
| 1.3 George Herbert | The Collar |

Unit 2

Eighteenth Century (10 hrs.)

- | | |
|--------------------|-----------------------------|
| 2.1 Daniel Defoe | <i>Robinson Crusoe</i> |
| 2.2 Alexander Pope | <i>The Rape of the Lock</i> |
| 2.3 William Blake | The Chimney Sweeper |

Unit 3

Nineteenth Century (12 hrs.)

- | | |
|------------------------|-------------------------|
| 3.1 William Wordsworth | Upon Westminster Bridge |
| 3.2 Charlotte Bronte | <i>Jane Eyre</i> |
| 3.3 G. M. Hopkins | God's Grandeur |

Unit 4

Twentieth and Twenty-first Centuries (15hrs.)

- | | |
|------------------------|-------------------------------|
| 4.1 J. M. Synge | <i>Riders to the Sea</i> |
| 4.2 D. H. Lawrence | Snake |
| 4.3 Harold Pinter | <i>The Birthday Party</i> |
| 4.4 Julian Barnes | <i>The Sense of an Ending</i> |
| 4.5 Ian Russell McEwan | On Chesil Beach |

Unit 5

Practical Application Tasks (18 hrs.)

- Group Discussions
- Seminars
- Analysis

BOOKS FOR REFERENCE

- Alexander, Michael. *A History of English Literature*. New York: Palgrave, 2000. Print
- Bowra, C. M. *The Romantic Imagination*. London: Oxford University Press, 1973. Print
- Esslin, Martin. *Theatre of the Absurd*. London: Penguin, 1991. Print.
- Gilbert, Sandra and Susan Gubar. *Mad Woman in the Attic: The Woman Writer and the Nineteenth Century Literary Imagination*. 1979. 2nd ed. New Haven & London: Yale University Press, 1986. Print.
- Lodge, David. *The Modes of Modern Writing*. London: Edward Publishers, 1977. Print.
- Martines, Lauro. *Society and History in English Renaissance Verse*. New York: Basil Blackwell, 1985. Print.
- Mathews, Greg J. *Literary Research and Irish Literature*. Maryland: Scarecrow Press, 2008. Print.
- Prince, Martin. "The Restoration and the Eighteenth Century." *The Restoration and the Eighteenth Century*. London: Oxford University Press, 1973. Print.
- Steane, J. B. *Marlow: A Critical Study*. Cambridge University Press, 1964. Print.
- Thwaite, Anthony. *Poetry Today: A Critical Guide to British Poetry*. England: Longman Group, 1985. Print.

JOURNALS

- Journal of Commonwealth Literature
- ARIEL: A Review of International English Literature
- Wasafiri
- Postcolonial Studies
- <http://criticalflame.org/>
- <https://www.aprweb.org/>

WEB RESOURCES

- <http://www.bartleby.com/224/index.html#9>
- <http://www.janeausten.org>
- <http://www.poetryfoundation.org>>poems&poets

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50	Duration: 90 mins.
Section A – Short essays- three out of five	3x5=15 marks
Section B – Long essays- two out of four	2x10=20 marks
Section C – Passage analysis- no choice	1x15=15 marks

Third Components:

- Assignment
- Seminar
- Presentation
- Take Home Test
- Open Book Test
- Scheduled Class Work – Passage Analysis etc
- Quiz

Panel Discussion
Group Presentation
Role-Play
Dramatisation
Creative Writing

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – Three short essays (350 words)

3x15 = 45 marks

Section B – Two long essays (800words)

2x20= 40 marks

Section C – Passage analysis from prescribed texts

1x15= 15 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A. DEGREE: BRANCH XII – English

SYLLABUS
(Effective from the academic year 2015 – 2016)

AMERICAN LITERATURE

CODE: 15EL/MC/AL65

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVE OF THE COURSE

- To introduce the students to the diverse socio-cultural aspects and multiplicities of expression in American Literature
- To help students understand American Literature as an outcome of its traditions and cultures

Unit 1		
Introduction to Transcendentalism		(4 hrs.)
1.1. Emerson	<i>Self-Reliance</i>	
Unit 2		
Poetry		(16hrs.)
2.1. Robert Frost	Fire and Ice Birches	
2.2. e.e. cummings	next to of course god America	
2.3. Langston Hughes	The Negro Speaks of Rivers Dream Deferred	
2.4. Joy Harjo	Equinox	
2.5. Maya Angelou	Caged Bird	
2.6. Elizabeth Bishop	The Fish	
Unit 3		
Drama		(12hrs.)
3.1. Arthur Miller	<i>Death of a Salesman</i>	
Unit 4		
Fiction		(25 hrs.)
4.1. Mark Twain	<i>The Adventures of Huckleberry Finn</i>	
4.2. Hemingway	<i>The Old Man and the Sea</i>	
4.3. Amy Tan	<i>Two Kinds</i>	
Unit 5		
Practical Application Tasks		(8hrs.)

BOOKS FOR REFERENCE

- Biggsby, C.S. *A Critical Introduction to Twentieth Century American Drama Vol II*. New York: Cambridge University Press. 1984. Print.
- Hoffman, Daniel. *Harvard Guide to American Writing*. Harvard University Press, Boston. 1979. Print.
- Miller, Arthur. "Introduction", *Collected Plays of Arthur Miller*. New Delhi: Allied Publishers. 1973. Print.
- Perkins, David. *Modern American Poetry 1945-2000 –An Introduction*. Blackwell Publishers. 2006. Print.
- Porter, Joy and Kenneth M. Roemer. *The Cambridge Companion to Native American Literature*. New York, Cambridge University Press. 2005. Print.

JOURNALS

americanliterature.dukejournals.org/

WEB RESOURCES

www.wsu.edu/~campbelld/amlit/sites.htm
www.wsu.edu/~campbelld/amlit/sites.htm
www.library.rochester.edu/subject/.../web-resources
americanliteratureassociation.org
www.lang.nagoya-u.ac.jp/~matsuoka/AmeLit-G.html

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50	Duration: 90 mins.
Section A – Short essays- three out of five	3x5=15 marks
Section B – Long essays- two out of four	2x10=20 marks
Section C – Passage analysis- no choice	1x15=15 marks

Third Components:

Assignment
Seminar
Presentation
Take Home Test
Open Book Test
Scheduled Class Work – Passage Analysis etc
Quiz
Panel Discussion
Group Presentation
Role-Play
Dramatisation
Creative Writing

End Semester Examination

Total Marks: 100 Duration: 3 Hours

Section A – Three short essays (350 words)

3x15 = 45 marks

Section B – Two long essays (600words)

2x20= 40 marks

Section C – Passage analysis from units 2 and 3

1x15=15 marks

***Note: Unit 1 is not for testing.**

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.A. DEGREE: BRANCH XII- ENGLISH

SYLLABUS
(Effective from the academic year 2015 -2016)

WEST ASIAN LITERATURE

CODE: 15EL/MC/WA65

CREDITS : 5

L T P : 5 0 0

TOTAL TEACHING HOURS:65

OBJECTIVES OF THE COURSE

- To introduce students to writing from the West Asian region
- To sensitise students to the writing that emerges from conflict zones

Unit 1

Introduction

(10 hrs.)

1.1 AdeedDawisha

Defining Arab Nationalism

1.2 Margot Badran

Islamic Feminism: What's in a Name?

1.3 Edward Said

Reflections on Exile

Unit 2

(18 hrs.)

2.1 Palestine

2.1.1 Mahmoud Darwish

The Passport

2.1.2 FalastineDwikat

BeitByout (Play House)

Alignment

2.2 Israel

2.2.1 Yehuda Amichai

It's a Long Time Since Anybody's Asked

WhyI Am Big and Fat

2.2.2 Amos Oz

A Tale of Love and Darkness

Unit 3

(18 hrs.)

3.1 Iran

3.1.1 MarjaneSatrapi

Persepolis

3.1.2 GoliTaraqqi

A House in Heaven

3.2 Iraq

3.2.1 Hassan Blasim

The Reality and the Record

3.2.2 Dunya Mikhail

I Was In a Hurry

3.3 Syria

3.3.1 AdonisThe Days

Underground

Unit 4

(9hrs.)

4.1 Lebanon

4.1.1 Emily Nasrallah

The Green Bird

4.2 Jordan

4.2.1 HishamBustani

Freefall in a Shattered Mirror

- 4.3 Saudi Arabia
 4.3.1 Mohammad Hassan Alwan Oil Field

Unit 5

Practical Application Tasks (Suggested List) (10 hrs.)

- 5.1. Palestine
 5.1.1 Liana Badr Colours
- 5.2 Iran
 5.2.1 Forugh Farrokhzad The Captive
 Face to Face with God
 O, Baba! O, Baba!
- 5.2.2 Behjat Malek-Kiani
- 5.3 Iraq
 5.3.1 Mahdi Isa al-saqr Morning Exercises
 5.3.2 Dunya Mikhail Excerpt from Diary of a Wave Outside
 the Sea
- 5.4 Jordan
 5.4.1 Amjed Nasser Seven Bridges
 5.4.2 Ibrahim Nasrallah Days
 Homeland

BOOKS FOR REFERENCE

- Cooke, Miriam. "Talking Democracy", *Women and the War Story*. California: University of California, 1996. Print.
- Dabashi, Hamid. *The Arab Spring: The End of Postcolonialism*. London: Zed Books, 2012. Print.
- Said, Edward W. *Reflections of Exile and Other Literary and Cultural Essays*. London: Penguin Books, 2001. Print.
- Singh, Karan. *History, Culture and Society in India and West Asia*. Delhi: Shipra, 2003. Print.
- Notes on West Asia*. Chennai: Department of English, Stella Maris College, 2007. Print.
- Sisodia, N.S. *West Asia in Turmoil*. New Delhi: Academic Foundation, 2007. Print.

JOURNALS

- Fayad, Mona. *Reinscribing Identity: Nation and Community in Arab Women's Writing*.

WEB RESOURCES

- <http://www.jstor.org/stable/25112170>

PATTERN OF EVALUATION

Continuous Assessment:

- | | |
|---|--------------------|
| Total Marks: 50 | Duration: 90 mins. |
| Section A – Short essays- three out of five | 3x5=15 marks |
| Section B – Long essays- two out of four | 2x10=20 marks |
| Section C – Passage analysis- no choice | 1x15=15marks |

Third Components:

- Assignment

Seminar
Presentation
Take Home Test
Open Book Test
Scheduled Class Work – Passage Analysis etc
Quiz
Panel Discussion
Group Presentation
Role-Play
Dramatisation
Creative Writing

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Section A – Three short essays (350 words)

3x15= 45 marks

Section B – Two long essays (600words)

2x20= 40 marks

Section C – Passage analysis from units 2 and 3

1x15=15 marks

***Note: Units 1 & 5 not for testing**

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.A. DEGREE: BRANCH XII – ENGLISH

SYLLABUS
(Effective from the academic year 2015 -2016)

AFRICAN AND CARIBBEAN LITERATURES

CODE: 15EL/MC/AC65

CREDITS : 5

L T P :500

TOTAL TEACHING HOURS :65

OBJECTIVES OF THE COURSE

- To introduce students to literary forms from the two regions
- To enable students to reframe African and Caribbean cultures within the context of world cultures
- To enable students to understand the dynamics of literary production in these regions

Unit 1	Nigeria and Ghana		(20hrs.)
	1.1 Chinua Achebe	Things Fall Apart	
	1.2 Wole Soyinka	The Lion and the Jewel	
	1.3 Ama Ata Aidoo	Anowa	
	1.4 Chimamanda Adiche	The Thing Around Your Neck	
Unit 2	Egypt and Senegal		(10 hrs.)
	2.1 Ahdaf Soueif	Cairo	
	2.2 Leopold Senghor	Black Woman	
Unit 3	Malawi and South Africa		(5 hrs.)
	3.1 David Rubadiri	Stanley Meets Mutesa	
	3.2 Dennis Brutus	If this Life is All We Have	
Unit 4	The Caribbean		(20 hrs.)
	4.1 Edward Kamau Braithwaite	Limbo	
	4.2 Derek Walcott	Crusoe's Island	
	4.3 Cyril Dabydeen	Dubious Foreigner	
	4.4 Jean Rhys	Wide Sargasso Sea	
	4.5 David Dabydeen	The Counting House (Short Story)	
Unit 5	Practical Application Tasks		(10 hrs.)

BOOKS FOR REFERENCE

- Ashcroft, Bill, Gareth Griffiths and Helen Tiffin., *The Post-Colonial Studies Reader*. London: Routledge. 2006. Print.
- Ashcroft Bill, Gareth Griffiths and Helen Tiffin. "Introduction", *The Empire Writes Back: Theory and Practice in Post-Colonial Literatures*. London: Routledge. 2006. Print
- Castle, Gregory, *Postcolonial Discourses: An Anthology*. Oxford: Blackwell, 2001. Print.
- Fanon, Frantz, Trans, Constance Farrington *Black Skin, White Masks*., New York: Grove Press. 1967. Print.
- O'Connor, Mark. Ed. *Two Centuries of Australian Poetry*. 2nd Edition, OUP, 2000. Print.
- Schwarz, Henry and Sangeeta Ray, *A Companion to Post Colonial Studies*. Oxford: Blackwell Publishing. 2005. Print.
- Stuart Hall. "Cultural Identity and Diaspora" *The Post-Colonial Studies Reader*. 2nd ed. Ed. Bill Ashcroft, Gareth Griffiths and Helen Tiffin. London: Routledge, 2006. 199-202. Chapter 44. Print.
- WaThiong' O, Ngugi. *Decolonising the Mind: the Politics of Language in African Literature*, Oxford: Heinemann Educational, 1986. Print.

JOURNALS

- Journal of Commonwealth Literature
ARIEL: A Review of International English Literature
Wasafiri
Postcolonial Studies

WEB RESOURCES

- <http://universitypublishingonline.org/cambridge/histories>
<http://www.pmc.edu/african-american--caribbean-lit-subject-guide>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – Short essays- two out of four

10x2=20 marks

Section B – Long Essays- two out of four

15x2=30 marks

Third Components:

- Assignment
Seminar
Presentation
Take Home Test
Open Book Test
Scheduled Class Work – Passage Analysis etc
Quiz
Panel Discussion
Group Presentation
Role-Play
Dramatisation
Creative Writing

End Semester Examination

Total Marks: 100

Section A – Three short essays- four out of six (350 words)

Section B – Three long essays- three out of six (800words)

Duration: 3 Hours

4x10 =40 marks

3x20= 60 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.A. DEGREE: BRANCH XII – ENGLISH

SYLLABUS
(Effective from the academic year 2015 -2016)

JOURNALISTIC WRITING

CODE: 15EL/AE/JW45

CREDITS : 5

L T P : 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce students to different kinds of writing for print media
- To train students in writing different kinds of reports and features
- To train students in the basics of copyediting

Unit 1		
Introduction		(5 hrs.)
1.1 News		
1.1.1 Hard News		
1.1.2 Soft News		
Unit 2		
Basics of Writing		(10 hrs.)
2.1 The 5 Ws and 1 H		
2.2 Writing Leads		
2.3 Developing the News Story		
2.4 Attribution		
2.5 Concluding the Story		
2.6 Gathering Information - Library Sources, Surveys, Interviews		
Unit 3		
Writing News Reports		(20 hrs.)
3.1 The Inverted Pyramid Format		
3.2 The Hourglass Format		
3.3 Writing the Lead		
3.4 Developing the News Story		
3.4.1 Reporting an Event from Information Given		
3.4.2 First-hand Reporting		
Unit 4		
Writing Features		(20hrs.)
4.1 Personality Profiles		
4.2 Interviews		
4.3 Writing a Feature on any Topic / Area of each student's choice		

Unit 5

Copyediting

(10 hrs.)

5.1 Copyediting

5.2 Copyediting Symbols

5.3 Copyediting For Accuracy, Better Reading and Length

5.4 Editing a Newspaper Article

BOOKS FOR REFERENCE

Dominick, Joseph R, *Dynamics of Mass Communication*. New York: Tata McGraw Hill, 1993. Print

Itule& Anderson, *News Writing and Reporting for Today's Media*.New York: Tata McGraw Hill, 1994. Print

R. M. Ritter. *The Oxford Guide to Style*. London: Oxford University Press, 2002. Print.

The Chicago Manual of Style, Chicago: The University of Chicago Press, 2003. Print

PATTERN OF EVALUATION

Continuous Assessment:

One first-hand report 10 marks

One feature on any topic of the student's choice 15 marks

Portfolio – Classwork done over the semester 25 marks

End-semester Evaluation (internal)

No End Semester Examination

Students to submit TWO features of 1500 words each on separate topics 100 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A. DEGREE: BRANCH XII – ENGLISH

SYLLABUS
(Effective from the academic year 2015 – 2016)

ENGLISH LANGUAGE TEACHING

CODE: 15EL/ME/LT55

CREDITS: 5

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce the students to the approaches, methods and techniques of English Language Teaching
- To train students in the methodology and preparation of materials for teaching English language

Unit 1

Language Acquisition

(10 hrs.)

1.1 First Language Acquisition of the Child

1.1.1 Lateralization of the Brain

1.1.2 Learning by Imitation

1.1.3 Language Acquisition Devices

1.1.4 Generalisation

1.2 Second Language Learning of the Adult

1.2.1 Mother tongue Interference

1.2.2 Psychological and Sociological Factors Influencing
Second Language Learning

Unit 2

Psychology of Learning

(15 hrs.)

2.1 Behaviourism

2.1.1 Behaviourist Psychology

2.1.2 Stimulus–Response Learning

2.1.3 Reinforcement

2.2 Cognitive Learning

2.2.1 Cognitive Structure

2.2.2 Concept Formation

2.2.3 Theory of Subsuming

2.2.4 Theory of Forgetting

2.2.5 Bloom’s Taxonomy

2.3 Humanistic Approach to Learning

2.3.1 The Teacher–Student Relationship

Unit 3

Approaches, Methods and Techniques in Language Teaching (15 hrs.)

- 3.1 A survey of the Grammar Translation Method, the Situational Method and the Audio-Lingual Method
- 3.2 Communicative Approach
 - 3.2.1 Communicative Competence as different from Linguistic Competence
 - 3.2.2 The Teacher's Role – The Student's Role
 - 3.2.3 Task- based activities in the class
- 3.3 Skills Approach
 - 3.3.1 Teaching Reading Skills – Skimming, Scanning and Intensive Reading
 - 3.3.2 Teaching Listening Skills – Listening for Specific Details, Keywords, Concepts
 - 3.3.3 Teaching Speaking Skills – Expressing Ideas, Opinions, Presenting an Argument.
 - 3.3.4 Teaching Writing Skills – Writing a Paragraph - Topic Sentence, Main Idea, Supporting Ideas, Concluding Sentence - Descriptive and Narrative Writing

Note; 3.1.1 only for short answers (no essay questions)

Unit 4

Syllabus

(10 hrs.)

- 4.1 Definition of Syllabus and Curriculum
 - 4.1.1 The Components of a Syllabus
 - 4.1.2 Testing and Evaluation
- 4.2 Kinds of Tests
 - 4.2.1. Placement Test
 - 4.2.2 Diagnostic Test
 - 4.2.3 Progress Test
 - 4.2.4 Achievement Test
 - 4.2.5 Proficiency Test
- 4.3 Criteria involved in Validity and Reliability

Unit 5

Materials Production

(15 hrs.)

- 5.1 Use of Conventional Resources
- 5.2 Use of Audiovisual Aids and Computer Software

BOOKS FOR REFERENCE

- Lefrancois, Guy R. *Psychology for Teaching*, California: Wordsworth Publishing Co., 2000. Print.
- McWhorter, Kathleen. *College Reading and Study Skills*, Boston: Little, Brown and Company, 1986. Print.
- Prabhu, N.S. *Communicative Teaching Project*, Bangalore: Bulletin of the Regional Institute of English, 1981. Print.

Richards, Jack C. and Theodore S. Rodgers. *Approaches and Methods in Language Teaching*. Cambridge: Cambridge UP, 2001. Print.

Yule, George and Gillian Brown. *Teaching Spoken English*. Cambridge: Cambridge UP, 1983. Print.

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Duration: 90 mins.

Section A – Three out of five short answers (about 200 words each)

3x5=15 marks

Section B – one out of three questions on theory

(about 500 words each)

1 x15=15 marks

Section C - One application-oriented question

(Framing tasks for a given passage)

1x20=20 marks

Third Component:

Materials Production

Practice Teaching

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Section A – Five out of seven short answers (about 200 words each)

5x6=30 marks

Section B – Three out of five questions on theory

(about 500 words each)

3 x15=45 marks

Section C - One application-oriented question

(framing tasks for a given passage)

1x25=25 marks

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B.A. DEGREE: BRANCH XII - ENGLISH

SYLLABUS

(Effective from the academic year 2015 – 2016)

INTRODUCTION TO CHILDREN'S LITERATURE

CODE:15EL/ME/CW55

CREDITS: 5

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To help students appreciate the diversity of children's literature
- To introduce them to its structures, conventions and effects

Unit 1

Introduction to Children's Fiction (10 hrs.)

- 1.1 Defining Children's Literature – Paradoxes, The Implied Reader, Double Address
- 1.2 Childhood – A Personal and Social Construct

Unit 2

The Picture Book (15hrs.)

- 2.1 Verbal and Visual Narratives
 - 2.1.1 Manjula Pabmanabhan *Where's that Cat?*
 - 2.1.2 Maurice Sendak *Where the Wild Things are?*
 - 2.1.3 Sandhya Rao *My Mother's Sari*
 - 2.1.4 P. Anuradha *Under the Neem Tree*
 - 2.1.4 Sheila Dhir *Why are You Afraid to Hold My Hand?*

Unit 3

Nonsense Verse (15 hrs.)

- 3.1 Dr. Seuss *Green Eggs and Ham*
- 3.2 Anushka Ravishankar *Tiger on a Tree*
- 3.3 Roald Dahl *Cinderella from Revolting Rhymes*

Unit 4

Fiction (20 hrs.)

- 4.1 Eva Ibbotson *Journey to the River Sea*
- 4.2 Jacqueline Wilson *The Story of Tracy Beaker*

Unit 5

Practical Application Tasks (5hrs.)

- 5.1 Other Sub-genres
 - 5.1.1 Comic Books/Strips
 - 5.1.2 Folk Tales
 - 5.1.3 Fairy Tales

- 5.1.4 Fantasy
- 5.1.5 Horror tales

BOOKS FOR REFERENCE

- Cullingford, Cedric. *Children's Literature and its Effects: The Formative Years*. London, Cassel, 1998.Print.
- Haviland, Virginia, ed. *Children and Liteature: Views and Reviews*_. London: Bodley Head, 1973.Print.
- Hume, Kathryn. *Fantasy and Mimesis*_. London: Methuen, 1984.Print.
- Hunt, Peter. *Understanding children's Literature: Key Essays from the International Companion Encyclopedia of X Children's Literature*_. London: Routledge, 1999.Print.
- Kakar, Sudhir. *Indian Childhood: Cultural Ideals and Social Reality*_. Delhi: OUP, 1979.Print.
- Lurie, Alison. *Boys and Girls Forever: Children's Classics from Cinderella to Harry Potter*_. London: Chatto, 2003.Print.
- Reynolds, Kimberley. *Children's Literature in the 1890s and the 1990s*. London: Northcote House, 1994.Print.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Section A – Short essays- three out of five

Section B – Long essays- two out of four

Section C –Passage analysis

Duration: 90 mins.

3x5=15 marks

2x10=20 marks

1x15=15 marks

Third Components:

Assignment

Seminar

Presentation

Take Home Test

Open Book Test

Scheduled Class Work – Passage Analysis etc

Quiz

Panel Discussion

Group Presentation

Role-Play

Dramatisation

Creative Writing

End Semester Evaluation

Term Paper

1500 words

Total Marks: 100

No End Semester Examination

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.A. DEGREE: BRANCH XII – ENGLISH

SYLLABUS
(Effective from the academic year 2015 – 2016)

LITERATURES OF AUSTRALIA, CANADA AND NEW ZEALAND

CODE: 15EL/ME/CA55

CREDITS : 5

L T P : 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To help students develop an awareness of issues - social, economic, political, and cultural – of the nations under study
- To encourage dialogue on conditions of marginality and plurality

Unit 1	Introduction-Key Concepts	(7 hrs.)
	1.1 Ashcroft et al.	The Empire Writes Back
	1.2 Padmini Mongia, Ed	Contemporary Post-Colonial Theory
	1.3 Ashcroft et al, Ed	The Post Colonial Studies Reader
Unit 2	Canada	(20 hrs.)
	2.1 Alice Munro	A Wilderness Station
	2.2 Margaret Atwood	Wilderness Tips
	2.3 Jeanette.C.Armstrong	Indian Woman
	2.4 George Ryga	The Ecstasy of Rita Joe
	2.5 Tomson Highway	The Lover Snake
	2.6 Thomas King	Truth and Bright Water
Unit 3	Australia	(20 hrs.)
	3.1 Lionel Fogarty	Remembering Something like This
	3.2 Philip Mead	Melbourne or the Bush
	3.3 Jack Davis	No Sugar
	3.4 Vincent O’Sullivan	The Children
	3.5 Peter Carey	American Dreams
	3.6 Oodgeroo Noonuccal (Kath Walker)	Integration – Yes!
Unit 4	New Zealand	(10 hrs.)
	4.1 Maurice Shadbolt	The Room
	4.2 Witi Ihimaera	The Whale Rider

Unit 5 Practical Application Tasks

(8 hrs.)

BOOKS FOR REFERENCE

- Barker, Francis. et al. *Colonial Discourse, Post Colonial Theory*. New York: Manchester UP, 1994. Print.
- Bayard, Caroline. *New Poetics in Canada and Quebec : From Concertism to Post-Modernism*. London: University of Toronto Press, 1989. Print.
- Bennett, Bruce. *Sense of Exile*. Western Australia: Centre for Studies in Australian Literature, 1988. Print.
- Irvine, Lorna L. *Sub/Version : Canadian Fiction by Women*. Toronto: ECW Press, 1986. Print.
- Juneja, Om P. *The Post Colonial Novel - Narratives of Colonial Consciousness*. New Delhi: Creation, 1995. Print.
- King, Bruce. *New National and Post-colonial Literatures*. New York: Clarendon Press, 1996. Print.
- Kudchedkar, Shirin and Jameela Begum, eds. *Canadian Voices*. New Delhi: Pencraft, 1996. Print.
- Nkosi, Lewis. *Tasks and Masks: Themes and Styles of African Literature*. London: Longman, 1981. Print.
- Pandey, Sudhakar. *Perspectives on Canadian Fiction*. New Delhi: Prestige Books, 1994. Print.
- Schwarz, Henry and Sangeeta Ray. *A Companion to Postcolonial Studies*. Oxford: Blackwell, 2000. Print.
- Soyinka, Wole. *Art Dialogue and Outrage: Essays on Literature and Culture*. London: Methuen, 1993. Print.
- Walder, Dennis. *Post-Colonial Literature in English, History, Language and Theory*. Oxford: Blackwell 1998. Print.
- Young, Robert J.C. *Postcolonialism: An Historical Introduction*. Oxford: Blackwell, 2001. Print.

JOURNALS

Journal of Commonwealth Literature
ARIEL: A Review of International English Literature
Wasafiri
Postcolonial Studies
<http://criticalflame.org/>
<https://www.aprweb.org/>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Section A – Short essays- three out of five

Section B – Long essays- two out of four

Section C – Passage analysis

Duration: 90 mins.

3x5=15 marks

2x10=20 marks

1x15=15 marks

Third Component:

Assignment

Seminar

Presentation

Take Home Test

Open Book Test

Scheduled Class Work – Passage Analysis

Quiz

Panel Discussion

Group Presentation

Role-Play

Dramatisation

Creative Writing

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Section A – Three short essays out of five (350 words)

3x15 = 45 marks

Section B – Two long essays out of four (600 words)

2x20 = 40 marks

Section C – Passage analysis from units 2 and 3

1x15 = 15 marks

Unit 1 is not for testing.

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SYLLABUS
(Effective from the academic year 2015-2016)

BASIC ENGLISH –II

CODE: 15EL/GE/BE32

CREDITS : 2

L T P : 3 0 0

TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE

- To master basic competency levels in English language use
- To introduce learners to and train them in basic skills of listening and reading and the use of basic grammar items

Unit 1

Grammar

(6 hrs.)

- 1.1 Prepositions
- 1.2 Relative Clauses
- 1.3 Mixed tenses (Exercises in application of basic tenses)
- 1.4 Subject –verb agreement

Unit 2

Syntax

(5 hrs.)

- 2.1 Active and passive
- 2.2 Direct and indirect speech

Unit 3

Speaking Skills

(4 hrs.)

- 3.1 Introduction of self and others
- 3.2 Oral presentation (5 sentences) on specified topics
- 3.3 Introducing, Requesting, Seeking/ Giving information, Inviting, Apologising, Describing and Narrating
- 3.4 Dialogue

Unit 4

Writing Skill

(7hrs.)

- 4.1 Sequencing (jumbled sentences)
- 4.2 Completion – filling in missing sentences in a paragraph.
- 4.3 Reordering sentences into paragraphs
- 4.4 Writing a paragraph (5 sentences)
- 4.5 Rewriting a passage in the simple present using simple past or vice-versa

4.6 Letter Writing – formal

4.7 Expanding hints

Unit 5

Vocabulary

(4 hrs.)

5.1 word webs, antonyms, synonyms and so on

BOOKS FOR REFERENCE

Swan, Michael. *Practical English Usage*. New Delhi: OUP, 1995. Print.

Ur, Penny. *Teaching Listening Comprehension*. Cambridge: CUP, 1984. Print.

---. *Grammar Practice Activities*. Cambridge: CUP, 1988. Print.

---. *Five- Minute Activities: A Resource Book of Short Activities*. Cambridge: CUP, 1992. Print.

Ur, Penny and S. Thornbury. *Vocabulary Activities*. Cambridge: CUP, 2012. Print.

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

One CA Test

25 marks

Third Components

25 marks

Oral Presentation

Quiz

Group Presentation

Role-Play

Dramatisation

Creative Writing

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SYLLABUS
(Effective from the academic year 2015-2016)

BASIC ENGLISH – I

CODE: 15EL/GE/BE22

CREDITS : 2

L T P :3 0 0

TOTAL TEACHING HOURS:26

OBJECTIVES OF THE COURSE

- To initiate comfort levels in English language users whose grasp of the language is inadequate
- To master basic competency levels in English language use
- To introduce learners to and train them in basic skills of listening and reading and the use of basic grammar items

Unit 1

Grammar

(5hrs.)

1.1 Articles

1.2 Tenses

1.2.1 Simple

1.2.2 Continuous

1.2.3 Perfect

Unit 2

Syntax

(6 hrs.)

2.1 Sentence construction (jumbled words)

2.2 Interrogative, Affirmative, Negative sentences

Unit 3

Listening Skills

(4 hrs.)

3.1 Listening for specific information

(Objective type: fill in the blanks; match the following, maps, grid, etc.)

3.2 Listening / Comprehension Skills

Films – one regional, one in English, one documentary

3.2.1 Class discussion

3.2.2 Listening comprehension

Unit 4

Reading Skills

(7hrs.)

4.1 Short Stories – Tales from the Panchatantra/ R. K. Narayan's short stories and current newspaper articles/advertisements

- 4.1.1 Locating Information
- 4.1.2 Understanding the Overall Content
- 4.1.3 Picking Out the Central Idea
- 4.1.4 Recognizing the linking ideas
- 4.1.5 Summarising

Unit 5

Vocabulary

(4 hrs.)

- 5.1 Building vocabulary (puzzles and games)

BOOKS FOR REFERENCE

Swan, Michael. *Practical English Usage*. New Delhi: OUP, 1995. Print.

Ur, Penny. *Teaching Listening Comprehension*. Cambridge: CUP, 1984. Print

---. *Grammar Practice Activities*. Cambridge: CUP, 1988. Print.

---. *Five-Minute Activities: A Resource Book of Short Activities*. Cambridge: CUP, 1992. Print

---and S.Thornbury. *Vocabulary Activities*. Cambridge: CUP, 2012. Print.

Films

English Vinglish

Mitr, My friend

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment:

Total Marks: 50

One CA Test

Duration: 90 mins.

25 marks

Third Components

25 marks

Oral Presentation

Quiz

Group Presentation

Role-Play

Dramatisation

Creative Writing

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SYLLABUS
(Effective from the academic year 2015-2016)

WRITING FOR THE MEDIA

CODE: 15 EL/GE/WM23

CREDITS: 3

L T S: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVE OF THE COURSE

- To train students in writing news and features for various media

Unit 1	Introduction	(4 hrs.)
	1.1 Different Kinds of Media and Their Characteristics	
	1.2 Differences between Writing for the Media and Other Kinds of Writing	
Unit 2	Print media – Writing News Reports	(8 hrs.)
	2.1 What Is News	
	2.2 The Inverted Pyramid Structure	
	2.3 Writing the Lead	
	2.4 Developing the News Story	
Unit 3	Print Media – Writing Features	(10 hrs.)
	3.1 What is a Feature?	
	3.2 Using Resources	
	3.3 Writing the Lead	
	3.4 Developing the News Story	
	3.5 Attribution	
Unit 4	Broadcast Media	(10 hrs.)
	4.1 Radio	
	4.1.1 Writing Anchor Scripts for Radio Programmes	
	4.2 Television	
	4.2.1 Writing Anchor Scripts for Television Programmes	
Unit 5	New Media	(7 hrs.)
	5.1 Writing Reports and Features for the Web	

BOOKS FOR REFERENCE

Chapman, Nigel. *Digital Multimedia*. New York: John Wiley and Sons, 2000. Print.
Mass Media and Mass Communication. Cambridge, Chdadwick Healy, 1991. Print.
Mass Media in India 2000. New Delhi: Ministry of Information and Broadcasting, 2000.
Print.

Mencher, Melvin. *Basic Media Writing*. London: Brown and Benchmark, 1996. Print

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment:

Total Marks: 50

One CA Test

Duration: 90 mins.

50 marks

Third Components

Writing a script in any one medium

Analysis of scripts

50 marks

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SYLLABUS
(Effective from the academic year 2015-2016)

BASIC THEATRE SKILLS

CODE: 15EL/GE/TS23

CREDITS: 3

L T P: 300

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To introduce the learners to basic theatre skills
- To practice various modes of theatrical expressions

Unit 1

Creating a Text

(8 hrs.)

- 1.1 Poem/ excerpts from a Novel, short story
- 1.2 Improvisations

Unit2

Text – Actor

(8 hrs.)

- 2.1 Chorus
- 2.2 Voice (Workshop)
- 2.3 Action-Reaction

Unit 3

Text – Action

(8 hrs.)

- 3.1 Emotions
- 3.2 Relationships
- 3.3 Spaces

Unit 4

Text – Subtext

(8 hrs.)

- 4.1 Character development
- 4.2 Staging directions

Unit 5

Text – Space

(7 hrs.)

- 5.1 Presentation of a rehearsed piece

PATTERN OF EVALUATION

Continuous Assessment

- Creation of a play-script for a rehearsed reading
- Review of a performance

15 marks

10 marks

Documentation of performance history of a play
Process documentation of the course

15 marks
10 marks

No End Semester Examination

Evaluation

Final Presentation (Individual/ pair/ group) (End-Sem. Practical)
Computation of End Semester presentation

50 marks

Internal	50	Peer	50
External	50	Self	50
All the above computed to 50			

No. of students; 30- 35

Texts to be chosen by Course Teacher

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI-600086
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SYLLABUS
(Effective from the academic year 2015-2016)

FICTION AND FILM

Code: 15EL/GE/FF23

CREDITS: 3

L T P: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To equip learners to appreciate the techniques of adaptation of fiction to film
- To introduce learners to aspects of narrative in fiction and film

Unit 1

Narrative in Fiction and Film (7 hrs.)

- 1.1. Genre
- 1.2 Point of view
- 1.3 Issues in cultural aspects of adaptation
- 1.4 Narrative techniques in Fiction and Narrative technology in Films
- 1.5 Kinds of Adaptation – Translation, Transformation, Transcreation

Unit 2

Novella (8 hrs.)

- 2.1 Text *Nastanirh*
- 2.2 Film *Charulata*

Unit 3

Novel (8 hrs.)

- 3.1 Text *Harry Potter and The Philosopher's Stone*
- 3.2 Film Dir. by Chris Columbus

Unit 4

Comic Book (8 hrs.)

- 4.1. Text *Tintin*
- 4.2. Film Animation Film *Tintin*

Unit 5

One Text Two Visions (8 hrs.)

- 5.1 Film *Sense and Sensibility* (English version)
- 5.2 Film *Kandukondein Kandukondein* (Tamil version)

BOOKS FOR REFERENCE

Chatman, Seymour. *Story and Discourse: Narrative Structure in Fiction and Film*.
Ithaca: Cornell University Press, 1978. Print.

Corrigan, Timothy. *Film and Literature: An Introduction and Reader*. London: Pearson, 1998. Print.
Giannetti, Louis. *Understanding Movies*. London: Pearson, 2008. Print.
Lothe, Jakobs. *Narrative in Fiction and Film*. New Delhi: OUP. Print.
Seger, Linda. *The Art of Adaptation: Turning Fact and Fiction into Film*. Print.
Synder, Mary. *Analyzing Literature to Film Adaptations*. New York: Continuum, 2011. Print.

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment:

Total Marks: 50

One CA Test

Duration: 90 mins.

50 marks

Third Components

50 marks

Analysis of film adaptations of fiction texts (not on the syllabus)

Creating a screenplay for a short story

Analysis of published screenplays

Quiz

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GENERAL ELECTIVE COURSE OFFERED BY THE DEPARTMENT OF
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SYLLABUS
(Effective from the academic year 2015-2016)

ENGLISH FOR THE WORKPLACE

Code: 15EL/GE/EW23

CREDITS: 3

L T P: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To help students improve their employability skills
- To improve learner's confidence in using workplace English, particularly speaking and writing

Unit 1

Introduction

(4 hrs.)

- 1.1. Meeting and Greeting
- 1.2. Introducing self and others

Unit 2

Jobs and Responsibilities

(5 hrs.)

- 2.1. Collecting information about and describing a company and its organization
- 2.2. Job description and responsibilities
- 2.3. Completing forms with personal or company details

Unit 3

Business Communication

(10 hrs.)

- 3.1. Exchanging information and taking instructions over telephones
- 3.2. Writing letters/e-mails, reports, memos and messages
- 3.3. Tele-conferencing

Unit 4

Presentations

(15 hrs.)

- 4.1. One-minute presentations on selected work place topics
- 4.2. PowerPoint presentation
- 4.3. Collaborative discussion

Unit 5 Practice Tests

(5 hrs.)

BOOKS FOR REFERENCE

Business Times/ Economic Times

Bob Dignen, Steve Flinders, Simon Sweeny , *For Work and Life English 365*,
Personal Study Book 1&2, Cambridge University Press,2010.Print.

Collins & Porras 'Built To Last' *Harper Business Essentials*: An Imprint of Harper
Collins Publishers, 2012.Print.

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment:

Total Marks: 50

One CA Test

Duration: 90 mins.

50 marks

Third Components

Oral Presentation

PowerPoint presentation

50 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A. DEGREE: BRANCH XII – ENGLISH

SYLLABUS
(Effective from the academic year 2015-2016)

POETRY OF THE ROMANTIC AGE

CODE: 15EL/UI/PR43

CREDITS: 3

OBJECTIVE OF THE COURSE

- To introduce students to the English Romantic Movement and its literature

Unit 1

1.1 Introduction to the Romantic Movement

Unit 2

2.1 The Pre-Romantics

Unit 3

3.1 William Wordsworth Ode on Intimations of Immortality from Elderly
Childhood
3.2 Samuel Taylor Coleridge Dejection: An Ode

Unit 4

4.1 John Keats Ode on a Grecian Urn
4.2 Percy Bysshe Shelly To a Skylark

Unit 5

5.1 George Byron Don Juan: Canto I(6-64)

BOOKS FOR REFERENCE

Abrams, M H. *The Mirror and the Lamp: Romantic Theory and the Critical Tradition*. Oxford: OUP, 1953. Print.

Bowra, C M. *The Romantic Imagination*. London: OUP, 1950. Print

PATTERN OF EVALUATION

End Semester Examination

Total Marks: 100

4 out of 6 essays of 750 words each

Duration: 3 hours

4 x 25=100

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A. DEGREE: BRANCH XII – ENGLISH

SYLLABUS
(Effective from the academic year 2015-2016)

NOVEL OF COURTSHIP AND MARRIAGE

CODE: 15EL/UI/CM43

CREDITS: 3

OBJECTIVES OF THE COURSE

- To enable the student to place the institutions of courtship and marriage within a social and historical context
- To facilitate the students to study the fictional representation of these themes

Text: Vikram Seth: **A Suitable Boy**

Unit 1

Background

- 1.1 European / Western Conventions of Courtship and Marriage – Its History and Contemporary Views on Them
- 1.2 Indian Conventions of Courtship and Marriage

Unit 2

Socio-Economic And Religious Perspectives

- 2.1 Role of Social Class in Marriages
- 2.2 Caste-Based and Religious Considerations
- 2.3 Arranged Marriages and Marriages by Personal Choice
- 2.4 Rebellion and Conformity

Unit 3

Gender Perspectives

- 3.1 Feminist Perspectives
- 3.2 Sexual / Gender Role

Unit 4

Techniques

- 4.1 Fictional Narrative Techniques

Unit 5 Practical Analysis Tasks

BOOKS FOR REFERENCE

Beauvoir, Simone De. *The Second Sex*. London: Vintage Books, 1949. Print.

Brownstein, Rachel, M. *Becoming a Heroine*. New York: The Viking Press, 1982. Print.

Lewis, C. S. *The Allegory of Love*. New York: Oxford UP, 1958. Print.

Millet, Kate. *Sexual Politics*. New York: Doubleday, 1970. Print.

PATTERN OF EVALUATION

End Semester Examination

Total Marks: 100

4 out of 6 essays of 750 words each

Duration: 3 hours

4 x 25=100

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

B.A. / B.Sc. / B.V.A. / B.COM. / B.CA / BSW DEGREE COURSE

SYLLABUS

FOUNDATION COURSE FRENCH

(Effective from the academic year 2015-2016)

BASIC FRENCH AND INTRODUCTION TO LITERATURE

CODE: 15FR/FC/FL13

CREDITS : 3

LTP : 3 1 0

TOTAL TEACHING HOURS : 52

OBJECTIVE OF THE COURSE

- To facilitate the acquisition of linguistic and communicative skills in daily life situations

Unité 1

(12 hrs.)

Parcours d'initiation

- 1.1 Comment vous vous appelez
- 1.2 Vous parlez français
- 1.3 Vous êtes allemand
- 1.4 Tu habites où
- 1.5 Qu'est-ce que c'est
- 1.6 Qui est-ce
- 1.7 Cartes postales et messages

Unité 2

(11 hrs.)

Vous comprenez

- 2.1 Aborder quelqu'un
- 2.2 Dire son nom
- 2.3 Saluer – prendre congé
- 2.4 Remercier
- 2.5 Dire si on comprend

Unité 3

(11 hrs.)

Au travail

- 3.1 Identifier une personne ou un objet
- 3.2 Exprimer ses goûts
- 3.3 Demander quelque chose

Unité 4

(10 hrs.)

On se détend

- 4.1 Proposer quelque chose
- 4.2 Accepter ou refuser une proposition

- 4.3 Demander une explication
- 4.4 Exprimer la possibilité / l'impossibilité, l'obligation

Unité 5

(8 hrs.)

Récits

- 5.1 Le sommeil mortel
- 5.2 Le chasseur et le cadavre

BOOKS FOR STUDY

J. Girardet & J. Pécheur avec la collaboration de C. Gibbe, *Echo AI, Méthode de français et cahier d'exercices*, Paris: CLE International, 2012.

Recueillis et édités par Krishnan Chitra, *De Bouche à Oreille : Contes favoris*, New Delhi : Saraswathi, 2009.

BOOKS FOR REFERENCE

Bannour Abderrazak, *Contes maghrébins*, Paris : Conseil International de la Langue Française, 1981.

Berthet Annie, Hugot Catherine, Sampsonis Béatrix, Wrendendries Monique, *Alter Égo 1, Méthode de français et cahier d'exercices*, Paris : Hachette, 2006.

Carlo Catherine, Causa Mariella, *Civilisation Progressive du Français – I*, Paris : CLE International, 2003.

Irani Zenobia, *Pathfinder*, New Delhi : Goyal Publishers & Distributors Pvt. Ltd., 2011.

Krishnan Chitra, Albert Adeline, *Le Tramway Volant - I*, New Delhi : Saraswathi, 2011.

WEB RESOURCES

<http://bouche-a-oreille.pagesperso-orange.fr>

www.franparler.org

www.francaisfacile.com/exercices/

www.lepointdufle.net/

www.ccdmd.qc.ca/fr/

www.bonjourdefrance.com

<http://users.skynet.be/providence/vocabulaire/francais/menu.htm>

PATTERN OF EVALUATION

Continuous Assessment

Total marks: 50

Duration : 90 mins

Section A (20 points)

Section B (15 points)

Section C (15 points)

Third Component :

Examen oral

Dictée

Document authentique

Présentation

Assignments

Test culturel (à l'oral ou à l'écrit)

Guided assignments (dialogue, courte rédaction)

Activités ludiques

Corriger les erreurs

End Semester Examination

Total marks : 100

Duration : 3 hours

Section A (40 points)

Exercices de grammaire. (10 x 4 = 40 points)

10 exercices tirés du manuel prescrit

Section B (30 points)

Exercices de vocabulaire tirés du manuel prescrit (20 points)

Synonymes

Contraires

Forme nominale / verbale

Masculin / féminin

Barrez l'intrus

Faire correspondre les éléments dans deux colonnes

Vrai ou Faux

Reconstituez un dialogue

Complétez avec le mot / l'expression convenable

Questions à choix multiple

Corriger les erreurs

Compréhension écrite d'un document authentique (10 points)

2 questions portant 5 points chacune (QCM, V/F, Répondre, Compléter, Faire correspondre....)

Section C (30 points)

Faire des phrases avec des mots ou expressions donnés. (5 x 1 = 5 points)

Rédaction d'un petit texte sur un sujet donné. (5 points)

Texte prescrit (20 points)

2 parties portant 10 points chacune : a) Répondre aux questions (10 points)

b) QCM, V/F, Compléter...

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

B.A. / B.Sc. / B.V.A. / B.COM. / B.CA / BSW DEGREE COURSE

SYLLABUS

FOUNDATION COURSE FRENCH

(Effective from the academic year 2015-2016)

INTERMEDIATE FRENCH

CODE: 15FR/FC/IF23

CREDITS : 3

LTP : 3 1 0

TOTAL TEACHING HOURS : 52

OBJECTIVE OF THE COURSE

- To facilitate the acquisition of linguistic and communicative skills in daily life situations.

Unité 1 (14 hrs.)

Racontez-moi

1.1 Demander / donner des précisions sur le temps

1.2 Demander / dire ce qu'on fait

1.3 Féliciter

Unité 2 (13 hrs.)

Bon voyage

2.1 Choisir, négocier une activité commune

2.2 Faire des recommandations

2.3 Demander / donner une explication

Unité 3 (13 hrs.)

Bon appétit

3.1 Décrire et raconter un repas

3.2 Décrire et raconter une fête

3.3 Situations pratiques à l'hôtel et au restaurant

Unité 4 (6 hrs.)

Grand Poussin

4.1 Presentation and study of the text

4.2 Oral and written comprehension

4.3 Grammar and other related activities

4.4 Aller plus loin

Unité 5

(6 hrs.)

Hans Brinker et la Digue

- 5.1 Presentation and study of the text
- 5.2 Oral and written comprehension
- 5.3 Grammar and other related activities
- 5.4 Aller plus loin

BOOKS FOR STUDY

J. Girardet & J. Pécheur avec la collaboration de C. Gibbe, *Echo A1, Méthode de français et cahier d'exercices*, Paris : CLE International, 2012.

Recueillis et édités par Krishnan Chitra, *De Bouche à Oreille : Contes favoris*, New Delhi : Saraswathi, 2009.

BOOKS FOR REFERENCE

Berthet Annie, Hugot Catherine, Sampsonis Béatrix, Wrendendries Monique, *Alter Égo 1, Méthode de français et cahier d'exercices*, Paris : Hachette, 2006.

Carlo Catherine, Causa Mariella, *Civilisation Progressive du Français – I*, Paris : CLE International, 2003.

Irani Zenobia, *Pathfinder*, New Delhi : Goyal Publishers & Distributors Pvt. Ltd., 2011.

Krishnan Chitra, Albert Adeline, *Le Tramway Volant - I*, New Delhi : Saraswathi, 2011.

WEB RESOURCES

<http://bouche-a-oreille.pagesperso-orange.fr>

www.franparler.org

www.francaisfacile.com/exercices/

www.lepointdufle.net/

www.ccdmd.qc.ca/fr/

www.bonjourdefrance.com

<http://users.skynet.be/providence/vocabulaire/francais/menu.htm>

PATTERN OF EVALUATION

Continuous Assessment

Total marks: 50

Duration : 90 mins

Section A (20 points)

Section B (15 points)

Section C (15 points)

Third Component Tests

Total marks: 50

Examen oral

Dictée

Document authentique

Présentation

Assignments

Test culturel (à l'oral ou à l'écrit)

Guided assignments (dialogue, courte rédaction)

Activités ludiques

Corriger les erreurs

End Semester Examination

Total marks : 100

Duration : 3 hours

Section A (40 points)

Exercices de grammaire. (10 x 4 = 40 points)

10 exercices tirés du manuel prescrit

Section B (30 points)

Exercices de vocabulaire tirés du manuel prescrit (20 points)

Synonymes

Contraires

Forme nominale / verbale

Masculin / féminin

Barrez l'intrus

Faire correspondre les éléments dans deux colonnes

Vrai ou Faux

Reconstituez un dialogue

Complétez avec le mot / l'expression convenable

Questions à choix multiple

Corriger les erreurs

Compréhension écrite d'un document authentique (10 points)

2 questions portant 5 points chacune (QCM, V/F, Répondre, Compléter, Faire correspondre...)

Section C (30 points)

Faire des phrases avec des mots ou expressions donnés. (5 x 1 = 5 points)

Rédaction d'un petit texte sur un sujet donné. (5 points)

Texte prescrit (20 points)

2 parties portant 10 points chacune : a) Répondre aux questions (10 points)

b) QCM, V/F, Compléter...

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

B.A./ B.Sc./ B.V.A./ BSW DEGREE COURSE

SYLLABUS

FOUNDATION COURSE FRENCH

(Effective from the academic year 2015-2016)

ADVANCED FRENCH - I

CODE: 15FR/FC/AF33

CREDITS : 3

LTP : 3 1 0

TOTAL TEACHING HOURS : 52

OBJECTIVE OF THE COURSE

- To facilitate the acquisition of linguistic and communicative skills in daily life situations.

Unité 1 (14 hrs.)

Quelle journée

- 1.1 Demander des nouvelles de quelqu'un
- 1.2 Choisir, acheter, payer un objet
- 1.3 S'informer sur la présence ou l'existence d'une personne ou d'un objet

Unité 2 (13 hrs.)

Qu'on est bien ici

- 2.1 S'informer sur l'état physique de quelqu'un
- 2.2 S'informer sur un itinéraire, une orientation
- 2.3 Demander de l'aide
- 2.4 Exprimer une interdiction

Unité 3 (13 hrs.)

Souvenez-vous

- 3.1 Raconter un souvenir
- 3.2 Présenter sa famille
- 3.3 Demander / donner des informations sur la biographie d'une personne
- 3.4 Interroger quelqu'un sur ses projets

Unité 4 (6 hrs.)

Les Questions d'Enfance

- 4.1 Presentation and study of the text
- 4.2 Oral and written comprehension
- 4.3 Grammar and other related activities
- 4.4 Aller plus loin

Unité 5

(6 hrs.)

Le Violoniste

- 5.1 Presentation and study of the text
- 5.2 Oral and written comprehension
- 5.3 Grammar and other related activities
- 5.4 Aller plus loin

BOOKS FOR STUDY

J. Girardet & J. Pécheur avec la collaboration de C. Gibbe, *Echo A1, Méthode de français et cahier d'exercices*, Paris : CLE International, 2012.

Recueillis et édités par Krishnan Chitra, *De Bouche à Oreille : Contes favoris*, New Delhi : Saraswathi, 2009.

BOOKS FOR REFERENCE

Berthet Annie, Hugot Catherine, Sampsonis Béatrix, Wrendendries Monique, *Alter Égo 1, Méthode de français et cahier d'exercices*, Paris : Hachette, 2006.

Carlo Catherine, Causa Mariella, *Civilisation Progressive du Français – I*, Paris : CLE International, 2003.

Irani Zenobia, *Pathfinder*, New Delhi : Goyal, 2011.

Krishnan Chitra, Albert Adeline, *Le Tramway Volant - I*, New Delhi : Saraswathi, 2011.

WEB RESOURCES

<http://bouche-a-oreille.pagesperso-orange.fr>

www.franparler.org

www.francaisfacile.com/exercices/

www.lepointdufle.net/

www.ccdmd.qc.ca/fr/

www.bonjourdefrance.com

<http://users.skynet.be/providence/vocabulaire/francais/menu.htm>

PATTERN OF EVALUATION

Continuous Assessment

Total marks: 50

Duration : 90 mins

Section A (20 points)

Section B (15 points)

Section C (15 points)

Third Component:

Examen oral

Dictée

Document authentique

Présentation

Assignments

Test culturel (à l'oral ou à l'écrit)

Guided assignments (dialogue, courte rédaction)

Activités ludiques

Corriger les erreurs

End Semester Examination

Total marks : 100

Duration : 3 hours

Section A (40 points)

Exercices de grammaire. (10 x 4 = 40 points)

10 exercices tirés du manuel prescrit

Section B (30 points)

Exercices de vocabulaire tirés du manuel prescrit (20 points)

Synonymes

Contraires

Forme nominale / verbale

Masculin / féminin

Barrez l'intrus

Faire correspondre les éléments dans deux colonnes

Vrai ou Faux

Reconstituez un dialogue

Complétez avec le mot / l'expression convenable

Questions à choix multiple

Corriger les erreurs

Compréhension écrite d'un document authentique (10 points)

2 questions portant 5 points chacune (QCM, V/F, Répondre, Compléter, Faire correspondre....)

Section C (30 points)

Faire des phrases avec des mots ou expressions donnés. (5 x 1 = 5 points)

Rédaction d'un petit texte sur un sujet donné. (5 points)

Texte prescrit (20 points)

2 parties portant 10 points chacune : a) Répondre aux questions (10 points)

b) QCM, V/F, Compléter...

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

B.A. / B.Sc. / B.V.A. / BSW DEGREE COURSE

SYLLABUS

FOUNDATION COURSE FRENCH

(Effective from the academic year 2015-2016)

ADVANCED FRENCH - II

CODE: 15FR/FC/AF43

CREDITS : 3

LTP : 3 1 0

TOTAL TEACHING HOURS : 52

OBJECTIVES

- To reinforce the student's knowledge of French through literary extracts.
- To encourage the student to read simple French.
- To improve student's vocabulary and knowledge of grammar.

Unité 1 (12 hrs.)

On s'appelle

- 1.1 Faire valoir son droit
- 1.2 Exprimer une opinion sur la vérité d'un fait
- 1.3 Parler des moyens de communication

Unité 2 (12 hrs.)

Un bon conseil

- 2.1 Téléphoner
- 2.2 Prendre rendez-vous
- 2.3 Exposer un problème / réagir
- 2.4 Parler de ses activités de loisir
- 2.5 Le Cancre (Prévert)

Unité 3 (10 hrs.)

Parlez-moi de vous

- 3.1 Exposer un problème personnel (sante, relations...)
- 3.2 Donner des conseils à quelqu'un qui a un problème personnel

Unité 4 (10 hrs.)

Fables / contes

- 4.1 La laitière et le pot au lait (La Fontaine)
- 4.2 Le bâton percé de clous (Conte maghrébin)

Unité 5

(8 hrs.)

Prose

5.1 Le Papa de Simon (extrait) (Maupassant)

5.2 Le Petit Prince – chapitre 1 (Saint-Exupéry)

BOOKS FOR STUDY

J. Girardet & J. Pécheur avec la collaboration de C. Gibbe, *Echo A1, Méthode de français et cahier d'exercices*, Paris : CLE International, 2012.

BOOKS FOR REFERENCE

Lagarde André, Michard Laurent, *XVIIe Siècle*, Paris : Bordas, 1970.

Maupassant Guy, *Contes et Nouvelles*, Paris : Gallimard, 1974.

Prévert Jacques, *Paroles*, Paris : Editions Gallimard, 1979.

Saint-Exupéry Antoine de, *Le Petit Prince*, Paris : Gallimard, 2007.

WEB RESOURCES

<http://légende-et-conte.com>

<http://bouche-a-oreille.pagesperso-orange.fr>

www.franparler.org

www.francaisfacile.com/exercices/

www.lepointdufle.net/

www.ccdmd.qc.ca/fr/

www.bonjourdefrance.com

PATTERN OF EVALUATION

Continuous Assessment:

Total marks: 50

Duration : 90 mins

Section A (20 points)

Section B (15 points)

Section C (15 points)

Third Component:

Examen oral

Dictée

Document authentique

Présentation

Assignments

Test culturel (à l'oral ou à l'écrit)

Contes

Hintsdevelopment

Poetryrecitation

Activités ludiques

Corriger les erreurs

End Semester Examination:

Total marks : 100

Duration : 3 hours

Section A (40 points)

Exercices de grammaire et de vocabulaire. (8 x 5 = 40 points)

8 exercices tirés du manuel prescrit

Section B (30 points)

Exercices sur les textes prescrits (15 points)

Synonymes

Contraires

Forme nominale / verbale

Barrer l'intrus

Faire correspondre les éléments dans deux colonnes

Vrai ou Faux

Questions à choix multiple

Corriger les erreurs

À quel texte correspond la phrase ? (5 points)

Remettre en ordre les phrases de l'extrait suivant (10 points)

Section C (30 points)

Compléter avec le mot / l'expression convenable (5 points)

Résumé d'un texte littéraire (10 points)

Répondre à 5 sur 7 questions sur les textes littéraires et culturels étudiés (5 x 3 = 15)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**General Elective Course offered by the Department of French for
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SYLLABUS

(Effective from the academic year 2015-2016)

FRENCH FOR BEGINNERS

CODE: 15FR/GE/FN23

CREDITS : 3

LTP : 3 0 0

TOTAL TEACHING HOURS : 39

OBJECTIVES OF THE COURSE

- To facilitate the acquisition of communicative skills in French
- To enable the students to practice the skills acquired, both oral and written

Unité 1	(8hrs.)
1.1 Saluer quelqu'un	
1.2 Épeler un mot	
1.3 Échanger un mot en classe	
1.4 Se présenter	
Unité 2	(8 hrs.)
2.1 Présenter quelqu'un	
2.2 Remplir une fiche	
2.3 Poser une question	
Unité 3	(8hrs.)
3.1 Parler de ses goûts	
3.2 Poser des questions	
3.3 Parler de son emploi du temps de la semaine	
Unité 4	(8 hrs.)
4.1 Décrire quelqu'un	
4.2 Dire / demander l'âge	
Unité 5	(7hrs.)
5.1 Présenter sa famille	
5.2 Écrire une carte postale	
5.3 Parler de ses activités	

BOOKS FOR STUDY

HimberCéline, RastelloCharlotte, Gallon Fabienne avec la collaboration deGaudelAdeline, *Le Kiosque 1, Méthode de français et cahier d'exercices*, Paris : Hachette, 2007.

BOOKS FOR REFERENCE

Capelle Guy, Menand Robert, *Taxi - I, Méthode de français et cahier d'exercices*, Paris : Hachette, 2003.

Carlo Catherine, CausaMariella, *Civilisation Progressive du Français – I*, Paris : CLE International, 2003.

IraniZenobia, *Pathfinder*, New Delhi :Goyal Publishers & Distributors Pvt. Ltd., 2011.

KrishnanChitra, Albert Adeline, *Le Tramway Volant - I*, New Delhi :Saraswathi, 2011.

WEB RESOURCES

www.franparler.org

www.francaisfacile.com/exercices/

www.lepointdufle.net/

www.ccdmd.qc.ca/fr/

www.bonjourdefrance.com

<http://users.skynet.be/providence/vocabulaire/francais/menu.htm>

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment

Total marks: 50

Duration : 90 mins

Section A (20 points)

Exercices de grammaire

Section B (15 points)

Exercices de vocabulaire (10 points)

Compréhension écrite d'un texte inconnu (5 points)

Section C (15 points)

Rédiger un paragraphe sur un sujet donné (5 points)

Comment dire en français / anglais ? (10 points)

Third Component

Total marks: 50

Examen oral

Dictée

Assignments

Test culturel (à l'oral ou à l'écrit)

Activités ludiques

Corriger les erreurs

Quiz

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**General Elective Course offered by the Department of French for
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SYLLABUS**

(Effective from the academic year 2015-2016)

FRENCH FOR BUSINESS

CODE: 15FR/GE/FS23

CREDITS: 3

LTP: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- It is programmed for a simple and practical acquisition of communicative skills in French.
- The student is given the opportunity to practice the skills acquired, both oral and written.

Unité 1 (8hrs.)

- 1.1 Se présenter / présenter quelqu'un
- 1.2 Analyser des cartes de visite
- 1.3 Demander / donner son opinion
- 1.4 Exprimer les choix

Unité 2 (8 hrs.)

- 2.1 Se renseigner
- 2.2 Demander / donner des indications horaires
- 2.3 Décrire un endroit / une ville / un pays

Unité 3 (8 hrs.)

- 3.1 Donner la direction / indiquer un itinéraire
- 3.2 Parler de la circulation
- 3.3 Écrire un mémo pour demander / donner des instructions, exprimer la nécessité / l'obligation, donner des appréciations positives
- 3.4 Décrire l'organisation d'une entreprise : les horaires du travail, l'effectif, décrire les compétences, des qualités professionnelles, des expériences et des exigences

Unité 4 (7 hrs.)

- 4.1 Décrire une entreprise : historique, expériences, activités actuelles et envisagées
- 4.2 Préparer un rapport
- 4.3. Comprendre et rédiger une offre d'emploi

Unité 5 (8 hrs.)

- 5.1 Rédiger un CV
- 5.2 Rédiger une lettre de motivation
- 5.3 Rédiger un compte rendu

BOOKS FOR STUDY

MehtaRagini, *Collaboration*, New Delhi :Goyal, 2014.

BOOKS FOR REFERENCE

Dubois Anne-Lyse, Tauzin Béatrice, *Objectif Express 1 Nouvelle Édition*, Paris : Hachette, 2013.

IraniZenobia, *Pathfinder*, New Delhi :Goyal, 2011.

Penfornis Jean-Luc, *Communication Progressive du Français des Affaires*, Paris : CLE International, 2010.

WEB RESOURCES

www.franparler.org

www.francaisfacile.com/exercices/

www.lepointdufle.net/

www.ccdmd.qc.ca/fr/

<http://www.bonjourdefrance.com/index/indexfranaff.htm#>

<http://www.ciel.fr/apprendre-francais/francais-affaires/examen-francais-affaires.htm>

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment

Total marks: 50

Duration : 90 mins

Section A (20 points)

Exercices de grammaire et de vocabulaire.

Section B (10 points)

Compréhension écrite d'un texte inconnu

2 questions portant 5 points chacune (QCM, V/F, Répondre, Compléter, Faire correspondre....)

Section C (20 points)

2 rédactions (2 x 6 = 12 points)

Comment dire en français / anglais ?(8 x 1 = 8 points)

Third Component

Examen oral

Dictée

Assignments

Quiz

Document authentique

Hintsdevelopment

Rédaction

Corriger les erreurs

**General Elective Course offered by the Department of French for
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SYLLABUS**

(Effective from the academic year 2015-2016)

SPOKEN FRENCH

CODE: 15FR/GE/SF22

CREDITS :2

LTP : 2 0 0

TOTAL TEACHING HOURS: 26

OBJECTIVE OF THE COURSE

- The course is open to students with no prior knowledge of French. It is programmed for a simple and practical acquisition of communicative skills in French. The student is given the opportunity to practice the oral skills acquired.

Unité 1 (8 hrs.)

- 1.1 Saluer quelqu'un
- 1.2 Épeler un mot
- 1.3 Se présenter
- 1.4 Présenter quelqu'un

Unité 2 (9 hrs.)

- 2.1 Parler de ses goûts
- 2.2 Poser des questions
- 2.3 Dire / demander l'âge
- 2.4 Dire / demander l'heure

Unité 3 (9 hrs.)

- 3.1 Présenter sa famille
- 3.2 Parler de ses activités quotidiennes
- 3.3 Décrire quelqu'un (apparence physique, vêtements...)

BOOKS FOR STUDY

HimberCéline, RastelloCharlotte, Gallon Fabienne avec la collaboration deGaudelAdeline, *Le Kiosque 1, Méthode de français et cahier d'exercices*, Paris : Hachette, 2007.

IraniZenobia, *Pathfinder*, New Delhi: Goyal , 2011.

BOOKS FOR REFERENCE

Capelle Guy, Menand Robert, *Taxi - I, Méthode de français et cahier d'exercices*, Paris : Hachette, 2003.

Carlo Catherine, CausaMariella, *Civilisation Progressive du Français – I*, Paris : CLE International, 2003.

KrishnanChitra, Albert Adeline, *Le Tramway Volant - I*, New Delhi:Saraswathi, 2011.

WEB RESOURCES

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www.francaisfacile.com/exercices/

www.lepointdufle.net/

www.ccdmd.qc.ca/fr/

www.bonjourdefrance.com

<http://users.skynet.be/providence/vocabulaire/francais/menu.htm>

Pattern of Evaluation(Totally Internal)

Evaluation is divided into two parts

Jeu de rôle (25 marks)

Conversations (25 marks)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
Postgraduate Elective Course offered by the Department of French for
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SYLLABUS
(Effective from the academic year 2015-2016)

BEGINNERS FRENCH

CODE: 15FR/PE/FB24

CREDITS : 4

LTP : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To facilitate the acquisition of communicative skills in French
- To enable the students to practice the skills acquired, both oral and written.

Unité 1

(18 hrs.)

- 1.1 Saluer quelqu'un
- 1.2 Épeler un mot
- 1.3 Échanger un mot en classe
- 1.4 Se présenter
- 1.5 Présenter quelqu'un
- 1.6 Remplir une fiche
- 1.7 Poser une question

Unité 2

(17 hrs.)

- 2.1 Parler de ses goûts
- 2.2 Poser des questions
- 2.3 Parler de son emploi du temps de la semaine
- 2.4 Décrire quelqu'un
- 2.5 Dire / demander l'âge

Unité 3

(17 hrs.)

- 3.1 Présenter sa famille
- 3.2 Écrire une carte postale
- 3.3 Parler de ses activités

BOOKS FOR STUDY

Céline Himber, Charlotte Rastello, Fabienne Gallonavec la collaboration d'Adeline Gaudel. *Le Kiosque 1.Méthode de français*, Paris : Hachette, 2007.

Céline Himber, Charlotte Rastello, Fabienne Gallonavec la collaboration d'Adeline Gaudel. *Le Kiosque 1.Cahier d'exercices*, Paris : Hachette, 2007.

BOOKS FOR REFERENCE

IraniZenobia.*Pathfinder*.Delhi: Goyal, 2011.

KrishnanChitra and Albert Adeline.*Le Tramway Volant - I*,New Delhi: Saraswathi, 2011.

Carlo Catherine, CausaMariella, *Civilisation Progressive du Français – I*,Paris : CLE International, 2003.

Capelle Guy, Menand Robert, *Taxi - I,Méthode de français*,Paris : Hachette, 2003.

WEB RESOURCES

www.franparler.org

www.francaisfacile.com/exercices/

www.lepointdufle.net/

www.ccdmd.qc.ca/fr/

www.bonjourdefrance.com

<http://users.skynet.be/providence/vocabulaire/francais/menu.htm>

PATTERN OF EVALUATION

Continuous Assessment

Total marks: 50

Duration : 90 mins

Section A (20 points)

- Exercices de grammaire

Section B (15 points)

- Exercices de vocabulaire (10 points)
- Compréhension écrite d'un texte inconnu (5 points)

Section C (15 points)

- Rédiger un paragraphe sur un sujet donné (5 points)
- Comment dire en français / anglais ? (10 points)

III Component Tests

Examen oral

Dictée

Assignments

Test culturel (à l'oral ou à l'écrit)

Activités ludiques

Corriger les erreurs

Quiz

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
Postgraduate Elective Course offered by the Department of French for
M.A. / M.Sc. / M.COM. DEGREE PROGRAMMES

SYLLABUS

(Effective from the academic year 2015-2016)

BUSINESS FRENCH

CODE: 15FR/PE/BF24

CREDITS :4

LTP : 4 0 0

TOTAL TEACHING HOURS : 52

OBJECTIVES OF THE COURSE

The course is open to students who wish to learn Business French. It is programmed for a simple and practical acquisition of communicative skills in French. The student is given the opportunity to practice the skills acquired, both oral and written.

Unité 1

(17 hrs.)

- 1.1 Se présenter / présenter quelqu'un
- 1.2 Analyser des cartes de visite
- 1.3 Demander / donner son opinion
- 1.4 Exprimer les choix
- 1.5 Se renseigner
- 1.6 Demander / donner des indications horaires
- 1.7 Décrire un endroit / une ville / un pays

Unité 2

(17 hrs.)

- 2.1 Donner la direction / indiquer un itinéraire
- 2.2 Parler de la circulation
- 2.3 Écrire un mémo pour demander / donner des instructions, exprimer la nécessité / l'obligation, donner des appréciations positives
- 2.4 Décrire l'organisation d'une entreprise : les horaires du travail, l'effectif, décrire les compétences, des qualités professionnelles, des expériences et des exigences
- 2.5 Décrire une entreprise : historique, expériences, activités actuelles et envisagées

Unité 3

(18 hrs.)

- 3.1 Préparer un rapport
- 3.2 Comprendre et rédiger une offre d'emploi
- 3.3 Rédiger un CV

3.4 Rédiger une lettre de motivation

3.5 Rédiger un compte rendu

BOOK FOR STUDY

MehtaRagini. *Collaboration*. Delhi: Goyal, 2014.

BOOKS FOR REFERENCE

IraniZenobia. *Pathfinder*. Delhi: Goyal 2011.

Penfornis Jean-Luc. *Communication Progressive du Français des Affaires*. Paris : CLE International, 2010.

Dubois Anne-Lyse andTauzin Béatrice, *Objectif Express I Nouvelle Édition*, Paris : Hachette, 2013.

WEBRESOURCES

www.franparler.org

www.francaisfacile.com/exercices/

www.lepointdufle.net/

www.ccdmd.qc.ca/fr/

<http://www.bonjourdefrance.com/index/indexfranaff.htm#>

<http://www.ciel.fr/apprendre-francais/francais-affaires/examen-francais-affaires.htm>

PATTERN OF EVALUATION

Continuous Assessment

Total marks: 50

Duration : 90 mins

Section A (20 points)

- **Exercices de grammaire et de vocabulaire.**

Section B (10 points)

- **Compréhension écrite d'un texte inconnu**
2 questions portant 5 points chacune (QCM, V/F, Répondre, Compléter, Faire correspondre....)

Section C (20 points)

- 2 rédactions (2 x 6 = 12 points)
- Comment dire en français / anglais ?(8 x 1 = 8 points)

III Component Tests

Examen oral

Dictée

Assignments

Quiz

Document authentique

Hintsdevelopment

Rédaction

Corriger les erreurs

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 86
B.A/ B.Sc. / B.C.A /B.S.W/B.V.A/B.Com. DEGREE
FOUNDATION COURSE – HINDI

SYLLABUS
(Effective from the academic year 2015 -2016)

PRATHMIK HINDI AVAM VYAKARAN

CODE: 15HN/FC/PV13

CREDIT: 3

L T P: 310

OTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To develop the basic skills of Reading, writing and analysing and to develop an interest for reading
- To inculcate the basic knowledge of applied grammar so as to develop the language skills in students
- To introduce the teaching methodology based on the principle of progressing from known to unknown

Unit 1 (10hrs.)

- 1.1 Introduction to Etymology in Hindi.
- 1.2 Noun, Gender, Number, Case
- 1.3 Pronoun
- 1.4 Adjective
- 1.5 Verb

Unit 2 (10hrs.)

- 2.1 Adverbs
- 2.2 Idioms
- 2.3 Phrases
- 2.4 Indeclinables

Unit 3 (10hrs.)

- 3.1 Introduction to sentence formation.
- 3.2 Simple sentence
- 3.3 Complex sentence
- 3.4 Compound sentence
- 3.5 Punctuation and Common errors

Unit 4 (10hrs.)

- 4.1 Hindi Prose- An Introduction
- 4.2 HamareBadalteGaon
- 4.3 Kala kaSamman
- 4.4 Alfred kaPaschatap

Unit 5**(12hrs.)**

- 5.1 MunchiPremchand - An introduction
- 5.1.1 PuskiRaat
- 5.2 MannuBhandari - An introduction
- 5.2.1 Akeli
- 5.3 Bhagavaticharanvarma - An introduction
- 5.3.1 Mugloo ne saltanatBaksh di

BOOKS FOR STUDY

Bhattacharyya, Srabani & Fathima, A, Ed. *Aadhunik Gadya*. Kanpur: AmanPrakshan, 2015.
Tarun, Harivansh. *Saral Hindi Vyakaran Aur Rachna*. New Delhi: Prakashan Sansthan, 1999.

BOOKS FOR REFERENCE

Anand, Khelchand. *Adhunik Hindi Gadya*. New Delhi: Surya Prakashan, 1985.
Bansal, Pushpa. *Hindi Gadya ki Vividh Vidhayen*. New Delhi : National Publication, 1990.
Helmut, Nespita. *Dictionary of Hindi Verbs*. Allahabad : Lokbharati, 1998.
Jaleel, Abdul. V. K. *Adhunik Hindi Sahitya (vividh Aayam)*. New Delhi: Vani Prakashan, 2000.
Laal. B. *Rajbhasha Hindi Vyakaran*. New Delhi: Angar Prakashan, 1999.
Laal. L. N. *Adhunik Hindi Kahani*. New Delhi : National Publication, 1994.
Sharma, Rishabhdev. *Hindi Laghukatha Prakriti Aur Pehchan*. New Delhi: Vani Prakashan, 1992.
Shastri, M. *Bharatiya Sanskriti ka Vikas*, New Delhi: National Publication, 1986.
Shastri, C. R. *Hindi Grammar*, Chennai: Hindi Prachar Sabha, 1995.
Tiwari, Bholanath. *Hindi Dhvaniya Aur Unka Ucharan*, New Delhi : Vani Prakashan, 1996.

JOURNALS

Mysore Hindi Prachar Prashad, Ed-Shri R. Chandrashekhar, Bangalore
Pratimaan-Ed-Abhay Kumar Duby, New Delhi
Sahitya Kranti-International Hindi Journal, Ed-Sanjeev Kumar Sengar, New Delhi
Tamil Nadu Hindi Sahitya Bulletin, Ed-Madhu Dhawan Chennai
Vak-Trimonthly Magazine, Ed- Sadish Pachauri New Delhi

WEB RESOURCES

www.hindikahani.com
www.premchandkahani.com
www.hindi classic kahaniyan.com
www.hindi viyakaran.com
www.nahikahani.com

PATTERN OF EVALUATION

Continuous Assessment :

Total Marks: 50

Duration: 90 mins.

Section A – 20 x 1 = 20 marks (Objective questions - all questions to be answered)
(applied grammar)

Section B – 2 x 5 = 10 marks (2 out of 5 questions to be answered)
(Prose Lesson)

2 x 5 = 10 marks (2 out of 4 questions to be answered)
(Explain with reference to context from Prose lessons)

Section C – 1 x 10 = 10 marks (1 out of 2 questions to be answered)
Essay type question prose text (one out of two) Summary

Third Components :

Research article-20 Marks

Presentation-20 Marks

Grammar scrapbook-10 Marks

End Semester Examination

Total Marks: 100 Duration: 3 hours

Section A – 30 x 1 = 30 Objective type questions from applied grammar

Section B – 5 x 6 = 30 Answer any five Questions out of 8 (from Prose lessons)
2 x 5 = 10 Explain with reference to context (two out of four) (from Prose lessons)

Section C – 1 x 15 = 15 Essay type question from prose text (one out of two) Summary
1 x 15 = 15 Essay type question from Prose text character sketches (One out of two)

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 86
B.A/ B.Sc. / B.C.A /B.S.W/B.V.A/B.Com. DEGREE
FOUNDATION COURSE – HINDI

SYLLABUS
(Effective from the academic year 2015 -2016)

AADHUNIK KAHANI AUR PRAYOJANMULAK HINDI

CODE: 15HN/FC/AP23

CREDIT: 3

L T P : 310

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To introduce modern stories to the students so as to emphasize the importance of values in life.
- To introduce functional Hindi to the students with an eye on job opportunities in the official language cells of Govt. of India

Unit 1 (20hrs.)

- 1.1 Modern Hindi Stories (After 1900) –An Introduction.
- 1.2 The development of Hindi Stories (1900-1915)
- 1.3 The era of Premchand
- 1.4 Hindi Stories after Premchand
- 1.5 Naikahani- An Introduction.

Unit 2 (8hrs.)

- 2.1 Contemporary stories and modern writers
- 2.2 Critical analysis of stories –An introduction
- 2.3 Types of stories –
 - 2.3.1 Social
 - 2.3.2 Historical
 - 2.3.3 Psychological

Unit 3 (10hrs.)

- 3.1 Introduction to Premchand
 - 3.1.1 Kafan
- 3.2 The partition of India and writing of Bhismasahani
 - 3.2.1 Chief kiDawat

Unit 4 (10hrs.)

- 4.1 Hindi women story writers An Introduction
- 4.2 Ushapriavada - An Introduction
 - 4.2.1 Vapasi
- 4.3 Krishna sobati -An introduction

- 4.3.1 SikkaBadal Gaya
4.4 Chandhradhar Sharma Guleri – An Introduction
4.4.1 UsneKahaTha- A Landmark in Hindi story writing

Unit 5 (4hrs.)

- 5.1 Functional Hindi- An Introduction
5.2 Technical words
5.3 Technical terminology used in offices

BOOKS FOR STUDY

Bhattacharyya ,Srabanianand Fathima.A.*Aadhunik Hindi Kahani- Ekparichay*.Kanpur:Aman Prakshan,2015.
Dhawan,Madhu.*Proyojanmulak Hindi-Paribashikshabdshabadansh*.NewDelhi:Jaibharthi prakashan,1996.

BOOKS FOR REFERENCE

Anand,Khelchand.*Adhunik Hindi Gadya.Allahabad* :SuryaPrakashan, 1985.
Bansal,Pushpa.*Hindi Gadyakivividhvidhayen*,New Delhi : NationalPublication,1990.
HelmutNespita.*Dictionary of Hindi Verbs*, Allahabad :Lokbharati,1998.
Jaleel,Abdul.V.K .*Adhunik Hindi Sahitya(vividhAayam)*. New Delhi:VaniPrakashan, 2000.
Laal. B. *Rajbhasha Hindi Vyakaran*. New Delhi: AngarPrakashan, 1999.
Laal.L.N. *Adhunik Hindi Kahani*.New Delhi : National Publication, 1994.
Sharma,Rishabhdev *Hindi LaghukathaPrakriti Aur Pehchan*,VaniPrakashan:1992.
Shastri ,M.*BharatiyaSanskriti ka Vikas*,New Delhi : National Publication,1986
Shastri,Dev.M.*BharatiyaSanskriti ka Vikas*,New Delhi:NationalPublication,1986
Dictionary of Hindi Verbs,Lokbharati,(1998),Helmut Nespita.

JOURNALS

Mysore Hindi PracharPrashad,ed-ShriR.Chandrashekhar,Bangalore
Pratimaan-Ed-AbhayKumarDuby,NewDelhi
SahityaKranti-International Hindi Journal, Ed-SanjeevKumarSengar,NewDelhi
Tamil NaduHindiSahitaya Bulletin, Ed-MadhuDhawan ,Chennai
Vak-TrimonthlyMagazine,Ed- SadishPachauri,NewDelhi

WEB RESOURCES

www.hindikahani criticism books.com
www.premchandkahani.com
www.hindi classic kahaniyan.com
www.hindi vyakaran.com
www.prayojanmulak.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50 Duration : 90 mins.

Section A - 3 x 5=15 Answer any three questions out of five (from stories)

Compulsory Question from functional Hindi

2 x 1=2 Technical words - Hindi to English

2 x 1=2 Technical words - English to Hindi

2 x 1=2 Technical phrases - Hindi to English

2 x 1=2 Technical phrases - English to Hindi

Section B - 2 x 6=12 Explain with reference to context (two out of five from prose text)

1 x 5=5 Character sketches from stories (one out of two) from prose text

Section C - 1 x 10=10 Essay type question from prose text (one out of two) Summary

Third Component:

Research article - 25 Marks

Presentation- 25 Marks

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A - 3x5=15 Answer any three questions out of five (from stories)

Compulsory Question from functional Hindi

5x1=5 Technical words - Hindi to English

5x1=5 Technical words - English to Hindi

5x1=5 Technical phrases - Hindi to English

5x1=5 Technical phrases - English to Hindi

Section B - 3x5=15 Explain with reference to context (three out of six from prose text)

1x10=10 Character sketches from stories (one out of two) from prose text

Section C - 1x20=20 One essay type Question from prose text (one out of two)

1x20=20 One essay type question from prose text (one out of two)

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 86
B.A/ B.Sc. /B.S.W/B.V.A DEGREE
FOUNDATION COURSE – HINDI

SYLLABUS
(Effective from the academic year 2015 -2016)

EKANKI AUR ANUVAAD

CODE: 15HN/FC/EA33

CREDIT: 3

L T P :310

TOTAL TEACHING HOURS:52

OBJECTIVES OF THE COURSE

- To introduce One actplays to the students so as to emphasise the importance of values in life, and to give them a sense of theatre
- To introduce principles of Basic Translation to students, with an eye on job opportunities in the Translation cells of Govt. Of India.

Unit 1 (7hrs.)

- 1.1 The development of one actplays in Hindi
- 1.2 Difference between Drama and One Actplays
- 1.3 Different types of One actplays(Broad classification)
 - 1.3.1 Historical
 - 1.3.2 Social
 - 1.3.3 Psychological
- 1.4 Important playwrights in Hindi- An Introduction

Unit 2 (10hrs.)

- 2.1 Deepdan – Dr.RamkumarVarma
- 2.2 Bhor ka tara- Jagadeeshchandramathur

Unit 3 (15hrs.)

- 3.1 Bahuki vida- VinodRastogi
- 3.2 Sabse Bada aadmi – Bhagawaticharanverma
- 3.3 Mahabharatkieksaanch- BharatbhushanAgarwaal.

Unit 4 (8hrs.)

- 4.1 Translation – Definition and Meaning
- 4.2 Importance of Translation in everyday life
- 4.3 Characteristics of a Good Translator

Unit 5**(12hrs.)**

- 5.1 Types of Translation
 - 5.1.1 Prose Translation
 - 5.1.2 Poetry Translation
 - 5.1.3 Translation of Dramas
- 5.2 Practical Translation Practice- Hindi to English
- 5.3 Practical Translation Practice- English to Hindi

BOOKS FOR STUDY

Bhattacharyya, Shrabani. *AnuvaadkesidhandhAvamPrayog* –

EkParichay. Kanpur: Aman Publication, 2015

Bhattacharyya, Shrabani and Fathima. A. Ed. *Indradhanush*. Kanpur: Aman Publication, 2015

BOOKS FOR REFERENCE

Agarwal, Rohini. *Hindi Upanyas mein Kaamkaaji Nari*, New Delhi : Manu prakashan, 1930,

Gaur, Anjulata. *Hindi Ekanki Mein Jeevan Mulya*, Agra : Shalabh Prakashan, 1996,

Jain, Rajnikanth. *Aathvein Dashakke hindi Upanyas*, Agra : Shalabh Prakashan, 1996,

Mathur, Umesh. *Adhunik Yugki Hindi Lekhikayen*, New Delhi Vani Prakashan: 1990.

Ramachandran, Mahendra. *Ekanki Aur Ekankikaar*, New Delhi Vani Prakashan, 1993.

Sharma, Jagdish. *Hindi Ekanki Aur Ekankikaar*, New Delhi : National Publication, 1985.

Singh, Dilip . *Anuvaad ka Anuproyog – Vyavaharik Basha-1* , Chennai : Dakshin Bharat Hindi prachar sabha, 2006

Singh, Dilip . *Anuvaad : Sidhanthaur prayog* , Chennai : Dakshin Bharat Hindi prachar sabha, 2006

Singh Ramvinod. *Hindi ke Manovaigyanik Upanyas Aur Nari*, New Delhi Vani Prakashan, 1993.

Singh, Ramvinayak. *Hindi mein Sarkari Kaamkaaj*, Chennai : Hindi Prachar sabha, 1995.

JOURNALS

Agradhara- Chief Editor- Ramesh Gupta Neerad , Chennai

Ispat Bhasha Bharati- Steel Authority of India Limited , Delhi

Kafla International – An International Tri Annual Journal of Art, Literature & culture. Mona Enterprises Ed- Dev Bharadwaj

Mimansa- Hindi Varshik Patrika- National centre for cell science , Pune

Pratimaan, Chief Editor- Abhay Kumar Dubey, Vani Prakashan, New Delhi

Shri Milind- Ed. Dr. P. G. Ghanate- Hyderabad

Vasav Marg- Hindi Quarterly – Chief Editor – Dr. T. G. Prabhakar Premi, Bangalore

WEB RESOURCES

www.ekkankicriticism books.com
www.vishnuprabhakar.com
www.hindi ekkanki.com
www.hindi translation.com
www.anuvaad.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50 Duration: 90 mins.

Section A - $3 \times 5 = 15$ Answer any three questions out of five (from one actplay)

Section B - $1 \times 5 = 5$ Explain with reference to context (two out of five) from one actplay
 $2 \times 5 = 10$ Answer any two question out of five from principles of translation

Section C - $1 \times 10 = 10$ Essay type question from one actplay (one out of two) Summary
 $1 \times 5 = 5$ Translation passage – English to Hindi
 $1 \times 5 = 5$ Translation passage – Hindi to English

Third Components:

Play Enactment- 30 Marks

Translation project- 20 Marks

End Semester Examination

Total Marks: 100 Duration : 3 hours

Section A - $3 \times 5 = 15$ Answer any three questions out of five (from one actplay)

Section B - $2 \times 5 = 10$ Explain with reference to context (two out of five) from one actplay
 $3 \times 10 = 30$ Answer any three question out of six from principles of translation

Section C - $1 \times 15 = 15$ Essay type question from one actplay (one out of two) Summary
 $1 \times 15 = 15$ Translation passage – English to Hindi
 $1 \times 15 = 15$ Translation passage – Hindi to English

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 86
B.A/ B.Sc. / B.S.W DEGREE
FOUNDATION COURSE – HINDI

SYLLABUS
(Effective from the academic year 2015 -2016)

KAVITA AVAM PRAYOGIK PATRAKARITA

CODE: 15HN/FC/KP43

CREDIT: 3

L T P :310

TOTAL TEACHING HOURS:52

OBJECTIVES OF THE COURSE

- To expose the students to the golden era of Hindi poetry i.e. Medieval era
- To give an overview of the recent trends in Modern Hindi poetry
- To train the students for print and electronic Media Journalism

Unit 1 (12hrs.)

- 1.1 Medieval poetry – An Introduction
- 1.2 Kabirke Dohe (1,2,3,4,5)
- 1.3 Kabirke Pad (1,3)
- 1.4 Surdaske Pad (1,2,3,4)
- 1.5 Tulsidas-
 - 1.5.1 Balkand-1
 - 1.5.2 Ayodhya Kand-1
 - 1.5.3 Sundar Kand -1

Unit 2 (10hrs.)

- 2.1 Ayodhyasingh Upadhyay Hariodh- Karmveer
- 2.2 Maithilishran Gupt- Matribhumi

Unit 3 (10hrs.)

- 3.1 Harivansh Rai Bacchan-Mere Andarki Jwala Tum
- 3.2 Agyay-Nadike Dweep

Unit 4 (12hrs.)

- 4.1 Patrakarita – Arth, Paribhasha, Mahatav
- 4.2 Sanchar visphot ka yugaur patrakarita ka swaroop
- 4.3 Patrakarita-Prakar
 - 4.3.1 Patrika Patrakarita
 - 4.3.2 Gramin Patrakarita
 - 4.3.3 Aarthik Patrakarita
 - 4.3.4 Khel Patrakarita
 - 4.3.5 Film Patrakarita

Unit 5**(8hrs.)**

- 5.1 Samachar- Arth ,Paribhasha
- 5.2 Samacharkeprakar
- 5.3 Samacharlekhan- chehkakaronkeaadhar par

BOOKS FOR STUDY

Bhattacharyya, Srabani Fathima. A. *Madyakaleen Avam Aadhunika Kavya Dhara*, Kanpur: Aman Publication, Kanpur: 2015.

Fathima. A. *Prayogik Patrakarita*, Kanpur: Aman Publication, Kanpur: 2015.

BOOKS FOR REFERENCE

Chaturvedi, Sudha. *Hindi Krishna Kavya*, Chennai : , Sudha Publication, 1997

Dhawan, Madhu. *Patrakarithaekparichay*, Chennai : Boadh Prakashan, 2010

Jain , Nirmala. *Aadhunik hindi Kavya Roopansanrachana*, Chennai : Boadh Prakashan, 1998.

Jain, Ramesh. *Patrakar Aur Patrakarita*, Rajasthan : Rajasthan Prakashan, 1995

Kandelval, Ramkumar. *Hindi Kavya aur prayogvad*, Chennai : Purnima Publication, 1990

Misra, Krishna Bihari. *Hindi Patrakarita*, Allahabad : Lok Bharati Prakashan, 1998

Rai, Babu Gulab. *Hindi Sahitaya ka Subodh Itihaas*. Allahabad : Sulabh Publication, 1993.

Sharma, Shivkumar. *Hindi Sahitaya ka Itihaas*. New Delhi , Ashok prakashan, 1992.

JOURNALS

Agradhara- Chief Editor- Ramesh Gupta Neerad , Chennai

Ispat Bhasha Bharati- Steel Authority of India Limited , Delhi

Kafla International – An International Tri Annual Journal of Art, Literature & culture. Mona Enterprises Ed- Dev Bharadwaj

Mimansa- Hindi Varshik Patrika- National Centre for Cell Science, Pune

Pratimaan, Chief Editor- Abhay Kumar Dubey, Vani Prakashan, New Delhi

Shri Milind- Ed. Dr. P. G. Ghanate- Hyderabad

Vasav Marg- Hindi Quarterly – Chief Editor – Dr. T. G. Prabhakar Premi, Bangalore

WEB RESOURCES

www.hindisahatyitihhas.com

www.patrakaritha.com

www.hindisahitya.com

www.kabir.com

www.nirkunbhakti.com

PATTERN OF EVALUATION

Continuous Assessment :

Total Marks: 50 Duration: 90 mins.

Section A - $3 \times 5 = 15$ Answer any three questions out of five

(Medieval poetry, Modern poetry and Journalism)

Section B - $1 \times 5 = 5$ Explain with reference to context – Medieval Poetry (one out of two)

$1 \times 5 = 5$ Explain with reference to context – Modern Poetry (one out of two)

)COMPULSORY QUESTION

$1 \times 5 = 5$ Make a news on six W's and convert it into reportar form

Section C - $1 \times 10 = 10$ Essay type question from Medieval Poetry (one out of two) Summary

$1 \times 10 = 10$ Essay type question from Modern Poetry (one out of two) Summary

Third Component:

Film making on Modern /Medieval poets Or Kavi Sammellan - 30 Marks

Film Review - 20 Marks

End Semester Examination

Total Marks: 100 Duration: 3 Hours

Section A- $5 \times 5 = 25$ Answer any five questions out of eight question

(Medieval poetry & Modern poetry, Journalism)

Section B - $1 \times 10 = 10$ Explain with reference to context – Medieval Poetry (one out of two)

$1 \times 10 = 10$ Explain with reference to context – Modern Poetry (one out of two)

COMPULSORY QUESTION

$1 \times 15 = 15$ News on six W's and reportar form

Section C - $1 \times 20 = 20$ Essay type question from Medieval Poetry (one out of two) Summary

$1 \times 20 = 20$ Essay type question from Modern Poetry (one out of two) Summary

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 86

**General Elective Course offered by the Dept. of Hindi to
B.A/ B.Sc./ B.V.A /B.S.W/B.Com./B.C.A. DEGREE
SYLLABUS**

(Effective from the academic year 2015 -2016)

HINDI FOR BEGINNERS

CODE: 15HN/GE/HB23

CREDIT:3

L T P :300

TOTAL TEACHING HOURS:39

OBJECTIVES OF THE COURSE

- To develop communication skills and writing skills in Hindi for the students belonging to Non- Hindi speaking areas
- For job opportunities in Central Govt.Offices

Unit 1 (10 hrs.)

Hindi Alphabets –an introduction – vowels & consonants

Unit 2 (10 hrs.)

Mathras ,Greetings and introductory words in everyday life.
Names,Colors,Vegetables,Flowers,Fruits, Seasons,Time

Unit 3 (6 hrs.)

Relations,Relatives,Occupations,Parts of Body

Unit 4 (7 hrs.)

Part of speech,Gender,Number,Verb-action words

Unit 5 (6hrs.)

Introduction to Sentence formation,Counting and Writing,Numbers

BOOKS FOR STUDY

Fathima.A. *PrathmikHindi*,Chennai:Sudharshan Publication,2015.

BOOKS FOR REFERENCE

Dhawan,Madhu.*Pankhuriyan (Part-I)*,Chennai: Viva Publication,2005.

Dhawan,Madhu.*Pankhuriyan(Praveshika)*,Chennai: Viva Publication,2005.

PATTERN OF EVALUATION

No End Semester Examination

Continuous assessment: 50 marks

Third components :

Writing test-25 Marks

Oral test-25Marks

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 86
General Elective Course offered by the Dept. of Hindi to
B.A/ B.Sc / B.V.A /B.S.W/B.Com/B.C.A. DEGREE

SYLLABUS
(Effective from the academic year 2015 -2016)

PUBLIC SPEAKING IN HINDI

CODE: 15HN/GE/PS23

CREDIT:3

L T P : 300

TOTAL TEACHING HOURS:39

OBJECTIVES OF THE COURSE

- To equip the students with public speaking skills.
- To introduce the art of compering in the era of Media Journalism

Unit 1 (8hrs.)

- 1.1 Public speaking-An introduction
- 1.2 Qualities of a good speaker
- 1.3 Types of public speeches

Unit 2 (8hrs.)

- 2.1 Different problems faced by public speakers.
- 2.2 Stage management & public speaking
- 2.3 Books as source of knowledge to public speakers

Unit 3(12hrs.)

- 3.1 Limitations to be exercised by a good public speaker.
- 3.2 Practical examples of Problems faced by public speakers
- 3.3 Well known public speakers and their speeches

Unit 4(5hrs.)

- 4.1 Contribution of Media in Public speaking
 - 4.1.1 Radio
 - 4.1.2 Television
 - 4.1.3 Newspaper
 - 4.1.4 Journals

Unit 5 (6hrs.)

- 5.1 Practical Sessions
- 5.2 Well Known public speeches in Hindi
 - 5.2.1 Atal Bihari Vajpayee
 - 5.2.2 Jawaharlal Nehru
 - 5.2.3 Mahatma Gandhi
 - 5.2.4 Vivekananda
 - 5.2.5 Maulana Abul Kalam Azad

BOOKS FOR STUDY

Dhawan, Madhu. *Bhashankala*, New Delhi: Vani Prakashan, 2015

BOOKS FOR REFERENCE

Dhawan, Madhu. *Sampreshan CD*, Chennai: Viva Publication, 1999.

PATTERN OF EVALUATION

No End Semester Examination

Continuous assessment: 50 marks

Third components :

News reading-10Marks

Anchoring a talkshow-20Marks

Speech on a given topic-20 Marks

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 86
General Elective Course offered by the Dept. of Hindi to
B.A/ B.Sc. / B.V.A /B.S.W/B.Com./B.C.A. DEGREE

SYLLABUS
(Effective from the academic year 2015 -2016)

SPOKEN HINDI

CODE: 15HN/GE/SH22

CREDIT:2

LT P :200

TOTAL TEACHING HOURS:26

OBJECTIVES OF THE COURSE

- To develop communication skills in Hindi for the students belonging to Non-Hindi speaking areas
- For job opportunities

Unit 1

(10 hrs.)

Hindi Alphabets –an introduction – vowels & consonants.
Greetings and introductory words in everyday life.

Unit 2

(10 hrs.)

Names, Colors, Vegetables, Flowers, Fruits, Time
Relations, Relatives, Occupatons, Parts of Body

Unit 3

(6hrs.)

Part of speech, Gender, Number, Verb-action words, Dialogues

BOOKS FOR STUDY

Fathima.A. *PrathmikHindi*.Chennai:Sudharshan Publication,2015.

Vishwanathan,Kamala.*Spoken Hindi for Beginners*,Chennai:Viva Publication,2000.

BOOKS FOR REFERENCE

Dhawan,Madhu.*Sampreshan CD*,Chennai:Viva Publication,1999.

Dhawan,Madhu.*Pankhuriyan (Part-I)*,Chennai:Viva Publication,2005

Dhawan,Madhu.*Pankhuriyan(Praveshika)*,Chennai:Viva Publication,2005

PATTERN OF EVALUATION (Totally Internal)

Continuous assessment: 25 marks

Third components :

Role Play in Hindi - 10Marks

Oral Component- 15Marks

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 86
General Elective Course offered by the Dept. of Hindi to
B.A/ B.Sc. / B.V.A /B.S.W/B.Com./B.C.A. DEGREE

SYLLABUS
(Effective from the academic year 2015 -2016)

CREATIVE WRITING IN HINDI

CODE: 15HN/GE/CW22
L T P : 200

CREDIT:2

TOTAL TEACHING HOURS:26

OBJECTIVES OF THE COURSE

- To develop the original writing skills in Hindi
- To teach the students the basic skills in writing poetry, stories, Features, Essays Editorial etc.

Unit 1 (10hrs.)

- 1.1 Definition of Creative writing
- 1.2 Types of original writing in Hindi
- 1.3 Specific writing capabilities
- 1.4 Qualities of a Good creative Writer
- 1.5 Relation between society and creative writing
- 1.6 Famous writers in Hindi and their inspiration

Unit 2 (10hrs.)

- 2.1 Story writing
- 2.2 Feature writing
- 2.3 Poetry writing
- 2.4 Essay writing
- 2.5 Editorial writing
- 2.6 News writing

Unit 3(6hrs.)

- 3.1 News writing
- 3.2 Film Criticism
- 3.3 Character Sketches
- 3.4 Memoirs
- 3.5 Book criticism
- 3.6 Travelogues

BOOKS FOR STUDY

Dhawan ,Madhu.*Moulik Lekhan-Saidhantikpaksha*,New Delhi VaniPrakashan:2015.

BOOKS FOR BOOKS

Dhawan, Madhu.*Patrakarithaekparichay*.Chennai :Boadh Prakashan,2010.

Jain, Ramesh.*Patrakar Aur Patrakarita* ,Rajasthan :Rajasthan Prakashan,1995.

Misra,Krishna Bihari.*Hindi Patrakarita*.Allahabad :Lok Bharati Prakashan,1998.

PATTERN OF EVALUATION (Totally Internal)
Continuous assessment: 25 marks

Third components :

- i) Story and poetry writing-05 Marks
- ii) Film criticism-10Marks
- iii) Book criticism – 10Marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086
B.A. DEGREE BRANCH – IA - HISTORY AND TOURISM

SYLLABUS
(Effective from the academic year 2015-2016)

ANCIENT INDIA UPTO CE700

CODE: 15HS/MC/AI14

CREDITS: 4

L T S: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES

- To enable students to understand India's cultural and historical legacy
- To instill in students a sense of pride in Indian history and heritage

Unit 1

Introduction

(10 hrs.)

- 1.1 Physical Features of India
- 1.2 Effects of Geography on Indian History
- 1.3 Sources – Indigenous and Foreign

Unit 2

Pre-Mauryan India – Salient Features

(12 hrs.)

- 2.1 Harappan Civilization
- 2.2 Vedic Age
- 2.3 Rise of Jainism and Buddhism
- 2.4 Rise of Magadha, Nanda Empire
- 2.5 Satavahanas

Unit 3

Imperial Age of the Mauryas

(10 hrs.)

- 3.1 Chandragupta Maurya
- 3.2 Ashoka
- 3.3 Mauryan Art and Architecture
- 3.4 Kanishka
- 3.5 Gandhara Art

Unit 4

Age of Guptas

(10 hrs.)

- 4.1 Gupta Administration
- 4.2 Revival of Hinduism, Language and Literature
- 4.3 Socio-Economic and Cultural Contributions
- 4.4 Deccan and South India – Chalukyas and Rashtrakutas – Cultural Contribution

Unit 5

Harsha Vardhana

(10 hrs.)

- 5.1 Administration
- 5.2 Religion
- 5.3 Contribution of Hsuan-tsang
- 5.4 India after Harsha

BOOKS FOR STUDY

- Khurana, K.L. *History of India from Earliest Times to 1000 A.D.* Agra : Lakshmi Narain Agarwal, 2002.
- Majumdar, R.C., and A.N. Srivatsava. *History of Ancient India: from A.D. 320 to A.D. 1206.* New Delhi: S.B.D., 2004.

BOOKS FOR REFERENCE

- Basham, A.L. *The Wonder that was India: A Survey of the Culture of the Indian Sub-Continent.* U.K.: Sidgwick and Jackson, 2001.
- Basham, A.L. *A Cultural History of India.* New Delhi: Oxford University Press, 2006.
- Bose, M.L. *A Social and Cultural History of Ancient India.* New Delhi: Concept, 1990.
- Epson, E.J. (Ed.), *Cambridge History of India: Vol. I, Ancient India.* New Delhi: S. Chand, 1979.
- Goyal, S. *Contemporary Interpretation of Ancient India.* New Delhi: Book Enclave, 2003.
- Jha, D.N. *Ancient India.* New Delhi: Manohar, 2004.
- Kosambi, D.D. *The Culture and Civilization of Ancient India in Historical Outline.* New Delhi: Vikas, 1992.
- Singh, U. *A History of Ancient and Early Medieval India.* New Delhi: Pearsons, 2009.
- Thapar, R. *The Penguin History of Early India from the Origin to A.D. 1300. History of India.* New Delhi: Penguin, 2002.
- Tripathi, R.S. *History of Ancient India.* New Delhi: Motilal Banarasidas, 1987.

JOURNALS

- Indian Historical Review, ICHR, New Delhi.
- Journal of History and Social Sciences, New Delhi.
- Quarterly Review of Historical Studies, Institute of Historical Studies, Kolkata.

WEB RESOURCES

- www.culturalindia.net
- www.britannica.com/EBchecked/topic/285516/history-of-India

PATTERN OF EVALUTION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A - 5 x 3 = 15 (Any 5 out of 7 in 30 words each)

Section B - 5 x 5 = 25 (Any 5 out of 7 in 250 words each)

Section C - 1 x 10 = 10 (Any 1 out of 2 in 800 words each)

Third Component:

List of Evaluation Modes:

Seminars

Presentation

Group discussion

Objective test

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Section A - 10 x 3 = 30 (All questions to be answered in 30 words each)

Section B - 5 x 8 = 40 (5 out of 8 questions to be answered in 300 words each)

Section C - 3 x 10 = 30 (3 questions to be answered in 1000 words each in either or pattern)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A. DEGREE BRANCH – IA - HISTORY AND TOURISM

SYLLABUS
(Effective from the academic year 2015-2016)

INTRODUCTION TO TOURISM

CODE: 15HS/MC/IT14

CREDITS: 4

L T S: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES

- To help students to understand the significance of heritage and culture
- To enable students to understand the need for tourism promotion

Unit 1

Introduction to Tourism (10 hrs.)

- 1.1 Definitions – Tourism, Tourist/Traveller – Basic Components of Tourism, Elements of Tourism
- 1.2 Types of Tourism – Business tourism, Mass Tourism, Cultural Tourism and Heritage, Environmental Tourism, Medical tourism

Unit 2

Significance of Tourism (10 hrs.)

- 2.1 Cultural Tourism in India – Heritage Sites in India – World UNESCO Sites
- 2.2 Types of Cultural Tourism - Travel Circuits : Golden Triangle, Desert Circuit, Buddhist Circuits, Backwaters, Sun and Sand - Indian Railways and Special Trains
- 2.3 Tourism Sustainability – Basic Strategies – Environment Impact Assessment (EIA) – Geographic Information System (GIS) and its Application in Tourism

Unit 3

Eco-Tourism and Related Issues (12 hrs.)

- 3.1 Definition of Eco-Tourism
- 3.2 Protected Areas and Sustainable Tourism, Wildlife Tourism, Agro-Tourism, Rural Tourism, Wildlife Conservation, Desert Safaris

Unit 4

Tourism and Contemporary Issues (10 hrs.)

- 4.1 Role of Information Technology in Tourism Development
- 4.2 Future Trends in Tourism
- 4.3 Human Rights and Tourism

Unit 5

Tourism Administration (10 hrs.)

- 5.1 Tourism Administration in India – Ministry of Tourism (Government of India) – National Tourist Organisation (NTO) – World Tourism Day
- 5.2 ITDC – TTDC – Incredible India - Brand Ambassadors of Tourism Promotion

BOOKS FOR STUDY

Seth, P N and S Seth. *Introduction to Tourism*. New Delhi: Sterling Publishers, 2003.
Encyclopedia of Tourism (Routledge World Reference) Jafar Jafari (ed.) (Paperback), 2004
Sharma, K K. *World Tourism Today*. New Delhi: Sarup, 2004.

BOOKS FOR REFERENCE

Chandra, R. *Wildlife and Ecotourism*. New Delhi: Akansha, 2005.
Chopra, S. *Tourism and Development in India*. New Delhi: Vikas, 1998.
Vellas, F. and L. Beehel. *International Tourism*. London: Macmillan, 1995.

JOURNALS

International Journal of Tourism Research, (Ed. Joh Fletcher), (Bi Monthly)
ASEAN Journal on Hospitality and Tourism (Ed. Arief Rosyidie) (Tourism Research and
Development Centre) Indonesia, 2004.

WEB RESOURCES

www.worldleisure.org

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Duration: 90 Mins.

Section A - 5 x 3 = 15 (Any 5 out of 7 in 30 words each)
Section B - 5 x 5 = 25 (Any 5 out of 7 in 250 words each)
Section C - 1 x 10 = 10 (Any 1 out of 2 in 800 words each)

Third Component:

List of Evaluation Modes:

Assignments
Seminars

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Section A - 10 x 3 = 30 (All questions to be answered in 30 words each)
Section B - 5 x 8 = 40 (5 out of 8 questions to be answered in 300 words each)
Section C - 3 x 10 = 30 (3 questions to be answered in 1000 words each in either or pattern Eg.
19(a) or (b))

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086
B.A. DEGREE BRANCH – IA - HISTORY AND TOURISM

SYLLABUS
(Effective from the academic year 2015-2016)

HISTORY OF TAMIL NADU UPTO THE 16TH CENTURY

CODE: 15HS/AC/TN15

CREDITS: 5

L T S: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES

- To enable the students to understand the historical evolution of the Tamil country
- To help students appreciate the rich socio-cultural history of Tamil Nadu and its interactions with neighbouring kingdoms

Unit 1

Introduction

(10 hrs.)

- 1.1 Geography of Ancient Tamilaham
- 1.2 Pre History and Proto History
- 1.3 Sources for the Study

Unit 2

The Sangam Age

(15 hrs.)

- 2.1 Social, Economic and Cultural Conditions
- 2.2 Position of Women
- 2.3 Sangam Literature

Unit 3

Great Kingdoms of South India

(15 hrs.)

- 3.1 Pallavas - Mahendravarman I, Narasimhavarman Mamalla
- 3.2 Cholas - Rajaraja I, Rajendra I, Kulothunga I
- 3.3 Pandyas - Maravarman Sundara Pandya I, Jatavarman Sundara Pandya I
- 3.4 Vijayanagar - Harihara, Bukka, Krishnadevaraya

Unit 4

Religion, Art and Architecture

(10 hrs.)

- 4.1 Buddhism and Jainism
- 4.2 Bhakthi Movement
- 4.3 Art and Architecture - Pallavas, Cholas, Vijayanagar

Unit 5

Administration, Society and Economy

(15 hrs.)

- 5.1 Administration of the Tamils – Pallavas, Cholas, Pandyas and Vijayanagar
- 5.2 Social, Economic and Cultural contributions of the Tamils

BOOKS FOR STUDY

Narayanan, M.G.S. *Foundations of South India Society and Culture*, New Delhi, Bharatiya, 2000.

Nilakanta Sastri, K.A. *Advanced History of India*. New Delhi: Allied, 2000.

BOOKS FOR REFERENCE

Sastri, K.A.N. *History of South India*. Bombay: Oxford University Press, 2002.

Nilakanta Sastri, K.A. *The Colas*. Madras: University of Madras, 1984.

C. Minakshi. *Administration and Social Life under the Pallavas*. Madras : University of Madras, 1938.

Sundararaj, T. *Social and Cultural Aspects of Tamil Nadu*. Thiruchirapalli: Sundar, 2006

Chopra, P.N; Ravindran, T.K. Subrahmanian, N. *History of South India; Ancient, Medieval and Modern*. New Delhi: S. Chand, 2003.

JOURNALS

Journal of the Royal Asiatic Society of Great Britain

Journal of Indian History and Culture - CPR Foundation

WEB RESOURCES

www.indianheritage.org

www.internetarchive.org

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Duration: 90 Mins.

Section A - $5 \times 3 = 15$ (Any 5 out of 7 in 30 words each)

Section B - $5 \times 5 = 25$ (Any 5 out of 7 in 250 words each)

Section C - $1 \times 10 = 10$ (Any 1 out of 2 in 800 words each)

Third Component:

List of Evaluation Methods:

Group Assignments

Presentations

Objective Tests

End Semester Examinations

Total Marks:100

Duration: 3 Hours

Section A - $10 \times 3 = 30$ (All questions to be answered in 30 word each)

Section B - $5 \times 8 = 40$ (5 out of 8 questions to be answered in 300 words each)

Section C - $3 \times 10 = 30$ (3 questions to be answered in 1000 words each in either or pattern e.g.

19 (a) or (b)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086
B.A. DEGREE BRANCH – IA - HISTORY AND TOURISM

SYLLABUS
(Effective from the academic year 2015-2016)

MEDIEVAL INDIA (CE712-1707)

CODE: 15HS/MC/MI25

CREDITS: 5

L T S: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES

- To enable students to understand the foundation of the Islamic and Mughal Rule in India
- To help students study the administrative and economic experiments of the age
- To become aware of the impact of Medieval India on society and culture

Unit 1

Foundation of Islamic Rule

(15 hrs.)

1.1 Sources

1.2 Arab Conquest of Sind

1.3 Political Sketch of Delhi Sultanate – Slave, Khilji, Tughlaq, Sayyid and Lodi
Dynasties

Unit 2

Religious Movements and their impact

(10 hrs.)

2.1 Sufi and Bhakthi Movements

2.2 Disintegration of Sultanate Rule

Unit 3

Rise of the Mughal Rule

(15 hrs.)

3.1 Political Sketch of the Early Mughals - Babur, Humayun, Sher Shah, Akbar, Shah
Jahan, Jehangir, Aurangzeb

3.2 Administrative System of the Mughals

Unit 4

Disintegration of the Mughal Empire

(10 hrs.)

4.1 Sikhism

4.2 Causes for the Downfall of the Mughals

Unit 5

Society and Culture

(15 hrs.)

5.1 Architecture and Planning

5.2 Music and Literature

BOOKS FOR STUDY

Khurana, K.L. *Medieval India:1000-1761 A .D.*, 5th Edition, Agra: Lakshmi Natrain Agarwal, 2001.

Chandra, S. *A History of Medieval India*. New Delhi: (Vol 1&2), Orient Longman, 2008.

BOOKS FOR REFERENCE

Chaurasia, R.S. *History of Medieval India: From 1000 A.D. to 1707 A.D.* Atlantic, 2002.

Mehta, J. L. *An Advanced Study in the History of Medieval India Vol I & II*. New Delhi: Sterling, 2002.

Salma Ahmed Farooqi. *A Comprehensive History of Medieval India:Twelfth to the Mid-Eighteenth Century*. Pearson Education, 2011.

Chandra, S. *Essays on Medieval Indian History*. Oxford University, 2003.

JOURNALS

Indian Historical Review, ICHR, New Delhi.

Journal of History and Social Sciences, ed. Pushpa Tiwari, 2014.

Quarterly Review of Historical Studies - Institute of Historical Studies, Kolkata.

Medieval History Journal, Sage Publications, New Delhi, 1999.

WEB RESOURCES

www.indiaheritage.org

www.academia.edu

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Duration: 90 Mins.

Section A - 5 x 3 = 15(Any 5 out of 7 in 30 words each)

Section B - 5 x 5 = 25(Any 5 out of 7 in 250 words each)

Section C - 1 x 10 = 10 (Any 1 out of 2 in 800 words each)

Third Component:

List of Evaluation Methods:

Group Assignments

Presentations

Objective Tests

End Semester Examinations

Total Marks: 100

Duration: 3 Hours

Section A - 10 x 3 = 30 (All questions to be answered in 30 word each)

Section B - 5 x 8 = 40 (5 out of 8 questions to be answered in 300 words each)

Section C - 3 x 10 = 30 (3 questions to be answered in 1000 words each in either or pattern e.g. 19 (a) or (b))

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A. DEGREE BRANCH – IA - HISTORY AND TOURISM

SYLLABUS
(Effective from the academic year 2015-2016)

BUSINESS OF TOURISM

CODE: 15HS/MC/BT24

CREDITS: 4

L T S: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES

- To develop an insight into the nature, scope and significance of tourism business and its present dimensions
- To equip the students with requisite skills to be employed in the Hospitality Industry.
- To provide students the necessary knowledge and skills to establish themselves as entrepreneurs in the Tourism Industry

Unit 1

Introduction

(10 hrs.)

- 1.1 Definitions – Tourist, Business Travel, Business Tourism, Incentive Travel
- 1.2 Origin and Growth of Travel Agencies
- 1.3 Business Motivators

Unit 2

Measurement of Tourism Phenomenon

(10 hrs.)

- 2.1 Need for Measuring Tourism Phenomenon – Methods of Measurement of Tourism Phenomenon – Problems of Measurement
- 2.2 Tourism Statistics - Structure of Business Market – Conference Bidding Process - Social and Environmental Impact of Tourism
- 2.3 Economic Significance of Tourism – Impact and Growth – Multiplier Effect – Leakage – Suppliers, Wholesalers and Retailers

Unit 3

Travel Agencies and Tour Operators

(12 hrs.)

- 3.1 Structure and Functions of Travel Agencies
- 3.2 Types and Functions of Tour Operators
- 3.3 Ticketing and Itinerary Planning

Unit 4

Tourism and Future Trends

(10 hrs.)

- 4.1 Information Technology in Tourism: Modern Media Techniques
- 4.2 Computer Technology – Computers in Air Cargo, Airlines, Hotels and Railways – Computer Reservation Systems (CRS), GDS

Unit 5

Tourism Promotion and Fairs

(10 hrs.)

5.1 Media and Advertising – Tour Brochures

5.2 Role of International Organizations- WTO, IHA, IMF - Role of NTO – Overseas Offices

5.3 Travel Fairs – ITB, WTM, TTW, EIBTM, SOTC

BOOKS FOR STUDY

Sethi, Praveen. *Business Tourism*. New Delhi: Rajat, 2000.

Chawla, Romila. *Cultural Tourism and Development*. New Delhi: Sonali, 2004.

Bhatia, A K. *International Tourism Management*. New Delhi: Sterling, 2001.

BOOKS FOR REFERENCE

Rene, H. A. *Marketing Public Relations*. New Delhi: Surjeet, 2003.

Jeffkins, F. *Public Relations for Your Business*. New Delhi: Jaico, 2004.

Kapoor, Bimal Kumar. *Tourism Administration*. New Delhi: Murari Lal and Sons, 2007.

Bhatia, A.K. *Tourism Development : Principles and Practices*. New Delhi: Sterling, 2003.

French, Y. *Public Relations for Leisure and Tourism*. London: Orient Longman, 1994.

JOURNALS

Journal of Business and Hotel Management (Ed. David Cranage), (Quarterly), USA

Journal of Hospitality and Tourism Technology (Ed. Cihan Cobanoglu), (Yearly), USA

WEB RESOURCES

www.tradeforum.org

www.thetourismbusiness.com

PATTERN OF EVALUATION

Continuous Assessment

Total marks : 50

Duration : 90 Mins.

Section A - 5 x 3 = 15 (Any 5 out of 7 in 30 words each)

Section B - 5 x 5 = 25 (Any 5 out of 7 in 250 words each)

Section C - 1 x 10 = 10 (Any 1 out of 2 in 800 words each)

Third Component :

List of Evaluation Methods:

Quiz and Seminars

End Semester Examination

Total Marks : 100

Duration : 3 Hours

Section A - 10 x 3 = 30 (All questions to be answered in 30 words each)

Section B - 5 x 8 = 40 (5 out of 8 questions to be answered in 300 words each)

Section C - 3 x 10 = 30 (3 questions to be answered in 1000 words each in either or pattern Eg. 19(a) or (b))

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086
B.A. DEGREE BRANCH – IA - HISTORY AND TOURISM

SYLLABUS
(Effective from the academic year 2015-2016)

PRE - COLONIAL INDIA UPTO 1858

CODE: 15HS/AC/CI25

CREDITS: 5

L T S: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES

- To enable students to understand the circumstances leading to the establishment of the East India Company's rule in India
- To help students comprehend the policies and strategies of the Company that enabled its ascendancy

Unit 1

Introduction

(10 hrs.)

- 1.1 Advent of the Europeans
- 1.2 European Settlements
- 1.3 Anglo-French Wars

Unit 2

Conquest and Consolidation of the Company's Rule in India

(15 hrs.)

- 2.1 Subsidiary Alliance
- 2.2 Policies of Hastings
- 2.3 Policies of Dalhousie
- 2.4 Anglo-Sikh Wars

Unit 3

Constitutional Development under the Company

(10 hrs.)

- 3.1 Regulating Act
- 3.2 Pitt's India Act
- 3.3 The Charter Act of 1833
- 3.4 The Charter Act of 1853

Unit 4

East India Company's Policies in India

(15 hrs.)

- 4.1 Revenue Policy (Zamindari, Permanent Settlement, Mahalwari, Ryotwari Systems)
- 4.2 Educational Policy (Macaulay's Filtration Theory, Wood's Despatch)
- 4.3 Agricultural and Industrial Policy

Unit 5

Revolt of 1857

(15 hrs.)

- 5.1 Causes
- 5.2 Nature
- 5.3 Impact
- 5.4 Queen's Proclamation 1858

BOOKS FOR STUDY

Roychoudhry, S.C. *Social, Cultural and Economic History of India – Vol III*. New Delhi: Surjeet, 1981.

Sharma, L.P. *History of Modern India*. New Delhi: Konark, 1989.

Grover, B.L., and S. Grover. *A New Look on Modern Indian History: From 1707 to the Present Day*. New Delhi: S. Chand, 1998.

BOOKS FOR REFERENCE

Gense, J.H. *History of India from Earliest times to the Present day*. New Delhi: Printwell Publishers, 1995.

Gordon, S. *New Cambridge History of India*. New Delhi: Cambridge University Press, 1994.

Gupta, M. *History of British Rule in India*. New Delhi: Oxford University Press, 1994.

Bandhopadhyaya, S. *Plassey to Partition*. New Delhi: Orient Blackswan Publication, 2001.

JOURNALS

The Journal of Peasant Studies, 1980 - Taylor & Francis

Comparative Studies in Society and History, (ed.) Andrew Shryock, Society for the Comparative Study of Society and History, (Quarterly)

WEB RESOURCES

www.britannica.com/EBchecked/topic/285516/history-of-India

www.victorianweb.org

PATTERN OF EVALUTION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A - 5 x 3 = 15 (Any 5 out of 7 in 30 words each)

Section B - 5 x 5 = 25 (Any 5 out of 7 in 250 words each)

Section C - 1 x 10 = 10 (Any 1 out of 2 in 800 words each)

Third Component:

List of evaluation modes:

Seminars/Presentation

Group discussion

Objective test

End Semester Examination

Total Marks: 100

Duration 3 Hours

Section A - 10 x 3 = 30 (All questions to be answered in 30 words each)

Section B - 5 x 8 = 40 (5 out of 8 questions to be answered in 300 words each)

Section C - 3 x 10 = 30 (3 questions to be answered in 1000 words each in either or pattern Eg. 19(a) or (b))

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086
B.A. DEGREE BRANCH – IA - HISTORY AND TOURISM

SYLLABUS
(Effective from the academic year 2015-2016)

INDIA'S STRUGGLE FOR INDEPENDENCE

CODE: 15HS/MC/IS34

CREDITS: 4

L T S: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES

- To teach students about the nation's struggle for freedom and the trials faced by the freedom fighters
- To enable them to understand the circumstances leading to constitutional changes, partition and the establishment of free India.

Unit 1

Background to Indian Nationalism

(8 hrs.)

- 1.1 Early Struggles Against the British: the Poligar Wars, South Indian Rebellions and Vellore Mutiny
- 1.2 India under the Crown: the Viceroys
- 1.3 Reform and Revival Movements
- 1.4 Causes for the Rise of Nationalism
- 1.5 The Acts of 1858 and 1861

Unit 2

Rise and Growth of the Indian National Movement

(15 hrs.)

- 2.1 Foundation of the Indian National Congress
- 2.2 Policies and Programmes – Early Nationalists and Militant Nationalists, The Reforms of 1892 and 1909
- 2.3 Revolutionaries
- 2.4 Other Streams in the National Movement:
Caste and Language Movements, Justice Party in Tamil Nadu
The Left Wing - Socialists and Communists

Unit 3

Gandhian Era

(15 hrs.)

- 3.1 The First World War and the National Movement, Home Rule Movement, the Act of 1919
- 3.2 Non-Co-operation Movement
- 3.3 Civil Disobedience Movement and the Act of 1935
- 3.4 Quit India Movement
- 3.5 Second World War and the Constitutional Deadlock
- 3.6 The Indian Independence Act

Unit 4
The Partition of India (7 hrs.)
4.1 Factors leading to Partition
4.2 Muslim League
4.3 C.R. Plan, Wavell Plan and Mountbatten Plan

Unit 5
Major Leaders (7 hrs.)
5.1 Gokhale, Tilak, Gandhi, Bose
5.2 Revolutionaries: Aurobindo, Bhagat Singh, V.V.S Iyer, Vanchinathan
5.3 V.O Chidambaram, Subramaniam Siva, Bharathiyar, Sathyamurthy, Rajaji

BOOKS FOR STUDY

Sarkar, S. *Modern India 1885-1947*. New Delhi: Macmillan, 2001 (Reprint Edition).

Dube, I.B. *A History of Modern India*. New Delhi: Cambridge University, 2014.

BOOKS FOR REFERENCE

Bandhopadhyay, S. *From Plassey to Partition*. New Delhi: Orient Blackswan, 2004.

Guha, R. *Makers of Modern India*. New Delhi: Penguin, 2010.

Munshi, K.M. et. al. *History and Culture of the Indian People* (Vols X and XI). Fourth Edition. Bombay: Bharatiya Vidya Bhavan, 2007.

Shastri, K.S.R. *The Tamils: The People, Their History and Culture (Vol II)*. New Delhi: Cosmo, 2002.

Grover, B.L., and S. Grover. *A New Look on Modern Indian History (from 1707 to the Present Day)*. New Delhi: S. Chand, 1998.

JOURNALS

The Indian Economic and Social History Review (Sage Publications)

Journal of Indian History and Culture (CPR Foundation)

The Indian Historical Review (Indian Council for Historical Research)

WEB RESOURCES

<http://www.colorado.edu/history/chester/ModIndPrimary.htm>

<http://www.gandhiserve.org/e/cwmg/cwmg.htm>

<http://nehrumemorial.nic.in/en/>

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Duration: 90 Mins.

Section A - $5 \times 3 = 15$ (Any 5 out of 7 in 30 words each)

Section B - $5 \times 5 = 25$ (Any 5 out of 7 in 250 words each)

Section C - $1 \times 10 = 10$ (Any 1 out of 2 in 800 words)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Assignments

End Semester Examination

Total marks: 100

Duration: 3 hours

Section - $10 \times 3 = 30$ (All questions to be answered in 30 words each)

Section B - $5 \times 8 = 40$ (5 out of 8 questions to be answered in 300 words each)

Section C - $3 \times 10 = 30$ (3 questions to be answered in 1000 words each in either or pattern, e.g. 19 (a) or (b))

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086
B.A. DEGREE BRANCH – IA - HISTORY AND TOURISM

SYLLABUS
(Effective from the academic year 2015-2016)

SOCIAL AND CULTURAL HISTORY OF CHENNAICITY SINCE 1639

CODE: 15HS/MC/CC34

CREDITS: 4

L T S: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES

- To enable students understand the circumstances leading to origin and development of Chennai City
- To study various movements, their impact and analyse administrative structures and economy
- To understand and appreciate the socio-religious and cultural developments in the city

Unit 1

Origin of the City – Advent of the Europeans (12 hrs.)

- 1.1 Antiquity of Chennai
- 1.2 Portuguese Settlement in Madras
- 1.2 English Settlement in Madras

Unit 2

Administrative Organizations (10 hrs.)

- 2.1 Early Governors and their Contribution.
- 2.2 Development of the Chennai Corporation upto Present Times
- 2.3 The Genesis and Growth of Judicial Administration, Banking and Transport

Unit 3

Social-Religious and Cultural Developments in the City (10 hrs.)

- 3.1 Education - Private and State Efforts
- 3.2 Contribution of Christian Missionaries in the Field of Education
- 3.3 Development of Art - Town Planning, Architecture, Sculpture and Fine Arts
- 3.4 Theosophical Society - Annie Besant
- 3.5 Dravidian Movement

Unit 4

Economic Development (10 hrs.)

- 4.1 Old Industrial houses -Parry and Co., Binny and Co. and Spencer and Co.
- 4.2 Port Trust – A Brief Survey of its Genesis and Development
- 4.3 Railways – ICF - Development of Urban and Suburban Railways, MRTS

Unit 5

Media

(10 hrs.)

5.1 Press – Vernacular and English

5.2 Theatre - Growth Over the years

5.3 Films - Growth from Silent Movies to the Talkies

BOOKS FOR STUDY

Muthiah, S. *Madras Discovered*. Madras: East West Press, 1990.

Rajaraman, P. *Chennai through the Ages*. Madras: Poomphozhil, 1997.

BOOKS FOR REFERENCE

S. Muthiah. *Madras, Chennai: A 400-year Record of the First City of Modern India, The Land, The People and Their Governors*. Palaniappa Brothers, 2008 & 2009.

Jayakumar, N, and G.S. Praveen. *Manual of Administration of the Madras Presidency*. (3 Volumes) Madras: Asian Educational Services, 1990.

Maclean, C.D. *Manual of Administration of the Madras Presidency*. (3 Volumes), Madras: Asian Educational Services, 1990.

Muthiah, S. *Madras – The Gracious City*. Madras : Affiliated East West Press, 1990.

Muthiah, S. *Madras – Its Yesterdays, Today and Tomorrow*. Madras : Affiliated East West Press, 1990.

Sudhakar, G.J. *Aspects of Madras*. Madras : Loyola, 1993.

Venkatachellapathi, A.P. *Chennai Not Madras: Perspectives on the City*. Madras : Marg, 2006.

JOURNALS

Bi-annual Journal of Indian Art, Culture, Heritage and Tourism, Bharati Women's College, Chennai.

Journal of Humanities and Social Science, International Organization of Scientific Research (IOSR).

WEB RESOURCES

www.intach.org

www.madrasmusings.com

PATTERN OF EVALUTION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A - $5 \times 3 = 15$ (Any 5 out of 7 in 30 words each)

Section B - $5 \times 5 = 25$ (Any 5 out of 7 in 250 words each)

Section C - $1 \times 10 = 10$ (Any 1 out of 2 in 800 words each)

Third Component:

List of evaluation modes:

Seminars

Presentation

Group Discussion

Objective test

End Semester Examination

Total marks: 100

Duration: 3 Hours

Section A- $10 \times 3 = 30$ (All questions to be answered in 30 words each)

Section B - $5 \times 8 = 40$ (5 out of 8 questions to be answered in 300 words each)

Section C - $3 \times 10 = 30$ (3 questions to be answered in 1000 words each in either or pattern, e.g.

19 (a) or (b))

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A. DEGREE BRANCH – IA - HISTORY AND TOURISM

SYLLABUS
(Effective from the academic year 2015-2016)

HOSPITALITY MANAGEMENT AND CATERING

CODE: 15HS/AC/HM35

CREDITS: 5

L T S: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES

- To provide students with knowledge of the hotel industry, its administrative aspects and its future scope
- To appraise students about the important departments of a classified hotel and to teach various aspects related to accommodation and cuisine

Unit 1

Introduction to Hotels (15 hrs.)

- 1.1 Evolution of the Hotel Industry
- 1.2 Hotel Terminology
- 1.3 Hotel Chains in India – Hotel Groups and their Role in Tourism – ITC Welcome Group, Le Meridian Group, Sheraton Group, Oberoi Group, The Leela Group, Taj Group, Ashok Group, Marriot Group

Unit 2

Tourism and Accommodation (15 hrs.)

- 2.1 Organisation of Luxury Hotels – Duties and Responsibilities of Various Personnel
- 2.2 Classification of Hotels – Star Rating System
- 2.3 Types of Plans: European, Continental, American – Types of Rooms

Unit 3

Administration of Hotels (15 hrs.)

- 3.1 Hotel Divisions and Key Departments
- 3.2 Front Office Management – Organisational Chart, Duties and Responsibilities, Qualities of a Front Office Staff
- 3.3 House Keeping: Organisational Chart, Duties and Responsibilities, Qualities of a House Keeping Staff
- 3.4 Food and Beverage Service: Types of Services, Organisational Chart, Duties and Responsibilities – Types of beverage – Cuisines (Indian and International) – Types of Menus

Unit 4

Hotel Marketing (10 hrs.)

- 4.1 Meaning and Concept of Hospitality Marketing - Sales Promotion and Public Relations - Tools of Marketing, Advertising, Promotion and Publicity
- 4.2 Crisis Management – Planning Sales – Handling Competition and Complaints

Unit 5

Latest Trends in Hotel Industry

(10 hrs.)

5.1 Future Trends in Hospitality Industry

5.2 Regulatory Conditions and Guidelines for Approval of Hotel Projects – FHRAI and IHRAI

BOOKS FOR STUDY

Singh, Y. P. *Effective Hotel Management*. New Delhi: Anmol Publications, 2001.

Andrews, S. *Food and Beverage Service*. New Delhi: Tata MacGraw-Hill, 1991.

Kannan, S. *Hotel Industry in India*. New Delhi: Deep and Deep Publications, 1997.

BOOKS FOR REFERENCE

Andrews, Sudhir. *Hotel House Keeping*. New Delhi: Tata MacGraw-Hill, 1985.

Davis, B. and S. Stone. *Food and Beverage and Management*. United Kingdom: Heinemann Professional, 1989.

Baker, Sue, Pam Bradley and Jeremy Huyton. *Principles of Hotel Front Office Operations*, Singapore: Thomson Learning, 2006.

JOURNALS

International Journal of Hospitality Management, Abraham Pizam, (Yearly), USA

Journal of Business and Hotel Management, David Cranage, (Quarterly), USA

WEB RESOURCES

www.nchm.nic.in

www.ihmlucknow.com

PATTERN OF EVALUATION

Continuous Assessment

Total marks : 50

Duration : 90 Mins.

Section A - 5 x 3 = 15 (Any 5 out of 7 in 30 words each)

Section B - 5 x 5 = 25 (Any 5 out of 7 in 250 words each)

Section C - 1 x 10 = 10 (Any 1 out of 2 in 800 words each)

Third Component

List of Evaluation Modes:

Seminars

Case Studies

End Semester Examination

Total Marks : 100

Duration : 3 Hours

Section A - 10 x 3 = 30 (All questions to be answered in 30 words each)

Section B - 5 x 8 = 40 (5 out of 8 questions to be answered in 300 words each)

Section C - 3 x 10 = 30 (3 questions to be answered in 1000 words each in either or pattern Eg. 19(a) or (b))

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600086
B.A DEGREE: BRANCH – IA -(HISTORY AND TOURISM)

SYLLABUS
(Effective from the academic year 2015 – 2016)

CONTEMPORARY INDIA

CODE: 15HS/MC/CO45

CREDITS: 5

L T S: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES

- To help students understand the major developments in India since 1947
- To enable students to prepare for competitive examinations

Unit 1

Nehru, Shastri and Indira (10 hrs.)

- 1.1 Accession of Princely States and Linguistic Reorganization of States
- 1.2 Communalism, Language Issues, and Integration of Tribals
- 1.3 Foreign Policy: Relations with Neighbours and the Superpowers
- 1.4 The Emergency and the Janata Interregnum
- 1.5 The Evolution of the Party System in India

Unit 2

Rajiv Gandhi and After (10 hrs.)

- 2.1 The Rajiv Years
- 2.2 The National Front Government, NDA and UPA
- 2.3 Foreign Policy

Unit 3

Regional Studies (15 hrs.)

- 3.1 Politics in the states: Tamil Nadu, Andhra Pradesh
- 3.2 Kerala and West Bengal
- 3.3 Crises in Punjab, Jammu and Kashmir, and the North East

Unit 4

The Indian Economy (15 hrs.)

- 4.1 The Nehruvian Legacy and Trends after Nehru
- 4.2 The Reforms of 1991 and Recent Trends
- 4.3 Land Reforms: Zamindari Abolition, Tenancy Reforms and the Bhoodan Movement
- 4.4 The Green Revolution, White Revolution
- 4.5 Agrarian Struggles since Independence

Unit 5

Society and Culture (15 hrs.)

- 5.1 Communalism
- 5.2 Caste movements and their Impact
- 5.3 Women since Independence

BOOKS FOR STUDY

Chandra B. et. al. *India Since Independence*. New Delhi: Penguin Books, 2008.
Anand, V.K. *India Since Independence: Making Sense of Indian Politics*. New Delhi: Longman, 2010.

BOOKS FOR REFERENCE

Guha, R. *India After Gandhi*. New Delhi: Harper Perennial, 2008.
Corbridge, S. et. al. *India Today: Economy, Politics and Society*. Cambridge: Polity, 2013.
DeSouza, P.R. and Sridharan, E. *India's Political Parties*. New Delhi: Sage, 2006.
Tharoor, S. *India Shastra: Reflections on the Nation in Our Time*. New Delhi, Aleph, 2015.
Sen, A. and Dreze, J. *An Uncertain Glory: India and its Contradictions*. Princeton: Princeton University, 2013.

JOURNALS

Economic and Political Weekly

WEB RESOURCES

<http://blogs.wsj.com/indiarealtime>
<http://www.mea.gov.in/foreign-relations.htm>

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Duration: 90 Mins.

Section A - $5 \times 3 = 15$ (Any 5 out of 7 in 30 words each)

Section B - $5 \times 5 = 25$ (Any 5 out of 7 in 250 words each)

Section C - $1 \times 10 = 10$ (Any 1 out of 2 in 800 words)

Third Component:

List of Evaluation Modes:

Seminars
Debates
Quiz
Assignments

End Semester Examination

Total marks: 100

Duration: 3 Hours

Section A - $10 \times 3 = 30$ (All questions to be answered in 30 words each)

Section B - $5 \times 8 = 40$ (5 out of 8 questions to be answered in 300 words each)

Section C - $3 \times 10 = 30$ (3 questions to be answered in 1000 words each
in either or pattern, e.g. 19 (a) or (b))

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A. DEGREE BRANCH – IA - (HISTORY AND TOURISM)

SYLLABUS
(Effective from the academic year 2015 – 2016)

HUMAN RIGHTS

CODE: 15HS/AC/HR45

CREDITS: 5

L T S: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES

- To help students understand the significance and relevance of the struggle for human rights
- To help them know the mechanisms available for claiming human rights

Unit 1

Human Rights - A Historical Perspective (10 hrs.)

- 1.1 Historical Development till 1948
- 1.2 Universal Declaration of Human Rights
- 1.3 International Covenant on Civil and Political Rights
- 1.4 International Covenant on Economic, Social and Cultural Rights
- 1.5 Optional Protocols I and II

Unit 2

The United Nations Human Rights System (10 hrs.)

- 2.1 UNHCHR
- 2.2 Commission for Human Rights and the Human Rights Council
- 2.3 Treaty Bodies
- 2.4 ILO and UNHCR
- 2.5 The Security Council and Humanitarian Intervention and the Responsibility to Protect

Unit 3

Violation and Measure of Restoration of Human Rights (15 hrs.)

- 3.1 Anti-Semitism
- 3.2 Racism - Apartheid
- 3.3 Human Rights Violations in India
- 3.4 Civil Rights Movement in the USA

Unit 4

Human Rights Law (15 hrs.)

- 4.1 Rights of Women (CEDAW), Children and Juveniles (CRC), and the Disabled
- 4.2 Rights of Workers and Minorities
- 4.3 Human Rights and Criminal Justice administration - Right of Prisoners
- 4.4 LGBT Rights

Unit 5

Human Rights Mechanisms

(15 hrs.)

- 5.1 National Human Rights Institutions: NHRC and SHRCs
- 5.2 Human Rights and NGOs
- 5.3 The Media and Human Rights
- 5.4 Enforcement of Human Rights

BOOKS FOR STUDY

Subramaniam, S. *Human Rights International Challenges (2 Volumes)*. New Delhi: Manas, 1997.

Chandra, V. *Human Rights*. Allahabad : Allahabad Law Agency, 1999.

BOOKS FOR REFERENCE

Sen, A. *The Idea of Justice*. London: Allen Lane, 2009.

Nirmal, C.J. (Ed.). *Human Rights in India*. New Delhi: Oxford University, 2000.

Alston, P. and Goodman, R. *International Human Rights*. Oxford: Oxford University, 2013.

Carson, C. (Ed.). *The Autobiography of Martin Luther King*. New York: Grand Central, 2001.

Mandela, N. *Long Walk to Freedom*. Boston: Little Brown, 1995.

JOURNALS

Journal of National Human Rights Commission (National Human Rights Commission of India)

WEB RESOURCES

<http://www.ohchr.org/>

Nhrc.nic.in

Amnesty.org

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Duration: 90 Mins.

Section A - $5 \times 3 = 15$ (Any 5 out of 7 questions in 30 words each)

Section B - $5 \times 5 = 25$ (Any 5 out of 7 questions in 250 words each)

Section C - $1 \times 10 = 10$ (Any 1 out of 2 questions in 800 words)

Third Component:

List of Evaluation Modes:

Seminars

Debates, Quiz & Assignments

End Semester Examination

Total marks: 100

Duration: 3 Hours

Section A - $10 \times 3 = 30$ (All questions to be answered in 30 words each)

Section B - $5 \times 8 = 40$ (5 out of 8 questions to be answered in 300 words each)

Section C - $3 \times 10 = 30$ (3 questions to be answered in 1000 words each in either or pattern, e.g.

19 (a) or (b))

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086
B.A. DEGREE BRANCH – IA - HISTORY AND TOURISM

SYLLABUS
(Effective from the academic year 2015-2016)

HISTORY OF EUROPE (1789-1871)

CODE: 15HS/MC/HE55

CREDITS: 5

L T S: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES

- To study the developments in Europe after the French Revolution
- To help students understand the origins of Consensus in International Affairs
- To study the rise of Nationalism in the World

Unit 1	The French Revolution	(15 hrs.)
	1.1 Causes	
	1.2 The Ancient Regime	
	1.3 Impact	
Unit 2	Rise of Napoleon	(15 hrs.)
	2.1 Conquests of Napoleon	
	2.2 Napoleon as Emperor	
	2.3 Fall of Napoleon	
Unit 3	Congress of Vienna and Concert of Europe	(15 hrs.)
	3.1 Restoration, Legitimacy, Balance of Power	
	3.2 Holy Alliance	
	3.3 Quadruple Alliance	
	3.4 Role of Metternich	
Unit 4	Europe after Vienna	(10 hrs.)
	4.1 1830 Revolutions in Europe	
	4.2 1848 Revolutions in Europe	
	4.3 Napoleon III	
Unit 5	Rise of Nationalism	(10 hrs.)
	5.1 Unification of Italy - Cavour, Mazzini, Garibaldi, Victor Immanuel	
	5.2 Unification of Germany - Otto Van Bismarck	

BOOKS FOR STUDY

Grant, A.J. *A Textbook on Modern European History*. Southgate, London: Orient Longman, 1963.

Pearson, Raymond. *The Longman Companion to European Nationalism, 1789-1920*. Routledge, 2014.

BOOKS FOR REFERENCE

Grab, Alexander. *Napoleon and the Transformation of Europe*. 2003.

Doyle, William. *Oxford History of the French Revolution*. New York: Oxford University, 2002.

Lee Stephen, J. *Aspects of European History (1789-1980)*. Routledge, 2007.

Briggs, Asa. Clavin Patricia. *Modern Europe, 1789 - Present*. Routledge, 2014.

Hobsbawm, Eric. *Age of Revolution 1789-1848*. UK: Hachette, 2010.

JOURNALS

European History Quarterly, ed. Julian Swann, Birkbeck, University of London.

Oxford Journal: Collective Panics in the Early French Revolution, 1789–1791: A Comparative Perspective, Oxford University.

WEB RESOURCES

<http://eudocs.lib.byu.edu>

www.britannica.com

www.journals.cambridge.org

www.eu-historians.eu/journal

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Duration :90 Mins.

Section A - 5 x 3 = 15 (Any 5 out of 7 in 30 words each)

Section B - 5 x 5 = 25 (Any 5 out of 7 in 250 words each)

Section C - 1 x 10 = 10 (Any 1 out of 2 in 800 words each)

Third Component:

List of Evaluation Methods :

Group Assignments

Presentations

Objective Tests

End Semester Examinations

Total Marks: 100

Duration: 3 Hours

Section A - 10 x 3 = 30 (All questions to be answered in 30 words each)

Section B - 5 x 8 = 40 (5 out of 8 questions to be answered in 300 words each)

Section C - 3 x 10 = 30 (3 questions to be answered in 1000 words each in either or pattern e.g.

19 (a) or (b)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086
B.A. DEGREE BRANCH – IA - HISTORY AND TOURISM

SYLLABUS
(Effective from the Academic Year 2015-2016)

HISTORY OF WORLD CIVILISATIONS

CODE: 15HS/MC/WC55

CREDITS: 5

L T S: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVE

- To help students get an insight into the cultures of various civilisations

Unit 1

Introduction (10 hrs.)

- 1.1 Definition of Civilisation - Growth of Civilizations
- 1.2 Pre-Historic - Palaeolithic, Mesolithic and Neolithic Cultures

Unit 2

Ancient Civilisations (15 hrs.)

- 2.1 Mesopotamia and Persia
- 2.2 Egyptian and Chinese

Unit 3

Classical Civilizations (15 hrs.)

- 3.1 Greek and Roman
- 3.2 American Civilisation – Mayan, Aztec, Inca
- 3.3 Japanese Civilisation

Unit 4

Feudalism (15 hrs.)

- 4.1 Rise and spread of Christianity – The Papacy
- 4.2 Reformation – Counter Reformation

Unit 5

Transition to Modern Age (10 hrs.)

- 5.1 Renaissance – Causes and Results
- 5.2 Geographical and Scientific Discoveries
- 5.3 Rise of Colonialism

BOOKS FOR STUDY

Randal, Puvwels. Philip Adler. *World Civilisations*. Cengage Learning, 2011.
Swaine, J. E. *A History of World Civilizations*. New Delhi: S. Chand, 2000.

BOOKS FOR REFERENCE

Gretchen, Wildwood and Matthews Rupert, *Ancient Mesopotamian Civilization*. New York: Rosen, 2009.

Freeman, Charles. *Egypt, Greece and Rome*. New York: Oxford University, 2004.

Matthews, Rupert and Van Pelt Todd. *Ancient Civilizations and their Myths and Legends*. Rosen, 2009.

JOURNALS

Comparative Civilizations Review

Journal of Ancient Civilizations (Annual), The Institute for the History of Ancient Civilizations, Northeast Normal University, China.

The Ancient World, (Bi-Annual), Judith M. Remer Ares Publishers.

WEB RESOURCES

www.history.com

www.historymuseum.ca

www.britannica.com

www.ancientgreece.com

www.ushistory.org

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Duration: 90 Mins.

Section A - $5 \times 3 = 15$ (Any 5 out of 7 in 30 words each)

Section B - $5 \times 5 = 25$ (Any 5 out of 7 in 250 words each)

Section C - $1 \times 10 = 10$ (Any 1 out of 2 in 800 words each)

Third Component:

List of Evaluation Modes:

Group Assignments

Presentations

Chart Work

Exhibitions of Models

End Semester Examinations

Total Marks: 100

Duration: 3 Hours

Section A - $10 \times 3 = 30$ (All questions to be answered in 30 word each)

Section B - $5 \times 8 = 40$ (5 out of 8 questions to be answered in 300 words each)

Section C - $3 \times 10 = 30$ (3 questions to be answered in 1000 words each in either or pattern e.g. 19 (a) or (b)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A. DEGREE: BRANCH – IA – HISTORY AND TOURISM

SYLLABUS
(Effective from the academic year 2015-2016)

TOURISM MARKETING AND MANAGEMENT

CODE: 15HS/MC/TM 55

CREDITS: 5

L T S: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES

- To enable students to understand the principles of Marketing and Management and its application to the Tourism Industry
- To help students comprehend planning concepts, structure and organisation of Tourism organisations

Unit 1

Basic Principles of Marketing and Management (15 hrs.)

- 1.1 Tourism Marketing - A Perception
- 1.2 Purpose and Constraints of Tourism Marketing
- 1.3 Essentials of Service Management
- 1.4 Meaning, Concept and Characteristics of Tourism Management
- 1.5 Nature and Functions of Tourism Managers

Unit 2

Tourism Planning (10hrs.)

- 2.1 Planning Concepts - Marketing Information System - Business Environment
- 2.2 SWOT Analysis
- 2.3 Nature and Importance of Planning - Strategic Planning For Tourism

Unit 3

The Structure and Organisation (12 hrs.)

- 3.1 Types of Organisations - Line, Line and Staff, Matrix
- 3.2 Organisation - Levels of Authority
- 3.3 Human Resource Management - Staffing, Recruitment
- 3.4 Sectoral and Destination Organisations

Unit 4

Elements of Tourism Marketing (13 hrs.)

- 4.1 Market Research
- 4.2 Consumer and Consumer Behaviour - Factors Influencing Buying Behaviour
- 4.3 Marketing Mix
- 4.4 Distribution Strategy for Tourism

Unit 5

Tourism Marketing Strategies (15 hrs.)

- 5.1 Tourism Promotion
- 5.2 Segmentation
- 5.3 Branding and Pricing

5.4 Destination Marketing
5.5 Public Relations for Tourism

BOOKS FOR STUDY

Seth, P.N. *Successful Tourism Management*. New Delhi: Sterling, 1997.
Bhatia, A.K. *Tourism Management and Marketing*. New Delhi: Sterling Publishers, 1997.
Holloway, J. C. and R.Y. Plant. *Marketing for Tourism*. London : Pitman Publishing, 1998.
Sinha, P.C. *Tourism Management*. New Delhi: Anmol Publishers, 1997.
Buhalis, D., and Costa C. (ed.) *Tourism Management Dynamics*. London : Heinemann, 2006.

BOOKS FOR REFERENCE

Collman, M.M. *Tourism Marketing*. New York: Van Nostrand Reinhold, 1989.
Batra, G.S. and R.C. Dangwal. *Tourism Promotion and Development: New Advances*. New Delhi: Deep and Deep, 2007.
Buhalis, D. and Costa C. *Tourism Business Frontiers - Consumers, Products and Industry*. London: Heinemann, 2006.
Telter, David J. and R. Sharpley. *Tourism and Development in the Developing World*. London: Routledge, 2001.

JOURNALS

International Journal of Tourism Research, (Ed. Joh Fletcher), (Bi Monthly)
Tourism Management, Elsevier
Journal of Hospitality and Tourism, Sage Publication

WEB RESOURCES

www.tourismmarketingconcepts.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A - 5 x 3 = 15 (Any 5 out of 7 in 30 words each)
Section B - 5 x 5 = 25 (Any 5 out of 7 in 250 words each)
Section C - 1 x 10 = 10 (Any 1 out of 2 in 800 words each)

Third Component:

List of Evaluation Modes:

Seminars
Presentation
Group discussion
Objective test

End Semester Examination

Total Marks: 100

Duration 3 Hours

Section A - 10 x 3 = 30 (All questions to be answered in 30 words each)
Section B - 5 x 8 = 40 (5 out of 8 questions to be answered in 300 words each)
Section C - 3 x 10 = 30 (3 questions to be answered in 1000 words each in either or pattern e.g. 19 (a) or (b))

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A. DEGREE BRANCH – IA - HISTORY AND TOURISM

SYLLABUS
(Effective from the academic year 2015-2016)

INTERNATIONAL RELATIONS SINCE 1945

CODE: 15HS/MC/IR65

CREDITS: 5

LTP: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES

- To provide a comprehensive overview of the major political developments and events starting from the twentieth century the development of modern international system, the evolution of modern diplomacy and the emergence of super-powers
- To equip the students with the tools to understand and analyse the growth of international institutions, the expansion of world society and the determinants of power in the world in order the make them open to theoretical approaches to understand international relations

Unit 1

Introduction of International Relations (15 hrs.)

- 1.1 Definition and Scope of International Relations
- 1.2 Concepts and Theories of International Relations
- 1.3 Diplomacy

Unit 2

Post Second World War (15 hrs.)

- 2.1 United Nations – Functions and Relevance
- 2.2 Cold War
- 2.3 Collective Security – NATO, WARSAW, SEATO, CENTO, ANZUS
- 2.4 Disarmament

Unit 3

Regional and Economic Initiatives (10 hrs.)

- 3.1 Commonwealth, ASEAN, EU, AU, SAARC, NAM
- 3.2 G8 & G20, WTO, GATT

Unit 4

Actors of International Power and Influence (15 hrs.)

- 4.1 New International Economic Order
- 4.2 Neo-colonialism in the Global South
- 4.3 Rise of China as a Major Power

Unit 5

Contemporary Concerns

(10 hrs.)

- 5.1 Globalisation
- 5.2 Terrorism
- 5.3 Environment
- 5.4 World Peace

BOOKS FOR STUDY

Joyce P. Kaufman, *Introduction to International Relations: Theory and Practice*. Rowman & Littlefield, 2013.

Peu Ghosh, *International Relations*. PHI Learning, 2013

Shri Ram Sharma, Eddy Asirvatham, *Political Studies*. Shiva Lal Agarwala, 1996.

BOOKS FOR REFERENCE

Chatterjee Aneek. *International Relations Today: Concepts and Applications*. Dorling Kindersley, 2010.

John W. Young, and John Kent, *International Relations Since 1945*. Oxford University Press, 2013.

Catherine R. Schenk, *International Economic Relations Since 1945*. Routledge, 2011.

GeirLundestad. *East, West, North, South: International Relations since 1945*, Sage, 2014.

Parthasarathy, K. *International Relations*. New Delhi: Polity, 2003.

Ron-Huisken, *Rising China: Power and Reassurance*. ANU E Press, 2009.

JOURNALS

India Quarterly: A Journal of International Affairs (New Delhi: Indian Council of World Affairs).

International Studies (Quarterly) New Delhi: J.N.U.

Pacific Affairs: An International Review of Asia and the Pacific (Quarterly) Vancouver: University of British Colombia. New Delhi : World Focus.

A Roberts, B Kingsbury - Nankai Journal.

British Journal of Politics & International Relations, 2000.

WEB RESOURCES

<http://www.un.org/en/>

www.saarc-sec.org

www.europa.eu

www.e-ir.info

PATTERN OF EVALUTION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A - 5 x 3 = 15 (Any 5 out of 7 in 30 words each)

Section B - 5 x 5 = 25 (Any 5 out of 7 in 250 words each)

Section C - 1 x 10 = 10 (Any 1 out of 2 in 800 words each)

Third Component:

List of Evaluation Modes:

Seminars/Presentation

Group discussion

Objective test

End Semester Examination

Total Marks: 100

Duration 3 Hours

Section A - $10 \times 3 = 30$ (All questions to be answered in 30 words each)

Section B - $5 \times 8 = 40$ (5 out of 8 questions to be answered in 300 words each)

Section C - $3 \times 10 = 30$ (3 questions to be answered in 1000 words each in either or pattern e.g.
19 (a) or (b))

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A. DEGREE BRANCH - IA - (HISTORY AND TOURISM)

SYLLABUS
(Effective from the academic year 2015 – 2016)

INDIAN CONSTITUTION

CODE: 15HS/MC/IC65

CREDITS: 5

L T S: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES

- To study the important aspects of our government
- To help the students learn their democratic rights and duties
- To enable students to compete in All India Competitive Exams

Unit 1

Nature of the Indian Constitution (15 hrs.)

- 1.1 Making of the Indian Constitution and its Philosophical Foundation
- 1.2 Salient Features of the Indian Constitution
- 1.3 Preamble
- 1.4 Citizenship

Unit 2

Parts III and IV (10 hrs.)

- 2.1 Fundamental Rights
- 2.2 Fundamental Duties
- 2.3 Directive Principles of State Policy

Unit 3

The Central Government (Part V) (15 hrs.)

- 3.1 The Union Executive: President, Prime Minister and the Council of Ministers
- 3.2 The Parliament: Powers and Function of the Lok Sabha and Rajya Sabha
Parliamentary Committees, Functioning of the Parliamentary System in India
- 3.3 The Judiciary: The Supreme Court, Judicial Review

Unit 4

The State Government (Part VI) (15 hrs.)

- 4.1 Governor
- 4.2 Chief Minister and the Council of Ministers
- 4.3 State Legislature
- 4.4 High Court
- 4.5 Centre - State Relations

Unit 5

Other Provisions

(10 hrs.)

- 5.1 Administration of Union Territories and Acquired Territories
- 5.2 Local Self-Government: Panchayats, Municipalities, and Corporations
- 5.3 Elections
- 5.4 Amendments to the Indian Constitution

BOOKS FOR STUDY

Basu, D.D. *Introduction to the Constitution of India*. New Delhi: Prentice Hall of India, 2011.
Pylee, M.V. *An Introduction to the Constitution of India*. New Delhi: Vikas, 2007.

BOOKS FOR REFERENCE

Pandey, J.N. *Constitutional Law of India*. Allahabad: Central Law Agency, 2014.
Agarwal, R.C. *Constitutional Development and National Movement of India*. New Delhi: S. Chand, 1988.
Allan, R. *Modern Politics and Government*. New York: Palgrave MacMillan, 2000.
Weiner, M. *The Indian Paradox*. New Delhi: Sage, 1989.

JOURNALS

Economic and Political Weekly (Sameeksha Trust)
Madras Law Journal (LexisNexis)

WEB RESOURCES

<http://indiacode.nic.in/coiweb/welcome.html>
<http://supremecourtindia.nic.in>
<http://hcmadras.tn.nic.in>

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50 **Duration: 90 Mins.**

Section A - $5 \times 3 = 15$ (Any 5 out of 7 in 30 words each)
Section B - $5 \times 5 = 25$ (Any 5 out of 7 in 250 words each)
Section C - $1 \times 10 = 10$ (Any 1 out of 2 in 800 words)

Third Component:

List of Evaluation Modes:

Seminars
Quiz
Assignments

End Semester Examination

Total marks: 100 **Duration: 3 Hours**

Section A - $10 \times 3 = 30$ (All questions to be answered in 30 words each)
Section B - $5 \times 8 = 40$ (5 out of 8 questions to be answered in 300 words each)
Section C - $3 \times 10 = 30$ (3 questions to be answered in 1000 words each
in either or pattern, e.g. 19 (a) or (b))

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086
B.A. DEGREE BRANCH – IA- HISTORY AND TOURISM

SYLLABUS
(Effective from the academic year 2015-2016)

HISTORY OF EUROPE (1871-1945)

CODE: 15HS/MC/EU65

CREDITS: 5

L T S: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVE

- To evaluate the making of the modern world through the latter half of the 19th and first half of the 20th century

Unit 1

Europe on the Eve of World War I

(15 hrs.)

- 1.1 Treaty of Berlin
- 1.2 Balkan Wars
- 1.3 Year of Armed Peace

Unit 2

World War I

(15 hrs.)

- 2.1 Causes
- 2.2 Entry of US into World War I
- 2.3 Results - Paris Peace Conference
- 2.4 Treaty of Versailles

Unit 3

Europe between the Wars

(10 hrs.)

- 3.1 The Russian Revolution
- 3.2 League of Nations
- 3.3 Great Depression
- 3.4 Inter War Alliances

Unit 4

Rise of Totalitarianism

(10 hrs.)

- 4.1 Rise of Hitler - Germany
- 4.2 Rise of Mussolini - Italy
- 4.3 Stalin-Russia
- 4.4 Mustapha Kemel Pasha - Turkey
- 4.5 Tojo Hideki - Japan

Unit 5

World War II

(15 hrs.)

5.1 Causes

5.2 US entry into the War - Pearl Harbour

5.3 Ravages of War

BOOKS FOR STUDY

Grant, A.J. *A Textbook on Modern European History*. Southgate, London, Orient Longman, 1963.

Ketelby, J.D.M. *A History of Modern Times from 1789*. Mumbai: Oxford University Press, 1970.

BOOKS FOR REFERENCE

Taylor, A. J. P. *The Struggle for Mastery in Europe: 1848–1918*. Oxford History of Modern Europe, 1954.

Dorn Brose, Eric. *A History of the Great War: World War One and the International Crisis of the Early Twentieth Century*. Oxford University Press, 2010

Lee Stephen, J. *Aspects of European History (1789-1980)*, Routledge, 2007

Briggs Asa, Clavin Patricia. *Modern Europe, 1789-Present*. Routledge, 2014

Hobsbawm, Eric. *The Age of Capital (1848-1875)*. UK : Hachette, 2010

Hobsbawm, Eric. *The Age of the Empire (1875-1914)*. UK : Hachette, 2010

JOURNALS

International Society for First World War Studies

Contemporary European History - Cambridge University Press

WEB RESOURCES

<http://eudocs.lib.byu.edu>

www.britannica.com

www.journals.cambridge.org

www.eu-historians.eu/journal

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Duration: 90 Mins.

Section A - 5 x 3 = 15 (Any 5 out of 7 in 30 words each)

Section B - 5 x 5 = 25 (Any 5 out of 7 in 250 words each)

Section C - 1 x 10 = 10 (Any 1 out of 2 in 800 words each)

Third Component:

List of Evaluation Modes:

Group Assignments

Presentations

Objective Tests

End Semester Examinations

Total Marks: 100

Duration: 3 Hours

Section A - 10 x 3 = 30 (All questions to be answered in 30 word each)

Section B - 5 x 8 = 40 (5 out of 8 questions to be answered in 300 words each)

Section C - 3 x 10 = 30 (3 questions to be answered in 1000 words each in either or pattern e.g.
19 (a) or (b))

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086.
Allied Elective Course offered by the Department of History and Tourism
For B.A./B.Sc./B.Com/B.S.W./B.V.A./B.C.A. Degree Programmes

SYLLABUS
(Effective from the academic year 2015-2016)

INDIAN HERITAGE AND TOURISM

CODE: 15HS/AE/IH45

CREDITS: 5

LTP: 4 10

TOTAL TEACHING HOURS: 65

OBJECTIVES

- To enable students to understand the growing significance of the tourism industry in India
- To create in students an appreciation for Indian Heritage
- To evaluate India's potential as a tourist destination

Unit 1

Tourism - Conceptual Framework

(15 hrs.)

- 1.1 Definition, Meaning, Nature and Scope
- 1.2 Leisure, Recreation and Tourism
- 1.3 Components and Elements of Tourism
- 1.4 Tourism System
- 1.5 Genesis of Modern Tourism in India

Unit 2

India's Natural Heritage

(10 hrs.)

- 2.1 Natural Resources - Water Bodies, Forests, Hills and Mountains
- 2.2 Wildlife Tourism
- 2.3 Ecotourism

Unit 3

India's Intangible Heritage

(15 hrs.)

- 3.1 India as a Cultural Destination
- 3.2 Music - Classical and Folk
- 3.3 Dance - Classical and Folk
- 3.4 Indian Cuisine
- 3.5 Fairs and Festivals
- 3.6 Customs and Traditions

Unit 4

India's Tangible Heritage

(15 hrs.)

- 4.1 Religious and Secular Monuments
- 4.2 Heritage Sites in India
- 4.3 Important Tourist Circuits
- 4.4 Handicrafts and Handlooms
- 4.5 Museums and Art Galleries of India

Unit 5

Tourism Planning in India

(10 hrs.)

- 5.1 India's Tourism Policy
- 5.2 Tourism Organisation
- 5.3 Tourism Promotional Festivals of India
- 5.4 Tourism Development in India

BOOKS FOR STUDY

Acharya, R. *Tourism and Cultural Heritage of India*. Jaipur: Rosa, 1986.
Chawla, Romila. *Cultural Tourism and Development*. New Delhi: Sonali, 2004

BOOKS FOR REFERENCE

Bhatia, A.K. *Tourism Development: Principles and Practices*. New Delhi: Sterling, 2003.
Chopra, S. *Tourism and Development in India*. New Delhi: Vikas, 1998.
Andrews, S. *Introduction to Tourism and Hospitality Industry*. Tata Mcgraw-Hill, New Delhi, 2007.

JOURNALS

International Journal of Tourism Research, (Ed. Joh Fletcher), (Bi Monthly).
(SAJTH) South Asian Journal of Tourism & Heritage (Bi-annual), Centre for Tourism & Heritage Research, Department of Commerce, Dayanand College, Ajmer.
Bi-annual Journal of Indian Art, Culture, Heritage and Tourism, Bharati Women's College, Chennai.

WEB RESOURCES

<http://indiaheritage.org/>
<http://whc.unesco.org/>
www.asi.nic.in

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A - 5 x 3 = 15 (Any 5 out of 7 in 30 words each)
Section B - 5 x 5 = 25 (Any 5 out of 7 in 250 words each)
Section C - 1 x 10 = 10 (Any 1 out of 2 in 800 words each)

Third Component:

List of evaluation modes:

Seminars
Presentation
Group discussion
Objective test

End Semester Examination

Total Marks: 100

Duration 3 Hours

Section A - 10 x 3 = 30 (All questions to be answered in 30 words each)
Section B - 5 x 8 = 40 (5 out of 8 questions to be answered in 300 words each)
Section C - 3x 10 = 30 (3 questions to be answered in 1000 words each in either or pattern e.g. 19 (a) or (b))

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A. DEGREE BRANCH – IA- HISTORY AND TOURISM

SYLLABUS
(Effective from the academic year 2015-2016)

AIRPORT CUSTOMER SERVICES

CODE: 15HS/ME/CS55

CREDITS: 5

L T S: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES

- To provide students with an overview of airline operations, airport formalities and customer handling

Unit 1

Overview of Aircraft Operations (15 hrs.)

- 1.1 Access to Aircraft - Technical Terms
- 1.2 Flight operations, Crew and Cargo Administration
- 1.3 Catering – In-flight and Ground Catering

Unit 2

Arrival and Departure Formalities (15 hrs.)

- 2.1 Arrival and Departure Procedures
- 2.2 Passenger tickets - Baggage Tickets - MCO
- 2.3 Transportation Documents – Travel Insurance – Health Documents
- 2.4 Check-in – Passenger and Baggage Check-ins
- 2.5 Boarding passes – Passport – Visa and Security, Security Screening
- 2.6 Immigration – Customs Clearance – Embarkation and Disembarkation

Unit 3

Categories of Passengers (10 hrs.)

- 3.1 Very Important Person (VIPs) - Commercially Important Passengers (CIPs)
- 3.2 Frequent Flyers
- 3.3 Unaccompanied Minor (UMNR) - Families with Infants – Children
- 3.4 Passengers with Reduced Mobility (PRMs) and Unruly Passengers

Unit 4

Passenger handling (10 hrs.)

- 4.1 Handling Difficult Passenger Situations at Airport and In-flight
- 4.2 Delay on Departure of flight – Transit flights – Cross Connection Flights – Cancellation of Flights – Diversion of Flights
- 4.3 Handling Overbooking

Unit 5

Baggage Handling

(15 hrs.)

5.1 Checked Baggage – Unchecked Baggage

5.2 Pets, Animals in-Cabin and in-hold

5.3 Dangerous Goods in Baggage

5.4 Crew Baggage - Lost Baggage - Expedite Baggage - Unclaimed Found Baggage -
Lost, Found and Damaged Personal Property

5.5 Damage of Checked Baggage and Pilfered Property

5.6. Central Baggage Tracing Systems

BOOKS FOR STUDY

Airport Manual

Airport Authority Manual

Frankfinn Institute - Manual

BOOKS FOR REFERENCE

Airport Manual

Airport Authority Manual

JOURNALS

Journal of Airline and Airport Management (Biannual), Spain

Journal of Airport Management (Quarterly),(Ed. Robert J Aaronson), London

WEB RESOURCES

www.iata.org

www.aai.aero

PATTERN OF EVALUATION

Continuous Assessment

Total marks : 50

Duration : 90 Mins.

Section A - 5 x 3 = 15(Any 5 out of 7 in 30 words each)

Section B - 5 x 5 = 25(Any 5 out of 7 in 250 words each)

Section C - 1 x 10 = 10 (Any 1 out of 2 in 800 words each)

Third Component:

List of Evaluation Modes:

Assignments and Seminars

End Semester Examination

Total Marks : 100

Duration : 3 Hours

Section A - 10 x 3= 30 (All questions to be answered in 30 words each)

Section B - 5 x 8= 40 (5 out of 8 questions to be answered in 300 words each)

Section C - 3 x 10= 30 (3 questions to be answered in 1000 words each in either or pattern Eg.
19(a) or (b))

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A. DEGREE BRANCH – IA - HISTORY AND TOURISM
SYLLABUS
(Effective from the academic year 2015-2016)

WOMEN'S STUDIES

CODE: 15HS/ME/WS55

CREDITS: 5

L T S: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES

- To help students understand the role played by women through the ages
- To sensitise students to women's issues and spread awareness about the rights of women

Unit 1

Introduction (15 hrs.)

- 1.1 Definition of Women Studies – Objective and Scope – Theories of Feminism: Social, Economic, Radical, Individual, Eco-feminism
- 1.2 Women Through the Ages – Indian Context – Ancient, Medieval, Women in Freedom Struggle, Gandhian Era and Post-Independence period
- 1.3 Women in Business Industry - Media and PR

Unit 2

Women's Movements (15 hrs.)

- 2.1 Genesis and Growth of Women's Movements – India, America and Britain – Causes - Seneca Falls Convention (1850), The Open Christmas Letter (1914), Temperance Movement, Suffrage Movement, ERA,
- 2.2 Women's Organisations – JAC, YWCA, WIA, IAWS, AIWC. SEWA, AIDWA, Red Rickshaw Revolution, Gulabi Gang – Role of NGOs – NGOs with special reference to South India: The Banyan, Prajwala, Sakhi, Madras Women's Indian Association, Saheli, Working Women's Forum, Kali For Women, ANEW

Unit 3

Famous Women Personalities (10 hrs.)

- 3.1 Indian - Gargi, Margaret 'Gretta' Cousins, Jyotiba Phule, Dr. Muthulakshmi Reddy, Sarojini Naidu, Ela Bhatt, Medha Patkar, Indira Gandhi, Dr. V Shanta, Kiran Bedi, Aruna Roy, Arundhati Roy, Teesta Setalvad, Irom Sharmila, Vandana Shiva
- 3.2 International - Mary Wollstonecraft, Susan B. Anthony, Edith Archibald, Emmeline Pankhurst, Emma Goldman, Margaret Sanger, Goldameir, Ida Wells, Maya Angelou, Hillary Rodham Clinton, Wangari Matthai, Shirin Ebadi

Unit 4

Contemporary Issues (10 hrs.)

- 4.1 Domestic Violence and Dowry
- 4.2 Issues at Workplace, Public Place
- 4.3 Women's Education

Unit 5

Women and Law

(15 hrs.)

- 5.1 Constitution and Women's Rights - National Commission for Women
- 5.2 International Women's Decade - CEDAW - UN Declaration on the Elimination of Violence Against Women - UNIFEM, UN Women (2010)
- 5.3 Laws relating to Women - Married Women's Right to Property Act 1882, Protection of Women From Domestic Violence Act 2005, SITA/PITA, Dowry Prohibition Act 1961, Special Marriage Act 1872, and 1954, Medical Termination of Pregnancy Act 1971, Criminal Law (Amendment) Act, 2013, The Sexual Harassment at the Workplace (Prevention, Prohibition, Redressal) Act and Rules, 2013

BOOKS FOR STUDY

Devendra, K. *Status and Position of Women in India*. New Delhi: Vikas, 1986.
Pratima, A. *Women's Movement in India*. New Delhi: Vikas, 2001

BOOKS FOR REFERENCE

Chatterjee, M. *Indian Women*. New Delhi: Kanishka, 1991
Andal, N. *Women in Indian Society – Options and Constraints*. New Delhi: Rawat, 2002
Jayawardene, K. *Feminism and Nationalism in the Third World*. New Delhi: Kali for Women, 1989
Banks, Olive. *Faces of Feminism - A Study of Feminism as a Social Movement*. London, 2008

JOURNALS

Indian Journal of Gender Studies (Ed. Malavika Karlekar), (Feb, June, Oct)
Women's Studies International Forum (*formerly* Women's Studies International Quarterly) (now a bimonthly journal) (Ed. Kalwant Bhopal)

WEB RESOURCES

www.theindianwomansite.blogspot.com
www.womensweb.in

PATTERN OF EVALUATION

Continuous Assessment

Total marks : 50

Duration : 90 Mins.

Section A - 5 x 3 = 15 (Any 5 out of 7 in 30 words each)
Section B - 5 x 5 = 25 (Any 5 out of 7 in 250 words each)
Section C - 1 x 10 = 10 (Any 1 out of 2 in 800 words each)

Third Component:

List of evaluation modes :

Group Discussions

Objective tests

End Semester Examination

Total Marks : 100

Duration : 3 Hours

Section A - 10 x 3= 30 (All questions to be answered in 30 words each)

Section B - 5 x 8= 40 (5 out of 8 questions to be answered in 300 words each)

Section C - 3 x 10= 30 (3 questions to be answered in 1000 words each in either or pattern Eg. 19(a) or (b))

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A. DEGREE BRANCH – IA - HISTORY AND TOURISM

SYLLABUS
(Effective from the academic year 2015-2016)

ART AND ARCHITECTURE FOR TOURISM

CODE: 15HS/ME/AT55

CREDITS: 5

LTP: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES

- To enable students to understand the origin, growth and styles of Indian art and architecture
- To help students acquire knowledge in the field of Heritage Tourism and Archaeo-tourism
- To highlight the monuments of architectural value and art masterpieces

Unit 1

Introduction to Indian Art and Architecture (15 hrs.)

- 1.1 Origin and Evolution of Architecture in India
- 1.2 Art and Architecture as Resources for Tourism
- 1.3 Indus Art and Architecture
- 1.4 Buddhist – Mauryan and Sunga, Gandhara and Mathura school

Unit 2

Temple Architecture – Important Tourist Sites (15 hrs.)

- 2.1 Styles of Temple Architecture – Nagara, Dravida and Vesara
- 2.2 Temples of North India – Guptas, Chandellas, Solankis, Dilwara Temples
- 2.3 Temples of South India – Pallava, Chola, Pandya, Rastrakutas, Hoysalas, Chalukyas and Vijayanagar

Unit 3

Medieval Architecture – Important Tourist Sites (10 hrs.)

- 3.1 Sultanate
- 3.2 Mughal
- 3.3 Rajputs

Unit 4

Modern Architecture – Important Tourist Sites (13 hrs.)

- 4.1 Dutch – Tranquebar
- 4.2 Portuguese – Goa
- 4.3 French – Pondicherry
- 4.4 British – Indo-Saracenic

Unit 5

Sculptures and Paintings in India

(12 hrs.)

- 5.1 Sculptures – Stone & Metal
- 5.2 Rock Art, Fresco and Murals
- 5.3 Miniature & Pahari Paintings
- 5.4 Contemporary Indian Painters

BOOKS FOR STUDY

Brown, Percy. *Indian Architecture*. D.B. Taraporevala, 2003.
Tomory, Edith. *A History of Fine Arts in India and the West*. New Delhi: Orient BlackSwan, 2004.

BOOKS FOR REFERENCE

Ambujam Anantharaman. *Temples of South India*. Madras: East West Books, 2006.
Ambujam Anantharaman. *Temples of Western India*. Westland, 2011.
Deva Krishna. *Temples of North India*. National Book Trust, 1997.
Menon, Indira. *Rhythms in Stone - The Temples of South India*. Ambi Knowledge Resource, 2013.
Madhavan, Chitra. *Vishnu Temples of South India: Tamil Nadu*. Alpha Land Books, 2007.
Mitter, Partha. *Indian Art*. Oxford University Press, 2001.
Chawla, Romila. *Cultural Tourism and Development*. New Delhi: Sonali, 2004.
S.A. Raj Kumar. *Essays on Indian Architecture*. New Delhi: Discovery, 2003.
Sarkar, H. *Studies in Early Buddhist Architecture of India*. Mumbai, 1966.
V.V. Subba Reddy. *Temples of South India*. Gyan, 2009.

JOURNALS

Indian Archaeology - A Review, (Annual Publication on Archaeological Reports).
Journal of Archaeological Research, co-ed. G.M. Feinman; T.D. Price.
Journal of Indian History and Culture – CPR Foundation, Chennai.
Michael W. Meister, Journal of the Society of Architectural Historians, Vol. 65, No. 1 (Mar., 2006),

Journals on Paintings

Gandharan Studies, Institute of Archaeology and Social Anthropology, University of Peshawar.
Journal of the Royal Asiatic Society, Cambridge University Press.
Rock art and rock music: Petroglyphs of the south Indian Neolithic - Antiquity, A Review of World Archaeology, Cambridge University Press, 2004.

WEB RESOURCES

<http://indiaheritage.org/>
www.asi.nic.in
<http://ccrtindia.gov.in/>

PATTERN OF EVALUTION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A - $5 \times 3 = 15$ (Any 5 out of 7 in 30 words each)

Section B - $5 \times 5 = 25$ (Any 5 out of 7 in 250 words each)

Section C - $1 \times 10 = 10$ (Any 1 out of 2 in 800 words each)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open book tests

Group discussion

Assignments

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Section A - $10 \times 3 = 30$ (All questions to be answered in 30 words each)

Section B - $5 \times 8 = 40$ (5 out of 8 questions to be answered in 300 words each)

Section C - $3 \times 10 = 30$ (3 questions to be answered in 1000 words each in either pattern e.g. 19 (a) or (b))

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086.
General Elective Course offered by the Department of History and Tourism
For B.A./B.Sc./B.Com/B.S.W./B.V.A./B.C.A. Degree Programmes

SYLLABUS
(Effective from the academic year 2015-2016)

HERITAGE AWARENESS

CODE: 15HS/GE/HA22

CREDITS:2

LTP: 2 0 0

TOTAL TEACHING HOURS: 26

OBJECTIVES

- To enable students to develop passion towards the rich historical and cultural heritage of India
- To help students identify the threats to poses the intangible heritage and the methods of conservation

Unit 1

Introduction to Heritage

(10 hrs.)

- 1.1 Definition and Significance of Heritage
- 1.2 Historical Monuments in India
- 1.3 World Heritage Sites in India

Unit 2

Heritage of Chennai

(11 hrs.)

- 2.1 Tangible Heritage
- 2.2 Intangible Heritage
- 2.3 Natural Heritage

Unit 3

Heritage Conservation

(5 hrs.)

- 3.1 Importance of Conservation
- 3.2 Threats to Heritage Sites
- 3.3 Visits to Heritage Monuments in and around Chennai

BOOKS FOR STUDY

Shobana Gupta. *Monuments of India*. New Delhi: Har-Anand, 2008.
Muthiah. S, *Madras, The Gracious City*. Madras: East West, 1990.

BOOKS FOR REFERENCE

Renu Saran. *Monuments of India*. Diamond Pocket, 2014.
S.L. Nagar. *Protection, Conservation and Preservation of Indian Monuments*. Aryan Books 1993.
A. S. Bisht, Surinder Pal Singh, B. B. Lal. *Studies in Art and Archaeological Conservation*. Dr. B.B. Lal Commemoration Volume. Agam Kala, 2004.

JOURNALS

Journal of Indian History and Culture (Annual), CPR Foundation, Chennai.

K. Lakshmana Murthy, (1997), Structural Conservation of Monuments in South India, Bhartiya Kala Prakashan.

Rao, P.R., (2007), Indian Heritage and Culture, Sterling Publishers Private Limited, New Delhi. Shanti Lal Nagar, Protection, Conservation, and Preservation of Indian Monuments, Aryan Books International 1993.

International Journal of Architectural Heritage – Conservation, Analysis, and Restoration, Volume 9, Issue 4, 2015.

WEB RESOURCES

<http://indiaheritage.org/>

<http://whc.unesco.org/>

www.asi.nic.in

PATTERN OF EVALUATION

Continuous Assessment: (Internal Only)

Total Marks: 25

Section A - 5 x 2 = 10 (Any 5 out of 7 in 30 words each)

Section B - 2 x 5 = 10 (Any 2 out of 4 in 250 words each)

Section C - 1 x 5 = 5 (Any 1 out of 2 in 500 words each)

Duration: 90 Mins.

Third Component: (25 Marks)

List of evaluation modes:

Scrap Book

Group discussion

Field Study Report

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086
General Elective Course offered by the Department of History for
B.A/B.Sc/B.Com/B.S.W/B.V.A/B.C.A Degree Programmes

SYLLABUS
(Effective from the Academic Year 2015-2016)

HISTORY OF CHENNAI CITY

CODE : 15HS/GE/HC22

CREDITS: 2

L T S: 2 0 0

TOTAL TEACHING HOURS : 26

OBJECTIVES

- To create interest among students about the history of the city they live in
- To understand and appreciate the socio-economic and cultural evolution of the city

Unit 1

Origin of the City

(6 hrs.)

- 1.1 Early History
- 1.2 European Settlements

Unit 2

People and Places

(10 hrs.)

- 2.1 Important Governors and their Contribution
- 2.2 Chief Ministers of Madras
- 2.3 Streets and Localities

Unit 3

Organisations and Institutions

(10 hrs.)

- 3.1 Administrative Organisations - Corporation, Judicial, Police
- 3.2 Educational and Cultural Institutions
- 3.3 Industrial Houses
- 3.4 Media

BOOKS FOR STUDY

- Muthiah. S. *Madras Discovered*. Madras: East West, 1990.
Muthiah. S. *Madras Rediscovered*. Madras: East West, 1990.
Rajaraman P. *Chennai through the Ages*. Madras: Poomphozil, 1997.

BOOKS FOR REFERENCE

- Maclean, C.D. *Manual Administration of the Madras Presidency*. (3 Volumes), Madras: Asian Educational Services, 1989.
Sudhakar G.J. *Aspects of Madras*. Madras: Loyola, 1993

JOURNALS

Bi-annual Journal of Indian Art, Culture, Heritage and Tourism, Bharati Women's College, Chennai.

Journal of Humanities and Social Science, International Organization of Scientific Research (IOSR).

WEB RESOURCES

www.intach.org

www.madrasmusings.com

PATTERN OF EVALUTION

Continuous Assessment: (Internal Only)

Total Marks: 25

Duration: 90 Mins.

Section A - $5 \times 2 = 10$ (Any 5 out of 7 in 30 words each)

Section B - $2 \times 5 = 10$ (Any 2 out of 4 in 250 words each)

Section C - $1 \times 5 = 5$ (Any 1 out of 2 in 500 words each)

Third Component:(25 Marks)

List of evaluation modes:

Scrap Book

Group discussion

Field Study Report

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086
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B.A./B.Sc./B.Com./B.S.W./B.V.A./B.C.A./Degree Programmes

SYLLABUS
(Effective from the Academic Year 2015-2016)

INTRODUCTION TO INDIAN PERFORMING ARTS AND PAINTING

CODE: 15HS/GE/IP23

CREDITS: 3

L T S: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES

- To inculcate an interest and appreciation for the finer qualities of Performing Arts and Painting as a medium of Communication
- To develop a critical faculty and highlight the utility of multimedia in human life

Unit 1

Music - Carnatic and Hindustani

(10 hrs.)

- 1.1 History of Music
- 1.2 Musical Instruments
- 1.3 Folk Music

Unit 2

Dance

(10 hrs.)

- 2.1 History of Dance
- 2.2 Classical Dances of India
- 2.3 Dance Schools and Festivals

Unit 3

Paintings

(10 hrs.)

- 3.1 Mural and Miniature Traditions - Mughal, Madhubani, Tanjore
- 3.2 Schools of Painting - Bengal School
- 3.3 Modern Painters- Raja Ravi Verma, M.F,Hussain

Unit 4

Puppetry

(3 hrs.)

- 4.1 Types of Puppetry

Unit 5

Application of Performing Arts

(6 hrs.)

- 5.1 Drama

BOOKS FOR STUDY

MukhoPadhyay, Das Durga. *Folk Art and Social Communication*. Publication Division Government of India, New Delhi, 1994.

Narayan Shovana. *The Sterling Book of Indian Classical Dances*. Sterling, New Delhi, 2007.

BOOKS FOR REFERENCE

Chaitanya Deva Bigamudre. *Indian Music*. Taylor and Francis, 2002.

Kumar Raj. *Essays on Indian Music*. New Delhi : Discovery, 2003.

Kokhar, Aashish Mohan. *Classical Dances*. New Delhi : Ruper, 2005.

Ghosh Sampa, Banerjee Utpal Kumar. *Indian Puppets*. New Delhi : Abhinav.

Sharma Lokesh Chandra. *A Brief History of Indian Painting*. New Delhi: Goel.

JOURNALS

Journal of Ethno-musicology - National Folklore Support Centre, 2008.

Indian Folklore Research Journal

Sruthi- Marg Publication

WEBSITES

www.danceperception.com

www.narthaki.com

www.folklore-society.com

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Duration: 90 Mins.

Section A - 5 x 3 = 15 (Any 5 out of 7 in 30 words each)

Section B - 5 x 5 = 25 (Any 5 out of 7 in 250 words each)

Section C - 1 x 10 = 10 (Any 1 out of 2 in 800 words each)

Third Component Tests: (25 marks)

List of Evaluation Modes:

Group Assignments

Presentations

Chart Work

Exhibition of Models

End Semester Examinations

Total Marks: 100

Duration: 3 Hours

Section A - 10 x 3 = 30 (All questions to be answered in 30 words each)

Section B - 5 x 8 = 40 (5 out of 8 questions to be answered in 300 words each)

Section C - 3 x 10 = 30 (3 questions to be answered in 1000 words each in either or pattern e.g.

19 (a) or (b)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
General Elective Course offered by the Department of History and Tourism
For B.A./B.Sc./B.Com/B.S.W./B.V.A./B.C.A. Degree Programmes

SYLLABUS
(Effective from the academic year 2015-2016)

STUDY OF INDIAN CINEMA

CODE: 15HS/GE/FA23

CREDITS : 3

L T S : 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVE

- To help students understand, analyse and appreciate the nuances of Film and the world of Cinema

Unit 1

Cinema – An Institution (10 hrs.)

- 1.1 Origin of Cinema
- 1.2 Film Review – Terms and Definitions, Appreciation and Criticism
- 1.3 Responsibilities of a Film Critic – Famous Film Critics of India

Unit 2

Film Industry (8 hrs.)

- 2.1 Film as an Experience, Commodity and Communication Media
- 2.2 Overview of Film History
- 2.3 Film History with special reference to Tamil Nadu

Unit 3

Approaches to Studying Film (8 hrs.)

- 3.1 Genre – Star – Auteur
- 3.2 Film and Society
- 3.3 Nexus between Cinema and Politics

Unit 4

Gender and Films (4 hrs.)

- 4.1 Representation of Gender
- 4.2 Sexuality in Films

Unit 5

Movies and Movie-makers (9 hrs.)

- 5.1 Contemporary movie makers - Mira Nair, Deepa Mehta, Nagesh Kukunoor,
- 5.2 Study of Select Movies – Art movies, Documentaries, Commercial movies

BOOKS FOR STUDY

Nelmes, Jill. *An Introduction to Film Studies*. London : Routledge, 1996
Bordwell, David and Kristin Thompson. *Film Art : An Introduction*. New York: McGraw-Hill, 2008
Roberge, Gaston. *The Subject of Cinema*. Calcutta :Seagull, 1985

BOOKS FOR REFERENCE

Turner, Graeme. *Film as A Social Practice*. London : Routledge, 1993
Vasudevan, S. Ravi(Ed.) *Making Meaning in Indian Cinema*. New Delhi: OUP, 2000
Vasudev Aruna. *The New Indian Cinema*. Delhi: Macmillan, 1989
Corrigan, Timothy and Patricia White. *The Film Experience – An Introduction*. New York : Bedford, 2004
Phillips, Williams H. *Film An Introduction*. New York : Bedford, 2005

JOURNALS

Film Appreciation Academic Journal (Biannual), India
Cinema in India (Quarterly), NFDC

WEBSITES

www.aaft.com
www.satyajitray.org
www.film-tvstudies.org

PATTERN OF EVALUATION

Continuous Assessment

Total marks : 50

Duration : 90 Mins.

Section A - 5 x 3 = 15(Any 5 out of 7 in 30 words each)

Section B - 5 x 5 = 25(Any 5 out of 7 in 250 words each)

Section C - 1 x 10 = 10 (Any 1 out of 2 in 800 words each)

Third Component (25 marks)

List of Evaluation Modes :

Objective Tests
Seminars

End Semester Examination

Total Marks : 100

Duration : 3 Hours

Section A - 10 x 3= 30 (All questions to be answered in 30 words each)

Section B - 5 x 8= 40 (5 out of 8 questions to be answered in 300 words each)

Section C - 3 x 10= 30 (3 questions to be answered in 1000 words each in either or pattern Eg. 19(a) or (b))

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
General Elective Course offered by the Department of History for
B.A./B.Sc./B.Com/ B.S.W./B.V.A./B.C.A Degree Programmes

SYLLABUS

(Effective from the academic year 2015 – 2016)

FUNDAMENTALS OF THE INDIAN CONSTITUTION

CODE: 15HS/GE/FI23

CREDITS: 3

L T S: 3 0 0

TOTAL TEACHING HOURS: 39

Students of History – not eligible.

OBJECTIVES

- This course teaches students their democratic rights and duties
- It also affords ample scope for discussion on the working of the constitution
- To help students who wish to compete in the All India Competitive Exams

Unit 1

Background to the Indian Constitution (8 hrs.)

- 1.1 Salient features
- 1.2 Preamble
- 1.3 Citizenship

Unit 2

Constitutional Provisions (10 hrs.)

- 2.1 Fundamental Rights
- 2.2 Fundamental Duties
- 2.3 Directive Principles of State Policy

Unit 3

The Central Government (10 hrs.)

- 3.1 The Union Executive – President, Prime Minister, Council of Ministers
- 3.2 The Parliament
- 3.3 The Judiciary – the Supreme Court

Unit 4

Working of the Indian Democracy (7 hrs.)

- 4.1 Secularism
- 4.2 Party Politics

Unit 5

(4 hrs.)

Elections

5.1 Election Commission - Composition and responsibilities

5.2 General Elections in India

BOOKS FOR STUDY

Basu, D.D. *Introduction to the Constitution of India*. New Delhi: Prentice Hall of India, 2011.

Pylee, M.V. *An Introduction to the Constitution of India*. New Delhi: Vikas, 2007.

BOOKS FOR REFERENCE

Pandey, J.N. *Constitutional Law of India*. Allahabad : Central Law Agency, 2014.

Allan, R. *Modern Politics and Government*. New York: Palgrave, 2009.

Weiner, M. *The Indian Paradox*. New Delhi: Sage, 1989.

JOURNALS

Economic and Political Weekly (Sameeksha Trust)

Madras Law Journal (LexisNexis)

WEBSITES

<http://indiacode.nic.in/coiweb/welcome.html>

<http://supremecourtfindia.nic.in>

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment

Total Marks: 50

Duration: 90 Mins.

Section A - $5 \times 3 = 15$ (Any 5 out of 7 in 30 words each)

Section B - $5 \times 5 = 25$ (Any 5 out of 7 in 250 words each)

Section C - $1 \times 10 = 10$ (Any 1 out of 2 in 800 words)

Third Component Tests :

List of Evaluation Modes :

Seminars

Quiz

Assignments

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
General Elective Course offered by the Department of History and Tourism
For B.A./B.Sc./B.Com/B.S.W./B.V.A./B.C.A. Degree Programmes

SYLLABUS
(Effective from the academic year 2015-2016)

INTERNATIONAL AFFAIRS SINCE 1945

CODE: 15HS/GE/IA23

CREDITS: 3

LTP: 3 0 0

TOTAL TEACHING HOURS: 39

**Not applicable for students of History Department*

OBJECTIVE

- To provide a comprehensive overview of the major political developments and events starting from the twentieth century the development of modern international system, the evolution of modern diplomacy and the emergence of super-powers

Unit 1

Introduction to International Relations

(10 hrs.)

- 1.1 Definition and Scope of International Relations
- 1.2 National Interest and Ideology
- 1.3 National Power and Diplomacy

Unit 2

United Nations

(6 hrs.)

- 2.1 Formation of the UN
- 2.2 UN and Disarmament

Unit 3

Post Second World War

(8 hrs.)

- 3.1 Cold War – NATO, WARSAW
- 3.2 Non Aligned Movement
- 3.3 Globalisation

Unit 4

Regional Initiatives

(8 hrs.)

- 4.1 ASEAN, SAARC, EU
- 4.2 NIEO

Unit 5

Application of International Relations

(7 hrs.)

- 5.1 Mock UN Meeting
- 5.2 Panel Discussion

BOOKS FOR STUDY

Peu, Ghosh. *International Relations*. PHI, 2013 (Third Edition)

Young, John W. and John Kent. *International Relations Since 1945*. Oxford University Press, 2013.

BOOKS FOR REFERENCE

Jones, B.R.J. *Introduction to International Relations Problems and Perspectives*, United Kingdom: Manchester University, 2001.

Joyce P. Kaufman. *Introduction to International Relations: Theory and Practice*, Rowman & Littlefield, 2013.

Nester, W. *International Relations, Politics and Economics in the 20th Century*. United Kingdom: Wordsworth, 2001.

JOURNALS

Contemporary European History: Cambridge Journals, Cambridge University Press.

India Quarterly: A Journal of International Affairs (Indian Council of World Affairs).

International Studies (Quarterly), J.N.U., New Delhi.

Pacific Affairs: An International Review of Asia and the Pacific (Quarterly) Vancouver.

WEBSITES

<http://www.un.org/en/>

www.asean.org/

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment:

Total Marks: 50

Section A - 5 x 3 = 15 (Any 5 out of 7 in 30 words each)

Section B - 5 x 5 = 25 (Any 5 out of 7 in 250 words each)

Section C - 1 x 10 = 10 (Any 1 out of 2 in 800 words each)

Duration: 90 Mins.

Third Component Tests: (25 marks)

List of Evaluation Modes:

Quiz

Objective tests

Assignments

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A. DEGREE: BRANCH – I – HISTORY AND TOURISM

SYLLABUS

(Effective from the academic year 2015 – 2016)

HISTORY OF UNITED STATES OF AMERICA
(Not for History Students)

CODE: 15HS/UI/US23

CREDITS: 3

OBJECTIVE

- To familiarize students with the evolution of USA after the Civil War. It reviews the economic and political developments in the domestic and international fronts and traces the emergence of the USA as a global power in international politics

Unit 1

General Introduction

- 1.1 Policy of Isolation
- 1.2 Question of Slavery – the Civil War
- 1.3 Post-War Reconstruction – Johnson and the Radicals
- 1.4 Economic Trends – Revolt of the Farmers
- 1.5 Growth of Industries – Grant to McKinley
- 1.6 The Progressive Era – Roosevelt to Wilson

Unit 2

USA in the First World War and After

- 2.1 Belligerency to War
- 2.2 Treaty and the League
- 2.3 Great Depression
- 2.4 The New Deal

Unit 3

The United States as a World Power

- 3.1 Road to the World war II – Dawes Plan – Washington Conference – Appeasement
- 3.2 USA and the World War II
- 3.3 USA and the UN – Planning a new World Order

Unit 4

Two Worlds

- 4.1 Eisenhower – Korean Crisis – Eisenhower's Doctrine
- 4.2 Kennedy – Cuba to Vietnam
- 4.3 Johnson – The Great Society

Unit 5

The American Dilemma

- 5.1 The Civil Rights Movement, Multi-culturalism
- 5.2 Race for Progress – Science, Technology, Space, Defence
- 5.3 Security Concerns vs Disarmament Initiatives
- 5.4 Post Cold war Era
- 5.5 Domestic Compulsions and America's foreign Policy

BOOKS FOR REFERENCE

- Furnas, J.C. *A Social History of the US (1587-1914)*. New York : G. P. Putman, 1969.
- Harry, W., N. Richard Current and F. Friedel. *History of the US Since 1865*. New York : Alfred A. Knopf , 1963.
- Hofstadter, R., W. Miller, and A. Daniel. *The American Republic Since 1865*. Volume 2, New Jersey, 1959.
- Henretta, J.A. Broome, W.E.D. Broady and S. Ware. *America's History*, Volume1, New York : Worth, 1993.
- Johnson, P. *A History of the American People*, New York : Harper Collins, 1999.

PATTERN OF EVALUATION

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Section A - 10 x 3= 30 (All questions to be answered in 30 words each)

Section B - 5 x 8= 40 (5 out of 8 questions to be answered in 300 words each)

Section C - 3 x 10= 30 (3 questions to be answered in 1000 words each in either or pattern Eg. 19(a) or (b))

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A. DEGREE: BRANCH – IA – HISTORY AND TOURISM

SYLLABUS

(Effective from the academic year 2015 – 2016)

CHINA AND JAPAN IN THE 20TH CENTURY

CODE: 15HS/UI/CJ23

CREDITS: 3

OBJECTIVES

- To understand and appreciate the rise and growth of Japan as a modern nation and its struggle against Western Imperialism
- To study the history of China and its rise to the present position, the impact of communism, the establishment of the Chinese Republic and its economic development

Unit 1

The West and East Asia in the early 20th Century

- 1.2 The Anglo-Japanese Alliance
- 1.2 Russo- Japanese War
- 1.3 Chinese Revolution of 1911

Unit 2

Rise of Nationalism in China

- 3.1 Yuan Shih Kai
- 3.2 Warlordism
- 3.3 Dr. Sun Yat Sen and Kuomintang
- 3.4 Nationalist Government

Unit 3

Imperialism and Militarism in Japan

- 4.1 Japan in World War I
- 4.2 Washington Conference
- 4.3 Manchurian Crises and the Second Sino-Japanese War
- 4.4 Japan in World War II

Unit 4

Post War China

- 4.1 Mao Tse Tung and the Rise of Red China
- 4.2 China after Mao: Deng Xiaoping
- 4.3 Post-war Japan – Social, Economic and Political Transformation

Unit 5

Japan after the Second World War

- 5.1 SCAP and the Constitution of 1947; Demilitarization and Democratization.
- 5.2 San Francisco Conference
- 5.3 Social and Economic Transformations
- 5.4 Relations between China, Japan, and India

BOOKS FOR STUDY

Rao, B.V. *History of Asia from Early Times to 2000 A.D.* New Delhi: Sterling, 2001.
Vinacke, H.M. *History of the Far East in Modern Times.* London : George Allen and Unwin, 1971.

BOOKS FOR REFERENCE

Chesneaux, J.B.M. and M.C. Bergere. *China from Opium Wars to 1911.* Sussex : Harvester, 1976.
Clyde, P.H., and B.F.Beers. *The Far East 1830-1975.* New Delhi: Prentice Hall of India, 1988.
Jain, R.K. *History of China and Japan 1949-80.* New Delhi: Radiant, 1982.
Roy, S.L. *A Short History of Far East in Modern Times.* Calcutta : Charu, 1980.
Taylor, M., and G.E.Taylor. *The Far East in the Modern World.* Illinois : Dryden, 1964.

PATTERN OF EVALUTION

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Section A - 10 x 3= 30 (All questions to be answered in 30 words each)

Section B - 5 x 8= 40 (5 out of 8 questions to be answered in 300 words each)

Section C - 3 x 10= 30 (3 questions to be answered in 1000 words each in either or pattern Eg. 19(a) or (b))

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.A. DEGREE BRANCH – IA - HISTORY AND TOURISM

SYLLABUS

(Effective from the academic year 2015 - 2016)

PROJECT

CODE: 15HS/ME/PR55

CREDITS: 5

OBJECTIVES OF THE COURSE

- To enable students to develop research capabilities
- To encourage students to develop analytical skills

Project Guidelines

- A small scale research which can be completed in the amount of time one would spend in and out of class for a regular 5-credit module
- Organised into chapters and with a contents page, references and bibliography
- Preferable link made between theory and practise
- There should be empirical research, though may be modest in scale but first hand research is essential to enhance the overall quality of the project

Unit 1

Introduction

- 1.1 Introduction : a general introduction to the topical area
- 1.2 Statement of the Problem: very specific statement of the problem to be studied.
- 1.3 Purpose of the Project: in this section a description about the overall purpose of the project should be made known.
- 1.4 Definition of Terms: important terms and concepts used in the project should be adequately analyzed and defined.
- 1.5 Significance of the Project: this section should provide answers as to what the project will contribute.

Unit 2

Review of Literature

- 2.1 The review is a careful examination of a body of literature pointing toward the answer to the need for the study or project

Unit 3

Methodology

- 3.1 Explain the methods used for collecting data
- 3.2 Descriptive writing approach must be utilised
- 3.3 Collection of Data – Primary and Secondary

Unit 4

Summary and Recommendations

4.1 Introduction - an overview of the project should be provided in this section

4.2 Summary and Recommendations

4.3 References

4.4 Appendices

Contents of the Project Report

- Cover page
- Title page
- Acknowledgements
- Contents page
- List of figures or illustrations
- Main body - introduction
- Main body – Review of literature
- Main body - methodology
- Main body – summary
- Main body - recommendations
- Main body - conclusion
- Reference List/Bibliography
- Appendices

Avoid Plagiarism

PATTERN OF EVALUATION

Project 75 marks.

Viva-voce 25 marks.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A. DEGREE BRANCH –IA – HISTORY AND TOURISM

SYLLABUS

(Effective from the Academic Year 2015 – 2016)

ENVIRONMENTAL STUDIES

CODE :15HS/GC/ES12

CREDIT : 2

L T P: 2 0 0

TOTAL TEACHING HOUR: 26

OBJECTIVES OF THE COURSE

- To create an awareness on current environmental issues
- To educate the students about conservation and management of natural resources
- To train the students to be eco sensitive

Unit 1

Introduction

(6 hrs.)

- 1.1 Components of The Environment – Classification and Characteristics of Resources – Renewable and Non – Renewable Resources
- 1.2 Need for Public Awareness in Conservation of Natural Resources
- 1.3 Energy Flow in Ecosystems – Aquatic and Terrestrial – Food Chain and Food Web

Unit 2

Pollution and Socio Economic Aspects of the Environment

(10 hrs.)

- 2.1 Types of Pollution – Air, Water, Solid Waste, Noise
- 2.2 Problems - Greenhouse Effect – Depletion of The Ozone Layer – Climate Change
- 2.3 Bio Diversity - Definition - Loss of Bio Diversity – Threats to Biodiversity and Conservation of Biodiversity.
- 2.4 Human Behaviour: - Population – Urbanisation – Poverty (as cause and result of pollution and degradation)
- 2.5 Technology: - Agriculture and Industry – Deforestation. Use, Misuse and Abuse of The Resources
- 2.6 Effects and Consequences Of Environmental Problems

Unit 3

Sustainable Development, Remedies And Policy Implications

(10 hrs.)

- 3.1 Environmental Disasters Natural and Human Made – Bhopal Gas Tragedy – Chernobyl Accident – Fukushima Nuclear Crisis - Gulf War – Love Canal Episode – Tsunami – Volcanic Eruptions
- 3.2 Methods Evolved to Measure and Check Environmental Degradation and Pollution – Carbon Footprint, Carbon Credit, Ecological Footprint, and Ecological Shadow
- 3.3 Environmental Movements in India – Chipko Movement, Narmada Bachao Andolan, Sethu Samudram Project

- 3.4 Environmental Acts – Policy Measures with Respect to India
3.5 International Environmental Agreement – Stockholm Conference – Montreal Protocol – RIO Meet – Kyoto Conference – UN Conference on Climate Change (Copenhagen)

Field visit

Eco initiatives at the campus : Garbage segregation and Vermicomposting – Graywater recycling – Rainwater harvesting – Solar powered lights – Bio diversity

BOOKS FOR STUDY

Bharucha, E., *Textbook of Environmental Studies*. (1st edition), Hyderabad: Universities Press, 2005.

BOOKS FOR REFERENCE

Ignacimuthu, S. *Environmental Awareness and Protection*. New Delhi: Phoenix, 1997.

Jadhav, H and. Bhosale V. M. *Environmental Protection and Laws*. New Delhi: Himalaya, 1995.

Mies, M. and V. Shiva. *Ecofeminism*. London: Zed Books, 1989.

Odum, E.P. *Fundamentals of Ecology*. U.S.A: W.B. Saunders Co. 1971.

Singh, H.R. *Environmental Biology*. (1st edition), New Delhi: S.Chand, 2005.

PATTERN OF EVALUATION (Totally Internal)

CONTINUOUS ASSESSMENT (CA): One Hour Test – 25 Marks
Objective Quiz – 25 Marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH – I – MATHEMATICS

SYLLABUS
(Effective from the academic year 2015-2016)

DIFFERENTIAL CALCULUS

CODE: 15MT/MC/DC14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVE OF THE COURSE

- To understand the concepts of differential calculus in depth

PRE-REQUISITE

Knowledge of basic concepts on limits, continuity and differentiation of a function of one or more variables

Unit 1 **(13 hrs.)**

Successive Differentiation

- 1.1 The n^{th} Derivative and Standard Results
- 1.2 Differentiation of Fractional Expressions
- 1.3 Trigonometric Transformations
- 1.4 Formation of Equations Involving Derivatives
- 1.5 Leibnitz Theorem

Unit 2 **(9 hrs.)**

Envelopes

- 2.1 Introduction to Envelopes
- 2.2 Method of Finding the Envelope
- 2.3 Definition of Envelope of a Family of Curves
- 2.4 Equation of Envelope where $f(x, y, t) = 0$ is Quadratic in t
- 2.5 Equation of Family of Curves Containing Only One Parameter

Unit 3 **(9 hrs.)**

Curvature of Plane Curves

- 3.1 Introduction to Curvature
- 3.2 Circle, Radius and Centre of Curvature
- 3.3 Cartesian Formula for the Radius of Curvature
- 3.4 Coordinates of the Centre of Curvature

Unit 4 (9 hrs.)

Evolute

- 4.1 Evolute and Involute
- 4.2 Radius of Curvature When the Curve is Given in Polar Coordinates
- 4.3 Pedal Equation of a Curve
- 4.4 Chord of Curvature

Unit 5 (12 hrs.)

Maxima and Minima

- 5.1 Maxima and Minima of Functions of Two Variables
- 5.2 Lagrange's Method of Undetermined Multipliers

Tracing of Curves

- 5.3 Cartesian Coordinates
- 5.4 Polar Equation
- 5.5 Well-known Curves

TEXT BOOK

Narayanan S. and Manicavachagam Pillay T.K. *Calculus - Vol. I*. Madras: S.Viswanathan, Reprint 2012.

Chapter III – Sec 1.1 - 1.6, 2.1 & 2.2

Chapter VIII – Sec 4,5

Chapter X – Sec 1.1 – 1.4, 2.1 - 2.8 & 3.1

Chapter XIII – Sec 1 & 2

BOOKS FOR REFERENCE

James Stewart. *Calculus Concepts and Contexts*. United States of America: Brooks Thomeon Learning, 2001.

Singh U.P. Srivastava R.J. and N.H. Siddiqui, *A Textbook of Differential Calculus*, New Delhi: Wisdom, 2011.

G.C. Chaubey, S.K.D Dubey, M.U Khan, D.S Pandey, *A Textbook of Advanced Calculus*, New Delhi: Wisdom, 2012.

Maity K.C., R.K Ghosh, *Differential Calculus*, Kolkata: New Central Book, 2001.

WEB RESOURCES

http://sydney.edu.au/stuserv/documents/maths_learning_centre/differentialcalculus.pdf

<http://www.mathsisfun.com/calculus/>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of evaluation modes:

Quiz

Open book tests

Group discussion

Assignments

Project

Problem solving

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

B.Sc. DEGREE: BRANCH – I – MATHEMATICS

SYLLABUS

(Effective from the academic year 2015-2016)

ALGEBRA AND TRIGONOMETRY

CODE: 15MT/MC/AT14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVE OF THE COURSE

- To impart knowledge of solving algebraic, transcendental and matrix equations

PRE REQUISITES:

Basic knowledge of polynomial equations, trigonometry, matrices and determinants

Unit 1 (10 hrs.)

Theory of Equations

- 1.1 Polynomial Equations
- 1.2 Symmetric Function of Roots in Terms of Coefficients
- 1.3 Transformation of Equations
- 1.4 Reciprocal Equations

Unit 2 (10 hrs.)

Theory of Equations (contd.)

- 2.1 Increase or Decrease the Roots of a Given Equation
- 2.2 Formation of Equations
- 2.3 Transformations in General
- 2.4 Descarte's Rule of Signs
- 2.5 Horner's Method

Unit 3 (10 hrs.)

Matrices

- 3.1 Types of Matrices- Unitary and Orthogonal Matrices
- 3.2 Eigenvalues and Eigenvectors
- 3.3 Cayley Hamilton Theorem
- 3.4 Similar Matrices
- 3.5 Diagonalization of a Matrix

Unit 4 (12 hrs.)

Trigonometry

- 4.1 Expansions of $\cos n\theta$, $\sin n\theta$ and $\tan n\theta$
- 4.2 Expansion of $\cos^n \theta$ and $\sin^n \theta$ in a Series of sines and cosines of Multiples of θ
- 4.3 Expansion of $\sin \theta$ and $\cos \theta$ in Powers of θ .

- 4.4 Hyperbolic Functions
- 4.5 Euler's Formula for $e^{i\theta}$
- 4.6 Definition of Hyperbolic Functions – Relations Between Circular and Hyperbolic Functions – Formulae Involving Hyperbolic Functions – Expansions of $\sinh x$ and $\cosh x$ in Powers of x
- 4.7 Solution of Trigonometric Equations

Unit 5 **(10 hrs.)**

Trigonometry (contd.)

- 5.1 Inverse Hyperbolic Functions in Terms of Logarithmic Functions
- 5.2 Separation into Real and Imaginary Parts of $\sin(x + iy)$, $\cos(x + iy)$, $\tan(x + iy)$, $\sinh(x + iy)$, $\cosh(x + iy)$, $\tanh(x + iy)$
- 5.3 Logarithm of a Complex Number

TEXT BOOKS

Manicavachagam Pillay T.K., Natarajan T. and K.S. Ganapathy. *Algebra – Vol I*. Madras: S. Viswanathan, 2006.

Chapter 6 Exercise : 43,44, 46, 47, 48, 50, 51, 52, 57

Manicavachagam Pillay T. K., Natarajan T. and K.S. Ganapathy, *Algebra- Vol. II*. Madras: S. Viswanathan, and Vijay Nicole, 2006.

Chapter 2 Exercise : 14 (Unitary and Orthogonal matrices definitions only)

Narayanan. S, *Trigonometry*. Madras: Viswanathan, 2007.

- Chapter 1 Section 1- 4
- Chapter 3 Section 1-5 (excluding formation of equations)
- Chapter 4 Section 1-2.3
- Chapter 5 Section 5

BOOKS FOR REFERENCE

Harikishnan, *Trigonometry*. New Delhi: Atlantic, 2005.

Hazra A. K. *Algebra, Calculus and Generalized Inverse (Part I)*. New Delhi: Viva Books, 2009.

Hazra A.K., *Algebra, Calculus and Generalized Inverse (Part II)*. New Delhi: Viva Books, 2009.

Veerarajan T., *Trigonometry, Algebra and Calculus*. New Delhi: Tata McGraw Hill, 2003.

William L. Hosch (Edt.), *The Britannica Guide to Algebra and Trigonometry*. New York: Britannica, 2011.

Venkataraman M.K., Manorama Sridhar, *Classical Algebra and Trigonometry*. Chennai: Sivasankar, 2001.

WEB RESOURCES

<http://www.edurite.com/kbase/application-of-matrices-in-real-life>

<http://www.decodedscience.com/practical-uses-matrix-mathematics/40494>

<http://malini-math.blogspot.in/2011/08/applications-of-trigonometry-in-real.html>

<http://www.intmath.com/help/useoftrig.php>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 6$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Test

Group Discussion

Assignments

Problem Solving

End Semester Examination:

Total Marks: 100 Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
Allied Core Course Offered by the Department of Mathematics for
B.Sc. (Physics) Degree Programme

SYLLABUS
(Effective from the academic year 2015-2016)

MATHEMATICS FOR PHYSICS - I

CODE :15MT/AC/MP15

CREDITS : 5

L T P : 5 0 0

TOTAL TEACHING HOURS : 65

OBJECTIVE OF THE COURSE

- To provide basic mathematical concepts required for students pursuing Physics

PRE-REQUISITES

Knowledge of matrices, concepts of limits, continuity, differentiation, integration

Unit 1 (12 hrs.)

Algebra

- 1.1 Characteristic Equation of a Square Matrix
- 1.2 Cayley Hamilton Theorem
- 1.3 Evaluation of Eigenvalues and Eigenvectors
- 1.4 Diagonalisation of Matrices Possessing Distinct Eigenvalues

Unit 2 (15 hrs.)

Differential Calculus

- 2.1 Differentiation of Hyperbolic and Inverse Hyperbolic Functions
- 2.2 Higher Derivatives - n^{th} derivative – Standard Results
- 2.3 Trigonometric Transformations
- 2.4 Formation of Equations Involving Derivatives

Integral Calculus

- 2.5 Methods of Integration of Functions of the Following Types:

$$\frac{1}{(x+p)\sqrt{ax^2+bx+c}}; \sqrt{(x-a)(b-x)}; \frac{1}{\sqrt{(x-a)(b-x)}}; \frac{(x-a)}{(b-x)}$$

Unit 3 (12 hrs.)

Improper Integrals

- 3.1 Definitions of Beta and Gamma Integrals
- 3.2 Recurrence Formula for Gamma Functions
- 3.3 Properties of Beta Functions
- 3.4 Relation between Beta and Gamma Functions

Unit 4 (13 hrs.)

Differential Equations

- 4.1 Partial Differential Equation
- 4.2 Formation of Equations by Elimination of Constants and an Arbitrary Function
- 4.3 Definition of General, Particular, Complete and Singular Integral
- 4.4 Solutions of First Order Equations in their Standard Forms
- 4.5 Lagrange's Method of Solving of Linear Equations $Pp + Qq = R$

Unit 5 (13hrs.)

Fourier Series

- 5.1 Definition of Fourier Series
- 5.2 Finding Fourier Coefficients for agiven Periodic Function with Period 2π
- 5.3 Odd and Even Functions
- 5.4 Half - Range Series

TEXT BOOKS

Narayanan, S. and T.K. Manicavachagam Pillai. *Calculus Volume – I*. Madras: Viswanathan S, 2006.

Chapter 2: Sections 3.11- 3.14

Chapter 3: Sections 1.1 – 1.6

Narayanan S. and T.K. Manicavachagam Pillai, *Calculus-Vol II*. Chennai: S. Viswanathan, 2012.

Chapter 7 Sec. 2.1, 2.3, 3 and 4 Exercise: 47

Narayanan, S., Hanumantha Rao and T.K. Manicavachagam Pillai, *Ancillary Mathematics – Volume - I*. Madras.: Viswanathan, S, 2012.

Chapter 3: Sections 3.4, 3.5

Narayanan, S., Hanumantha Rao and T.K. Manicavachagam Pillai, *Ancillary Mathematics – Vol. II*. Madras.: Viswanathan, S, 2011.

Chapter 1: Section 8 (cases 5,8)

Chapter 2: Sections 1 – 4

Chapter 6: Sections 1 – 3, 5, 6

BOOKS FOR REFERENCE

Joseph, Edwards, *An Elementary Treatise on the Differential Calculus*, London: Macmillan, 1948.

Manicavachagam Pillai T.K., Natarajan T. and Ganapathy K. S, *Algebra Volume I*. Madras.: Viswanathan, S., 2006.

Manicavachagam Pillai T.K., Natarajan T. and Ganapathy K. S, *Algebra Volume II*. Madras.: Viswanathan, S., 2004.

Singaravelu A., *Allied Mathematics. Chennai*: Meenakshi, 2010.

Singaravelu A., Ramaa R., *Calculus of Finite Differences & Numerical Analysis (Allied Paper I)*. Chennai: Meenakshi, 2003.

WEB RESOURCES

http://sydney.edu.au/stuserv/documents/maths_learning_centre/differentialcalculus.pdf

<https://www.mathsisfun.com/calculus/differential-equations.html>

http://www.maths.tcd.ie/~dwilkins/Courses/MA2C02/MA2C02_Section8_1112.pdf

<http://www.facstaff.bucknell.edu/mastascu/elessonshtml/freq/freq4.html>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

End Semester Examination:

Total Marks: 100 Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
Allied Core Course Offered by the Department of Mathematics for
B.Sc. (Chemistry) Degree Programme

SYLLABUS

(Effective from the academic year 2015-2016)

MATHEMATICS FOR CHEMISTRY – I

CODE :15MT/AC/MC15

CREDITS : 5

L T P : 5 0 0

TOTAL TEACHING HOURS : 65

OBJECTIVE OF THE COURSE

- To provide basic mathematical concepts required for students pursuing Chemistry

PRE REQUISITES

Knowledge of basic concepts on matrices, determinants, limits, continuity and differentiation of a function of one or more variables

Unit 1 **(12 hrs.)**

Algebra

- 1.1 Characteristic Equation of a Square Matrix
- 1.2 Evaluation of Eigenvalues and Eigenvectors
- 1.3 Cayley Hamilton Theorem
- 1.4 Diagonalisation of Matrices possessing Distinct Eigenvalues

Unit 2 **(13 hrs.)**

Theory of Equations

- 2.1 Relation Between Roots and Coefficients
- 2.2 Solution of Equations under given Conditions On Roots
- 2.3 Transformation of Equations
- 2.4 Reciprocal Equations

Unit 3 **(15 hrs.)**

Differential Calculus

- 3.1 Differentiation of Hyperbolic and Inverse Hyperbolic Functions
- 3.2 Higher Derivatives - n^{th} derivative – Standard Results
- 3.3 Trigonometric Transformations
- 3.4 Formation of Equations Involving Derivatives

Integral Calculus

- 3.5 Methods of Integration of Functions of the Following Types:

$$\frac{1}{(x+p)\sqrt{ax^2+bx+c}}; \int \sqrt{(x-a)(b-x)} dx; \int \frac{1}{\sqrt{(x-a)(b-x)}} dx; \int \frac{(x-a)}{(b-x)} dx$$

Unit 4 (13 hrs.)

Differential Equations

- 4.1 Partial Differential Equation
- 4.2 Formation of Equations by Elimination of Constants and an Arbitrary Function
- 4.3 Definition of General, Particular, Complete and Singular Integral
- 4.4 Solutions of First Order Equations in their Standard Forms
- 4.5 Lagrange's Method of Solving of Linear Equations $Pp + Qq = R$

Unit 5 (12 hrs.)

Finite Differences

- 5.1 Finite Differences
- 5.2 Forward Difference Table
- 5.3 Interpolation Methods
- 5.4 Newton's Forward Formula
- 5.5 Newton's Backward Formula
- 5.6 Binomial Method
- 5.7 Lagrange's Formula

TEXT BOOKS

Narayanan, S. and T.K. Manicavachagam Pillai. *Calculus Volume-I*. Madras: Viswanathan S., 2006.

Chapter 2: Sections 3.11- 3.14

Chapter 3: Sections 1.1 – 1.6

Narayanan, S., Hanumantha Rao and T.K. Manicavachagam Pillai, *Ancillary. Mathematics–Volume - I*. Madras.: Viswanathan, S., 2012.

Chapter 2: Sections 2.2 -2.4

Chapter 3: Sections 3.4, 3.5

Chapter 4: Sections 4, 4.1 - 4.3

Narayanan S., Hanumantha Rao and T.K. Manicavachagam Pillai, *Ancillary Mathematics –Vol. II*. Madras.: Viswanathan, S., 2011.

Chapter 1: Section 8(cases 5,8)

Chapter 6: Sections 1 – 3, 5, 6

BOOKS FOR REFERENCE

Joseph, Edwards, *An Elementary Treatise on the Differential Calculus*. London: Macmillan, 1948.

Manicavachagam Pillai T.K., Natarajan T. and Ganapathy K. S, *Algebra Volume I*. Madras.: Viswanathan, S., 2006.

Manicavachagam Pillai T.K., Natarajan T. and Ganapathy K. S, *Algebra Volume II*. Madras: Viswanathan, S., 2004.

Singaravelu A., *Allied Mathematics*. Chennai: Meenakshi, 2010.

Singaravelu A., Ramaa R., *Calculus of Finite Differences & Numerical Analysis (Allied Paper I)*. Chennai: Meenakshi, 2003.

WEB RESOURCES

http://sydney.edu.au/stuserv/documents/math_learning_centre/differentialcalculus.pdf

<https://www.mathsisfun.com/calculus/differential-equations.html>

http://www.scholarpedia.org/article/Finite_difference_method

<http://www.colby.edu/chemistry/PChem/notes/FiniteDiff.pdf>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

End Semester Examination:

Total Marks: 100 Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH I - MATHEMATICS

SYLLABUS
(Effective from the academic year 2015-2016)

MULTIPLE INTEGRAL AND LAPLACE TRANSFORMS

CODE: 15MT/MC/ML24

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVE OF THE COURSE

- To understand the concepts of multiple integration and to introduce Laplace transformation as a tool in problem solving

PRE-REQUISITE

Knowledge of basic concepts on integration of one variable, definite integral and applications of definite integrals

Unit 1 (10 hrs.)

Multiple Integrals

- 1.1 Definitions of Double and Triple Integrals
- 1.2 Change of Order of Integration for Two Variables
- 1.3 Double Integrals and Triple Integrals in Cartesian Coordinates

Unit 2 (10 hrs.)

Multiple Integrals (contd.)

- 2.1 Double Integrals and Triple Integrals in Polar Coordinates
- 2.2 Change of Variables and Jacobian

Unit 3 (10 hrs.)

Improper Integrals

- 3.1 Definitions of Beta and Gamma Integrals
- 3.2 Recurrence Formula for Gamma Functions
- 3.3 Properties of Beta Functions
- 3.4 Relation between Beta and Gamma Functions

Unit 4 (10 hrs.)

Laplace Transform

- 4.1 Definition of Laplace Transform
- 4.2 Laplace Transform of e^{-at} , $\cos at$, $\sin at$ and t^n , where a is a Positive Integer
- 4.3 Laplace Transform of Periodic Functions

Unit 5**(12 hrs.)****Laplace Transform (contd.)**

- 5.1 Some General Theorems
- 5.2 Evaluation of Integrals using Laplace Equations
- 5.3 Inverse Laplace Transform
- 5.4 Laplace Transform to Solve Ordinary Differential Equations with Constant Coefficients and Differential Equations Involving Integrals
- 5.5 Laplace Transform to Evaluate Certain Integrals

TEXT BOOKS

Narayanan S. and Manicavachagam Pillay T.K. *Calculus - Vol II*. Chennai: S. Viswanathan, 2012.

Chapter 5	Sec. 2.1, 2.2, 3.1, 3.2 and 4	Exercises: 39, 40, 41
Chapter 6	Sec. 1.1, 1.2, 2.1, 2.3	Exercise: 45
Chapter 7	Sec. 2.1, 2.3, 3 and 4	Exercise: 47

Narayanan, S. and Manicavachagam Pillay T. K., *Calculus - Vol. III*. Chennai: S. Viswanathan, 2012.

Chapter 5 Section 1 – 8, 11 & 12

BOOKS FOR REFERENCE

Singaravelu A, *Differential equations, Fourier series and Laplace transforms*, Chennai: Meenakshi, 2002.

Alan Jeffrey, *Handbook of Mathematical formulas and Integrals*, United States: Academic, 2004.

Vittal, P.R., *Allied Mathematics*, Chennai: Margham, 2007.

Singh U.P, Siddiqui N.H, Srivastava R.J, *Integral Calculus*, New Delhi: Dominant, 2000.

WEB RESOURCES

http://sydney.edu.au/stuserv/documents/maths_learning_centre/differentialcalculus.pdf
<http://www.mathalino.com/reviewer/advance-engineering-mathematics/laplace-transform>
<http://ip.csie.ncu.edu.tw/course/EM/EM806p.pdf>
<http://www.mathstat.concordia.ca/faculty/cdavid/EMAT212/solintegrals.pdf>
<http://tutorial.math.lamar.edu/Classes/CalcIII/MultipleIntegralsIntro.aspx>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH I - MATHEMATICS

SYLLABUS
(Effective from the academic year 2015-2016)

ANALYTICAL GEOMETRY

CODE: 15MT/MC/AG25

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVE OF THE COURSE

- To understand the concepts of two dimensional Coordinate Geometry in depth and to introduce the concept of three dimensional geometry

PRE-REQUISITE

Knowledge of basic concepts on straight lines, circles and conics

Unit 1 (10 hrs.)

General Second Degree Equation

- 1.1 Condition for a General Second Degree Equation to Represent a Conic
 - 1.2 Centre of the Conic given by the General Second Degree Equation (concept only)
 - 1.3 Lengths and Positions of the Axes of the Central Conic
- $$ax^2 + 2hxy + by^2 = 1 \text{ (concept only)}$$

Unit 2 (15 hrs.)

Ellipse

- 2.1 Conjugate Diameters and its Properties
- 2.2 Equi-Conjugate Diameters

Hyperbola

- 2.3 Asymptotes
- 2.4 Conjugate Hyperbola
- 2.5 Relation between the Equation of a Hyperbola, its Asymptotes and Conjugate Hyperbola
- 2.6 Rectangular Hyperbola

Unit 3 (10 hrs.)

Plane

- 3.1 General Equation
- 3.2 Intercept Form
- 3.3 Normal Form
- 3.4 Angle Between Two Planes
- 3.5 Equation of Plane through the Line of Intersection of Two Given Planes
- 3.6 Length of Perpendicular from a given Point to a Plane

Unit 4 (15 hrs.)

Straight Line

- 4.1 Symmetrical Form
- 4.2 Line through Two Points
- 4.3 Reduction of the Unsymmetrical Form to the Symmetrical Form
- 4.4 Condition for a Line to Lie on a Plane
- 4.5 Plane Through a Given Line
- 4.6 Condition for Two Lines to be Coplanar
- 4.7 Equation of the Plane Containing the Two Lines
- 4.8 Shortest Distance between Two Skew Lines and Equation of the Line Containing the Shortest Distance

Unit 5 (15 hrs.)

Sphere and Cone

- 5.1 Equation of a Sphere with given Centre and Radius
- 5.2 General Form of the Equation of a Sphere
- 5.3 Plane Section of a Sphere
- 5.4 Intersection of Two Spheres
- 5.5 Equation of a Circle on a Sphere
- 5.6 Equation of Sphere Passing through given Circle
- 5.7 Tangent Plane to a Sphere
- 5.8 Necessary Condition for a General Equation of Second Degree to Represent a Cone
- 5.9 Equation of a Circular Cone with given Vertex, Axis and Semi-Vertical Angle

TEXT BOOKS

Manicavachagam Pillay T.K, and Natarajan T., *A Text book of Analytical Geometry Part I - Two dimensions*. Madras: S. Viswanathan, 2012.

Chapter 7 Sec. 16.1 - 16.4

Chapter 8 Sec. 4 - 13

Chapter 10 Sec. 3 - 6

Manickavachagam Pillay T.K. and Natarajan T., *A Text Book of Analytical Geometry - Part II (Three Dimensions)* Madras: S. Viswanathan, 2012.

Chapter 2 Sec. 1-10

Chapter 3 Sec. 1-8

Chapter 4 Sec. 1-8

Chapter 5 Sec. 2.1

BOOKS FOR REFERENCE

Singh, Shalini. *Two Dimensional Geometry*. New Delhi: Sarup, 2000.

Hari Krishnan. *Coordinate Geometry of Two Dimensions*. New Delhi: Atlantic, 2006.

Arup Mukherjee. *Analytical Geometry of two and three Dimensions*. Kolkata: Arunabha Sen Books and Allied, 2010.

Narayan, Shanti P.K., *Mittal Analytical Solid Geometry*, New Delhi: S Chand, 2006.

WEB RESOURCE

[http://www.nptel.ac.in/courses/Webcourse-contents/IIT-](http://www.nptel.ac.in/courses/Webcourse-contents/IIT-Delhi/Computer%20Aided%20Design%20&%20Manufacturing/mod2/12.html)

[Delhi/Computer%20Aided%20Design%20&%20Manufacturing/mod2/12.html](http://www.nptel.ac.in/courses/105105041/m1I4.pdf)

[http://nptel.ac.in/courses/105105041/m1I4.pdf](http://www.nptel.ac.in/courses/105105041/m1I4.pdf)

http://www.pps.k12.or.us/schools/benson/files/htrinh/5144_Demana_Ch08pp631-698.pdf

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

End Semester Examination:

Total Marks: 100 Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.Sc. DEGREE: BRANCH I - MATHEMATICS

SYLLABUS

(Effective from the Academic Year 2015 – 2016)

ENVIRONMENTAL STUDIES

CODE: 15MT/GC/ES22

CREDITS : 2

L T P : 2 0 0

TOTAL TEACHING HOURS : 26

OBJECTIVES OF THE COURSE

- To create an awareness about current environmental issues
- To educate students on conservation and management of natural resources
- To encourage students to be ecosensitive and ecofriendly

Unit 1

Introduction

(6 hrs.)

- 1.1 Components of the Environment – Classification and Characteristics of Resources – Renewable and Non – Renewable Resources
- 1.2 Need for Public Awareness in Conservation of Natural Resources
- 1.3 Energy Flow in Ecosystems – Aquatic and Terrestrial – Food Chain and Food Web

Unit 2

Pollution and Socio Economic Aspects of the Environment

(10 hrs.)

- 2.1 Types of Pollution – Air, Water, Solid Waste, Noise
- 2.2 Problems - Green House Effect – Depletion of the Ozone Layer – Climate Change
- 2.3 Bio Diversity - Definition - Loss of Bio Diversity – Threats to Biodiversity and Conservation of Biodiversity
- 2.4 Human Behaviour: - Population – Urbanization – Poverty (As Cause and Result of Pollution and Degradation)
- 2.5 Technology: Agriculture and Industry – Deforestation. Misuse and Abuse of the Resources
- 2.6 Effects and Consequences of Environmental Problems

Unit 3

Sustainable Development, Remedies and Policy Implications

(10 hrs.)

- 3.1 Environmental Disasters Natural and Human Made – Bhopal Gas Tragedy – Chernobyl Accident – Fukushima Nuclear Crisis - Gulf War – Love Canal Episode – Tsunami – Volcanic Eruptions
- 3.2 Methods Evolved to Measure and Check Environmental Degradation and Pollution – Carbon Footprint, Carbon Credit, Ecological Footprint, and Ecological Shadow
- 3.3 Environmental Movements in India – Chipko Movement, Narmada Bachao Andolan, Sethu Samudram Project
- 3.4 Environmental Acts – Policy Measures with respect to India
- 3.5 International Environmental Agreement – Stockholm Conference – Montreal Protocol – Rio Meet – Kyoto Conference – UN Conference on Climate Change (Copenhagen)

Field visit

Eco initiatives at the campus: Garbage Segregation and Vermicomposting – Greywater Recycling – Rainwater Harvesting – Solar Powered Lights – Biodiversity

TEXT BOOK

Bharucha, E. *Textbook of Environmental Studies*. Hyderabad: Universities Press, 2005.

REFERENCE BOOKS

Ignacimuthu, S. *Environmental Awareness and Protection*. New Delhi: Phoenic House, 1997.

Jadhav, H and V. M. Bhosale. *Environmental Protection and Law*. New Delhi: Himalaya, 1995.

Odum, E.P. *Fundamentals of Ecology*. U.S.A: W.B. Saunders, 1971.

Mies, M and V. Shiva. *Ecofeminism*, London: Zed Books, 1989.

Singh, H.R. *Environmental Biology*. New Delhi: S.Chand, 2005.

PATTERN OF EVALUATION (Internal assessment)

Continuous Assessment:

One Hour Test – 25 Marks

One Component – 25 Marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
Allied Core Course Offered by the Department of Mathematics for
B.Sc. (Physics) Degree Programme

SYLLABUS

(Effective from the academic year 2015-2016)

MATHEMATICS FOR PHYSICS – II

CODE : 15MT/AC/MP25

CREDITS : 5

L T P : 5 0 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To provide basic mathematical concepts required for students pursuing Physics
- To inculcate problem solving skills

PRE-REQUISITES

Knowledge of limits, continuity, integration, complex numbers

- Unit 1** **(10 hrs.)**
Multiple Integrals
1.1 Definitions of Double and Triple Integrals
1.2 Change of Order of Integration for Two Variables
1.3 Double Integrals and Triple Integrals in Cartesian Coordinates
- Unit 2** **(10 hrs.)**
Multiple Integrals (contd.)
2.1 Double Integrals and Triple Integrals in Polar Coordinates
2.2 Change of Variables and Jacobian
- Unit 3** **(15 hrs.)**
Laplace Transform
3.1 Definition and Transform of $f'(t)$ & $f''(t)$
3.2 Laplace Transform of Functions e^{-at} , $\cos at$, $\sin at$, $\sinh at$, $\cosh at$ and t^n
where 'n' is a Positive Integer
3.3 First Shifting Theorem - Laplace Transform of $e^{-at} \cos bt$, $e^{-at} \sin bt$ and $e^{-at} t^n$
3.4 Inverse Laplace Transform
3.5 Solving Second Order Differential Equations with Constant Coefficients using Laplace Transform
- Unit 4** **(16 hrs.)**
Complex Variables
4.1 Functions of a Complex Variable
4.2 Conformal Mapping (definitions and concepts only)
4.3 Elementary Transformation
4.4 Mapping by Elementary Functions - The Mappings $w = z^2$, $w = \sin z$

- 4.5 Taylor's Series (statement only)
- 4.6 Laurent's Series (statement only)
- 4.7 Singular Points
- 4.8 Residues at Poles

Unit 5

(14 hrs.)

Special Functions

- 5.1 Power Series
- 5.2 Legendre Differential Equations
- 5.3 Rodrigue's Formula for Legendre Polynomials
- 5.4 Explicit Expressions for Legendre Polynomials using Rodrigue's Formula
- 5.5 Graphical Representation of Legendre Polynomials
- 5.6 Transformations

TEXT BOOKS

Narayanan S. and Manicavachagam Pillay T.K., *Calculus-Vol II*. Chennai: S. Viswanathan, 2012.

Chapter 5 Sec. 2.1, 2.2, 3.1, 3.2 and 4 Exercises: 39, 40, 41
Chapter 6 Sec. 1.1, 1.2, 2.1, 2.3 Exercise: 45

Narayanan, S. Hanumantha Rao & T.K. Manicavachagam Pillay, *Ancillary Mathematics Vol. II* Madras: S. Viswanathan, 2011.

Chapter 7: Sections 1 – 6

A.B. Gupta, *Fundamentals of Mathematical Physics*, Books and Allied, 2012.

Chapter 8: Sections - 8.1-8.6

Arumugam S., A.T. Issac, & A. Somasundaram, *Complex Analysis*, Chennai: SCITECH, 2002.

Chapter 2: Sections - 2.1, 2.9 (statements of theorems only)
Chapter 3: Sections – 3.1
Chapter 5: 5.1, 5.4
Chapter 7: Sections- 7.1, 7.2, 7.4. (statements of theorems only).
Chapter 8: Section - 8.1

WEB RESOURCES

<http://www.javaquant.net/papers/Laplacetransform.pdf>
<http://www.intmath.com/laplace-transformation/10-applications.php>

BOOKS FOR REFERENCE

Alan Jeffrey, *Handbook of Mathematical formulas and Integrals*, United States: Academic, 2004.

Murray R. Spiegel, *Theory and problems of Complex Variables*, Schaum's outline series, Singapore: McGraw, 1981.

Narayanan S. & T.K. Manicavachagam Pillay, *Calculus-Vol III*, Madras:S. Viswanathan, 1997.

Shanti Naryan, *Theory of Functions of a Complex Variable*, New Delhi :S Chand, 1973.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

End Semester Examination:

Total Marks: 100 Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
Allied Core Course Offered by the Department of Mathematics for
B.Sc. (Chemistry) Degree Programme

SYLLABUS

(Effective from the academic year 2015-2016)

MATHEMATICS FOR CHEMISTRY – II

CODE: 15MT/AC/MC25

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide basic mathematical concepts required for Chemistry
- To inculcate problem solving skills

Unit 1 (14 hrs.)

Group Theory

- 1.1 Groups –Definitions and Examples
- 1.2 Elementary Properties of a Group
- 1.3 Equivalent Definitions of a Group
- 1.4 Permutation Groups – Subgroups
- 1.5 Cyclic Groups
- 1.6 Order of an Element
- 1.7 Cosets and Lagrange's Theorem
- 1.8 Normal Subgroups and Quotient Groups

Unit 2 (13 hrs.)

Laplace Transform

- 2.1 Definition
- 2.2 Transforms of $f'(t)$ & $f''(t)$
- 2.3 Transformation of Function e^{-at} , $\cos at$, $\sin at$ and t^n , where 'n' is a Positive Integer
- 2.4 First Shifting Theorem - Laplace Transforms of $e^{-at}\cos bt$, $e^{-at}\sin bt$ and $e^{-at}t^n$

Unit 3 (13 hrs.)

Inverse Laplace Transform

- 3.1 Inverse Laplace Transforms of Functions Relating to $e^{-at}\cos bt$, $e^{-at}\sin bt$ and $e^{-at}t^n$
- 3.2 Applications to Solutions of Ordinary Differential Equations with Constant Coefficients

Unit 4 (13 hrs.)

Fourier Series

- 4.1 Fourier Series :Definition
- 4.2 Finding Fourier Coefficients for a given Periodic Function with Period 2π
- 4.3 Odd and Even Functions
- 4.4 Half - Range Series

Unit 5

(12 hrs.)

Statistics

5.1 Correlation

5.2 Scatter Diagram and its Uses

5.3 Karl Pearson's Coefficient of Correlation

5.4 Limits for Correlation Coefficient

5.5 Correlation Coefficient for a Bivariate Frequency Distribution

5.6 Probable Error of Correlation Coefficient

5.7 Spearman's Rank Correlation Coefficient

5.8 Limits for the Rank Correlation Coefficient

TEXT BOOKS

Arumugam.S and Issac.A.T ,*Modern Algebra*, Chennai: SCITECH, 2002.

Chapter 3: Section 3.1 – 3.9

(concepts and theorem statements only in all the Sections)

Narayanan , S. Hanmantha Rao & T.K. Manicavachagam Pillay, *Ancillary Mathematics Vol II* Madras:S. Viswanathan, 2011.

Chapter 2: Sections 1 – 4

Chapter 7: Sections 1 – 6

Gupta S C. and V.K. Kapoor, *Fundamentals of Mathematical Statistics*, New Delhi: Sultan Chand, 2002(Reprint 2014).

Chapter 10: Sections 10.1 – 10.7

BOOKS FOR REFERENCE

Arumugam, S., and Issac, *Statistics*, Palayamkottai: New Gamma, 1999.

Joseph, Edwards, (1948), *An Elementary Treatise on the Differential Calculus*. London: Macmillan, 1948.

Narayan, Shanti. *A Text Book of Calculus - Part I and II*. New Delhi: Shyam Lal, 1983.

WEB RESOURCES

http://www.iasri.res.in/ebook/EB_SMAR/e-book_pdf%20files/Manual%20II/7-correlation_and_regression.pdf

http://www.iasri.res.in/ebook/fet/Chap%202_Correlation%20and%20Regression.pdf

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

End Semester Examination:

Total Marks: 100 Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
Allied Core Course Offered by the Department of Mathematics for
B.Com. Degree Programme

SYLLABUS

(Effective from the academic year 2015-2016)

MATHEMATICS FOR COMMERCE

CODE: 15MT/AC/MT35

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To inculcate problem solving skills
- To introduce quantitative analysis
- To enhance concentration in mathematics as it provides a valuable background for many different careers

PRE REQUISITES

Basic Knowledge of operations on matrices

Unit 1 **(13 hrs.)**

Matrices

- 1.1 Matrices
- 1.2 Types of Matrices
- 1.3 Eigen Values and Eigen Vectors
- 1.4 Cayley-Hamilton Theorem (without proof)
- 1.5 Similar Matrices

Unit 2 **(15 hrs.)**

Theory of Equations

- 2.1 Formation and Solution of Equation with Imaginary and Irrational Roots
- 2.2 Relation between Roots and Coefficients
- 2.3 Solution of Equations under given Conditions
- 2.4 Symmetric Functions of the Roots of an Equation in terms of its Coefficients
Reciprocal equations

Unit 3 **(12 hrs.)**

Numerical Analysis

- 3.1 The Bisection Method
- 3.2 Newton Raphson Method
- 3.3 Gaussian Jordan Elimination
- 3.4 Gaussian Elimination
- 3.5 Iterative Methods
- 3.6 Jacobi Method
- 3.7 Gauss Seidal Method

Unit 4 **(11 hrs.)**

Graph Theory

- 4.1 Definition of a Graph, Examples
- 4.2 Degrees
- 4.3 Subgraphs
- 4.4 Isomorphism
- 4.5 Matrices
- 4.6 Walks, Trails and Paths
- 4.7 Connectedness and Components
- 4.8 Eulerian Graphs
- 4.9 Konigsberg Bridge Problem
- 4.10 Hamiltonian Graphs
- 4.11 Trees
- 4.12 Related Problems

Unit 5 **(14 hrs.)**

Combinatorics

- 5.1 The Rules of Sum and Product
- 5.2 Permutations
- 5.3 Combinations
- 5.4 Binomial Theorems
- 5.5 Ramsey Numbers
- 5.6 The Pigeonhole Principle

TEXT BOOKS

Arumugam S., A. Thangapandi Isaac and A. Somasundaram. *Numerical Methods*, Chennai: Scitech, 2002.

- Chapter 3: Section 3.3, 3.5
- Chapter 4: Section 4.3, 4.4, 4.7, 4.8

Arumugam S. and Ramachandran S. *Invitation to Graph Theory*. Chennai: Scitech, 2001.

- Chapter 2: Sections 2.1, 2.2, 2.3 (exclude Theorem 2.3), 2.4 (exclude Ulam's conjecture), 2.8
- Chapter 4: Sections 4.1 and 4.2 (concepts only)
- Chapter 5: Sections 5.1 and 5.2 (concepts only)
- Chapter 6: Sections 6.1 (concepts only)

Chandrasekharaiah D.S. *Graph Theory and Combinatorics*, Chennai: Prism, 2005.

- Chapter 5: Sections 5.1, 5.2, 5.3, 5.3.1 (Only Binomial theorem), 5.5
- Chapter 6: Sections 6.1

Manicavachagam Pillay T.K., Natarajan T. and GanapathyK.S., *Algebra –Vol I*. Madras: S. Viswanathan, 2006.

Chapter 6 Sections 1, 9, 10, 11, 12, 16, 16.1, 16.2

Narayanan.S., Hanumantha Rao.R & Manicavachagam Pillay T.K., *Ancillary Mathematics*. S.Viswanathan, 2012.

Chapter 3 Pages 155 – 160

Singaravelu A.,*Allied Mathematics*. Chennai: Meenakshi, 2010.

Chapter 2 Pages 2.1 – 2.24, 2.61 – 2.76, 2.83 – 2.89

BOOKS FOR REFERENCE

Kandasamy and Thilagavathy.*Mathematics*. New Delhi:SChand, 2004.

Lipson, Marc. andLipschutz Seymour. *Discrete Mathematics*.New Delhi: Schaum's
Tata McGraw, 2010.

WEB RESOURCES

<http://www.mathsisfun.com/calculus/>

<http://nptel.ac.in/courses/Webcourse-contents/IIT-KANOUR/mathematics-2/index.html>

<http://nptel.ac.in/courses/111106050/1>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 6$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

End Semester Examination:

Total Marks: 100 Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

B.Sc. DEGREE: BRANCH I – MATHEMATICS

SYLLABUS

(Effective from the academic year 2015-2016)

SEQUENCE, SERIES AND FOURIER SERIES

CODE: 15MT/MC/SF45

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To understand the concept of convergence of a real sequence
- To discuss the techniques of testing the behavior of infinite series of real Numbers
- To express periodic functions as infinite series

Unit 1 (12 hrs.)

Sets and Functions

- 1.1 Functions – Real Valued Functions
- 1.2 Equivalence, Countability
- 1.3 Real Numbers
- 1.4 Least Upper Bounds

Unit 2 (13 hrs.)

Sequences of Real Numbers

- 2.1 Definition of Sequence and Subsequence
- 2.2 Limit of a Sequence
- 2.3 Convergent and Divergent Sequences
- 2.4 Bounded Sequences
- 2.5 Monotone Sequences
- 2.6 Operations on Convergent and Divergent Sequences

Unit 3 (14 hrs.)

Sequences of Real Numbers

- 3.1 Limit Superior and Limit Inferior
- 3.2 Cauchy Sequences

Series of Real Numbers

- 3.3 Convergence and Divergence
- 3.4 Series with Non-negative Terms
- 3.5 Alternating Series
- 3.6 Conditional Convergence and Absolute Convergence

Unit 4 (14 hrs.)
Tests for Convergence of a Series of Real Numbers
4.1 Tests for Absolute Convergence
4.2 Series whose Terms form a Non-increasing Sequence
4.3 Summation by Parts

Unit 5 (12 hrs.)
Fourier Series
5.1 Definition of Fourier Series
5.2 Expansions of Periodic Functions with Period 2π
5.3 Odd and Even Functions
5.4 Half-range Fourier Series
5.5 Development in cosine and sine Series

TEXT BOOKS

Goldberg Richard.R. *Real Analysis*, New Delhi: Indian Edition. Oxford, 1970.

Chapter 1 : Section 1.3 – 1.7
Chapter 2 : Sections 2.1 – 2.10
Chapter 3 : Sections 3.1 – 3.4, 3.6 – 3.8
Chapter 12 : Section 12.1

Narayanan S. and T.K. Manicavachagam Pillay T. K., *Calculus -Volume III*. Madras: S. Viswanathan, 2006.

Chapter 6 : Sections 1 – 5

BOOKS FOR REFERENCE

Bhat V. K , Jarol Scott, *Introduction to Real Analysis*, New Delhi: Narosa, 2012.

Karunakaran V. *Real Analysis*, Chennai: Pearson, 2012.

Terrance J Quinn, *Pathways to Real analysis*, New Delhi: Narosa, 2009.

WEB RESOURCES

<http://www.flashandmath.com/mathlets/calc/sequences/sequences.html>

<http://www.personal.psu.edu/dpl14/java/calculus/sequences.html>

http://www.maa.org/sites/default/files/images/upload_library/47/StemkoskiStorm/SequenceConv.html

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH I – MATHEMATICS

SYLLABUS

(Effective from the academic year 2015-2016)

MATHEMATICAL STATISTICS – II

CODE: 15MT/AC/ST45

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVE OF THE COURSE

- To understand the applicability and use of statistical methods in various fields

Unit 1 (13 hrs.)

Sampling Theory

- 1.1 Introduction: Parameter and Statistic
- 1.2 Sampling Distribution, Standard Error
- 1.3 Types of Sampling.
- 1.4 Sampling Distribution of Sample Mean

Unit 2 (13 Hrs.)

Exact Sampling of χ^2 , t, F Distributions

- 2.1 The χ^2 distribution – Moment Generating Function of χ^2 Distribution
- 2.2 Cumulant Generating Function of χ^2 Distribution
- 2.3 Sampling Distribution of Mean and Variance
- 2.4 Distribution of Sum and Ratio of Two Independent χ^2 Variates
- 2.5 Student's t -Distribution – Properties of t -Distribution
- 2.6 Snedecor's F Distribution – Properties of F -Distribution
- 2.7 Fisher's z -Distribution
- 2.8 Relation between t , χ^2 and F Distributions

Unit 3 (16 hrs.)

Point Estimation

- 3.1 Introduction – Point Estimation
- 3.2 Unbiasedness
- 3.3 Consistency - Efficiency - Sufficiency
- 3.6 Methods of Point Estimation– Method of Maximum Likelihood
- 3.7 Method of Moments

Unit 4 (8 hrs.)

Interval Estimation

- 4.1 Interval Estimation: Concept of Setting Confidence Intervals to Population Parameters
- 4.2 Confidence Interval for Mean, Difference in Means,
- 4.3 Confidence Interval for Variance, Ratio of Variances - Based on Normal, T, χ^2 and F Distributions - Simple Problems

Unit 5**(15 hrs.)****Tests of Significance for Large Samples**

5.1 Test for the Significant Difference between Sample Mean and Population Mean

5.2 Test for the Significant Difference between Two Sample Means

Tests of Significance Based on Normal, t and F Distributions5.3 Student's t Distribution – Assumptions for Student's t Test – Properties of t Distribution – Application of t Distribution5.4 Difference between Sample Mean and Population Mean, t -Test for Difference of Means5.5 Paired t -Test for Difference of Means5.6 t -Test for Significance of an Observed Correlation Coefficient

5.7 F- distribution – Application of F-Distribution

5.8 F-test for Significance of the Ratio of Two Independent Estimates of the Population Variance

Tests of Significance Based on Chi-Square Distribution5.9 Introduction – Application of χ^2 Distribution

5.10 Test for Goodness of Fit

5.11 Test for Independence of Attributes

5.12 Test for Population Variance

TEXT BOOKSGupta, K R. *Mathematical Statistics*, Volume-2, New Delhi, Atlantic, 2015.

Chapter 14: Section 1.1 – 1.3, 3.1 – 3.8

Chapter 15: Section 2.1, 2.2, 2.3, 3.1, 4, 4.1, 5, 5.1, 6, 7

Chapter 16: Section 2, 2.1, 2.2, 3, 3.1, 3.3, 3.4, 4, 5, 5.1

Chapter 17: Section 1, 2, 2.1, 2.2, 2.4

Chapter 18: Section 1, 2, 2.1 - 2.4, 3, 3.1, 3.2

Purna Chandra Biswal, *Probability and Statistics*, New Delhi: Printice Hall, 2007.

Chapter 6: Sections 6.1, 6.2, 6.5, 6.6

Siva Ramakrishna Das P, C. Vijayakumari, *Statistics Part II*, Chennai: Viji's Academy, 2007.

Chapter 5: Sections 5.3, 5.4

BOOKS FOR REFERENCEGupta, S C. and V. Kapoor, *Fundamentals of Mathematical Statistics*, New Delhi Sultan Chand, 2002.Arumugam, S., and Issac. *Statistics*, Palayamkottai: New Gamma, 1999.Pillai R.S.N., and V. Bagavathi. *Statistics*. New Delhi : S Chand, 2000.

Subramaniam N. *Probability and Statistics*. Erode : SCM, 2005.

Richard I. Levin and David S. Rubin. *Statistics For Management*. New Delhi : Prentice Hall, 2000.

JOURNALS

The Annals of Statistics
Journal of Computational and Graphical Statistics

WEB RESOURCES

<http://projecteuclid.org/euclid.aos>
<http://www.tandfonline.com/toc/ucgs20/current#.VO6PrCcas6Yk>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.Sc. DEGREE: BRANCH – I – MATHEMATICS

SYLLABUS

(Effective from the academic year 2015-2016)

ALGEBRAIC STRUCTURES

CODE: 15MT/MC/AS55

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce the concept of abstract Algebra
- To develop an understanding of fundamental algebraic structures

PRE-REQUISITE

Knowledge of set theory

Unit 1 (12 hrs.)

Group Theory

- 1.1 Equivalence Relation and Equivalence Classes
- 1.2 Definition of a Group, Examples
- 1.3 Subgroups, Examples of Subgroups
- 1.4 Cyclic Groups
- 1.5 Cosets

Unit 2 (12 hrs.)

Group Theory (contd.)

- 2.1 Lagrange's Theorem and its Corollaries
- 2.2 Counting Principle
- 2.3 Normal Subgroups and Quotient Groups
- 2.4 Homomorphism - Isomorphism of Groups – Theorems on Homomorphism

Unit 3 (12 hrs.)

Group Theory (contd.)

- 3.1 Automorphism of Groups
- 3.2 Cayley's, Theorem
- 3.3 Permutation Groups

Unit 4 (14 hrs.)

Ring Theory

- 4.1 Definition of Rings
- 4.2 Division Rings - Fields and Integral Domains, Examples
- 4.3 Some Special Classes of Rings
- 4.4 Homomorphism of Rings

Unit 5**(15 hrs.)****Ring Theory (contd.)**

5.1 Ideals and Quotient Rings

5.2 Maximal, Principal and Prime Ideals

5.3 Field of Quotients of an Integral Domain

TEXT BOOK

Herstein, I.N. *Topics in Algebra*. Second Edition, New York : John Wiley, 2006(Reprint 2009).

Chapter 1 : Section 1.1

Chapter 2 : Sections 2.1 - 2.10 (exclude applications 1& 2 in 2.7)

Chapter 3 : Sections 3.1 - 3.6

BOOKS FOR REFERENCE

Balakrishnan, R., and N.Ramabhadran. *A Text Book of Modern Algebra*. New Delhi: Vikas, 1979.

Fraleigh, J.B. *A First Course in Abstract Algebra*. New York :Addison Wesley, 1968.

Naik, K.V. *Modern Algebra*. Chennai :Emerald, 1986.

Santiago, M. L. *Modern Algebra*. New Delhi : Tata McGraw-Hill, 2001.

Vasishtha, A.R. *Modern Algebra*. Meerut : Krishna PrakashMandir, 1971.

WEB RESOURCES

http://faculty.salisbury.edu/~despickler/pascgalois/classroom/PascGaloisJELabs_html/Lab09_html/Lab09.html

<http://extras.springer.com/1999/978-3-540-65368-4/ida-win/c6s5ja.html>

PATTERN OF EVALUATION**Continuous Assessment:****Total Marks: 50****Duration: 90 Mins.**Section A: $3 \times 2 = 06$ (Three questions to be set)Section B: $3 \times 8 = 24$ (Four questions to be set)Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

Theorem Writing Technique

End Semester Examination:**Total Marks: 100****Duration: 3 Hours**

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH I - MATHEMATICS

SYLLABUS

(Effective from the academic year 2015-2016)

PRINCIPLES OF REAL ANALYSIS

CODE : 15MT/MC/RA55

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To enhance the knowledge of abstract mathematics on the real line
- To introduce the concepts for understanding and analyzing abstract mathematics on the metric space

Unit 1 (12 hrs.)

Limits and Continuity on \mathbb{R}^1

- 1.1 Limit of a Function on the Real Line
- 1.2 Functions Continuous at a Point on the Real Line - Reformulation

Unit 2 (14 hrs.)

Metric Spaces, Open Sets, Closed Sets

- 2.1 Definition of Metric Space
- 2.2 Limits in Metric Spaces
- 2.3 Functions Continuous on a Metric Space
- 2.4 Open Sets - Closed Sets

Unit 3 (12 hrs.)

Connectedness and Completeness on Metric Spaces

- 3.1 Connected Sets
- 3.2 Bounded Sets and Totally Bounded Sets
- 3.3 Complete Metric Spaces

Unit 4 (12 hrs.)

Compactness on Metric Spaces

- 4.1 Compact Metric Spaces
- 4.2 Continuous Functions on a Compact Metric Space
- 4.3 Uniform Continuity

Unit 5 (15 hrs.)

Riemann Integration

- 5.1 Definition of the Riemann Integral
- 5.2 Properties of the Riemann Integral
- 5.3 Derivatives

- 5.4 Rolles' Theorem
- 5.5 The Law of the Mean
- 5.6 Fundamental Theorem of Calculus
- 5.7 Improper Integral (concept only)

TEXT BOOK

Goldberg Richard R. *Real Analysis*. Indian Edition. New Delhi:Oxford, 1970.

- Chapter 4 – Section: 4.1 – 4.3
- Chapter 5 – Sections: 5.1 – 5.5
- Chapter 6 – Sections: 6.1 – 6.6, 6.8
- Chapter 7 – Sections: 7.2, 7.4 - 7.9

BOOKS FOR REFERENCE

- Arumugam S., and A. Thangapandi Isaac. *Modern Analysis*. Palyamkottai: New Gamma, 2002.
- Mainak Mukherjee, *Course in Real Analysis*, New Delhi: Narosa, 2011.
- Malik S C, *Principles of Real Analysis* Third edition. New Delhi; New Age, 2011.
- Nader Vakil, *Real Analysis Through Modern Infinitesimals*, Cambridge, 2011.

WEB RESOURCES

- <http://faculty.gvsu.edu/schlicks/HausdorffGeometry/H2.htm>
- <http://www.personal.psu.edu/dpl14/java/calculus/limits.html>
- http://www.maa.org/sites/default/files/images/upload_library/47/StemkoskiStorm/Continuity.html

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

- Section A: $3 \times 2 = 06$ (Three questions to be set)
- Section B: $3 \times 8 = 24$ (Four questions to be set)
- Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

- Seminars
- Quiz
- Open Book Tests
- Group Discussion
- Assignments
- Problem Solving
- Theorem Writing Technique

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

- Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)
- Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**B.Sc. DEGREE BRANCH I - MATHEMATICS
SYLLABUS**

(Effective from the academic year 2015 – 2016)

ELEMENTS OF DIFFERENTIAL EQUATIONS

CODE: 15MT/MC/ED55

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To gain logical skills in the formulation of differential equation
- Expose students to use differential equation as a powerful tool in problem solving

Unit 1 (16 hrs.)

Linear Second Order Differential Equations

- 1.1 Method of Undetermined Coefficient
- 1.2 Reduction of Order
- 1.3 Variation of Parameters

Unit 2 (13 hrs.)

Application of Linear Second Order Differential Equation

- 2.1 Spring Problems
- Series Solution of Linear Second Order Differential Equation**
- 2.2 Series Solution near an Ordinary Point

Unit 3 (13 hrs.)

Series Solution of Linear Second Order Differential Equation (contd.)

- 3.1 Regular Singular Points: Euler Equations
- 3.2 The Method of Frobenius
- Linear System of Differential Equations**
- 3.3 Solution of Linear System of Differential Equations

Unit 4 (12 hrs.)

Partial Differential Equations of the First Order

- 4.1 Introduction
- 4.2 Formulation of Partial Differential Equation by Eliminating Arbitrary Constants and Arbitrary Functions
- 4.3 Complete Integral, Particular Integral and Singular Integral of Partial Differential Equation
- 4.4 Special Types of Equations – Standards I - IV

Unit 5**(11hrs.)****Partial Differential Equations of the First Order (contd.)**

5.1 Equations Reducible to the Standard Forms

5.2 Lagrange's Equation

Partial Differential Equations of Higher Order with Constant Coefficients

5.3 Homogeneous Linear Equations with Constant Coefficients

5.4 Solutions of Linear Partial Differential Equations

5.5 Complementary Function

5.6 Particular Integral

TEXT BOOKSTrench F William, *Elementary Differential Equations*, USA: Bob Pirtle, 2000.

Chapter 5 Sections 5.4 – 5.7

Chapter 6 Section 6.2

Chapter 7 Sections 7.2, 7.4, 7.5

Chapter 10 Section 10.2

Sharma, J.N. and R.K.Gupta. *Differential Equations*. Meerut: Krishna Prakashan Media, 1996.

Chapter 7 Sections 7.1 – 7.13

Chapter 8 Sections 8.1 – 8.5

BOOKS FOR REFERENCEAmarnath. T. *An Elementary Course in Partial Differential Equation* New Delhi: Narosa, 2004.Narayanan, S. and Manicavachagam Pillay, T.K. *Calculus-Vol. III*. Chennai: S Viswanathan, 2006.Narayan S. and T.K. Manicavachagam Pillay. *Differential Equations and its Applications*. Chennai: S. Viswanathan, 2001.Rai, B., D.P. Choudhury, and H.I. Freedman. *A Course in Ordinary Differential Equations*. New Delhi: Narosa, 2004.Sharma J.N. and Kehar Singh. *Partial Differential Equations for Engineers and Scientists*. New Delhi: Narosa, 2000.Siddiqi, A.H. and P. Manchanda. *A First Course In Differential Equations With Applications*. New Delhi: Macmillan, 2006.**WEB RESOURCES**www.ncl.ac.uk/students/mathsaid/resources/.../ode_homogeneous.htmwww.ugrad.math.ubc.ca/coursedoc/math100/notes/.../intro.html

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit).

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH I - MATHEMATICS

SYLLABUS

(Effective from the academic year 2015-2016)

VECTOR SPACES AND LINEAR TRANSFORMATIONS

CODE : 15MT/MC/VL65

CREDITS : 5

L T P : 5 0 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- Intended to develop an understanding of linear algebraic structures
- To enable understanding of the concept of linear transformations and their matrix representation

Unit 1 (13 hrs.)

Vector Spaces

- 1.1 Definition – Examples – Subspace
- 1.2 Quotient Space
- 1.3 Internal and External Direct Sums

Unit 2 (13 hrs.)

Vector Spaces (contd.)

- 2.1 Linear Independence - Basis of a Vector Space - Dimension of a Vector Space
- 2.2 $\text{Hom}(V, W)$, $\text{Hom}(V, V)$ and $\text{Hom}(V, F)$

Unit 3 (13 hrs.)

Inner Product Spaces

- 3.1 Definition and Examples
- 3.2 Norm of a Vector
- 3.3 Schwarz Inequality
- 3.4 Orthogonal Complement
- 3.5 Gram Schmidt Orthogonalisation Process

Unit 4 (13 hrs.)

Linear Transformations

- 4.1 Algebra of Linear Transformations
- 4.2 Regular, Singular Linear Transformations - Rank
- 4.4 Characteristic Roots and Characteristic Vectors of a Linear Transformation
- 4.5 Coordinate Vectors – Change of Basis

Unit 5**(13 hrs.)****Matrix Representation of Linear Transformations**

5.1 Matrix Representations of Linear Transformations

5.2 Relations between Matrix Representations

5.3 Diagonalization of Matrices

5.4 Diagonalization of Symmetric Matrices - Orthogonal Diagonalization

5.5 Diagonal Matrix Representation of a Linear Operator

TEXT BOOKSHerstein, I. N. Topics in Algebra. 2nd ed. New Delhi : Wiley, 2007.Chapter 4: Sections 4.1 – 4.3 (till Definition of dual space, $\text{Hom}(V, F)$), 4.4

Chapter 6: Sections 6.1 – 6.2

Williams Gareth. Linear Algebra with Applications. 6th ed. New Delhi: Narosa, 2009.

Chapter 5: Sections 5.1 - 5.3

BOOKS FOR REFERENCELang, Serge. *Modern Algebra*. 7th ed. New York : Addison Wesley, 1977.Naik, K.V. *Modern Algebra*. Chennai : Emerald, 1986.Narayanan, K.S, and T.K. Manicavachagom Pillai. *Modern Algebra Vol. II*. Chennai: Viswanathan, S. 1996.Sahai Vivek, and Vikas Bist. *Linear Algebra*. New Delhi : Narosa, 2002.Santiago M.L., *Modern Algebra*, New Delhi : Tata McGraw-Hill, 2002.Stroud, K.A., and Dexter J. Booth. *Linear Algebra*. New York: Industrial, 2008.**WEB RESOURCES**<http://www.math.ucla.edu/~tao/resource/general/115a.3.02f/GramSchmidt.html><http://www.math.ucla.edu/~tao/resource/general/115a.3.02f/EigenMap.html>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

Theorem Writing Technique

End Semester Examination:

Total Marks: 100 Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH I - MATHEMATICS

SYLLABUS

(Effective from the academic year 2015-2016)

PRINCIPLES OF COMPLEX ANALYSIS

CODE : 15MT/MC/CA65

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce the analysis of complex numbers
- To expose a fertile area of pure mathematics as a source of powerful techniques that are widely applied in sciences and Engineering

Unit 1 (15 hrs.)

Analytic Functions

- 1.1 Functions of a Complex Variable
- 1.2 Continuous Functions
- 1.3 Differentiability
- 1.4 Cauchy Riemann's Equations
- 1.5 Analytic Functions
- 1.6 Harmonic Functions

Unit 2 (9 hrs.)

Mapping

- 2.1 Conformal Mapping - Elementary Transformations
- 2.2 Applications of Conformal Mapping: Steady Temperatures – Steady Temperatures in a Half Plane
- 2.3 Mapping by Elementary Functions: The mapping $w = z^2$, The Mapping $w = e^z$, The Mapping $w = \sin z$, The Mapping $w = \cos z$, The Mapping $w = \cosh z$

Unit 3 (13 hrs.)

Series Expansions

- 3.1 Series Expansion of Elementary Functions: Logarithmic Function
- 3.2 Bilinear Transformations: Bilinear Transformations – Cross Ratio – Fixed Points of Bilinear Transformations
- 3.3 Taylor's Series - Laurent's Series

Unit 4 (14 hrs.)

Complex Integration

- 4.1 Cauchy's Theorem
- 4.2 Cauchy's Integral Formula
- 4.3 Higher Derivatives

Unit 5

(14 hrs.)

Calculus of Residues

- 5.1 Zeros of an Analytic Function
- 5.2 Singularities - Residues
- 5.3 Cauchy's Residue Theorem
- 5.4 Evaluation of Definite Integrals of the Type

(i) $\int_0^{2\pi} f(\cos \eta, \sin \eta) d\eta$ where f is a Rational Function of $\cos \eta$ and $\sin \eta$,

(ii) $\int_{-\infty}^{\infty} f(x) dx$ where $f(x)$ is a Rational Function

TEXT BOOKS

Arumugam S., A.T. Isaac, and A. Somasundaram. *Complex Analysis*. Chennai: Scitech, 2002(Reprint 2004).

Chapter 2	Sections 2.1, 2.4 – 2.9
Chapter 3	Sections 3.1 – 3.4
Chapter 4	Section 4.4.4
Chapter 5	Sections 5.1, 5.3 – 5.6
Chapter 6	Sections 6.2 – 6.4
Chapter 7	Sections 7.1 – 7.3, 7.4(exclude proofs of theorems 7.5 - 7.8)
Chapter 8	Sections 8.1, 8.2 (Theorems 8.2- 8.4 statements only), 8.3 (exclude Type III)

Churchill R.V, and J.W. Brown. *Complex Variables and Applications*. Fifth edition, New York: McGraw, 1990.

Chapter 9 – Sections 78, 79

BOOKS FOR REFERENCE

Dennis G Zill, *First Course in Complex Analysis With Applications*, Ed. 2 Jones and Bartlett, 2010.

John H Mathews, *Complex Analysis for Mathematics and Engineering*, New Delhi : Narosa, 2006.

Karunakaran, V , Desai A.R, *Complex analysis*, New Delhi : Narosa, New Delhi, 2005.

Narasimhan, Raghavan, *Complex Analysis in one Variable*, New Delhi: Springer, 2001.

WEB RESOURCE

http://www.malinc.se/math/geogebra/complex_numbersen.php

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

Theorem Writing Technique

End Semester Examination

Total Marks: 100 Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH I - MATHEMATICS

SYLLABUS
(Effective from the academic year 2015-2016)

PRINCIPLES OF MECHANICS

CODE: 15MT/MC/PM65

CREDITS: 5

L TP: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To widen appreciation of the variety of phenomena covered by mechanics and the techniques available to handle them
- To understand the concept of different forces and moments and their equilibrium with reference to a coordinate system
- To provide an adequate foundation for further self-study

Unit 1 (10 hrs.)

Forces acting on a Particle – Concurrent Forces

- 1.1 Forces
- 1.2 Types of Forces
- 1.3 Parallelogram Law of Forces
- 1.4 Triangle Law of Forces
- 1.5 Polygon Law of Forces
- 1.6 Lami's Theorem
- 1.7 Conditions of Equilibrium of any Number of Forces Acting on a Particle

Unit 2 (18 hrs.)

Non-Concurrent Coplanar Forces

- 2.1 Moment of a Force about a Point and a Line
- 2.2 Parallel Forces
- 2.3 Varignon's Theorem
- 2.4 Couples
- 2.5 Properties of Couples
- 2.6 Coplanar Forces
- 2.7 Reduction of any Coplanar System of Forces
- 2.8 Conditions of Equilibrium
- 2.9 Equilibrium of Three Forces Acting on a Rigid Body

Unit 3 (10 hrs.)

Friction

- 3.1 Laws of Statical Friction
- 3.2 Coefficient of Friction
- 3.3 Angle of Friction
- 3.4 Cone of Friction

- 3.5 Law of Kinetic Friction
- 3.6 Equilibrium of a Particle on an Inclined Plane
- 3.7 Condition for Sliding and Toppling

Unit 4 **(15 hrs.)**

Equilibrium of Strings and Chains

- 4.1 Equilibrium of Strings and Chains
- 4.2 Common Catenary
- 4.3 Suspension Bridge

Linear Motion in a Resisting Medium

- 4.4 Equations of Motion of a Particle Falling under Gravity in a Resisting Medium under Law of Resistance mkv , mkv^2
- 4.5 Limiting Velocity

Unit 5 **(12 hrs.)**

Rigid Body Dynamics

- 5.1 Moment of Inertia
- 5.2 Theorem of Parallel and Perpendicular Axes (statements only)
- 5.3 Moment of Inertia of Simple Standard Bodies
- 5.4 Motion of a Rigid Body
- 5.5 Rotation about a Fixed Axis
- 5.6 Expressions for Kinetic Energy
- 5.7 Angular Momentum
- 5.8 Equation of Motion

TEXT BOOKS

Dharmapadam A.V. *Statics*. Chennai: S. Viswanathan, 2006.

Chapter 1	Sections 1.1 – 1.3
Chapter 2	Sections 2.1 – 2.10, 2.12 – 2.14
Chapter 3	Sections 3.1 – 3.8
Chapter 5	Section 5.1 – 5.3

Dharmapadam A.V. *Dynamics*. Chennai: S. Viswanathan, 2006.

Chapter 8:	Sections 8.1, 8.2, 8.5 – 8.7 (Theorem statements only in Sections 8.5 & 8.6)
Appendix II, Appendix III	(concepts and simple problems only related to section 5.4 to 5.8 of unit 5)

BOOKS FOR REFERENCE

Pandit Ashok S. *Mechanics*. New Delhi: Narosa, 2001.

Venkatachalapathy, S.G., *Mechanics. Statics and dynamics for B.Sc. mathematics major*. Chennai: Margham, 2002.

Duraipandian P, *Mechanics*, New Delhi: S. Chand, 2005.

Kakani, S.L, *Mechanics*, New Delhi: Viva, 2005.

Hans H.S, *Mechanics*, New Delhi: Tata McGraw, 2003.

JOURNAL

Journal of Mechanics, Editor K. N. Chiang, National TsingHua University, Taiwan
International Journal of Mechanics and Applications, Editor-in-chief: ThibaultLemaire
Journal of Applied Mechanics, Editor: Yonggang Huang

WEB RESOURCES

<http://hyperphysics.phy-astr.gsu.edu/hbase/mi.html>
https://www.iit.edu/arc/workshops/pdfs/Moment_Inertia.pdf
<http://www.physicsclassroom.com/class/newtlaws/Lesson-2/Types-of-Forces>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 6$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

End Semester Examination:

Total Marks: 100 Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
Allied Elective Course Offered by the Department of Mathematics to the students of
B.A. (Economics) and B.Com. Degree Programme

SYLLABUS
(Effective from the academic year 2015-2016)

OPERATIONS RESEARCH

CODE: 15MT/AE/OR45

CREDITS: 5

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide few simple mathematical models
- To develop a methodical approach to problem solving in the field of industries, marketing, finance and so on

Unit 1 (14 hrs.)

Introduction to Operations Research

- 1.1 Introduction to OR
 - 1.2 Definition of OR
 - 1.3 Formulation of LPP
 - 1.4 Graphical Solution
 - 1.5 Simplex Method
- Duality in LPP**
- 1.6 Introduction
 - 1.7 Formulation of Dual LPP
 - 1.8 Rules for Constructing the Dual from Primal
 - 1.9 Characteristics of the Dual Problem – Advantages of Duality
 - 1.10 Primal-Dual Optimal Solutions

Unit 2 (12 hrs.)

Transportation Problem

- 2.1 Introduction
- 2.2 Mathematical Formulation – Unbalanced
- 2.3 Maximization – Northwest Corner Rule, Least Cost Method and Vogel's Approximation Method
- 2.4 Optimality Test: MODI Method

Unit 3 (10 hrs.)

Assignment problem

- 3.1 Assignment Problem
- 3.2 Mathematical Formulation of an Assignment Problem
- 3.3 Difference between Transportation and Assignment Problem
- 3.4 Hungarian Method
- 3.5 Unbalanced Assignment Problem

Unit 4 **(14 hrs.)**

Game Theory

- 4.1 Introduction – Basic Terminology
- 4.2 Solution Methods of Pure Strategy Games with Saddle Point
- 4.3 Principle of Dominance
- 4.4 Solution Methods of Mixed Strategy Games
- 4.5 The Two Person Non-zero Sum Games

Unit 5 **(15 hrs.)**

Project Network Analysis: CPM - PERT

- 5.1 Introduction
- 5.2 Development of Network Analysis Concept
- 5.3 Developing the Project Network
- 5.4 Critical Path Analysis
- 5.5 Critical Path Method
- 5.6 Programme Evaluation and Review Technique

TEXT BOOK

Kapoor, V K. *Operations Research (Quantitative Techniques for Management)*. New Delhi: Sultan Chand, 2013.

Chapter 1	Section 1.1 , 1.3
Chapter 2	Section 2.9, 2.10(omit theorems)
Chapter 3	Section 3.1 – 3.4
Chapter 4	Section 4.1 – 4.6
Chapter 5	Section 5.1 – 5.5(omit 5.5.1 and 5.5.2)
Chapter 6	Section 6.1 – 6.5(omit 6.5.4 and 6.5.5)
Chapter 11	Section 11.1 – 11.5 (formulation only in 11.5.3), 11.6
Chapter 13	Section 13.1 –13.6

BOOKS FOR REFERENCE

Gupta Premkumar and Hira, D.S., *Operations Research*. New Delhi: S Chand, 2001.

Panneerselvam, R. *Operations Research*. New Delhi : Prentice-hall, 2002.

Richard Bronson, Govindaswami Naadimuthu, *Schaum's Outlines Operations Research New Delhi: Tata McGraw Hill, 2011.*

Sharma S.D, *Operations Research*. Sixteenth Revised Edition, Kedar Nath Ram Nath, New Delhi. 2009.

Sundaresan V., K.S. Ganapathy Subramanian, K. Ganesan. *Resource Management Techniques*. Arapakkam: A.R., 2007.

Swarup Kanti, P.K. Gupta and Man Mohan. *Operations Research*, New Delhi: Sultan Chand, 2009.

JOURNALS

International Journal of Operations Research
International Journal of Mathematics in Operational Research
Journal of the Operational Research Society
Advances in Operations Research

WEB RESOURCES

<http://www.inderscience.com/jhome.php>
<http://www.hindawi.com/>
<http://journals.indexcopericus.com>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE BRANCH I - MATHEMATICS

SYLLABUS
(Effective from the academic year 2015-2016)

OPTIMIZATION TECHNIQUES

CODE: 15MT/ME/OT55

CREDITS: 5

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide few simple mathematical models
- To develop a methodical approach to problem solving in the field of industries, marketing, finance and so on

Unit 1 (15 hrs.)

Basics of Operations Research

- 1.1 Development of OR – Definition, Characteristics , Scientific Method in OR
- 1.2 Necessity of OR in Industry – Scope of OR
- 1.3 Operations Research and Decision Making
- 1.4 Scope of OR in: Management, Financial Management
- 1.5 Application of Various OR Techniques
- 1.6 Objectives of OR – Phases of OR – Models in OR
- 1.7 Classification Schemes of Models , Characteristics of a Good Model
- 1.8 Advantage and Limitations of a Model – Limitations of OR

Linear Programming

- 1.9 Introduction – Application of Linear Programming-Formulation
- 1.10 Advantages and Limitation of Linear Programming Models
- 1.11 Graphical Method of Solution
- 1.12 Canonical and Standard Form
- 1.13 Simplex Method
- 1.14 Artificial Variable Technique: Big-M Method

Unit 2 (15 hrs.)

Transportation Model

- 2.1 Introduction to the Model
- 2.2 Assumptions in the Transportation Model
- 2.3 Definition of the Transportation Model
- 2.4 Matrix Terminology
- 2.5 Formulation and Solution of Transportation Models (excluding Stepping Stone method)
- 2.6 Variants in Transportation Problems

Assignment Model

- 2.7 Definition of Assignment Model
- 2.8 Mathematical Representation of Assignment Model

- 2.9 Comparison with Transportation Model
- 2.10 Hungarian Method for Solution of the Assignment Problems
- 2.11 Formulation and Solution of the Assignment Models
- 2.12 Variations of the Assignment Problem
- 2.13 The Travelling Salesman Problem

Unit 3 (12 hrs.)

Sequencing Models and Related Problems

- 3.1 Sequencing Problems – Assumptions in Sequencing Problems
- 3.2 Processing n Jobs through One Machine(SPT rule only)
- 3.3 Processing n Jobs through Two Machines
- 3.5 Processing n Jobs through Three Machines
- 3.6 Processing Two Jobs through m Machines
- 3.7 Processing n Jobs through m Machines

Unit 4 (11 hrs.)

Theory of Games

- 4.1 Theory of Games
- 4.2 Characteristics of Games
- 4.3 Game Models – Definitions
- 4.4 Rules for Game Theory
 - 4.4.1 Rule 1: Look for a Pure Strategy
 - 4.4.2 Rule 2: Reduce Game by Dominance
 - 4.4.3 Rule 3: Solve for a Mixed Strategy
- 4.5 Mixed Strategies (2×2 Games) – Mixed Strategies ($2 \times n$ games or $m \times 2$ games)
- 4.6 Limitations of Game Theory and Concluding Remarks

Unit 5 (12 hrs.)

Network Analysis in Project Planning

- 5.1 Project – Project Planning – Project Scheduling – Project Controlling
- 5.2 W.B.S. – Basic Tools and Techniques of Project Management
- 5.3 Role of Network Techniques in Project Management
- 5.4 Network Logic-Numbering the Events
- 5.5 Activity on Node Diagram
- 5.6 Merits and Demerits of AON Diagram
- 5.7 Critical Path Method: Measure of Activity – Time Units
- 5.8 Critical Path Analysis
- 5.9 The Three Floats. PERT: Time Estimates
- 5.10 Frequency Distribution Curve for PERT – Probability of Completing the Whole Project by a given Time

TEXT BOOK

Gupta, Premkumar and Hira D.S. *Operations Research*, New Delhi: S.Chand, 2007.

Chapter 1	Sections 1.1 – 1.17, 1.23
Chapter 2	Sections 2.1 – 2.14, 2.16 – 2.17.1
Chapter 3	Sections 3.1 – 3.6
Chapter 4	Sections 4.1 – 4.3, 4.5 – 4.7, 4.10
Chapter 5	Sections 5.1 – 5.7
Chapter 9	Sections 9.10 – 9.19, 9.22
Chapter 14	Sections 14.1 – 14.13

BOOKS FOR REFERENCE

Ackoh R.L, *Fundamentals of Operations Research*, New Delhi: Vikas, 1984.

Panneerselvam, R. *Operations Research*. New Delhi : Prentice-hall, 2002.

Ravindran, A., Don. T. Phillips, and James J. Solberg. *Operations Research-Principles and Practice*. 2nded. New York: John Wiley, 1987.

Richard Bronson, Govindaswami Naadimuthu, *Schaum's Outlines Operations Research*
New Delhi: Tata McGraw Hill, 2011.

Swarup Kanti, Gupta P.K., Man Mohan, *Operations Research*, New Delhi: Sultan Chand, 2009.

JOURNALS

International Journal of Operations Research
International Journal of Mathematics in Operational Research
Journal of the Operational Research Society
Advances in Operations Research

WEB RESOURCES

<http://www.inderscience.com/jhome.php>

<http://www.britannica.com>

<http://journals.indexcopernicus.com>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

End Semester Examination:

Total Marks: 100 Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH – I – MATHEMATICS

SYLLABUS

(Effective from the academic year 2015-2016)

ELEMENTS OF SPACE SCIENCE

CODE : 15MT/ME/ES55

CREDITS : 5

L T P : 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To explore the new vistas of the universe governed by mathematics
- To visualize application of mathematics in space science

Unit 1

Spherical Trigonometry (10 hrs.)

- 1.1 Spherical Trigonometry - Definition of Great Circle, Small Circle
- 1.2 Secondaries - Angular Radius
- 1.3 Properties of Spherical Triangle
- 1.4 Relation between Sides and Angles of a Spherical Triangle
- 1.5 Cosine, sine and cotangent Formula - Supplemental cosine Formula, Five Parts Formula, Napier's Formula (statements only)

Unit 2

Celestial Coordinates (10 hrs.)

- 2.1 To Represent the Different System of Coordinates in the Same Figure
- 2.2 To find the Relation between Right Ascension and Longitude of the Sun
- 2.3 To find the Longitude of Sun on any Day
- 2.4 To find the Right Ascension and Declination of the Body
- 2.5 To find the Hour Angle of a Body at Rising or Setting
- 2.6 Diagram of Celestial Sphere

Unit 3

The Earth (15 hrs.)

- 3.1 Dip of Horizon (concept only)
- 3.2 Duration of Twilight – Civil, Nautical and Astronomical Twilight

Refraction

- 3.3 To find the Effects of Refraction on the Right Ascension and Declination of a Star
- 3.4 Horizontal Refraction – Effects of Refraction on Dip and Distance of Visible Horizon, Influence of Temperature and Pressure of Atmosphere on Refraction

Geocentric parallax

- 3.5 Geocentric Parallax - Changes in Right Ascension and Declination of a Body due to Geocentric Parallax, Effects of Geocentric Parallax on the Rising and Setting of a Celestial Body
- 3.6 Angular Diameter

3.7 Geocentric Parallax and Refraction compared - Equatorial Horizontal Parallax

Heliocentric parallax

3.8 Heliocentric Parallax (concept only)

Aberration

3.1 Aberration of a Star - Comparison of Aberration and Stellar Parallax, Kinds of Aberration

Unit 4 (15 hrs.)

Conversion of Time

4.1 Relation between Sidereal Time and Mean Time

4.2 Conversion of Sidereal Time into Mean Solar Time and Vice versa

4.3 Standard times

Unit 5 (15 hrs.)

Kepler's Laws

5.1 To Calculate the Eccentricity of the Earth's Orbit around the Sun

5.2 Verification of Kepler's law - Newton's deduction from Kepler's laws, Kepler's law from Newton's

5.3 To find the mass of the planet

Eclipse

5.4 Condition for the Occurrence of Lunar and Solar Eclipse

5.5 Ecliptic Limits - Maximum and Minimum Number of Eclipses near the Node of Lunar Orbit, Maximum Number of Eclipses in a Year

5.6 Eclipse Seasons - Effect of Refraction on a Lunar Eclipse

5.7 Occultations

Planetary Phenomena

5.8 Direct and Retrograde Motion(Geocentric motion of planets)

5.9 To find Positions of Two Planets when they are Stationery as seen from each other

TEXT BOOK

Kumaravelu S. , Susheela Kumaravelu, *Astronomy*, Sivakasi: A.Bhaskara Selvan, 2005.

Chapter 1 Sections 3, 7, 8, 13, 17, 20 – 25, 29

Chapter 2 Sections 64, 66, 68, 75, 76, 86

Chapter 3 Sections 106,112,116

Chapter 4 Sections 124,131,133,134

Chapter 5 Sections 135,137,138,141,144.145

Chapter 6 Sections 149,150,153-155

Chapter 7 Sections 180-186 (worked examples only)

Chapter 8 Section 190

Chapter 9 Sections 195, 202, 203

Chapter 13 Sections 262, 267 - 269, 272, 273, 276, 279, 284

Chapter 14 Sections 300, 301

BOOKS FOR REFERENCE

Bhatia, V.B., *Text Book of Astronomy and Astrophysics with elements of Cosmology*, New Delhi: Narosa, 2001.

Ramachandran, G.V., *A Text Book of Astronomy*, Madurai: Denobili, 1972.

Sidwick, *Introducing Astronomy*, London : Faber & Faber, 1957.

Smart, W.M., *Stellar Dynamics*, London : Cambridge, 1938.

Smart, W.M., *Some Famous Stars*, London : Orient Longman, 1956.

Smart, W.M., *A Text Book on Spherical Astronomy*, London : Cambridge, 1997.

JOURNALS

International Journal of Astronomy and Astrophysics

New Astronomy Elsevier Journal

The astronomical journal IOP science

Archive for History of Exact Sciences

Astronomy Letters

Astronomy Reports

Astrophysical Bulletin

WEB RESOURCES

Sky and Telescope's. The Essential guide to astronomy, Important new happenings in astronomy and latest space events. Newsletter.

<http://www.skyandtelescope.com>

<https://twitter.com/skyandtelescope/>

National Aeronautics and Space administration. News and features about NASA research. Newsletter

<http://www.ndtv.com/topic/national-aeronautics-and-space-administration>.

<http://www.nasa.gov/news/index.html>

<http://science.nasa.gov/>

<http://www.livescience.com/space/>

<http://www.universetoday.com/>

<http://abcnews.go.com/Technology/Space>

http://www.sciencedaily.com/news/space_time/astronomy/

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 6$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Component – 25 marks.

List of Evaluation Modes:

Quiz

Assignments

Presentation

END SEMESTER EXAMINATION :

Total Marks: 100

Duration: 3 hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting at least two from each)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set selecting not more than one question per unit).

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH I - MATHEMATICS

SYLLABUS
(Effective from the academic year 2015-2016)

NUMERICAL ANALYSIS

CODE: 15MT/ME/NA55

CREDITS: 5

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVE OF THE COURSE

- To expose the standard numerical techniques as a powerful tool in scientific computing

Unit 1 (13 hrs.)

Numerical Solutions of Algebraic Equations

1.1 Bolzano's Bisection Method

1.2 Newton Raphson Method

Simultaneous Equation

1.3 Introduction of Simultaneous Equations, Back Substitution

1.4 Gauss Elimination Method

1.5 Gauss-Jordan Elimination Method

1.6 Iterative Method – Gauss Jacobi's Method

1.7 Gauss-Seidal Iteration Method

Unit 2 (13 hrs.)

Finite Differences

2.1 Introduction

2.2 Difference Operator

2.3 Other Difference Operators

Interpolation

2.4 Newton's Interpolation Formulae

2.5 Central Difference Interpolation Formulae

2.6 Lagrange's Interpolation Formulae

2.7 Divided Differences

2.8 Newton's Divided Difference Formula

Unit 3 (13 hrs.)

Numerical Differentiation and Integration

3.1 Introduction

3.2 Derivatives using Newton's Forward Difference Formula

3.3 Derivatives using Newton's Backward Difference Formula

3.4 Maxima and Minima of the Interpolating Polynomial

3.5 Numerical Integration

Unit 4 (13 hrs.)
Numerical Solutions of Ordinary Differential Equations

- 4.1 Introduction
- 4.2 Taylor's Series Method
- 4.3 Picard's Method
- 4.4 Euler's Method
- 4.5 Runge-Kutta Methods

Unit 5 (13 hrs.)
Numerical Solutions of Partial Differential Equations

- 5.1 Introduction
- 5.2 Classification of Partial Differential Equations of Second Order
- 5.3 Finite Difference Approximation to Derivatives
- 5.4 Laplace Equation
- 5.5 Poisson's Equation

TEXT BOOK

Arumugam S., Thangapandi Isaac A. and Somasundaram A., *Numerical Methods*, Chennai: SCITECH, 2001.

- Chapter 3 Sections 3.3, 3.5
- Chapter 4 Sections 4.0 – 4.4, 4.7, 4.8
- Chapter 6 Sections 6.0 – 6.2
- Chapter 7 Sections 7.0 – 7.5
- Chapter 8 Sections 8.0 – 8.2, 8.4, 8.5
- Chapter 10 Sections 10.0 – 10.4
- Chapter 11 Sections 11.0 – 11.4

BOOKS FOR REFERENCE

Gupta B.D., *Numerical Analysis*, New Delhi :Konark, 2000.

Kandasamy P.K., Thilgavathy K., Gunavathy, *Numerical methods*, New Delhi: S Chand 2006.

Kamala R.S., Solairaj A., Ganesh S., Jansi Rani P.G., *Numerical Method*, Kumbakonam : Anuradha, 2003.

Saxena H.C., *Examples in Finite Differences and Numerical Analysis*, New Delhi: S. Chand, 1981.

Venkatachalapathy S.G., *Calculus of Finite Differences and Numerical Analysis*, Chennai: Margham, 2003.

JOURNALS

International Journal for Numerical Methods in Engineering
International Journal of Numerical Methods and Applications
International Journal of Numerical Methods for Heat and Fluid flow
Journal of Numerical Mathematics

WEB RESOURCES

<http://www2.le.ac.uk/departments/physics/people/mervynroy/lectures/numc.pdf>
<http://nptel.ac.in/courses/webcourse-contents/IISC-BANG/NumericalAnalysis>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 6$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting at least two from each)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH I - MATHEMATICS

SYLLABUS
(Effective from the academic year 2015-2016)

NUMERICAL METHODS WITH PROGRAM IN C
(Theory and Practical)

CODE :15MT/ME/NM55

CREDITS: 5

L T P: 4 0 2

TOTAL TEACHING HOURS: 78

OBJECTIVES OF THE COURSE

- To expose the standard numerical techniques as a powerful tool in scientific computing
- To enhance the abilities of students to solve problems with the aid of computer

PRE-REQUISITES

Knowledge of C Programming

Unit 1 (10 hrs.)

Numerical Solutions of Algebraic Equations

- 1.1 Bolzano's Bisection Method
- 1.2 Newton Raphson Method
- 1.3 Solution of Simultaneous Linear Algebraic Equations

Iterative Methods of Solving Simultaneous Equations

- 1.4 Jacobi's Method
- 1.5 Gauss Seidal Iteration Method

Practical (6 hrs.)

- 1.6 C program to find the Smallest Positive Root / the Largest Negative Root of the Equation $f(x) = 0$ by using the Bisection Method and Newton Raphson Method
- 1.7 C program to Solve a System of Linear Algebraic Equations using Gauss Jacobi's Iteration Methods and Gauss Siedel Method

Unit 2 (12 hrs.)

Finite Differences

- 2.1 Forward Differences
- 2.2 Backward Differences
- 2.3 Central Differences

Interpolation with Equal Intervals

- 2.1 Gregory Newton Forward and Backward Formulas
- 2.2 Central Difference Interpolation Formula – Gauss Forward and Backward Interpolation Formula

Interpolation with Unequal Intervals

2.3 Divided Differences

2.4 Lagrange's Interpolation Formula for Unequal Intervals

Practical (5 hrs.)

2.5 C program to Interpolate and Extrapolate using the given Pairs of Values of x and y by Newton's Forward and Backward Interpolation Formula

2.6 C program to Interpolate y using the given Pairs of Values of x and y by Lagrange's Interpolation Formula

Unit 3 (10 hrs.)

Numerical Differentiation

3.1 Values of the Derivatives of y based on Newton Forward and Backward Interpolation Formula

3.2 Derivatives by Method of Undetermined Coefficients Second Order Derivatives of $f(x)$ using Newton's Formulae - Maximum and Minimum Value of $f(x)$

Practical (5 hrs.)

3.3 C program to find the Derivative at the Initial Point of a Tabulated Function by Newton Forward and Backward Interpolation Formula

Unit 4 (10 hrs.)

Numerical Integration

4.1 Newton Corle's Quadratic Formula

4.2 Trapezoidal Rule

4.3 Simpson's One Third Rule - Simpson's Three Eighth Rule

Practical (5 hrs.)

4.4 C program to Evaluate $\int_a^b f(x)dx$ Numerically using Trapezoidal and Simpson's rule

Unit 5 (10 hrs.)

Application

5.1 Numerical Solution to Ordinary Differential Equations

5.2 Euler's Method

5.3 RungeKuttaMethod

Practical (5 hrs.)

5.4 C program to Solve the Differential Equation $\frac{dy}{dx} = f(x, y)$; $y(x_0) = y_0$ at the Pivotal Points by Euler's Method

5.5 C program to Solve Simultaneous Differential Equations $\frac{dy}{dx} = f(x, y, z)$; $\frac{dz}{dx} = g(x, y, z)$; $y(x_0) = y_0$, $z(x_0) = z_0$ at the Specified Pivotal Points by using RungeKuttaMethod of the Fourth Order

TEXT BOOKS

Veerarajan T. and Ramachandran T., *Numerical methods with programs in C*, New Delhi: McGraw Hill, 2013.

Chapter 3 : Sec. 3.2, 3.4

Chapter 4 : Sec. 4.5

Chapter 5 : Sec. 5.1 – 5.3

Chapter 6 : Sec. 6.1 – 6.6

Chapter 7 : Sec. 7.1, 7.6

Chapter 8 : Sec. 8.1, 8.2, 8.4, 8.28, 8.29, 8.31

Chapter 10: Sec. 10.16

Arumugam S., Thangapandi Isaac A., and Somasundaram A., *Numerical Methods*, Chennai: SCITECH, 2001.

Chapter 8: Sec. 8.0 – 8.4

BOOKS FOR REFERENCE

Gupta B.D., *Numerical Analysis*, New Delhi : Konark Publishers Pvt. Ltd, 2000.

Kamala R.S., Solairaj A., Ganesh S., Jansi Rani P.G., *Numerical Method*, Kumbakonam : Anuradha, 2003.

Kandasamy P.K., Thilgavathy K., Gunavathy, *Numerical methods*, New Delhi: S. Chand 2006.

Saxena H.C., *Examples in Finite Differences and Numerical Analysis*, New Delhi: S. Chand, 1981.

Venkatachalapathy S.G., *Calculus of Finite Differences and Numerical Analysis*, Chennai: Margham, 2003.

JOURNALS

International Journal for Numerical Methods in Engineering

International Journal of Numerical Methods and Applications

International Journal of Numerical Methods for Heat and Fluid flow

Journal of Numerical Mathematics

C Programming

Code journal

WEB RESOURCES

<http://www2.le.ac.uk/departments/physics/people/mervynroy/lectures/numc.pdf>

http://www.dailyfreecode/tutorial_simple_c_programming-

[15/numerical_methods_265.aspx](http://www.dailyfreecode/tutorial_simple_c_programming-15/numerical_methods_265.aspx)

http://www.sanfoundry.com/c_programming-examples_numerical_problems_algorithms/

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Theory: (45 Mins.)

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Practical: (45 Mins.)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

Project

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Theory: (90 Mins..)

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Practical: (90 Mins..)

Section C: $2 \times 20 = 40$ (Three questions to be set)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
General Elective Course Offered by Department of Mathematics to students of
B A. / B.Sc. / B.Com. Degree

SYLLABUS
(Effective from the academic year 2015-2016)

FASCINATING WORLD OF MATHEMATICS

CODE: 15MT/GE/WM22

CREDITS : 2

L T P : 2 0 0

TOTAL TEACHING HOURS : 26

OBJECTIVES OF THE COURSE

- To introduce some Indian Mathematicians and their contributions
- To understand Mathematics through puzzles and paradoxes
- To cite a few real life applications through Mathematical models

Unit 1 (10 hrs.)

Insight into some Indian Contributors to Mathematics

- 1.1 Baudhayana
- 1.2 Aryabhata
- 1.3 Bhaskara I
- 1.4 Shridhara
- 1.5 Bhaskara II
- 1.6 SrinivasaRamanujan
- 1.7 A.A. KrishnaswamiAyyangar
- 1.8 P.C. Mahalanobis
- 1.9 C. R. Rao
- 1.10 Harish Chandra
- 1.11 C. S. Seshadri
- 1.12 Sakunthala Devi
- 1.13 S. R. SrinivasaVaradhan
- 1.14 R. Parimala
- 1.15 Other Contemporary Mathematicians

Unit 2 (9 hrs.)

Mathematical Puzzles and Paradoxes

- 2.1 Magic Squares
- 2.2 Sleeping Beauty Puzzle
- 2.3 Monty Hall Probability Puzzle
- 2.4 Crossword
- 2.5 Number Puzzles by Shakuntala Devi
- 2.6 Missing Square Paradox
- 2.7 Potato Paradox
- 2.8 Zeno's Paradox

- 2.9 Necktie Paradox
- 2.10 Three Prisoner Paradox
- 2.11 Boy or Girl Paradox
- 2.12 Sorites Paradox
- 2.13 Elevator Paradox
- 2.14 Barber's Paradox

Unit 3

(7 hrs.)

Project

- 3.1 Mathematical Model – Application of Mathematics in real life

TEXT BOOKS AND REFERENCE BOOKS

Anne Rooney, *The Story of Mathematics*, China, Arcturus, 2008.

The Britannica Guide to The History of Mathematics, USA, Britannica, 2011.

George Gheverghese Joseph, *The Crest of the Peacock Non-European Roots of Mathematics*, Chennai, East-West, 1990.

Kapur J.N., *IXOHOXI*, New Delhi, Mathematical Sciences Trust Society, 1998.

Kapur J.N., *Mathematical Games for All*, New Delhi, Mathematical Sciences Trust Society, 1998.

Kapur J.N., *Some Eminent Indian Mathematicians of Twentieth Century*, New Delhi, Mathematical Sciences Trust Society, 1994.

Ye.I.P. Perelman, *Mathematics can be Fun*, Mir Publishers Moscow 1973, English Translation, 1985.

Shakuntala Devi, *Puzzle to puzzle you*, New Delhi, Orient Paperbacks, 1976, 45th Edition, 2014.

Shakuntala Devi, *Figuring – The Joy of Numbers*, New Delhi, Orient Paperbacks, 1986.

WEB RESOURCES

- http://prezi.com/hnkgbsbnnmr_/historical-and-contemporary-mathematicians
- http://mentalfloss.com/article/59040/10_mind_boggling_paradoxes
- <http://www.ssgan.8m.com/math2.html>

PATTERN OF EVALUATION: (Totally Internal)

Continuous Assessment (CA) - 25 marks

Section A : $5 \times 2 = 10$ marks (Choose five from six questions)

Section B : $3 \times 5 = 15$ marks (Choose three from five questions)

Third Component - 25 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

Offered to students of B.A. / B.Sc. Degree

SYLLABUS

(Effective from the academic year 2015-2016)

RESOURCE MANAGEMENT TECHNIQUES

CODE : 15MT/GE/RT53

CREDITS : 3

L T P : 3 0 0

TOTAL TEACHING HOURS : 39

ELIGIBILITY CRITERION

Not offered to students who have done Allied Elective course 15MT/AE/OR45

OBJECTIVE OF THE COURSE

- To create awareness about optimization in utilization of resources

Unit 1

(9 hrs.)

Introduction to Operations Research (OR)

- 1.1 Introduction
- 1.2 Scope of OR
- 1.3 Phases of OR
- 1.4 Uses and Limitation of OR

Linear Programming Problem

- 1.5 Introduction – Formulation of LPP
- 1.6 General Formulation of LPP
- 1.7 Matrix Form of LPP
- 1.8 Graphical Method: Procedure for Solving of a LPP by Graphical Method

Unit 2

(8 hrs.)

Transportation Problem

- 2.1 Introduction
- 2.2 Mathematical Formulation – Unbalanced
- 2.3 Maximization – Northwest Corner Rule, Least Cost Method and Vogel's Approximation Method
- 2.4 Optimality Test: MODI Method

Unit 3

(8 hrs.)

Assignment Problem

- 3.1 Assignment Problem
- 3.2 Mathematical Formulation of an Assignment Problem
- 3.3 Difference between Transportation and Assignment Problem
- 3.4 Hungarian Method
- 3.5 Unbalanced Assignment Problem
- 3.6 Traveling Salesman Problem

Unit 4 (7 hrs.)

Game Theory

- 4.1 Introduction – Basic Terminology
- 4.2 Solution Methods of Pure Strategy Games with Saddle Point
- 4.3 Principle of Dominance
- 4.4 Solution Methods of Mixed Strategy Games
- 4.5 Graphical Method

Unit 5 (7 hrs.)

Project Network Analysis: CPM

- 5.1 Introduction
- 5.2 Development of Network Analysis Concept
- 5.3 Developing the Project Network
- 5.4 Critical Path Analysis
- 5.5 Critical Path Method

TEXT BOOK

Kalavathy . S, *Operations Research*. Fourth Edition, Vikas, 2013.

- Chapter 1: 1.1 – 1.4, 1.6
- Chapter 2: 2.1, 2.2
- Chapter 3: 3.1
- Chapter 8: 8.1 – 8.4, 8.5
- Chapter 9: 9.3 – 9.5, 9.6, 9.6.1
- Chapter 15: 15.1 – 15.7
- Chapter 19: 19.1-19.5

BOOKS FOR REFERENCE

Gupta Premkumar and Hira, D.S., *Operations Research*. New Delhi: S Chand, 2011.

Kapoor.V.K , *Operations Research (Quantitative Techniques for Management)*. New Delhi: Sultan Chand, 2013.

Panneerselvam, R. *Operations Research*. New Delhi : Prentice-hall, 2002.

Swarup Kanti, P.K. Gupta and Man Mohan. *Operations Research*. New Delhi: Sultan Chand 2009.

Sundaresan V., K.S. Ganapathy Subramanian, K. Ganesan. *Resource Management Techniques*. 4th ed. Arapakkam: A.R. Publications, 2007.

Sharma S.D, *Operations Research*. Sixteenth Revised Edition, New Delhi: Kedar Nath Ram Nath, 2009.

JOURNALS

International Journal of mathematics in Operational Research
Journal of the Operational Research Society

WEB RESOURCES

<http://www.worldscientific.com/worldscinet/apjor>
<http://www.scrip.org/journal/apjor/>

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

One Component - 50 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
General Elective Course Offered by Department of Mathematics to students of
B A. / B.Sc. / B.Com. Degree

SYLLABUS
(Effective from the academic year 2015-2016)

CELESTIAL WONDERS

CODE: 15MT/GE/CW23

CREDITS : 3

L T P : 3 0 0

TOTAL TEACHING HOURS : 39

OBJECTIVES OF THE COURSE

- To give insight into astronomy
- To introduce feature of planet, sun, moon and stellar universe
- To explore and study the recent events in space

Unit 1 **(8 hrs.)**

Celestial Sphere and Diurnal Motion

- 1.1 Celestial Sphere
- 1.2 Diurnal Motion – Celestial Axis and Equator
- 1.3 Celestial Horizon
- 1.4 Zenith and Nadir - Celestial Meridian
- 1.5 Cardinal Points - Different Hemispheres
- 1.6 Visible and Invisible Hemispheres
- 1.7 Declination Circles – Verticals, Due East, Due West, Due North, Due South, Parallax Angle
- 1.8 Rising and Setting
- 1.9 Transit or Culmination
- 1.10 Annual Motion of the Sun – First point of Aries, First point of Libra, Equinoxes and solstices
- 1.11 Colures
- 1.12 Circumpolar Stars

Unit 2 **(9 hrs.)**

The Moon

- 2.1 Elongation - Conjunction, Opposition, Quadratures.
- 2.2 Daily Motion of the Moon - Age of Moon
- 2.3 Phase of Moon (definition only) - Successive Phases of Moon
- 2.4 Moon Exhibits the Same Side to the Earth
- 2.5 Lunar Librations - Definition and Kinds of Librations
- 2.6 Position of Moon at Rising and Setting
- 2.7 Surface Structure of Moon

- 2.8 Earth Shine
- 2.9 The Tides - Tsunami.

Eclipses

- 2.1 Types of Eclipses – Lunar and Solar Eclipse (no derivations), Duration of a Solar Eclipse
- 2.11 Importance of Total Solar Eclipses
- 2.12 Comparison of Solar and Lunar Eclipses
- 2.13 Occultations

Unit 3 (8 hrs.)

Planetary Phenomena

- 3.1 Bode's Law
- 3.2 Direct Motion and Retrograde Motion
- 3.3 Stationary Points
- 3.4 Transit of an Inferior Planet - Concept only
- 3.5 Astronomical Instruments

The Solar System

- 3.6 Kepler's Laws of Planetary Motion, Comets, Meteors
- 3.7 Astronomical Seasons - Causes of Seasons
- 3.8 Calendar

Unit 4 (7 hrs.)

The Stellar Universe

- 4.1 The Colour and Size of Stars
- 4.2 Double and Multiple Stars
- 4.3 Variable Stars - Novae, Star Clusters, Nebulae

Constellations

- 4.4 Zodiacal Constellations

Galaxies

- 4.5 The Milky Way

Unit 5 (7 hrs.)

Observation and Visit to Planetarium

Observation : Sun spots, planets, meteors, constellations, moon and its craters, comets and eclipses

Visit to Planetarium – Special show

TEXT BOOKS AND REFERENCE BOOKS

Kumaravelu S., Susheela Kumaravelu, *Astronomy*. Sivakasi: A.Bhaskara Selvan, Revised and Enlarged Edition 2005, Reprint 2009.

Bhatia, V.B, *Text Book of Astronomy and Astrophysics with elements of Cosmology*. New Delhi: Narosa, 2001.

JOURNALS

International Journal of Astronomy and Astrophysics
New Astronomy Elsevier journal
The Astronomical Journal IOP Science
Archive for History of Exact Sciences
Astronomy Letters
Astronomy Reports
Astrophysical Bulletin

WEB RESOURCES

Sky and Telescope's. The Essential guide to astronomy, Important new happenings in astronomy and latest space events. Newsletter.

<http://www.skyandtelescope.com> & <https://twitter.com/skyandtelescope>.

National Aeronautics and Space administration. News and features about NASA research. Newsletter

<http://www.ndtv.com/topic/national-aeronautics-and-space-administration>.

<http://www.nasa.gov/news/index.html>

<http://science.nasa.gov/>

<http://www.livescience.com/space/>

<http://www.universetoday.com/>

<http://abcnews.go.com/Technology/Space>

http://www.sciencedaily.com/news/space_time/astronomy/

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Component – 50 marks

List of Evaluation Modes:

Quiz

Assignments

Presentation

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
General Elective Course Offered by Department of Mathematics to students of
B A. / B.Sc. / B.Com. Degree

SYLLABUS
(Effective from the academic year 2015-2016)

BASIC MATHEMATICS

CODE :15MT/GE/BM23

CREDITS : 3

L T P : 3 0 0

TOTAL TEACHING HOURS : 39

ELIGIBILITY CRITERION

Offered to those who have not studied Mathematics or Business Mathematics in their secondary level of Education

OBJECTIVE OF THE COURSE

- To impart basic concepts of Mathematics

Unit 1 **(8 hrs.)**

Matrices

- 1.1 Matrices – Elementary Concepts
- 1.2 Evaluation of Determinant of a Square Matrix
- 1.3 Types of Matrices – Sum and Product of Matrices-Inverse of a Square Matrix of Order 2 and Order 3
- 1.4 Rank of a Matrix

Unit 2 **(8 hrs.)**

Application of Matrices

- 2.1 Consistency of a System of Linear Non-homogeneous Equations (statement only)- Simple Problems
- 2.2 Characteristic Equation of a Square Matrix - Evaluation of Eigen Values
- 2.3 Cayley Hamilton Theorem (statement only) – Verification
- 2.4 Computing Inverse using Cayley Hamilton Theorem

Unit 3 **(8 hrs.)**

Differential Calculus

- 3.1 Differential Coefficient of $f(x)$ with respect to x
- 3.2 Rules for Differentiation - Differential Coefficient of Standard Functions
- 3.3 Trigonometric and Inverse Trigonometric Functions

Unit 4 **(8 hrs.)**

Differential Calculus (contd.)

- 4.1 Logarithmic Differentiation
- 4.2 Differentiation of One Function with respect to another

Unit 5**(7 hrs.)****Integral Calculus**

5.1 Integration as the Inverse Process of Differentiation

5.2 Integration of Standard Functions

TEXT BOOKS

ManicavachgamPillay, T.K., T. Natarajan, and K.S. Ganapathy. *Algebra Vol. II*. Chennai : S. Vishwanthan, 2006.

Chapter 2 Sections: 1-5, 7, 8, 11, 16.(exclude eigen vectors)

Narayanan S., and T.K. ManicavachgamPillay. *Calculus Vol. I*. Chennai : S. Vishwanthan, 2004.

Chapter II Sections: 1- 3.10, 4.1, 4.2, and 7

Narayanan S., Hanumantha Rao and T.K. ManicavachgamPillay, *Ancillary Mathematics: Vol II*. Chennai : S. Vishwanthan, 2011.

Chapter 1 Sections: 1.1- 6.1

BOOKS FOR REFERENCE

Narayanan S., R. HanumanthaRao, T.K. ManicavachgamPillay, and P. Kandaswamy. *Ancillary Mathematics Vol. I*. Chennai : S. Vishwanthan, 2007.

Iyengar N.Ch.S.N., *Matrices*. New Delhi: Anmol, 1998.

WEB RESOURCES

www.maths.manchester.ac.uk/besplov/teaching/2EI_LA_notes_1.pdf
http://betterexplained.com/articles/a_gentle_introduction_to_learning_calculus

PATTERN OF EVALUATION**No End Semester Examination****Continuous Assessment:**

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

One Component - Project - 50 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**General Elective Course Offered by Department of Mathematics to students of
B A. / B.Sc. / B.CA. / B.S.W. Degree**

SYLLABUS

(Effective from the academic year 2015-2016)

APPLIED STATISTICS

CODE: 15MT/GE/AS23

CREDITS :3

L T P : 3 0 0

TOTAL TEACHING HOURS : 39

ELIGIBILITY CRITERION

Offered to those who had not studied Mathematics or Business mathematics in their Secondary level of Education

OBJECTIVES OF THE COURSE

- To develop statistical skills and the ability to apply the statistical tools in decision making
- To enable students to use tools learnt in planning and executing the project with control

Unit 1

Correlation

(9hrs.)

1.1 Scatter Diagram

1.2 Karl Pearson's Correlation Coefficient, Properties of Correlation Coefficient

1.3 Rank Correlation - Simple Examples

Unit 2

Probability

(8hrs.)

2.1 Introduction – Classical and Axiomatic Definition

2.2 Experiment and Event, Various Types of Events

2.3 Addition Theorem – Multiplication Theorem

2.4 Condition Probability

Unit 3

Interpolation

(8hrs.)

3.1 Newton's Interpolation Formula Method

3.2 Central Difference Interpolation Formula

3.3 Lagrange's Formula – Simple Problems

Unit 4

Curve Fitting

(6hrs.)

4.1 Introduction – Linear Law

4.2 Method of Groups Averages

4.3 Method of Least Squares

Unit 5

(8hrs.)

Project

Presentation and Diagrammatic representation of Data

Statistical Data - Classification and Tabulation for Qualitative and Quantitative Data

Bar Diagrams - Simple, Component and Multiple - Pie Diagrams - Simple and

Component; Histograms - Frequency Polygon - Frequency Curve - Ogives

Measures of Central Tendency

Arithmetic Mean, Median, Mode, Range, Quartile Deviation, Standard Deviation

TEXT BOOKS

Gupta.S.P. *Elementary Statistical Methods*, Sultan Chand & Sons: New Delhi, 2009.

Chapter 7: Pages BS 7.3 – 7.7, 7.9-7.14, 7.19 – 7.24

Chapter 11: Pages BS 11.1 – 11.4 , 11.6-11.13, 11.15-11.25

Arumugam.S, Thangapandi Isaac.A, Somasundaram. A, *Numerical Methods*, Scitech: Chennai , 2001, Third edition , Reprint 2003.

Chapter 2: Sections 2.0 – 2.2, 2.4

Chapter 7: Sections 7.1 – 7.3

BOOKS FOR REFERENCE

Kandasamy P., Thilagavathy K. *Allied Mathematics* S. Chand, 2009.

Arumugam, Isaac, *Statistics*, New Gamma Publishing House, Palayamkottai, 2013.

Seemon Thomas, *Basic Statistics*, Narosa, 2014.

SwarupKanti, P.K. Gupta and Man Mohan. *Operations Research*. New Delhi: Sultan Chand, 2009.

Sundaresan V., K.S. Ganapathy Subramanian, K. Ganesan. *Resource Management Techniques*. 4th ed. Arapakkam: A.R. Publications, 2007.

WEB RESOURCES

<http://projecteuclid.org/euclid.aos>

<http://www.tandfonline.com/toc/ucgs20/current#.VO6PrCcas6Yk>

PATTERN OF EVALUATION
No End Semester Examination

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

One Component - Project - 50 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**General Elective Course Offered by Department of Mathematics to students of
B A. / B.Sc. Degree**

**SYLLABUS
(Effective from the academic year 2015-2016)**

ESSENTIALS OF LOGIC AND ITS APPLICATIONS

CODE: 15MT/GE/ EL23

CREDITS : 3

L T P : 3 0 0

TOTAL TEACHING HOURS : 39

OBJECTIVES OF THE COURSE

- To augment knowledge into mathematical logic
- To introduce basic concepts of Graph Theory
- To study the applications of Discrete Mathematics

Unit 1 (8 hrs.)

Logics

- 1.1 Connectives
- 1.2 Parsing Trees
- 1.3 Truth Tables
- 1.4 Tautology
- 1.5 Tautological Implications
- 1.6 Predicate Calculus
- 1.7 Quantifiers

Unit 2 (9 hrs.)

Lattice

- 2.1 Poset
- 2.2 HasseDiagram
- 2.3 Lattices – Simple Examples
- 2.4 Properties of Lattices (without proof)
- 2.5 Duality Principle

Unit 3 (8 hrs.)

Boolean Algebra and Logical Gates

- 3.1 Definition of Boolean Algebra
- 3.2 Switching Circuits

Unit 4 (9 hrs.)

Graph Theory

- 4.1 Basic Concepts
- 4.2 Simple Graph – Multi-Graph

- 4.3 Digraph – Degree – Regular Graph
- 4.4 Incidence – Adjacency
- 4.5 Complete Graph – Bipartite
- 4.6 Subgraphs Spanning Subgraph
- 4.7 Some Special Classes of Graphs
- 4.8 Paths – Cycles – Connectedness

Unit 5

(5 hrs.)

Project

- 5.1 Applications of Lattices and Boolean Algebra
- 5.2 Logical Circuits
- 5.3 Graph Theory

TEXT BOOKS

Venkatraman M.K., N. Sridharan and N. Chandrasekaran, *Discrete Mathematics*, Chennai: National Publishing Co., 2000 (Reprint 2007)

Chapter 9 : Sections 1 – 8, 13 – 15

Chapter 10: Sections 1,2,4,5,8

Balakrishnan V.K., *Schaum's Outline of Theory and Problems of Graph Theory*, New Delhi: Tata McGraw Hill Co. Inc., 1997, Tenth reprint 2011

Chapter 1: Sections 1.1 – 1.6

Chapter 2: Sections 2.1 – 2.3

Chapter 3: Sections 3.1 – 3.2

(Note: Concepts with examples, theorem statements and simple problems only)

BOOKS FOR REFERENCE

Lipschutz Seymour, Marc Lars Lipson, *Schaum's outline of Theory and Problems of Discrete Mathematics*, Second edition, Eleventh reprint 2002, New Delhi: Tata McGraw-Hill Publishing Company Limited, 1999.

Norman, L. Biggs, *Discrete Mathematics*, second edition, India: Oxford, 2003.

Raju Solai, Chandrasekar, Krishnamoorthy and Ganesh, *Discrete Mathematical Structures*, Kumbakonam: Anuradha Agencies, 2003.

Santha S., *Discrete Mathematics with Combinatorics and Graph Theory*. New Delhi: Cengage Learning India, 2010.

Sharma, *Discrete Mathematics*, Chennai: Macmillan, 2003.

Yadav S. K., *Discrete Mathematics with Graph Theory*. New Delhi: Ane Books, 2013.

WEB RESOURCES

[http://world.mathigon.org/Graph_Theory.](http://world.mathigon.org/Graph_Theory)
<http://press.princeton.edu/titles/10314.html>
<http://www.open-graphtheory.org/>

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Component - 50 marks

List of Evaluation Modes:

Seminars

Quiz

Assignments

Open Book Test

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.Sc. DEGREE: BRANCH – I – MATHEMATICS

SYLLABUS
(Effective from the academic year 2016 -2017)

FORMAL LANGUAGES AND THEORY OF AUTOMATA THEORY

15
CODE: 16MT/UI/FA23

CREDITS : 3

OBJECTIVES OF THE COURSE:

- To introduce basic concepts of graph theory, formal languages and automata theory
- To enhance compiling techniques and expose to computing device

Unit 1

Graph Theory

- 1.1 Definition of a Graph and Examples
- 1.2 Degrees and Subgraphs
- 1.3 Isomorphism of Graphs
- 1.4 Matrix Representation of a Graph
- 1.5 Walks, Trails and Paths
- 1.6 Connectedness and Components (concepts only)
- 1.7 Characterisation of Trees
- 1.8 Connectivity of a Graph
- 1.9 Eulerian Graphs (concepts only)
- 1.10 Hamiltonian Graphs (concepts only)

Unit 2

Automata Theory

- 2.1 Finite Automata (FA) – Introduction and Definition
- 2.2 Representation of Finite Automaton
- 2.3 Acceptability of a String by a Finite Automaton
- 2.4 Language Accepted by a Finite Automaton

Unit 3

Automata Theory(contd.)

- 3.1 Non-deterministic Finite Automata (NFA)
- 3.2 Acceptability of a String by NFA
- 3.3 Equivalence of FA and NFA (concept only)
- 3.4 Procedure for finding an FA equivalent to a given NFA
- 3.5 Properties of Regular Sets (concepts only)

Unit 4

Finite State Machines

- 4.1 Finite-State Machines

- 4.2 The Monoid of a Finite-State Machine
- 4.3 The Machine of a Monoid
- Formal Languages**
- 4.4 Phase-Structure Grammars
- 4.5 Chomsky Hierarchy of Languages
- 4.6 Finite Automata and Regular Languages
- 4.7 Derivation Trees for Content-Free Grammars
- 4.8 Normal Forms for Content Free Grammar (concepts only)

Unit 5

Project

- 5.1 Application of Finite Automata and Formal Language
- 5.2 Design of Vending Machine
- 5.3 Document Language Design
- 5.4 Cryptography
- 5.5 DNA Computing

TEXT BOOKS

Arumugam, S. and Ramachandran, S. *Invitation to Graph Theory*, Scitech, Reprint December 2013.

Chapter 2:	2.1 – 2.4, 2.8
Chapter 4	4.1, 4.2, 4.4
Chapter 5	5.1, 5.2
Chapter 6	6.1

Venkataraman, M K. N. Sridharan and N. Chandrasekaran, *Discrete Mathematics*, The National 2000.

Chapter 12 Sections 1 – 11, 13 – 20

BOOKS FOR REFERENCE

Behera, Nayak and Pallnayak, *Formal Languages and Automata Theory*. New Delhi: Vikas, 2014.

Kamala Krithivasan and Rama. R., *Introduction to Formal Languages, Automata Theory and Computation*, Chennai: Pearson, 2009.

JOURNALS

Formal Languages and Automata Theory
Journal of Graph Theory
Discrete Applied Mathematics
Information Processing Letters

WEB RESOURCE

<http://www.iitg.ernet.in/dgoswami/Flat-Notes.pdf>

http://xml.cs.nccu.edu.tw/courses/flan/FL2015/lecture_notes.html

PATTERN OF EVALUATION

End Semester Examination:

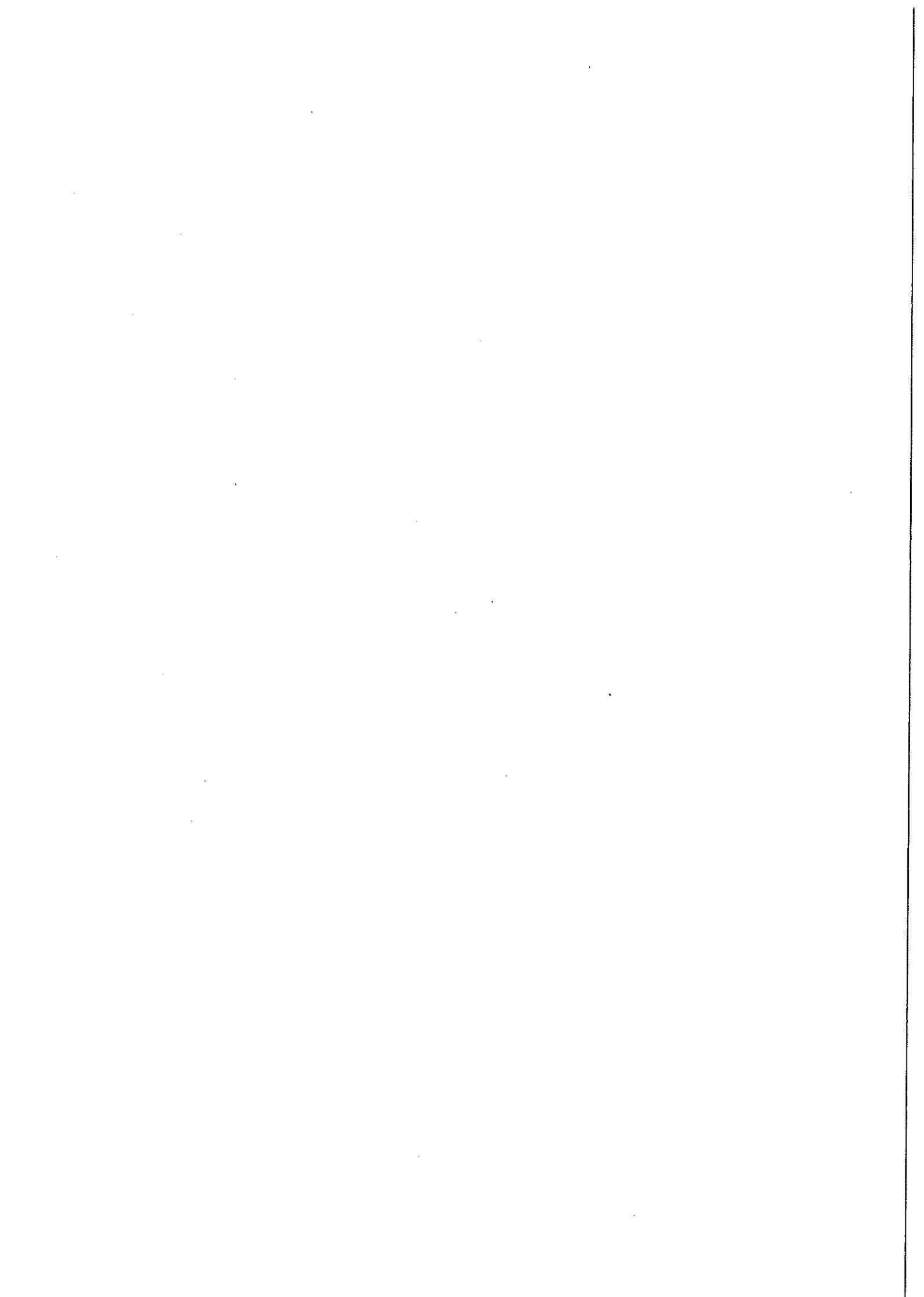
Total Marks: 100

Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)



STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH – I – MATHEMATICS

SYLLABUS
(Effective from the academic year 2015-2016)

DIFFERENTIAL CALCULUS

CODE: 15MT/MC/DC14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVE OF THE COURSE

- To understand the concepts of differential calculus in depth

PRE-REQUISITE

Knowledge of basic concepts on limits, continuity and differentiation of a function of one or more variables

Unit 1 **(13 hrs.)**

Successive Differentiation

- 1.1 The n^{th} Derivative and Standard Results
- 1.2 Differentiation of Fractional Expressions
- 1.3 Trigonometric Transformations
- 1.4 Formation of Equations Involving Derivatives
- 1.5 Leibnitz Theorem

Unit 2 **(9 hrs.)**

Envelopes

- 2.1 Introduction to Envelopes
- 2.2 Method of Finding the Envelope
- 2.3 Definition of Envelope of a Family of Curves
- 2.4 Equation of Envelope where $f(x, y, t) = 0$ is Quadratic in t
- 2.5 Equation of Family of Curves Containing Only One Parameter

Unit 3 **(9 hrs.)**

Curvature of Plane Curves

- 3.1 Introduction to Curvature
- 3.2 Circle, Radius and Centre of Curvature
- 3.3 Cartesian Formula for the Radius of Curvature
- 3.4 Coordinates of the Centre of Curvature

Unit 4 (9 hrs.)

Evolute

- 4.1 Evolute and Involute
- 4.2 Radius of Curvature When the Curve is Given in Polar Coordinates
- 4.3 Pedal Equation of a Curve
- 4.4 Chord of Curvature

Unit 5 (12 hrs.)

Maxima and Minima

- 5.1 Maxima and Minima of Functions of Two Variables
- 5.2 Lagrange's Method of Undetermined Multipliers

Tracing of Curves

- 5.3 Cartesian Coordinates
- 5.4 Polar Equation
- 5.5 Well-known Curves

TEXT BOOK

Narayanan S. and Manicavachagam Pillay T.K. *Calculus - Vol. I*. Madras: S.Viswanathan, Reprint 2012.

Chapter III – Sec 1.1 - 1.6, 2.1 & 2.2

Chapter VIII – Sec 4,5

Chapter X – Sec 1.1 – 1.4, 2.1 - 2.8 & 3.1

Chapter XIII – Sec 1 & 2

BOOKS FOR REFERENCE

James Stewart. *Calculus Concepts and Contexts*. United States of America: Brooks Thomeon Learning, 2001.

Singh U.P. Srivastava R.J. and N.H. Siddiqui, *A Textbook of Differential Calculus*, New Delhi: Wisdom, 2011.

G.C. Chaubey, S.K.D Dubey, M.U Khan, D.S Pandey, *A Textbook of Advanced Calculus*, New Delhi: Wisdom, 2012.

Maity K.C., R.K Ghosh, *Differential Calculus*, Kolkata: New Central Book, 2001.

WEB RESOURCES

http://sydney.edu.au/stuserv/documents/maths_learning_centre/differentialcalculus.pdf

<http://www.mathsisfun.com/calculus/>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of evaluation modes:

Quiz

Open book tests

Group discussion

Assignments

Project

Problem solving

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

B.Sc. DEGREE: BRANCH – I – MATHEMATICS

SYLLABUS

(Effective from the academic year 2015-2016)

ALGEBRA AND TRIGONOMETRY

CODE: 15MT/MC/AT14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVE OF THE COURSE

- To impart knowledge of solving algebraic, transcendental and matrix equations

PRE REQUISITES:

Basic knowledge of polynomial equations, trigonometry, matrices and determinants

Unit 1 (10 hrs.)

Theory of Equations

- 1.1 Polynomial Equations
- 1.2 Symmetric Function of Roots in Terms of Coefficients
- 1.3 Transformation of Equations
- 1.4 Reciprocal Equations

Unit 2 (10 hrs.)

Theory of Equations (contd.)

- 2.1 Increase or Decrease the Roots of a Given Equation
- 2.2 Formation of Equations
- 2.3 Transformations in General
- 2.4 Descarte's Rule of Signs
- 2.5 Horner's Method

Unit 3 (10 hrs.)

Matrices

- 3.1 Types of Matrices- Unitary and Orthogonal Matrices
- 3.2 Eigenvalues and Eigenvectors
- 3.3 Cayley Hamilton Theorem
- 3.4 Similar Matrices
- 3.5 Diagonalization of a Matrix

Unit 4 (12 hrs.)

Trigonometry

- 4.1 Expansions of $\cos n\theta$, $\sin n\theta$ and $\tan n\theta$
- 4.2 Expansion of $\cos^n \theta$ and $\sin^n \theta$ in a Series of sines and cosines of Multiples of θ
- 4.3 Expansion of $\sin \theta$ and $\cos \theta$ in Powers of θ .

- 4.4 Hyperbolic Functions
- 4.5 Euler's Formula for $e^{i\theta}$
- 4.6 Definition of Hyperbolic Functions – Relations Between Circular and Hyperbolic Functions – Formulae Involving Hyperbolic Functions – Expansions of $\sinh x$ and $\cosh x$ in Powers of x
- 4.7 Solution of Trigonometric Equations

Unit 5 **(10 hrs.)**

Trigonometry (contd.)

- 5.1 Inverse Hyperbolic Functions in Terms of Logarithmic Functions
- 5.2 Separation into Real and Imaginary Parts of $\sin(x + iy)$, $\cos(x + iy)$, $\tan(x + iy)$, $\sinh(x + iy)$, $\cosh(x + iy)$, $\tanh(x + iy)$
- 5.3 Logarithm of a Complex Number

TEXT BOOKS

Manicavachagam Pillay T.K., Natarajan T. and K.S. Ganapathy. *Algebra – Vol I*. Madras: S. Viswanathan, 2006.

Chapter 6 Exercise : 43,44, 46, 47, 48, 50, 51, 52, 57

Manicavachagam Pillay T. K., Natarajan T. and K.S. Ganapathy, *Algebra- Vol. II*. Madras: S. Viswanathan, and Vijay Nicole, 2006.

Chapter 2 Exercise : 14 (Unitary and Orthogonal matrices definitions only)

Narayanan. S, *Trigonometry*. Madras: Viswanathan, 2007.

- Chapter 1 Section 1- 4
- Chapter 3 Section 1-5 (excluding formation of equations)
- Chapter 4 Section 1-2.3
- Chapter 5 Section 5

BOOKS FOR REFERENCE

Harikishnan, *Trigonometry*. New Delhi: Atlantic, 2005.

Hazra A. K. *Algebra, Calculus and Generalized Inverse (Part I)*. New Delhi: Viva Books, 2009.

Hazra A.K., *Algebra, Calculus and Generalized Inverse (Part II)*. New Delhi: Viva Books, 2009.

Veerarajan T., *Trigonometry, Algebra and Calculus*. New Delhi: Tata McGraw Hill, 2003.

William L. Hosch (Edt.), *The Britannica Guide to Algebra and Trigonometry*. New York: Britannica, 2011.

Venkataraman M.K., Manorama Sridhar, *Classical Algebra and Trigonometry*. Chennai: Sivasankar, 2001.

WEB RESOURCES

<http://www.edurite.com/kbase/application-of-matrices-in-real-life>

<http://www.decodedscience.com/practical-uses-matrix-mathematics/40494>

<http://malini-math.blogspot.in/2011/08/applications-of-trigonometry-in-real.html>

<http://www.intmath.com/help/useoftrig.php>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 6$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Test

Group Discussion

Assignments

Problem Solving

End Semester Examination:

Total Marks: 100 Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH I - MATHEMATICS

SYLLABUS
(Effective from the academic year 2015-2016)

MULTIPLE INTEGRAL AND LAPLACE TRANSFORMS

CODE: 15MT/MC/ML24

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVE OF THE COURSE

- To understand the concepts of multiple integration and to introduce Laplace transformation as a tool in problem solving

PRE-REQUISITE

Knowledge of basic concepts on integration of one variable, definite integral and applications of definite integrals

Unit 1 (10 hrs.)

Multiple Integrals

- 1.1 Definitions of Double and Triple Integrals
- 1.2 Change of Order of Integration for Two Variables
- 1.3 Double Integrals and Triple Integrals in Cartesian Coordinates

Unit 2 (10 hrs.)

Multiple Integrals (contd.)

- 2.1 Double Integrals and Triple Integrals in Polar Coordinates
- 2.2 Change of Variables and Jacobian

Unit 3 (10 hrs.)

Improper Integrals

- 3.1 Definitions of Beta and Gamma Integrals
- 3.2 Recurrence Formula for Gamma Functions
- 3.3 Properties of Beta Functions
- 3.4 Relation between Beta and Gamma Functions

Unit 4 (10 hrs.)

Laplace Transform

- 4.1 Definition of Laplace Transform
- 4.2 Laplace Transform of e^{-at} , $\cos at$, $\sin at$ and t^n , where a is a Positive Integer
- 4.3 Laplace Transform of Periodic Functions

Unit 5**(12 hrs.)****Laplace Transform (contd.)**

- 5.1 Some General Theorems
- 5.2 Evaluation of Integrals using Laplace Equations
- 5.3 Inverse Laplace Transform
- 5.4 Laplace Transform to Solve Ordinary Differential Equations with Constant Coefficients and Differential Equations Involving Integrals
- 5.5 Laplace Transform to Evaluate Certain Integrals

TEXT BOOKS

Narayanan S. and Manicavachagam Pillay T.K. *Calculus - Vol II*. Chennai: S. Viswanathan, 2012.

Chapter 5	Sec. 2.1, 2.2, 3.1, 3.2 and 4	Exercises: 39, 40, 41
Chapter 6	Sec. 1.1, 1.2, 2.1, 2.3	Exercise: 45
Chapter 7	Sec. 2.1, 2.3, 3 and 4	Exercise: 47

Narayanan, S. and Manicavachagam Pillay T. K., *Calculus - Vol. III*. Chennai: S. Viswanathan, 2012.

Chapter 5 Section 1 – 8, 11 & 12

BOOKS FOR REFERENCE

Singaravelu A, *Differential equations, Fourier series and Laplace transforms*, Chennai: Meenakshi, 2002.

Alan Jeffrey, *Handbook of Mathematical formulas and Integrals*, United States: Academic, 2004.

Vittal, P.R., *Allied Mathematics*, Chennai: Margham, 2007.

Singh U.P, Siddiqui N.H, Srivastava R.J, *Integral Calculus*, New Delhi: Dominant, 2000.

WEB RESOURCES

http://sydney.edu.au/stuserv/documents/maths_learning_centre/differentialcalculus.pdf
<http://www.mathalino.com/reviewer/advance-engineering-mathematics/laplace-transform>
<http://ip.csie.ncu.edu.tw/course/EM/EM806p.pdf>
<http://www.mathstat.concordia.ca/faculty/cdavid/EMAT212/solintegrals.pdf>
<http://tutorial.math.lamar.edu/Classes/CalcIII/MultipleIntegralsIntro.aspx>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH I - MATHEMATICS

SYLLABUS
(Effective from the academic year 2015-2016)

ANALYTICAL GEOMETRY

CODE: 15MT/MC/AG25

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVE OF THE COURSE

- To understand the concepts of two dimensional Coordinate Geometry in depth and to introduce the concept of three dimensional geometry

PRE-REQUISITE

Knowledge of basic concepts on straight lines, circles and conics

Unit 1 (10 hrs.)

General Second Degree Equation

- 1.1 Condition for a General Second Degree Equation to Represent a Conic
- 1.2 Centre of the Conic given by the General Second Degree Equation (concept only)
- 1.3 Lengths and Positions of the Axes of the Central Conic
- $ax^2 + 2hxy + by^2 = 1$ (concept only)

Unit 2 (15 hrs.)

Ellipse

- 2.1 Conjugate Diameters and its Properties
- 2.2 Equi-Conjugate Diameters

Hyperbola

- 2.3 Asymptotes
- 2.4 Conjugate Hyperbola
- 2.5 Relation between the Equation of a Hyperbola, its Asymptotes and Conjugate Hyperbola
- 2.6 Rectangular Hyperbola

Unit 3 (10 hrs.)

Plane

- 3.1 General Equation
- 3.2 Intercept Form
- 3.3 Normal Form
- 3.4 Angle Between Two Planes
- 3.5 Equation of Plane through the Line of Intersection of Two Given Planes
- 3.6 Length of Perpendicular from a given Point to a Plane

Unit 4 (15 hrs.)

Straight Line

- 4.1 Symmetrical Form
- 4.2 Line through Two Points
- 4.3 Reduction of the Unsymmetrical Form to the Symmetrical Form
- 4.4 Condition for a Line to Lie on a Plane
- 4.5 Plane Through a Given Line
- 4.6 Condition for Two Lines to be Coplanar
- 4.7 Equation of the Plane Containing the Two Lines
- 4.8 Shortest Distance between Two Skew Lines and Equation of the Line Containing the Shortest Distance

Unit 5 (15 hrs.)

Sphere and Cone

- 5.1 Equation of a Sphere with given Centre and Radius
- 5.2 General Form of the Equation of a Sphere
- 5.3 Plane Section of a Sphere
- 5.4 Intersection of Two Spheres
- 5.5 Equation of a Circle on a Sphere
- 5.6 Equation of Sphere Passing through given Circle
- 5.7 Tangent Plane to a Sphere
- 5.8 Necessary Condition for a General Equation of Second Degree to Represent a Cone
- 5.9 Equation of a Circular Cone with given Vertex, Axis and Semi-Vertical Angle

TEXT BOOKS

Manicavachagam Pillay T.K, and Natarajan T., *A Text book of Analytical Geometry Part I - Two dimensions*. Madras: S. Viswanathan, 2012.

Chapter 7 Sec. 16.1 - 16.4

Chapter 8 Sec. 4 - 13

Chapter 10 Sec. 3 - 6

Manickavachagam Pillay T.K. and Natarajan T., *A Text Book of Analytical Geometry - Part II (Three Dimensions)* Madras: S. Viswanathan, 2012.

Chapter 2 Sec. 1-10

Chapter 3 Sec. 1-8

Chapter 4 Sec. 1-8

Chapter 5 Sec. 2.1

BOOKS FOR REFERENCE

Singh, Shalini. *Two Dimensional Geometry*. New Delhi: Sarup, 2000.

Hari Krishnan. *Coordinate Geometry of Two Dimensions*. New Delhi: Atlantic, 2006.

Arup Mukherjee. *Analytical Geometry of two and three Dimensions*. Kolkata: Arunabha Sen Books and Allied, 2010.

Narayan, Shanti P.K., *Mittal Analytical Solid Geometry*, New Delhi: S Chand, 2006.

WEB RESOURCE

[http://www.nptel.ac.in/courses/Webcourse-contents/IIT-](http://www.nptel.ac.in/courses/Webcourse-contents/IIT-Delhi/Computer%20Aided%20Design%20&%20Manufacturing/mod2/12.html)

[Delhi/Computer%20Aided%20Design%20&%20Manufacturing/mod2/12.html](http://www.nptel.ac.in/courses/105105041/m1I4.pdf)

[http://nptel.ac.in/courses/105105041/m1I4.pdf](http://www.nptel.ac.in/courses/105105041/m1I4.pdf)

http://www.pps.k12.or.us/schools/benson/files/htrinh/5144_Demana_Ch08pp631-698.pdf

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

End Semester Examination:

Total Marks: 100 Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.Sc. DEGREE: BRANCH I - MATHEMATICS

SYLLABUS

(Effective from the Academic Year 2015 – 2016)

ENVIRONMENTAL STUDIES

CODE: 15MT/GC/ES22

CREDITS : 2

L T P : 2 0 0

TOTAL TEACHING HOURS : 26

OBJECTIVES OF THE COURSE

- To create an awareness about current environmental issues
- To educate students on conservation and management of natural resources
- To encourage students to be ecosensitive and ecofriendly

Unit 1

Introduction

(6 hrs.)

- 1.1 Components of the Environment – Classification and Characteristics of Resources – Renewable and Non – Renewable Resources
- 1.2 Need for Public Awareness in Conservation of Natural Resources
- 1.3 Energy Flow in Ecosystems – Aquatic and Terrestrial – Food Chain and Food Web

Unit 2

Pollution and Socio Economic Aspects of the Environment

(10 hrs.)

- 2.1 Types of Pollution – Air, Water, Solid Waste, Noise
- 2.2 Problems - Green House Effect – Depletion of the Ozone Layer – Climate Change
- 2.3 Bio Diversity - Definition - Loss of Bio Diversity – Threats to Biodiversity and Conservation of Biodiversity
- 2.4 Human Behaviour: - Population – Urbanization – Poverty (As Cause and Result of Pollution and Degradation)
- 2.5 Technology: Agriculture and Industry – Deforestation. Misuse and Abuse of the Resources
- 2.6 Effects and Consequences of Environmental Problems

Unit 3

Sustainable Development, Remedies and Policy Implications

(10 hrs.)

- 3.1 Environmental Disasters Natural and Human Made – Bhopal Gas Tragedy – Chernobyl Accident – Fukushima Nuclear Crisis - Gulf War – Love Canal Episode – Tsunami – Volcanic Eruptions
- 3.2 Methods Evolved to Measure and Check Environmental Degradation and Pollution – Carbon Footprint, Carbon Credit, Ecological Footprint, and Ecological Shadow
- 3.3 Environmental Movements in India – Chipko Movement, Narmada Bachao Andolan, Sethu Samudram Project
- 3.4 Environmental Acts – Policy Measures with respect to India
- 3.5 International Environmental Agreement – Stockholm Conference – Montreal Protocol – Rio Meet – Kyoto Conference – UN Conference on Climate Change (Copenhagen)

Field visit

Eco initiatives at the campus: Garbage Segregation and Vermicomposting – Greywater Recycling – Rainwater Harvesting – Solar Powered Lights – Biodiversity

TEXT BOOK

Bharucha, E. *Textbook of Environmental Studies*. Hyderabad: Universities Press, 2005.

REFERENCE BOOKS

Ignacimuthu, S. *Environmental Awareness and Protection*. New Delhi: Phoenic House, 1997.

Jadhav, H and V. M. Bhosale. *Environmental Protection and Law*. New Delhi: Himalaya, 1995.

Odum, E.P. *Fundamentals of Ecology*. U.S.A: W.B. Saunders, 1971.

Mies, M and V. Shiva. *Ecofeminism*, London: Zed Books, 1989.

Singh, H.R. *Environmental Biology*. New Delhi: S.Chand, 2005.

PATTERN OF EVALUATION (Internal assessment)

Continuous Assessment:

One Hour Test – 25 Marks

One Component – 25 Marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH I – MATHEMATICS

SYLLABUS

(Effective from the academic year 2015-2016)

VECTOR ANALYSIS AND APPLICATIONS

CODE: 15MT/MC/VA34

CREDITS : 4

L T P: 4 0 0

TOTAL TEACHING HOURS : 52

OBJECTIVE OF THE COURSE

- To familiarize the concept of magnitude and direction also to introduce the concepts and applications of line, surface and volume integral

PRE-REQUISITE

Knowledge of vector algebra

Unit 1 (10 hrs.)

Vector Differentiation

- 1.1 Scalar Point Function and Vector Point Function
- 1.2 Derivative of Vector Valued Functions
- 1.3 Gradient of a Scalar Point Function
- 1.4 Continuity and Differentiability
- 1.5 Partial Derivative of Vectors
- 1.6 Directional Derivatives

Unit 2 (10 hrs.)

Vector Differentiation (contd.)

- 2.1 Divergence of a Vector Point Function
- 2.2 Curl of a Vector Point Function
- 2.3 Vector Identities Involving Differential Operators
- 2.4 Solenoidal and Irrotational Vectors
- 2.5 Laplacian Operator

Unit 3 (12 hrs.)

Vector Integration

- 3.1 Integration of Vector Functions
- 3.2 Displacement, Velocity, Acceleration
- 3.3 Definite Integrals
- 3.4 Line Integral, Surface Integral, Volume Integral

Unit 4 (10hrs.)

Application of Vector Differentiation and Vector Integration to Differential Geometry and Mechanics

- 4.1 Unit Tangent Vector
- 4.2 Unit Normal Vector to Given Surfaces - Principal Normal
- 4.3 Equation to Tangent Plane and Normal
- 4.4 Rectifying Plane and Osculating Plane to a Curve
- 4.5 Frenet-Serret Formulae
- 4.6 Physical Significance of Gradient, Divergence and Curl of a Vector Point Function
- 4.7 Velocity and Acceleration Vectors Relative to Fixed and Moving System
- 4.8 Angular Momentum, Continuity Equation for an Incompressible Fluid
- 4.9 Curvilinear Coordinates: Transformation, Orthogonal Curvilinear Coordinates
- 4.10 Unit Vectors in Curvilinear Systems
- 4.11 Arc Length and Volume Elements, Gradient, Divergence and Curl
- 4.12 Special Orthogonal Coordinate Systems (Cylindrical and Spherical Coordinates and Related Problems only)

Unit 5 (10hrs.)

Vector Integration (contd.)

- 5.1 Relation between the Line Integral and Surface Integral: Stokes' Theorem (statement only)
- 5.2 Relation between the Surface Integral and Volume Integral: Gauss Divergence Theorem (statement only)
- 5.3 A Special Case of Stokes' Theorem: Green's Theorem in Two Dimensions (statement only)
- 5.4 Verification of the Theorems

TEXT BOOKS

Raisinghania M.D., *Vector Calculus*, New Delhi: S Chand, 1997.

Chapter 3: Pages: 123 – 125

Seymour Lipschutz, Dennis Spellman, Murray R. Spiegel, *Vector Analysis and an Introduction to Tensor Analysis* (Second Edition), Schaum's Outline Series, New Delhi: TataMcGraw Hill, 2009.

Chapter 3: Pages: 44 – 61 (excluding Differential Geometry)

Chapter 4: Pages: 69 – 94 (excluding 4.6)

Chapter 5: Pages: 97 – 121

Chapter 6: Pages: 126 – 153

Chapter 7: Pages: 157 – 179 (Cylindrical and Spherical Coordinates and Related Problems only)

BOOKS FOR REFERENCE

Absos Ali Shaikh and Sanjib Kumar Jana, *Vector Analysis with Applications*, New Delhi: Narosa, 2009.

Duraipandian P. and LaxmiDuraipandian, *Vector Analysis*, Madras: Emerald, 1987.

Iyengar N. CH. S. N., *Vector Analysis*, New Delhi: Anmol, 1997.

Narayanan S. and Manicavachagam Pillay T. K., *Vector Algebra and Analysis*, Madras: S. Viswanathan, 1980.

Raisinghania M. D., *Vector Analysis*, New Delhi: S Chand, 1985.

Shanti Narayan and Mittal P. K., *A textbook of Vector Analysis with Applications*, New Delhi: S Chand, 1955.

Viswanathan K. and Selvaraj S., *Vector Analysis*, Madras: Emerald, 1993.

WEB RESOURCES

<http://web.mit.edu/8.02t/www/materials/modules/ReviewA.pdf>

<https://archive.org/details/117714283>

<http://www.geophysics.ut.ac.ir/Fa/teach/ashtari/Data/em-2-tahlil-bordari.pdf>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

End Semester Examination:

Total Marks: 100 Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

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STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

B.Sc.DEGREE : BRANCH I - MATHEMATICS

SYLLABUS

(Effective from the academic year 2015-2016)

INTRODUCTION TO GRAPH THEORY

CODE : 15MT/MC/GT34

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS : 52

OBJECTIVES OF THE COURSE

- To introduce some basic concepts of graph theory
- To develop theoretical aspects of graph theory

Unit 1 (12 hrs.)

Basic Concepts of Graph theory

- 1.1 Definition and Examples
- 1.2 Degrees
- 1.3 Subgraphs
- 1.4 Isomorphism
- 1.5 Ramsey Numbers
- 1.6 Intersection Graphs and Line Graphs
- 1.7 Matrices
- 1.8 Operations on Graphs

Unit 2 (10 hrs.)

Degree Sequences

- 2.1 Degree Sequences
 - 2.2 Graphic Sequences
- Connectedness**
- 2.3 Walks, Trails and Paths
 - 2.4 Connectedness and Components
 - 2.5 Blocks

Unit 3 (8 hrs.)

Eulerian and Hamiltonian Graphs

- 3.1 Eulerian Graphs
- 3.2 Hamiltonian Graphs

Unit 4 (10 hrs.)

Planarity

- 4.1 Definition and Properties
- 4.2 Characterization of Planar Graphs
- 4.3 Thickness, Crossing and Outer Planarity

Unit 5

(12 hrs.)

Trees

5.1 Characterisation of Trees

5.2 Centre of a Tree

Directed Graphs

5.3 Definitions and Basic Properties

5.4 Paths and Connections

5.5 Digraphs and Matrices

TEXT BOOK

Arumugam S. & Ramachandran S., Invitation to Graph Theory, Chennai: Scitech, 2013.

Chapter 2 Sections 2.1 - 2.5, 2.7- 2.9

Chapter 3 Sections 3.1, 3.2.

Chapter 4 Sections 4.1 - 4.3

Chapter 5 Sections 5.1, 5.2

Chapter 6 Sections 6.1, 6.2.

Chapter 8 Sections 8.1 - 8.3

Chapter 10 Sections 10.1 - 10.3.

BOOKS FOR REFERENCE

Balakrishnan V. K., *Schaum's Outline of Graph Theory*, Chennai: Mcgraw, 1997.

Bondy J.A & U.S.R. Murty, *Graph Theory with Applications*. London: The Macmillan, 1982.

Choudum S.A., *A First Course in Graph Theory* Madras: Macmillan, 1987.

Harary F., *Graph Theory*, U.S.A.: Addison - Wesley, 1969.

John Clark G.T. & Derek Allan Holton, *A First Look at Graph Theory*, World Scientific 1995.

NarsinghDeo. *Graph Theory with Applications to Engineering and Computer Science*. New Delhi: Prentice - Hall, 1994.

JOURNALS

Journal of Graph Theory
Arcs Combinatorial
Journal of Combinatorics
SIAM Journal on Discrete Mathematics
Information Processing Letters
Discrete Mathematics
Journal of Discrete Algorithms
Graphs and Combinatorics
Advances in computational mathematics

WEB RESOURCES

<http://world.mathigon.org/GraphTheory>
<http://press.princeton.edu/titles/10314.html>
<http://www.open-graphtheory.org/>
<http://www.math.nsysu.edu.tw/~zhu/papers.html>
http://mathforum.org/library/topics/graph_theory/

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

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Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

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Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving.

End Semester Examination:

Total Marks: 100 Duration: 3 Hours

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Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

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STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH I - MATHEMATICS

SYLLABUS

(Effective from the academic year 2015-2016)

MATHEMATICAL STATISTICS – I

CODE: 15MT/AC/ST35

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVE OF THE COURSE

- To develop the statistical concepts and introduce the tools required for making Statistical Inferences

Unit 1 (14 hrs.)

Probability

- 1.1 Random Experiments - Sample Spaces – Events
- 1.2 The Concept of Probability – The Axioms of Probability
- 1.3 Some Important Theorems on Probability
- 1.4 Assignment of Probabilities
- 1.5 Conditional Probability – Theorems of Conditional Probability
- 1.6 Independent Events
- 1.7 Baye’s Theorem or Rule

Unit 2 (18 hrs.)

Random Variables and Distribution Functions

- 2.1 Random Variables – Discrete Probability Distributions
- 2.2 Distribution Functions for Random Variables - Distribution Functions for Discrete Random Variables – Continuous Random Variables
- 2.3 Graphical Interpretations – Joint Distributions – Independent Random Variables

Unit 3 (13 hrs.)

Mathematical Expectation

- 3.1 Definition of Mathematical Expectation
- 3.2 Functions of Random Variables – Some Theorems on Expectation
- 3.3 The Variance and Standard Deviation – Some Theorems on Variance
- 3.4 Standardized Random Variables
- 3.5 Moments – Moment Generating Functions -Some Theorems on Moment Generating Functions
- 3.6 Characteristic Functions
- 3.7 Variance for Joint Distributions-Covariance – Correlating Coefficient
- 3.8 Conditional Expectation, Variance and Moments
- 3.9 Chebyshev’s Inequality

Unit 4 (10 hrs.)

Special Discrete Distributions

- 4.1 Binomial Distribution – Definition – Mean and Variance
- 4.2 Conditions for Application Binomial Distribution – Expected or Theoretical Frequencies of Binomial Distribution
- 4.3 Mode – Characteristics of Binomial Distribution
- 4.4 Recursion Formula for Probability Function
- 4.5 Fitting of a Binomial Distribution
- 4.6 Poisson Distribution – Definition – Some Examples – Conditions under which Poisson Distribution is Used
- 4.7 Characteristics of Poisson Distribution – Binomial Approximation
- 4.8 Mean and Variance – Recurrence Relation for Probability Function
- 4.9 Fitting of a Poisson Distribution – Mode

Unit 5 (10 hrs.)

Continuous Distributions

- 5.1 Normal Distribution – Standard Normal Distribution – Definition
- 5.2 Properties of a Normal Curve
- 5.3 Uses of Normal Distribution
- 5.4 Fitting a Normal Distribution

TEXT BOOKS

Murray R Spiegel, John J Schiller, R Alu Srinivasan, *Schaum's outlines Probability And Statistics*, Third edition, New Delhi: McGraw, 2014.

Chapter 1: Sections 1.1 – 1.11

Chapter 2: Sections 2.1 – 2.8

Chapter 3: Sections 3.1 – 3.14

Arora, P N., S. Arora. *Statistics for Management*, New Delhi: S Chand, 2003.

Chapter 1: Sections 1.3 – 1.20

REFERENCE BOOKS

Arumugam, S. and Issac. *Statistics*, Palayamkottai: New Gamma, 1999.

David Freedman, Robert Pisani, Roger Purves, *Statistics 4th Edition* New Delhi: Vinod Vaishya for Viva Books, 2009.

Gupta S C and V. Kapoor, *Fundamentals of Mathematical Statistics*. New Delhi: Sultan Chand, 2002.

Pillai, R.S.N. and V. Bagavathi. *Statistics*. New Delhi: S Chand, 2000.

Vital P.R. *Mathematical Statistics*. Chennai: Margam, 2002.

JOURNALS

The Annals of Statistics
Journal of Computational and Graphical Statistics

WEB RESOURCES

<http://projecteuclid.org/euclid.aos>
<http://www.tandfonline.com/toc/ucgs20/current#.VO6PrCcas6Yk>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 06$ (Three questions to be set)

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Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

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Problem Solving

End Semester Examination:-

Total Marks: 100

Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**Allied Core Course Offered by the Department of Mathematics for
B.C.A Degree Programme**

SYLLABUS

(Effective from the academic year 2015-2016)

MATHEMATICS FOR COMPUTER SCIENCE - I

CODE : 15MT/AC/MS35

CREDITS : 5

L T P : 5 0 0

TOTAL TEACHING HOURS : 65

OBJECTIVE OF THE COURSE

- To provide the essential mathematics required for various computer applications

PRE-REQUISITE

Knowledge of Logic and Tautology

Unit 1 (12 hrs.)

Mathematical Logic

- 1.1 Introduction to Logic
- 1.2 Replacement Process
- 1.3 Functionally Complete Sets of Connectives and Duality Law
- 1.4 Normal Forms
- 1.5 Principal Normal Forms

Unit 2 (13 hrs.)

Lattices

- 2.1 Lattices
- 2.2 Hasse Diagrams
- 2.3 Some Properties of Lattices
- 2.4 Duality Principle
- 2.5 Lattice through Algebraic Operations
- 2.6 New Lattices
- 2.7 Lattice Homomorphisms
- 2.8 Product Lattice of Two Lattices

Unit 3 (12 hrs.)

The Fundamental Theorem of Arithmetic

- 3.1 Divisibility
- 3.2 Greatest Common Divisor
- 3.3 Prime Numbers
- 3.4 The Fundamental Theorem of Arithmetic

- 3.5 The Euclidean Algorithm
- 3.6 The Möbius Function $\mu(n)$
- 3.7 The Euler Totient Function $\varphi(n)$

Unit 4 **(14 hrs.)**

Cryptography

- 4.1 Some Simple Cryptosystems
- 4.2 Enciphering Matrices
- Public Key**
- 4.3 The Idea of Public Key Cryptography, RSA

Unit 5 **(14 hrs.)**

Combinatorics

- 5.1 The Rules of Sum and Product
- 5.2 Permutations
- 5.3 Combinations
- 5.4 Binomial Theorems
- 5.5 Ramsey Numbers
- 5.6 The Pigeonhole Principle

TEXT BOOKS

Apostol, Tom M. *Introduction to Analytic Number Theory*, New Delhi: Narosa, 1998.

- Chapter 1 Sections 1.1 – 1.5, 1.7.
- Chapter 2 Sections 2.1 – 2.3.

Chandrasekharaiah.D.S. *Graph Theory and Combinatorics*, Prism books, 2005.

- Chapter 5 Sections 5.1, 5.2, 5.3, 5.3.1(Only Binomial theorem),5.5
- Chapter 6 Sections 6.1

Koblitz, Neal. *A Course in Number Theory and Cryptography* 2nded. New York: Springer-Verlag, 2002.

- Chapter 3 Sections 1, 2
- Chapter 4 Sections 1, 2

Venkataraman.M.K, Sridharan. N & Chandrasekaran.N, *Discrete Mathematics*, Chennai: The National, 2003(Reprint 2007).

- Chapter 9 Sections 9 – 12.
- Chapter 10 Sections 1 (Omit Example 15, pp No. 10.6), 2, 3 (Omit Remark, pp. 10.14).

BOOKS FOR REFERENCE

Balakrishnan V.K. *Combinatorics, Schaum's Outline Series*, New York: McGraw Hill, 1995.

Hardy, G.H & Wright.E.M. *An Introduction to the theory of Numbers*. Great Britain: Oxford University, 1979.

Hua Loo Keng. *Introduction to Number Theory*. Germany: Springer – Verlag, 1982.

Krishnamurthy. V. *Combinatorics – Theory and Applications*, New Delhi: Affiliated East West, 1989.

Sharma. *Discrete Mathematics*. Chennai: Macmillan, 2003.

SolaiRaju, Chandrasekar, Krishnamoorthy & Ganesh. *Discrete Mathematical Structures*, Kumbakonam: Anuradha, 2003.

WEB RESOURCES

<http://libgen.org/>

<http://ebooks.cambridge.org/ebook.jsf?bid=CBO9780511809088>

<http://www.math.ucsd.edu/~ebender/DiscreteText1/Lo.pdf>

<http://www.cse.iitd.ernet.in/~bagchi/courses/discrete-book/fullbook.pdf>

<http://www.maths.tcd.ie/pub/coursework/374/Primality.pdf>

<http://www.crypto-textbook.com/>

http://www.whitman.edu/mathematics/cgt_online/cgt.pdf

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

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Section C: $1 \times 20 = 20$ (Two questions to be set)

III Component Tests:

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End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

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STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
Allied Core Course Offered by the Department of Mathematics for
B.Com. (General) and (Accounting and Finance) Degree Programme

SYLLABUS

(Effective from the academic year 2015-2016)

MATHEMATICS FOR COMMERCE

CODE: 15MT/AC/MT35

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To inculcate problem solving skills
- To introduce quantitative analysis
- To enhance concentration in mathematics as it provides a valuable background for many different careers

PRE REQUISITES

Basic Knowledge of operations on matrices

Unit 1 (13 hrs.)

Matrices

- 1.1 Matrices
- 1.2 Types of Matrices
- 1.3 Eigen Values and Eigen Vectors
- 1.4 Cayley-Hamilton Theorem (without proof)
- 1.5 Similar Matrices

Unit 2 (15 hrs.)

Theory of Equations

- 2.1 Formation and Solution of Equation with Imaginary and Irrational Roots
- 2.2 Relation between Roots and Coefficients
- 2.3 Solution of Equations under given Conditions
- 2.4 Symmetric Functions of the Roots of an Equation in terms of its Coefficients
Reciprocal equations

Unit 3 (12 hrs.)

Numerical Analysis

- 3.1 The Bisection Method
- 3.2 Newton Raphson Method
- 3.3 Gaussian Jordan Elimination
- 3.4 Gaussian Elimination
- 3.5 Iterative Methods
- 3.6 Jacobi Method
- 3.7 Gauss Seidal Method

Unit 4**(11 hrs.)****Graph Theory**

- 4.1 Definition of a Graph, Examples
- 4.2 Degrees
- 4.3 Subgraphs
- 4.4 Isomorphism
- 4.5 Matrices
- 4.6 Walks, Trails and Paths
- 4.7 Connectedness and Components
- 4.8 Eulerian Graphs
- 4.9 Konigsberg Bridge Problem
- 4.10 Hamiltonian Graphs
- 4.11 Trees
- 4.12 Related Problems

Unit 5**(14 hrs.)****Combinatorics**

- 5.1 The Rules of Sum and Product
- 5.2 Permutations
- 5.3 Combinations
- 5.4 Binomial Theorems
- 5.5 Ramsey Numbers
- 5.6 The Pigeonhole Principle

TEXT BOOKS

Arumugam S., A. Thangapandi Isaac and A. Somasundaram. *Numerical Methods*, Chennai: Scitech, 2002.

Chapter 3: Section 3.3, 3.5

Chapter 4: Section 4.3, 4.4, 4.7, 4.8

Arumugam S. and Ramachandran S. *Invitation to Graph Theory*. Chennai: Scitech, 2001.

Chapter 2: Sections 2.1, 2.2, 2.3 (exclude Theorem 2.3), 2.4 (exclude Ulam's conjecture), 2.8

Chapter 4: Sections 4.1 and 4.2 (concepts only)

Chapter 5: Sections 5.1 and 5.2 (concepts only)

Chapter 6: Sections 6.1 (concepts only)

Chandrasekharaiah D.S. *Graph Theory and Combinatorics*, Chennai: Prism, 2005.

Chapter 5: Sections 5.1, 5.2, 5.3, 5.3.1 (Only Binomial theorem), 5.5

Chapter 6: Sections 6.1

Manicavachagam Pillay T.K., Natarajan T. and GanapathyK.S., *Algebra –Vol I*. Madras: S. Viswanathan, 2006.

Chapter 6 Sections 1, 9, 10, 11, 12, 16, 16.1, 16.2

Narayanan.S., Hanumantha Rao.R & Manicavachagam Pillay T.K., *Ancillary Mathematics*. S. Viswanathan, 2012.

Chapter 3 Pages 155 – 160

Singaravelu A., *Allied Mathematics*. Chennai: Meenakshi, 2010.

Chapter 2 Pages 2.1 – 2.24, 2.61 – 2.76, 2.83 – 2.89

BOOKS FOR REFERENCE

Kandasamy and Thilagavathy. *Mathematics*. New Delhi: S Chand, 2004.

Lipson, Marc. and Lipschutz Seymour. *Discrete Mathematics*. New Delhi: Schaum's Tata McGraw, 2010.

WEB RESOURCES

<http://www.mathsisfun.com/calculus/>

<http://nptel.ac.in/courses/Webcourse-contents/IIT-KANOUR/mathematics-2/index.html>

<http://nptel.ac.in/courses/111106050/1>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 6$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

End Semester Examination:

Total Marks: 100 Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

B.Sc. DEGREE: BRANCH I – MATHEMATICS

SYLLABUS

(Effective from the academic year 2015-2016)

SEQUENCE, SERIES AND FOURIER SERIES

CODE: 15MT/MC/SF45

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To understand the concept of convergence of a real sequence
- To discuss the techniques of testing the behavior of infinite series of real Numbers
- To express periodic functions as infinite series

Unit 1 (12 hrs.)

Sets and Functions

- 1.1 Functions – Real Valued Functions
- 1.2 Equivalence, Countability
- 1.3 Real Numbers
- 1.4 Least Upper Bounds

Unit 2 (13 hrs.)

Sequences of Real Numbers

- 2.1 Definition of Sequence and Subsequence
- 2.2 Limit of a Sequence
- 2.3 Convergent and Divergent Sequences
- 2.4 Bounded Sequences
- 2.5 Monotone Sequences
- 2.6 Operations on Convergent and Divergent Sequences

Unit 3 (14 hrs.)

Sequences of Real Numbers

- 3.1 Limit Superior and Limit Inferior
- 3.2 Cauchy Sequences

Series of Real Numbers

- 3.3 Convergence and Divergence
- 3.4 Series with Non-negative Terms
- 3.5 Alternating Series
- 3.6 Conditional Convergence and Absolute Convergence

Unit 4 (14 hrs.)
Tests for Convergence of a Series of Real Numbers
4.1 Tests for Absolute Convergence
4.2 Series whose Terms form a Non-increasing Sequence
4.3 Summation by Parts

Unit 5 (12 hrs.)
Fourier Series
5.1 Definition of Fourier Series
5.2 Expansions of Periodic Functions with Period 2π
5.3 Odd and Even Functions
5.4 Half-range Fourier Series
5.5 Development in cosine and sine Series

TEXT BOOKS

Goldberg Richard.R. *Real Analysis*, New Delhi: Indian Edition. Oxford, 1970.

Chapter 1 : Section 1.3 – 1.7
Chapter 2 : Sections 2.1 – 2.10
Chapter 3 : Sections 3.1 – 3.4, 3.6 – 3.8
Chapter 12 : Section 12.1

Narayanan S. and T.K. Manicavachagam Pillay T. K., *Calculus -Volume III*. Madras: S. Viswanathan, 2006.

Chapter 6 : Sections 1 – 5

BOOKS FOR REFERENCE

Bhat V. K , Jarol Scott, *Introduction to Real Analysis*, New Delhi: Narosa, 2012.

Karunakaran V. *Real Analysis*, Chennai: Pearson, 2012.

Terrance J Quinn, *Pathways to Real analysis*, New Delhi: Narosa, 2009.

WEB RESOURCES

<http://www.flashandmath.com/mathlets/calc/sequences/sequences.html>

<http://www.personal.psu.edu/dpl14/java/calculus/sequences.html>

http://www.maa.org/sites/default/files/images/upload_library/47/StemkoskiStorm/SequenceConv.html

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH I – MATHEMATICS

SYLLABUS

(Effective from the academic year 2015-2016)

MATHEMATICAL STATISTICS – II

CODE: 15MT/AC/ST45

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVE OF THE COURSE

- To understand the applicability and use of statistical methods in various fields

Unit 1 (13 hrs.)

Sampling Theory

- 1.1 Introduction: Parameter and Statistic
- 1.2 Sampling Distribution, Standard Error
- 1.3 Types of Sampling.
- 1.4 Sampling Distribution of Sample Mean

Unit 2 (13 Hrs.)

Exact Sampling of χ^2 , t, F Distributions

- 2.1 The χ^2 distribution – Moment Generating Function of χ^2 Distribution
- 2.2 Cumulant Generating Function of χ^2 Distribution
- 2.3 Sampling Distribution of Mean and Variance
- 2.4 Distribution of Sum and Ratio of Two Independent χ^2 Variates
- 2.5 Student's t -Distribution – Properties of t -Distribution
- 2.6 Snedecor's F Distribution – Properties of F -Distribution
- 2.7 Fisher's z -Distribution
- 2.8 Relation between t , χ^2 and F Distributions

Unit 3 (16 hrs.)

Point Estimation

- 3.1 Introduction – Point Estimation
- 3.2 Unbiasedness
- 3.3 Consistency - Efficiency - Sufficiency
- 3.6 Methods of Point Estimation– Method of Maximum Likelihood
- 3.7 Method of Moments

Unit 4 (8 hrs.)

Interval Estimation

- 4.1 Interval Estimation: Concept of Setting Confidence Intervals to Population Parameters
- 4.2 Confidence Interval for Mean, Difference in Means,
- 4.3 Confidence Interval for Variance, Ratio of Variances - Based on Normal, T, χ^2 and F Distributions - Simple Problems

Unit 5

(15 hrs.)

Tests of Significance for Large Samples

5.1 Test for the Significant Difference between Sample Mean and Population Mean

5.2 Test for the Significant Difference between Two Sample Means

Tests of Significance Based on Normal, t and F Distributions

5.3 Student's t Distribution – Assumptions for Student's t Test – Properties of t Distribution – Application of t Distribution

5.4 Difference between Sample Mean and Population Mean, t -Test for Difference of Means

5.5 Paired t -Test for Difference of Means

5.6 t -Test for Significance of an Observed Correlation Coefficient

5.7 F- distribution – Application of F-Distribution

5.8 F-test for Significance of the Ratio of Two Independent Estimates of the Population Variance

Tests of Significance Based on Chi-Square Distribution

5.9 Introduction – Application of χ^2 Distribution

5.10 Test for Goodness of Fit

5.11 Test for Independence of Attributes

5.12 Test for Population Variance

TEXT BOOKS

Gupta, K R. *Mathematical Statistics*, Volume-2, New Delhi, Atlantic, 2015.

Chapter 14: Section 1.1 – 1.3, 3.1 – 3.8

Chapter 15: Section 2.1, 2.2, 2.3, 3.1, 4, 4.1, 5, 5.1, 6, 7

Chapter 16: Section 2, 2.1, 2.2, 3, 3.1, 3.3, 3.4, 4, 5, 5.1

Chapter 17: Section 1, 2, 2.1, 2.2, 2.4

Chapter 18: Section 1, 2, 2.1 - 2.4, 3, 3.1, 3.2

Purna Chandra Biswal, *Probability and Statistics*, New Delhi: Printice Hall, 2007.

Chapter 6: Sections 6.1, 6.2, 6.5, 6.6

Siva Ramakrishna Das P, C. Vijayakumari, *Statistics Part II*, Chennai: Viji's Academy, 2007.

Chapter 5: Sections 5.3, 5.4

BOOKS FOR REFERENCE

Gupta, S C. and V. Kapoor, *Fundamentals of Mathematical Statistics*, New Delhi Sultan Chand, 2002.

Arumugam, S., and Issac. *Statistics*, Palayamkottai: New Gamma, 1999.

Pillai R.S.N., and V. Bagavathi. *Statistics*. New Delhi : S Chand, 2000.

Subramaniam N. *Probability and Statistics*. Erode : SCM, 2005.

Richard I. Levin and David S. Rubin. *Statistics For Management*. New Delhi : Prentice Hall, 2000.

JOURNALS

The Annals of Statistics
Journal of Computational and Graphical Statistics

WEB RESOURCES

<http://projecteuclid.org/euclid.aos>
<http://www.tandfonline.com/toc/ucgs20/current#.VO6PrCcas6Yk>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

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Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
(Allied Core Course Offered by the Department of Mathematics for
B.C.A Degree Programme)

SYLLABUS
(Effective from the academic year 2015-2016)

MATHEMATICS FOR COMPUTER SCIENCE - II

CODE : 15MT/AC/MS45

CREDITS : 5

L T P : 5 0 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To introduce statistical and numerical techniques to enhance problem solving skill
- To introduce the concept of graph theory for better understanding of networks

PRE-REQUISITE

Knowledge of Differentiation and Integration

Unit 1 **(14 hrs.)**

Graph Theory

- 1.1 Graphs and Multigraphs
- 1.2 Subgraphs, Isomorphic and Homeomorphic Graphs
- 1.3 Paths, Connectivity
- 1.4 Traversable Multi Graphs
- 1.5 Labeled and Weighted Graphs
- 1.6 Complete, Regular and Bipartite Graphs
- 1.7 Tree Graphs
- 1.8 Planar Graphs
- 1.9 Graph Colorings
- 1.10 Interconnection Networks

Unit 2 **(12 hrs.)**

Algebraic and Transcendental Equations

- 2.1 Bisection Method
- 2.2 Newton-Raphson Method

Simultaneous Equations

- 2.3 Gauss Elimination Method
- 2.4 Gauss-Jordan Elimination Method
- 2.5 Gauss Jacobi Iteration Method
- 2.6 Gauss Seidel Iteration Method

Unit 3 **(12 hrs.)**

Interpolation

- 3.1 Newton's Interpolation Formulae (statement only)
- 3.2 Central Difference Interpolation Formulae: Gauss forward interpolation formula, Gauss backward interpolation formula, Stirling's formula
- 3.3 Lagrange's Interpolation Formula

Unit 4 (16 hrs.)

Numerical Differentiation

4.1 Derivatives using Newton's Interpolation Formulae

4.2 Maxima and Minima.

Numerical Integration

4.3 Trapezoidal Rule

4.4 Simpson's One Third Rule

4.5 Simpson's Three Eight Rule

Numerical Solutions of Ordinary Differential Equations

4.6 Taylor's Series Method

4.7 Picards's Method

Unit 5 (11 hrs.)

Correlation and Regression

5.1 Definition of Correlation

5.2 Significance of Study of Correlation

5.3 Types of Correlation

5.4 Graphical Method

5.4.1 Scatter Diagram

5.5 Mathematical Method

5.5.1 Karl Pearson's Coefficient of Correlation

5.5.2 Spearman's Rank Coefficient of Correlation

5.6 Properties of Coefficient of Correlation

5.7 Merits and Demerits of Coefficient of Correlation

5.8 Definition of Regression

5.9 Uses of Regression Analysis

5.10 Significance of Regression Study

5.11 Differences between Correlation and Regression

5.12 Algebraic method: Regression Equation of Y on X and X on Y

TEXT BOOKS

Arumugam S., Thangapandi Issac.A and Somasundaram.A *Numerical Methods*. Chennai: Scitech, 2004.

Chapter 3: Sections 3.3 & 3.4

Chapter 4: Sections 4.3, 4.4, 4.7 & 4.8

Chapter 7: Sections 7.0, 7.1, 7.2[omit pages 221 – 223] & 7.3

Chapter 8: Sections 8.0, 8.1, 8.2, 8.4, 8.5[Include only mentioned methods]

Chapter 10: Sections 10.0 – 10.2

Formulae and problems

Lipson, Marc & Lipschutz Seymour. *Discrete Mathematics*. 3rd ed. New Delhi: Schaum's outlines, Tata McGraw-hill, 2010.

Chapter 8 Section 8.2-8.10

Pillai.R.S.N & Bagavathi *Statistics*. New Delhi: S Chand, Reprint, 2009.

Chapter 12 Pages 396 – 414, 417 – 420 [Omit Simple Graph]

Chapter 13 Pages 465 – 472 [Omit Graphic Method]

XuJunming, *Topological Structure and Analysis of Interconnection Networks*. U.S.A.: Kluwer Academic, 2001.

Chapter 1 Section 1.1.2

BOOKS FOR REFERENCE

Arumugam, S & Ramachandran. *Invitation to Graph Theory*. Palayamkottai: New Gamma 1994.

Devi Prasad. *Introduction to Numerical Analysis*. 3rd ed. New Delhi: Narosa, 2006.

Gupta S.P. *Practical Statistics*. 8th ed. New Delhi: SChand, 1998.

Kendall Atkinson & Weimin Han. *Elementary Numerical Analysis*. 2nd ed. India: John Wiley, 2004.

Pillai, R.S.N & Bagavathi. V. *Statistics*. New Delhi: SChand, 2000.

Stummel F & Hainel. K. *Introduction to Numerical Analysis*. Scottish Academic, 1980.

Subramaniam. N. *Numerical Methods*. Erode: SCM, 2005.

WEBSITES

<http://libgen.org/>

<http://www.iro.umontreal.ca/~hahn/IFT3545/GTWA.pdf>

<http://www.techtud.com/sites/default/files/public/share/Numerical%20Methods.pdf>

http://www.iasri.res.in/ebook/EB_SMAR/e-book_pdf%20files/Manual%20II/7-correlation_and_regression.pdf

http://www.iasri.res.in/ebook/fet/Chap%202_Correlation%20and%20Regression.pdf

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Test

Group Discussion

Assignments/Problem Solving

End Semester Examination :Duration – 3 hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.Sc. DEGREE: BRANCH – I – MATHEMATICS

SYLLABUS

(Effective from the academic year 2015-2016)

ALGEBRAIC STRUCTURES

CODE: 15MT/MC/AS55

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce the concept of abstract Algebra
- To develop an understanding of fundamental algebraic structures

PRE-REQUISITE

Knowledge of set theory

Unit 1 (12 hrs.)

Group Theory

- 1.1 Equivalence Relation and Equivalence Classes
- 1.2 Definition of a Group, Examples
- 1.3 Subgroups, Examples of Subgroups
- 1.4 Cyclic Groups
- 1.5 Cosets

Unit 2 (12 hrs.)

Group Theory (contd.)

- 2.1 Lagrange's Theorem and its Corollaries
- 2.2 Counting Principle
- 2.3 Normal Subgroups and Quotient Groups
- 2.4 Homomorphism - Isomorphism of Groups – Theorems on Homomorphism

Unit 3 (12 hrs.)

Group Theory (contd.)

- 3.1 Automorphism of Groups
- 3.2 Cayley's, Theorem
- 3.3 Permutation Groups

Unit 4 (14 hrs.)

Ring Theory

- 4.1 Definition of Rings
- 4.2 Division Rings - Fields and Integral Domains, Examples
- 4.3 Some Special Classes of Rings
- 4.4 Homomorphism of Rings

Unit 5**(15 hrs.)****Ring Theory (contd.)**

5.1 Ideals and Quotient Rings

5.2 Maximal, Principal and Prime Ideals

5.3 Field of Quotients of an Integral Domain

TEXT BOOK

Herstein, I.N. *Topics in Algebra*. Second Edition, New York : John Wiley, 2006(Reprint 2009).

Chapter 1 : Section 1.1

Chapter 2 : Sections 2.1 - 2.10 (exclude applications 1& 2 in 2.7)

Chapter 3 : Sections 3.1 - 3.6

BOOKS FOR REFERENCE

Balakrishnan, R., and N.Ramabhadran. *A Text Book of Modern Algebra*. New Delhi: Vikas, 1979.

Fraleigh, J.B. *A First Course in Abstract Algebra*. New York :Addison Wesley, 1968.

Naik, K.V. *Modern Algebra*. Chennai :Emerald, 1986.

Santiago, M. L. *Modern Algebra*. New Delhi : Tata McGraw-Hill, 2001.

Vasishtha, A.R. *Modern Algebra*. Meerut : Krishna PrakashMandir, 1971.

WEB RESOURCES

http://faculty.salisbury.edu/~despickler/pascgalois/classroom/PascGaloisJELabs_html/Lab09_html/Lab09.html

<http://extras.springer.com/1999/978-3-540-65368-4/ida-win/c6s5ja.html>

PATTERN OF EVALUATION**Continuous Assessment:****Total Marks: 50****Duration: 90 Mins.**Section A: $3 \times 2 = 06$ (Three questions to be set)Section B: $3 \times 8 = 24$ (Four questions to be set)Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

Theorem Writing Technique

End Semester Examination:**Total Marks: 100****Duration: 3 Hours**

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH I - MATHEMATICS

SYLLABUS

(Effective from the academic year 2015-2016)

PRINCIPLES OF REAL ANALYSIS

CODE : 15MT/MC/RA55

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To enhance the knowledge of abstract mathematics on the real line
- To introduce the concepts for understanding and analyzing abstract mathematics on the metric space

Unit 1 (12 hrs.)

Limits and Continuity on \mathbb{R}^1

- 1.1 Limit of a Function on the Real Line
- 1.2 Functions Continuous at a Point on the Real Line - Reformulation

Unit 2 (14 hrs.)

Metric Spaces, Open Sets, Closed Sets

- 2.1 Definition of Metric Space
- 2.2 Limits in Metric Spaces
- 2.3 Functions Continuous on a Metric Space
- 2.4 Open Sets - Closed Sets

Unit 3 (12 hrs.)

Connectedness and Completeness on Metric Spaces

- 3.1 Connected Sets
- 3.2 Bounded Sets and Totally Bounded Sets
- 3.3 Complete Metric Spaces

Unit 4 (12 hrs.)

Compactness on Metric Spaces

- 4.1 Compact Metric Spaces
- 4.2 Continuous Functions on a Compact Metric Space
- 4.3 Uniform Continuity

Unit 5 (15 hrs.)

Riemann Integration

- 5.1 Definition of the Riemann Integral
- 5.2 Properties of the Riemann Integral
- 5.3 Derivatives

- 5.4 Rolles' Theorem
- 5.5 The Law of the Mean
- 5.6 Fundamental Theorem of Calculus
- 5.7 Improper Integral (concept only)

TEXT BOOK

Goldberg Richard R. *Real Analysis*. Indian Edition. New Delhi:Oxford, 1970.

- Chapter 4 – Section: 4.1 – 4.3
- Chapter 5 – Sections: 5.1 – 5.5
- Chapter 6 – Sections: 6.1 – 6.6, 6.8
- Chapter 7 – Sections: 7.2, 7.4 - 7.9

BOOKS FOR REFERENCE

- Arumugam S., and A. Thangapandi Isaac. *Modern Analysis*. Palyamkottai: New Gamma, 2002.
- Mainak Mukherjee, *Course in Real Analysis*, New Delhi: Narosa, 2011.
- Malik S C, *Principles of Real Analysis* Third edition. New Delhi; New Age, 2011.
- Nader Vakil, *Real Analysis Through Modern Infinitesimals*, Cambridge, 2011.

WEB RESOURCES

- <http://faculty.gvsu.edu/schlicks/HausdorffGeometry/H2.htm>
- <http://www.personal.psu.edu/dpl14/java/calculus/limits.html>
- http://www.maa.org/sites/default/files/images/upload_library/47/StemkoskiStorm/Continuity.html

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

- Section A: $3 \times 2 = 06$ (Three questions to be set)
- Section B: $3 \times 8 = 24$ (Four questions to be set)
- Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

- Seminars
- Quiz
- Open Book Tests
- Group Discussion
- Assignments
- Problem Solving
- Theorem Writing Technique

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

- Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)
- Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**B.Sc. DEGREE BRANCH I - MATHEMATICS
SYLLABUS**

(Effective from the academic year 2015 – 2016)

ELEMENTS OF DIFFERENTIAL EQUATIONS

CODE: 15MT/MC/ED55

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To gain logical skills in the formulation of differential equation
- Expose students to use differential equation as a powerful tool in problem solving

Unit 1 (16 hrs.)

Linear Second Order Differential Equations

- 1.1 Method of Undetermined Coefficient
- 1.2 Reduction of Order
- 1.3 Variation of Parameters

Unit 2 (13 hrs.)

Application of Linear Second Order Differential Equation

- 2.1 Spring Problems

Series Solution of Linear Second Order Differential Equation

- 2.2 Series Solution near an Ordinary Point

Unit 3 (13 hrs.)

Series Solution of Linear Second Order Differential Equation (contd.)

- 3.1 Regular Singular Points: Euler Equations
- 3.2 The Method of Frobenius

Linear System of Differential Equations

- 3.3 Solution of Linear System of Differential Equations

Unit 4 (12 hrs.)

Partial Differential Equations of the First Order

- 4.1 Introduction
- 4.2 Formulation of Partial Differential Equation by Eliminating Arbitrary Constants and Arbitrary Functions
- 4.3 Complete Integral, Particular Integral and Singular Integral of Partial Differential Equation
- 4.4 Special Types of Equations – Standards I - IV

Unit 5**(11hrs.)****Partial Differential Equations of the First Order (contd.)**

5.1 Equations Reducible to the Standard Forms

5.2 Lagrange's Equation

Partial Differential Equations of Higher Order with Constant Coefficients

5.3 Homogeneous Linear Equations with Constant Coefficients

5.4 Solutions of Linear Partial Differential Equations

5.5 Complementary Function

5.6 Particular Integral

TEXT BOOKSTrench F William, *Elementary Differential Equations*, USA: Bob Pirtle, 2000.

Chapter 5 Sections 5.4 – 5.7

Chapter 6 Section 6.2

Chapter 7 Sections 7.2, 7.4, 7.5

Chapter 10 Section 10.2

Sharma, J.N. and R.K.Gupta. *Differential Equations*. Meerut: Krishna Prakashan Media, 1996.

Chapter 7 Sections 7.1 – 7.13

Chapter 8 Sections 8.1 – 8.5

BOOKS FOR REFERENCEAmarnath. T. *An Elementary Course in Partial Differential Equation* New Delhi: Narosa, 2004.Narayanan, S. and Manicavachagam Pillay, T.K. *Calculus-Vol. III*. Chennai: S Viswanathan, 2006.Narayan S. and T.K. Manicavachagam Pillay. *Differential Equations and its Applications*. Chennai: S. Viswanathan, 2001.Rai, B., D.P. Choudhury, and H.I. Freedman. *A Course in Ordinary Differential Equations*. New Delhi: Narosa, 2004.Sharma J.N. and Kehar Singh. *Partial Differential Equations for Engineers and Scientists*. New Delhi: Narosa, 2000.Siddiqi, A.H. and P. Manchanda. *A First Course In Differential Equations With Applications*. New Delhi: Macmillan, 2006.**WEB RESOURCES**www.ncl.ac.uk/students/mathsaid/resources/.../ode_homogeneous.htmwww.ugrad.math.ubc.ca/coursedoc/math100/notes/.../intro.html

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

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Group Discussion

Assignments

Problem Solving

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit).

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH I - MATHEMATICS

SYLLABUS

(Effective from the academic year 2015-2016)

VECTOR SPACES AND LINEAR TRANSFORMATIONS

CODE : 15MT/MC/VL65

CREDITS : 5

L T P : 5 0 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- Intended to develop an understanding of linear algebraic structures
- To enable understanding of the concept of linear transformations and their matrix representation

Unit 1 (13 hrs.)

Vector Spaces

- 1.1 Definition – Examples – Subspace
- 1.2 Quotient Space
- 1.3 Internal and External Direct Sums

Unit 2 (13 hrs.)

Vector Spaces (contd.)

- 2.1 Linear Independence - Basis of a Vector Space - Dimension of a Vector Space
- 2.2 $\text{Hom}(V, W)$, $\text{Hom}(V, V)$ and $\text{Hom}(V, F)$

Unit 3 (13 hrs.)

Inner Product Spaces

- 3.1 Definition and Examples
- 3.2 Norm of a Vector
- 3.3 Schwarz Inequality
- 3.4 Orthogonal Complement
- 3.5 Gram Schmidt Orthogonalisation Process

Unit 4 (13 hrs.)

Linear Transformations

- 4.1 Algebra of Linear Transformations
- 4.2 Regular, Singular Linear Transformations - Rank
- 4.4 Characteristic Roots and Characteristic Vectors of a Linear Transformation
- 4.5 Coordinate Vectors – Change of Basis

Unit 5**(13 hrs.)****Matrix Representation of Linear Transformations**

5.1 Matrix Representations of Linear Transformations

5.2 Relations between Matrix Representations

5.3 Diagonalization of Matrices

5.4 Diagonalization of Symmetric Matrices - Orthogonal Diagonalization

5.5 Diagonal Matrix Representation of a Linear Operator

TEXT BOOKSHerstein, I. N. Topics in Algebra. 2nd ed. New Delhi : Wiley, 2007.Chapter 4: Sections 4.1 – 4.3 (till Definition of dual space, $\text{Hom}(V, F)$), 4.4

Chapter 6: Sections 6.1 – 6.2

Williams Gareth. Linear Algebra with Applications. 6th ed. New Delhi: Narosa, 2009.

Chapter 5: Sections 5.1 - 5.3

BOOKS FOR REFERENCELang, Serge. *Modern Algebra*. 7th ed. New York : Addison Wesley, 1977.Naik, K.V. *Modern Algebra*. Chennai : Emerald, 1986.Narayanan, K.S, and T.K. Manicavachagom Pillai. *Modern Algebra Vol. II*. Chennai: Viswanathan, S. 1996.Sahai Vivek, and Vikas Bist. *Linear Algebra*. New Delhi : Narosa, 2002.Santiago M.L., *Modern Algebra*, New Delhi : Tata McGraw-Hill, 2002.Stroud, K.A., and Dexter J. Booth. *Linear Algebra*. New York: Industrial, 2008.**WEB RESOURCES**<http://www.math.ucla.edu/~tao/resource/general/115a.3.02f/GramSchmidt.html><http://www.math.ucla.edu/~tao/resource/general/115a.3.02f/EigenMap.html>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

Theorem Writing Technique

End Semester Examination:

Total Marks: 100 Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH I - MATHEMATICS

SYLLABUS

(Effective from the academic year 2015-2016)

PRINCIPLES OF COMPLEX ANALYSIS

CODE : 15MT/MC/CA65

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce the analysis of complex numbers
- To expose a fertile area of pure mathematics as a source of powerful techniques that are widely applied in sciences and Engineering

Unit 1 (15 hrs.)

Analytic Functions

- 1.1 Functions of a Complex Variable
- 1.2 Continuous Functions
- 1.3 Differentiability
- 1.4 Cauchy Riemann's Equations
- 1.5 Analytic Functions
- 1.6 Harmonic Functions

Unit 2 (9 hrs.)

Mapping

- 2.1 Conformal Mapping - Elementary Transformations
- 2.2 Applications of Conformal Mapping: Steady Temperatures – Steady Temperatures in a Half Plane
- 2.3 Mapping by Elementary Functions: The mapping $w = z^2$, The Mapping $w = e^z$, The Mapping $w = \sin z$, The Mapping $w = \cos z$, The Mapping $w = \cosh z$

Unit 3 (13 hrs.)

Series Expansions

- 3.1 Series Expansion of Elementary Functions: Logarithmic Function
- 3.2 Bilinear Transformations: Bilinear Transformations – Cross Ratio – Fixed Points of Bilinear Transformations
- 3.3 Taylor's Series - Laurent's Series

Unit 4 (14 hrs.)

Complex Integration

- 4.1 Cauchy's Theorem
- 4.2 Cauchy's Integral Formula
- 4.3 Higher Derivatives

Unit 5

(14 hrs.)

Calculus of Residues

- 5.1 Zeros of an Analytic Function
- 5.2 Singularities - Residues
- 5.3 Cauchy's Residue Theorem
- 5.4 Evaluation of Definite Integrals of the Type

(i) $\int_0^{2\pi} f(\cos \eta, \sin \eta) d\eta$ where f is a Rational Function of $\cos \eta$ and $\sin \eta$,

(ii) $\int_{-\infty}^{\infty} f(x) dx$ where $f(x)$ is a Rational Function

TEXT BOOKS

Arumugam S., A.T. Isaac, and A. Somasundaram. *Complex Analysis*. Chennai: Scitech, 2002(Reprint 2004).

Chapter 2	Sections 2.1, 2.4 – 2.9
Chapter 3	Sections 3.1 – 3.4
Chapter 4	Section 4.4.4
Chapter 5	Sections 5.1, 5.3 – 5.6
Chapter 6	Sections 6.2 – 6.4
Chapter 7	Sections 7.1 – 7.3, 7.4(exclude proofs of theorems 7.5 - 7.8)
Chapter 8	Sections 8.1, 8.2 (Theorems 8.2- 8.4 statements only), 8.3 (exclude Type III)

Churchill R.V, and J.W. Brown. *Complex Variables and Applications*. Fifth edition, New York: McGraw, 1990.

Chapter 9 – Sections 78, 79

BOOKS FOR REFERENCE

Dennis G Zill, *First Course in Complex Analysis With Applications*, Ed. 2 Jones and Bartlett, 2010.

John H Mathews, *Complex Analysis for Mathematics and Engineering*, New Delhi : Narosa, 2006.

Karunakaran, V , Desai A.R, *Complex analysis*, New Delhi : Narosa, New Delhi, 2005.

Narasimhan, Raghavan, *Complex Analysis in one Variable*, New Delhi: Springer, 2001.

WEB RESOURCE

http://www.malinc.se/math/geogebra/complex_numbersen.php

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

Theorem Writing Technique

End Semester Examination

Total Marks: 100 Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH I - MATHEMATICS

SYLLABUS
(Effective from the academic year 2015-2016)

PRINCIPLES OF MECHANICS

CODE: 15MT/MC/PM65

CREDITS: 5

L TP: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To widen appreciation of the variety of phenomena covered by mechanics and the techniques available to handle them
- To understand the concept of different forces and moments and their equilibrium with reference to a coordinate system
- To provide an adequate foundation for further self-study

Unit 1 (10 hrs.)

Forces acting on a Particle – Concurrent Forces

- 1.1 Forces
- 1.2 Types of Forces
- 1.3 Parallelogram Law of Forces
- 1.4 Triangle Law of Forces
- 1.5 Polygon Law of Forces
- 1.6 Lami's Theorem
- 1.7 Conditions of Equilibrium of any Number of Forces Acting on a Particle

Unit 2 (18 hrs.)

Non-Concurrent Coplanar Forces

- 2.1 Moment of a Force about a Point and a Line
- 2.2 Parallel Forces
- 2.3 Varignon's Theorem
- 2.4 Couples
- 2.5 Properties of Couples
- 2.6 Coplanar Forces
- 2.7 Reduction of any Coplanar System of Forces
- 2.8 Conditions of Equilibrium
- 2.9 Equilibrium of Three Forces Acting on a Rigid Body

Unit 3 (10 hrs.)

Friction

- 3.1 Laws of Statical Friction
- 3.2 Coefficient of Friction
- 3.3 Angle of Friction
- 3.4 Cone of Friction

- 3.5 Law of Kinetic Friction
- 3.6 Equilibrium of a Particle on an Inclined Plane
- 3.7 Condition for Sliding and Toppling

Unit 4 **(15 hrs.)**

Equilibrium of Strings and Chains

- 4.1 Equilibrium of Strings and Chains
- 4.2 Common Catenary
- 4.3 Suspension Bridge

Linear Motion in a Resisting Medium

- 4.4 Equations of Motion of a Particle Falling under Gravity in a Resisting Medium under Law of Resistance mkv , mkv^2
- 4.5 Limiting Velocity

Unit 5 **(12 hrs.)**

Rigid Body Dynamics

- 5.1 Moment of Inertia
- 5.2 Theorem of Parallel and Perpendicular Axes (statements only)
- 5.3 Moment of Inertia of Simple Standard Bodies
- 5.4 Motion of a Rigid Body
- 5.5 Rotation about a Fixed Axis
- 5.6 Expressions for Kinetic Energy
- 5.7 Angular Momentum
- 5.8 Equation of Motion

TEXT BOOKS

Dharmapadam A.V. *Statics*. Chennai: S. Viswanathan, 2006.

Chapter 1	Sections 1.1 – 1.3
Chapter 2	Sections 2.1 – 2.10, 2.12 – 2.14
Chapter 3	Sections 3.1 – 3.8
Chapter 5	Section 5.1 – 5.3

Dharmapadam A.V. *Dynamics*. Chennai: S. Viswanathan, 2006.

Chapter 8:	Sections 8.1, 8.2, 8.5 – 8.7 (Theorem statements only in Sections 8.5 & 8.6)
Appendix II, Appendix III	(concepts and simple problems only related to section 5.4 to 5.8 of unit 5)

BOOKS FOR REFERENCE

Pandit Ashok S. *Mechanics*. New Delhi: Narosa, 2001.

Venkatachalapathy, S.G., *Mechanics. Statics and dynamics for B.Sc. mathematics major*. Chennai: Margham, 2002.

Duraipandian P, *Mechanics*, New Delhi: S. Chand, 2005.

Kakani, S.L, *Mechanics*, New Delhi: Viva, 2005.

Hans H.S, *Mechanics*, New Delhi: Tata McGraw, 2003.

JOURNAL

Journal of Mechanics, Editor K. N. Chiang, National TsingHua University, Taiwan
International Journal of Mechanics and Applications, Editor-in-chief: ThibaultLemaire
Journal of Applied Mechanics, Editor: Yonggang Huang

WEB RESOURCES

<http://hyperphysics.phy-astr.gsu.edu/hbase/mi.html>
https://www.iit.edu/arc/workshops/pdfs/Moment_Inertia.pdf
<http://www.physicsclassroom.com/class/newtlaws/Lesson-2/Types-of-Forces>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 6$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

End Semester Examination:

Total Marks: 100 Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

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Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
Allied Elective Course Offered by the Department of Mathematics to the students of
B.Com (General), B.Com(CS), B.Com(A&F) and B.C.A. Degree Programme

SYLLABUS

(Effective from the academic year 2015-2016)

OPERATIONS RESEARCH

CODE: 15MT/AE/OR45

CREDITS: 5

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide few simple mathematical models
- To develop a methodical approach to problem solving in the field of industries, marketing, finance and so on

Unit 1 (14 hrs.)

Introduction to Operations Research

- 1.1 Introduction to OR
- 1.2 Definition of OR
- 1.3 Formulation of LPP
- 1.4 Graphical Solution
- 1.5 Simplex Method

Duality in LPP

- 2.1 Introduction
- 2.2 Formulation of Dual LPP
- 2.3 Rules for Constructing the Dual from Primal
- 2.4 Characteristics of the Dual Problem – Advantages of Duality
- 2.5 Primal-Dual Optimal Solutions

Unit 2 (12 hrs.)

Transportation Problem

- 2.1 Introduction
- 2.2 Mathematical Formulation – Unbalanced
- 2.3 Maximization – Northwest Corner Rule, Least Cost Method and Vogel's Approximation Method
- 2.4 Optimality Test: MODI Method

Unit 3 (10 hrs.)

Assignment problem

- 3.1 Assignment Problem
- 3.2 Mathematical Formulation of an Assignment Problem
- 3.3 Difference between Transportation and Assignment Problem
- 3.4 Hungarian Method
- 3.5 Unbalanced Assignment Problem

Unit 4 (14 hrs.)

Game Theory

- 4.1 Introduction – Basic Terminology
- 4.2 Solution Methods of Pure Strategy Games with Saddle Point
- 4.3 Principle of Dominance
- 4.4 Solution Methods of Mixed Strategy Games
- 4.5 The Two Person Non-zero Sum Games

Unit 5 (15 hrs.)

Project Network Analysis: CPM - PERT

- 5.1 Introduction
- 5.2 Development of Network Analysis Concept
- 5.3 Developing the Project Network
- 5.4 Critical Path Analysis
- 5.5 Critical Path Method
- 5.6 Programme Evaluation and Review Technique

TEXT BOOK

Kapoor, V K. *Operations Research (Quantitative Techniques for Management)*. New Delhi: Sultan Chand, 2013.

Chapter 1	Section 1.1 , 1.3
Chapter 2	Section 2.9, 2.10(omit theorems)
Chapter 3	Section 3.1 – 3.4
Chapter 4	Section 4.1 – 4.6
Chapter 5	Section 5.1 – 5.5(omit 5.5.1 and 5.5.2)
Chapter 6	Section 6.1 – 6.5(omit 6.5.4 and 6.5.5)
Chapter 11	Section 11.1 – 11.6
Chapter 13	Section 13.1 –13.6

BOOKS FOR REFERENCE

Gupta Premkumar and Hira, D.S., *Operations Research*. New Delhi: S Chand, 2001.

Panneerselvam, R. *Operations Research*. New Delhi : Prentice-hall, 2002.

Richard Bronson, Govindaswami Naadimuthu, *Schaum's Outlines Operations Research New Delhi: Tata McGraw Hill, 2011.*

Sharma S.D, *Operations Research*. Sixteenth Revised Edition, Kedar Nath Ram Nath, New Delhi. 2009.

Sundaresan V., K.S. Ganapathy Subramanian, K. Ganesan. *Resource Management Techniques*. Arapakkam: A.R., 2007.

Swarup Kanti, P.K. Gupta and Man Mohan. *Operations Research*, New Delhi: Sultan Chand, 2009.

JOURNALS

International Journal of Operations Research
International Journal of Mathematics in Operational Research
Journal of the Operational Research Society
Advances in Operations Research

WEB RESOURCES

<http://www.inderscience.com/jhome.php>
<http://www.hindawi.com/>
<http://journals.indexcopericus.com>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE BRANCH I - MATHEMATICS

SYLLABUS
(Effective from the academic year 2015-2016)

OPTIMIZATION TECHNIQUES

CODE: 15MT/ME/OT55

CREDITS: 5

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide few simple mathematical models
- To develop a methodical approach to problem solving in the field of industries, marketing, finance and so on

Unit 1 (15 hrs.)

Basics of Operations Research

- 1.1 Development of OR – Definition, Characteristics , Scientific Method in OR
- 1.2 Necessity of OR in Industry – Scope of OR
- 1.3 Operations Research and Decision Making
- 1.4 Scope of OR in: Management, Financial Management
- 1.5 Application of Various OR Techniques
- 1.6 Objectives of OR – Phases of OR – Models in OR
- 1.7 Classification Schemes of Models , Characteristics of a Good Model
- 1.8 Advantage and Limitations of a Model – Limitations of OR

Linear Programming

- 1.9 Introduction – Application of Linear Programming-Formulation
- 1.10 Advantages and Limitation of Linear Programming Models
- 1.11 Graphical Method of Solution
- 1.12 Canonical and Standard Form
- 1.13 Simplex Method
- 1.14 Artificial Variable Technique: Big-M Method

Unit 2 (15 hrs.)

Transportation Model

- 2.1 Introduction to the Model
- 2.2 Assumptions in the Transportation Model
- 2.3 Definition of the Transportation Model
- 2.4 Matrix Terminology
- 2.5 Formulation and Solution of Transportation Models (excluding Stepping Stone method)
- 2.6 Variants in Transportation Problems

Assignment Model

- 2.7 Definition of Assignment Model
- 2.8 Mathematical Representation of Assignment Model

- 2.9 Comparison with Transportation Model
- 2.10 Hungarian Method for Solution of the Assignment Problems
- 2.11 Formulation and Solution of the Assignment Models
- 2.12 Variations of the Assignment Problem
- 2.13 The Travelling Salesman Problem

Unit 3 (12 hrs.)

Sequencing Models and Related Problems

- 3.1 Sequencing Problems – Assumptions in Sequencing Problems
- 3.2 Processing n Jobs through One Machine(SPT rule only)
- 3.3 Processing n Jobs through Two Machines
- 3.5 Processing n Jobs through Three Machines
- 3.6 Processing Two Jobs through m Machines
- 3.7 Processing n Jobs through m Machines

Unit 4 (11 hrs.)

Theory of Games

- 4.1 Theory of Games
- 4.2 Characteristics of Games
- 4.3 Game Models – Definitions
- 4.4 Rules for Game Theory
 - 4.4.1 Rule 1: Look for a Pure Strategy
 - 4.4.2 Rule 2: Reduce Game by Dominance
 - 4.4.3 Rule 3: Solve for a Mixed Strategy
- 4.5 Mixed Strategies (2×2 Games) – Mixed Strategies ($2 \times n$ games or $m \times 2$ games)
- 4.6 Limitations of Game Theory and Concluding Remarks

Unit 5 (12 hrs.)

Network Analysis in Project Planning

- 5.1 Project – Project Planning – Project Scheduling – Project Controlling
- 5.2 W.B.S. – Basic Tools and Techniques of Project Management
- 5.3 Role of Network Techniques in Project Management
- 5.4 Network Logic-Numbering the Events
- 5.5 Activity on Node Diagram
- 5.6 Merits and Demerits of AON Diagram
- 5.7 Critical Path Method: Measure of Activity – Time Units
- 5.8 Critical Path Analysis
- 5.9 The Three Floats. PERT: Time Estimates
- 5.10 Frequency Distribution Curve for PERT – Probability of Completing the Whole Project by a given Time

TEXT BOOK

Gupta, Premkumar and Hira D.S. *Operations Research*, New Delhi: S.Chand, 2007.

Chapter 1	Sections 1.1 – 1.17, 1.23
Chapter 2	Sections 2.1 – 2.14, 2.16 – 2.17.1
Chapter 3	Sections 3.1 – 3.6
Chapter 4	Sections 4.1 – 4.3, 4.5 – 4.7, 4.10
Chapter 5	Sections 5.1 – 5.7
Chapter 9	Sections 9.10 – 9.19, 9.22
Chapter 14	Sections 14.1 – 14.13

BOOKS FOR REFERENCE

Ackoh R.L, *Fundamentals of OperationsResearch*, New Delhi: Vikas, 1984.

Panneerselvam, R. *Operations Research*. New Delhi : Prentice-hall, 2002.

Ravindran, A., Don. T. Phillips, and James J. Solberg. *Operations Research-Principles and Practice*. 2nded. New York: John Wiley, 1987.

Richard Bronson, GovindaswamiNaadimuthu, *Schaum's Outlines Operations Research*
New Delhi: Tata McGraw Hill,2011.

SwarupKanti, Gupta P.K., Man Mohan, *Operations Research*, New Delhi: Sultan Chand, 2009.

JOURNALS

International Journal of Operations Research
International Journal of Mathematics in Operational Research
Journal of the Operational Research Society
Advances in Operations Research

WEB RESOURCES

<http://www.inderscience.com/jhome.php>

<http://www.britannica.com>

<http://journals.indexcopericus.com>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

End Semester Examination:

Total Marks: 100 Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

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STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.Sc.DEGREE : BRANCH I – MATHEMATICS

SYLLABUS
(Effective from the academic year 2015 – 2016)

PROJECT

CODE :15MT/ME/PR55

CREDIT : 5

Preparation of Project

The Project shall contain at least 25 pages and shall be typed with double spacing. The format for the thesis is as follows:

1. Cover page shall contain
 - a) Title of the Project
 - b) Project submitted at the major level for the B.Sc. degree course in the V semester.
 - c) Name of the Candidate
 - d) Department of Mathematics
Stella Maris College (Autonomous), Chennai – 86
 - e) Month, Year
2. The dissertation shall contain
 - a) Contents page
 - b) i. Certificate page
ii. Acknowledgement page
 - c) At least 3 Chapters including an introductory chapter (comprising motivation, basic concepts needed / used in the thesis and outline of the thesis)
 - d) Conclusions / interpretations arrived at may be given at the end of each problem / each chapter concerned.
 - e) List of figures / list of abbreviations (if needed) shall be given as an appendix
 - f) Bibliography shall be given in alphabetical / chronological order at the end.
3. Each candidate may prepare 3 copies of the thesis using a Scientific Word or Word, one copy for her and submit 2 copies to the Head of the department 15 days before the commencement of the fifth semester examination.
4. The candidate may be advised that the dissertation will be valued and given credit on the criteria of
 - a) Motivation towards the chosen area / formulation of the problem
 - b) Methodology, Analysis, logic and reasoning
 - c) Capacity to interpret the results obtained
5. The Controller of Examination is requested to arrange for the valuation of the Dissertation as well as the conduct of the Viva – Voce at the college where the candidates take examinations, within two weeks of the last date of examination for B.Sc.. Degree. The panel of examiners will consist of an external examiner

and the guide. The guidelines for the Viva-Voce examiners would be that a) They will satisfy themselves that this is a work of the candidate as certified by the department b) The thesis is in the given form and c) The candidate has clear understanding of the concepts, discussed in the thesis.

The Department should certify as follows :

This is to certify that the dissertation in the broad area _____ titled _____ is submitted by _____ - at the major elective level for the degree of Bachelor of Science (Mathematics) during the year _____

sd/
Head of the Department

sd/
Guide

6. A) Guidelines for evaluation

The maximum mark for the dissertation is 100 divided into four components

i.	Style, format and neatness in presentation	15
ii	Chapterisation, logic and reasoning	20
iii	Methodology – Analysis and interpretation	40
iv	Viva	25

B) There will be double valuation for the dissertation by the guide and an External examiner who will conduct the viva – voce. The norms for evaluation will be same as applicable for theory papers.

Evaluation:

External Testing :

Dissertation : 75 marks
Viva : 25 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH – I – MATHEMATICS

SYLLABUS

(Effective from the academic year 2015-2016)

ELEMENTS OF SPACE SCIENCE

CODE : 15MT/ME/ES55

CREDITS : 5

L T P : 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To explore the new vistas of the universe governed by mathematics
- To visualize application of mathematics in space science

Unit 1

Spherical Trigonometry (10 hrs.)

- 1.1 Spherical Trigonometry - Definition of Great Circle, Small Circle
- 1.2 Secondaries - Angular Radius
- 1.3 Properties of Spherical Triangle
- 1.4 Relation between Sides and Angles of a Spherical Triangle
- 1.5 Cosine, sine and cotangent Formula - Supplemental cosine Formula, Five Parts Formula, Napier's Formula (statements only)

Unit 2

Celestial Coordinates (10 hrs.)

- 2.1 To Represent the Different System of Coordinates in the Same Figure
- 2.2 To find the Relation between Right Ascension and Longitude of the Sun
- 2.3 To find the Longitude of Sun on any Day
- 2.4 To find the Right Ascension and Declination of the Body
- 2.5 To find the Hour Angle of a Body at Rising or Setting
- 2.6 Diagram of Celestial Sphere

Unit 3

The Earth (15 hrs.)

- 3.1 Dip of Horizon (concept only)
- 3.2 Duration of Twilight – Civil, Nautical and Astronomical Twilight

Refraction

- 3.3 To find the Effects of Refraction on the Right Ascension and Declination of a Star
- 3.4 Horizontal Refraction – Effects of Refraction on Dip and Distance of Visible Horizon, Influence of Temperature and Pressure of Atmosphere on Refraction

Geocentric parallax

- 3.5 Geocentric Parallax - Changes in Right Ascension and Declination of a Body due to Geocentric Parallax, Effects of Geocentric Parallax on the Rising and Setting of a Celestial Body
- 3.6 Angular Diameter

3.7 Geocentric Parallax and Refraction compared - Equatorial Horizontal Parallax

Heliocentric parallax

3.8 Heliocentric Parallax (concept only)

Aberration

3.1 Aberration of a Star - Comparison of Aberration and Stellar Parallax, Kinds of Aberration

Unit 4 (15 hrs.)

Conversion of Time

4.1 Relation between Sidereal Time and Mean Time

4.2 Conversion of Sidereal Time into Mean Solar Time and Vice versa

4.3 Standard times

Unit 5 (15 hrs.)

Kepler's Laws

5.1 To Calculate the Eccentricity of the Earth's Orbit around the Sun

5.2 Verification of Kepler's law - Newton's deduction from Kepler's laws, Kepler's law from Newton's

5.3 To find the mass of the planet

Eclipse

5.4 Condition for the Occurrence of Lunar and Solar Eclipse

5.5 Ecliptic Limits - Maximum and Minimum Number of Eclipses near the Node of Lunar Orbit, Maximum Number of Eclipses in a Year

5.6 Eclipse Seasons - Effect of Refraction on a Lunar Eclipse

5.7 Occultations

Planetary Phenomena

5.8 Direct and Retrograde Motion(Geocentric motion of planets)

5.9 To find Positions of Two Planets when they are Stationery as seen from each other

TEXT BOOK

Kumaravelu S. , Susheela Kumaravelu, *Astronomy*, Sivakasi: A.Bhaskara Selvan, 2005.

Chapter 1 Sections 3, 7, 8, 13, 17, 20 – 25, 29

Chapter 2 Sections 64, 66, 68, 75, 76, 86

Chapter 3 Sections 106,112,116

Chapter 4 Sections 124,131,133,134

Chapter 5 Sections 135,137,138,141,144.145

Chapter 6 Sections 149,150,153-155

Chapter 7 Sections 180-186 (worked examples only)

Chapter 8 Section 190

Chapter 9 Sections 195, 202, 203

Chapter 13 Sections 262, 267 - 269, 272, 273, 276, 279, 284

Chapter 14 Sections 300, 301

BOOKS FOR REFERENCE

Bhatia, V.B., *Text Book of Astronomy and Astrophysics with elements of Cosmology*, New Delhi: Narosa, 2001.

Ramachandran, G.V., *A Text Book of Astronomy*, Madurai: Denobili, 1972.

Sidwick, *Introducing Astronomy*, London : Faber & Faber, 1957.

Smart, W.M., *Stellar Dynamics*, London : Cambridge, 1938.

Smart, W.M., *Some Famous Stars*, London : Orient Longman, 1956.

Smart, W.M., *A Text Book on Spherical Astronomy*, London : Cambridge, 1997.

JOURNALS

International Journal of Astronomy and Astrophysics

New Astronomy Elsevier Journal

The astronomical journal IOP science

Archive for History of Exact Sciences

Astronomy Letters

Astronomy Reports

Astrophysical Bulletin

WEB RESOURCES

Sky and Telescope's. The Essential guide to astronomy, Important new happenings in astronomy and latest space events. Newsletter.

<http://www.skyandtelescope.com>

<https://twitter.com/skyandtelescope/>

National Aeronautics and Space administration. News and features about NASA research. Newsletter

<http://www.ndtv.com/topic/national-aeronautics-and-space-administration>.

<http://www.nasa.gov/news/index.html>

<http://science.nasa.gov/>

<http://www.livescience.com/space/>

<http://www.universetoday.com/>

<http://abcnews.go.com/Technology/Space>

http://www.sciencedaily.com/news/space_time/astronomy/

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 6$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Component – 25 marks.

List of Evaluation Modes:

Quiz

Assignments

Presentation

END SEMESTER EXAMINATION :

Total Marks: 100

Duration: 3 hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting at least two from each)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set selecting not more than one question per unit).

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH I - MATHEMATICS

SYLLABUS
(Effective from the academic year 2015-2016)

NUMERICAL ANALYSIS

CODE: 15MT/ME/NA55

CREDITS: 5

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVE OF THE COURSE

- To expose the standard numerical techniques as a powerful tool in scientific computing

Unit 1 (13 hrs.)

Numerical Solutions of Algebraic Equations

1.1 Bolzano's Bisection Method

1.2 Newton Raphson Method

Simultaneous Equation

1.3 Introduction of Simultaneous Equations, Back Substitution

1.4 Gauss Elimination Method

1.5 Gauss-Jordan Elimination Method

1.6 Iterative Method – Gauss Jacobi's Method

1.7 Gauss-Seidal Iteration Method

Unit 2 (13 hrs.)

Finite Differences

2.1 Introduction

2.2 Difference Operator

2.3 Other Difference Operators

Interpolation

2.4 Newton's Interpolation Formulae

2.5 Central Difference Interpolation Formulae

2.6 Lagrange's Interpolation Formulae

2.7 Divided Differences

2.8 Newton's Divided Difference Formula

Unit 3 (13 hrs.)

Numerical Differentiation and Integration

3.1 Introduction

3.2 Derivatives using Newton's Forward Difference Formula

3.3 Derivatives using Newton's Backward Difference Formula

3.4 Maxima and Minima of the Interpolating Polynomial

3.5 Numerical Integration

Unit 4 (13 hrs.)
Numerical Solutions of Ordinary Differential Equations

- 4.1 Introduction
- 4.2 Taylor's Series Method
- 4.3 Picard's Method
- 4.4 Euler's Method
- 4.5 Runge-Kutta Methods

Unit 5 (13 hrs.)
Numerical Solutions of Partial Differential Equations

- 5.1 Introduction
- 5.2 Classification of Partial Differential Equations of Second Order
- 5.3 Finite Difference Approximation to Derivatives
- 5.4 Laplace Equation
- 5.5 Poisson's Equation

TEXT BOOK

Arumugam S., Thangapandi Isaac A. and Somasundaram A., *Numerical Methods*, Chennai: SCITECH, 2001.

- Chapter 3 Sections 3.3, 3.5
- Chapter 4 Sections 4.0 – 4.4, 4.7, 4.8
- Chapter 6 Sections 6.0 – 6.2
- Chapter 7 Sections 7.0 – 7.5
- Chapter 8 Sections 8.0 – 8.2, 8.4, 8.5
- Chapter 10 Sections 10.0 – 10.4
- Chapter 11 Sections 11.0 – 11.4

BOOKS FOR REFERENCE

Gupta B.D., *Numerical Analysis*, New Delhi :Konark, 2000.

Kandasamy P.K., Thilgavathy K., Gunavathy, *Numerical methods*, New Delhi: S Chand 2006.

Kamala R.S., Solairaj A., Ganesh S., Jansi Rani P.G., *Numerical Method*, Kumbakonam : Anuradha, 2003.

Saxena H.C., *Examples in Finite Differences and Numerical Analysis*, New Delhi: S. Chand, 1981.

Venkatachalapathy S.G., *Calculus of Finite Differences and Numerical Analysis*, Chennai: Margham, 2003.

JOURNALS

International Journal for Numerical Methods in Engineering
International Journal of Numerical Methods and Applications
International Journal of Numerical Methods for Heat and Fluid flow
Journal of Numerical Mathematics

WEB RESOURCES

<http://www2.le.ac.uk/departments/physics/people/mervynroy/lectures/numc.pdf>
<http://nptel.ac.in/courses/webcourse-contents/IISC-BANG/NumericalAnalysis>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 6$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting at least two from each)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH I - MATHEMATICS

SYLLABUS
(Effective from the academic year 2015-2016)

NUMERICAL METHODS WITH PROGRAM IN C
(Theory and Practical)

CODE :15MT/ME/NM55

CREDITS: 5

L T P: 4 0 2

TOTAL TEACHING HOURS: 78

OBJECTIVES OF THE COURSE

- To expose the standard numerical techniques as a powerful tool in scientific computing
- To enhance the abilities of students to solve problems with the aid of computer

PRE-REQUISITES

Knowledge of C Programming

Unit 1 (10 hrs.)

Numerical Solutions of Algebraic Equations

1.1 Bolzano's Bisection Method

1.2 Newton Raphson Method

1.3 Solution of Simultaneous Linear Algebraic Equations

Iterative Methods of Solving Simultaneous Equations

1.4 Jacobi's Method

1.5 Gauss Seidal Iteration Method

Practical

(6 hrs.)

1.6 C program to find the Smallest Positive Root / the Largest Negative Root of the Equation $f(x) = 0$ by using the Bisection Method and Newton Raphson Method

1.7 C program to Solve a System of Linear Algebraic Equations using Gauss Jacobi's Iteration Methods and Gauss Siedel Method

Unit 2 (12 hrs.)

Finite Differences

2.1 Forward Differences

2.2 Backward Differences

2.3 Central Differences

Interpolation with Equal Intervals

2.1 Gregory Newton Forward and Backward Formulas

2.2 Central Difference Interpolation Formula – Gauss Forward and Backward Interpolation Formula

Interpolation with Unequal Intervals

2.3 Divided Differences

2.4 Lagrange's Interpolation Formula for Unequal Intervals

Practical (5 hrs.)

2.5 C program to Interpolate and Extrapolate using the given Pairs of Values of x and y by Newton's Forward and Backward Interpolation Formula

2.6 C program to Interpolate y using the given Pairs of Values of x and y by Lagrange's Interpolation Formula

Unit 3 (10 hrs.)

Numerical Differentiation

3.1 Values of the Derivatives of y based on Newton Forward and Backward Interpolation Formula

3.2 Derivatives by Method of Undetermined Coefficients Second Order Derivatives of $f(x)$ using Newton's Formulae - Maximum and Minimum Value of $f(x)$

Practical (5 hrs.)

3.3 C program to find the Derivative at the Initial Point of a Tabulated Function by Newton Forward and Backward Interpolation Formula

Unit 4 (10 hrs.)

Numerical Integration

4.1 Newton Corle's Quadratic Formula

4.2 Trapezoidal Rule

4.3 Simpson's One Third Rule - Simpson's Three Eighth Rule

Practical (5 hrs.)

4.4 C program to Evaluate $\int_a^b f(x)dx$ Numerically using Trapezoidal and Simpson's rule

Unit 5 (10 hrs.)

Application

5.1 Numerical Solution to Ordinary Differential Equations

5.2 Euler's Method

5.3 RungeKuttaMethod

Practical (5 hrs.)

5.4 C program to Solve the Differential Equation $\frac{dy}{dx} = f(x, y)$; $y(x_0) = y_0$ at the Pivotal Points by Euler's Method

5.5 C program to Solve Simultaneous Differential Equations $\frac{dy}{dx} = f(x, y, z)$; $\frac{dz}{dx} = g(x, y, z)$; $y(x_0) = y_0$, $z(x_0) = z_0$ at the Specified Pivotal Points by using RungeKuttaMethod of the Fourth Order

TEXT BOOKS

Veerarajan T. and Ramachandran T., *Numerical methods with programs in C*, New Delhi: McGraw Hill, 2013.

Chapter 3 : Sec. 3.2, 3.4

Chapter 4 : Sec. 4.5

Chapter 5 : Sec. 5.1 – 5.3

Chapter 6 : Sec. 6.1 – 6.6

Chapter 7 : Sec. 7.1, 7.6

Chapter 8 : Sec. 8.1, 8.2, 8.4, 8.28, 8.29, 8.31

Chapter 10: Sec. 10.16

Arumugam S., Thangapandi Isaac A., and Somasundaram A., *Numerical Methods*, Chennai: SCITECH, 2001.

Chapter 8: Sec. 8.0 – 8.4

BOOKS FOR REFERENCE

Gupta B.D., *Numerical Analysis*, New Delhi : Konark Publishers Pvt. Ltd, 2000.

Kamala R.S., Solairaj A., Ganesh S., Jansi Rani P.G., *Numerical Method*, Kumbakonam : Anuradha, 2003.

Kandasamy P.K., Thilgavathy K., Gunavathy, *Numerical methods*, New Delhi: S. Chand 2006.

Saxena H.C., *Examples in Finite Differences and Numerical Analysis*, New Delhi: S. Chand, 1981.

Venkatachalapathy S.G., *Calculus of Finite Differences and Numerical Analysis*, Chennai: Margham, 2003.

JOURNALS

International Journal for Numerical Methods in Engineering

International Journal of Numerical Methods and Applications

International Journal of Numerical Methods for Heat and Fluid flow

Journal of Numerical Mathematics

C Programming

Code journal

WEB RESOURCES

<http://www2.le.ac.uk/departments/physics/people/mervynroy/lectures/numc.pdf>

http://www.dailyfreecode/tutorial_simple_c_programming-

[15/numerical_methods_265.aspx](http://www.dailyfreecode/tutorial_simple_c_programming-15/numerical_methods_265.aspx)

http://www.sanfoundry.com/c_programming-examples_numerical_problems_algorithms/

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Theory: (45 Mins.)

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Practical: (45 Mins.)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Problem Solving

Project

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Theory: (90 Mins..)

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Practical: (90 Mins..)

Section C: $2 \times 20 = 40$ (Three questions to be set)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
General Elective Course Offered by Department of Mathematics to students of
B A. / B.Sc. / B.Com. Degree

SYLLABUS
(Effective from the academic year 2015-2016)

FASCINATING WORLD OF MATHEMATICS

CODE: 15MT/GE/WM22

CREDITS : 2

L T P : 2 0 0

TOTAL TEACHING HOURS : 26

OBJECTIVES OF THE COURSE

- To introduce some Indian Mathematicians and their contributions
- To understand Mathematics through puzzles and paradoxes
- To cite a few real life applications through Mathematical models

Unit 1 (10 hrs.)

Insight into some Indian Contributors to Mathematics

- 1.1 Baudhayana
- 1.2 Aryabhata
- 1.3 Bhaskara I
- 1.4 Shridhara
- 1.5 Bhaskara II
- 1.6 SrinivasaRamanujan
- 1.7 A.A. KrishnaswamiAyyangar
- 1.8 P.C. Mahalanobis
- 1.9 C. R. Rao
- 1.10 Harish Chandra
- 1.11 C. S. Seshadri
- 1.12 Sakunthala Devi
- 1.13 S. R. SrinivasaVaradhan
- 1.14 R. Parimala
- 1.15 Other Contemporary Mathematicians

Unit 2 (9 hrs.)

Mathematical Puzzles and Paradoxes

- 2.1 Magic Squares
- 2.2 Sleeping Beauty Puzzle
- 2.3 Monty Hall Probability Puzzle
- 2.4 Crossword
- 2.5 Number Puzzles by Shakuntala Devi
- 2.6 Missing Square Paradox
- 2.7 Potato Paradox
- 2.8 Zeno's Paradox

- 2.9 Necktie Paradox
- 2.10 Three Prisoner Paradox
- 2.11 Boy or Girl Paradox
- 2.12 Sorites Paradox
- 2.13 Elevator Paradox
- 2.14 Barber's Paradox

Unit 3 **(7 hrs.)**
Project

3.1 Mathematical Model – Application of Mathematics in real life

TEXT BOOKS AND REFERENCE BOOKS

Anne Rooney, *The Story of Mathematics*, China, Arcturus, 2008.

The Britannica Guide to The History of Mathematics, USA, Britannica, 2011.

George Gheverghese Joseph, *The Crest of the Peacock Non-European Roots of Mathematics*, Chennai, East-West, 1990.

Kapur J.N., *IXOHOXI*, New Delhi, Mathematical Sciences Trust Society, 1998.

Kapur J.N., *Mathematical Games for All*, New Delhi, Mathematical Sciences Trust Society, 1998.

Kapur J.N., *Some Eminent Indian Mathematicians of Twentieth Century*, New Delhi, Mathematical Sciences Trust Society, 1994.

Ye.I.P. Perelman, *Mathematics can be Fun*, Mir Publishers Moscow 1973, English Translation, 1985.

Shakuntala Devi, *Puzzle to puzzle you*, New Delhi, Orient Paperbacks, 1976, 45th Edition, 2014.

Shakuntala Devi, *Figuring – The Joy of Numbers*, New Delhi, Orient Paperbacks, 1986.

WEB RESOURCES

http://prezi.com/hnkgbsbnnmr_/historical-and-contemporary-mathematicians
http://mentalfloss.com/article/59040/10_mind_boggling_paradoxes
<http://www.ssgan.8m.com/math2.html>

PATTERN OF EVALUATION: (Totally Internal)

Continuous Assessment (CA) - 25 marks

Section A : $5 \times 2 = 10$ marks (Choose five from six questions)

Section B : $3 \times 5 = 15$ marks (Choose three from five questions)

Third Component - 25 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
General Elective Course Offered by Department of Mathematics to students of
B A. / B.Sc. / B.Com. Degree

SYLLABUS
(Effective from the academic year 2015-2016)

CELESTIAL WONDERS

CODE: 15MT/GE/CW23

CREDITS : 3

L T P : 3 0 0

TOTAL TEACHING HOURS : 39

OBJECTIVES OF THE COURSE

- To give insight into astronomy
- To introduce feature of planet, sun, moon and stellar universe
- To explore and study the recent events in space

Unit 1 (8 hrs.)

Celestial Sphere and Diurnal Motion

- 1.1 Celestial Sphere
- 1.2 Diurnal Motion – Celestial Axis and Equator
- 1.3 Celestial Horizon
- 1.4 Zenith and Nadir - Celestial Meridian
- 1.5 Cardinal Points - Different Hemispheres
- 1.6 Visible and Invisible Hemispheres
- 1.7 Declination Circles – Verticals, Due East, Due West, Due North, Due South, Parallax Angle
- 1.8 Rising and Setting
- 1.9 Transit or Culmination
- 1.10 Annual Motion of the Sun – First point of Aries, First point of Libra, Equinoxes and solstices
- 1.11 Colures
- 1.12 Circumpolar Stars

Unit 2 (9 hrs.)

The Moon

- 2.1 Elongation - Conjunction, Opposition, Quadratures.
- 2.2 Daily Motion of the Moon - Age of Moon
- 2.3 Phase of Moon (definition only) - Successive Phases of Moon
- 2.4 Moon Exhibits the Same Side to the Earth
- 2.5 Lunar Librations - Definition and Kinds of Librations
- 2.6 Position of Moon at Rising and Setting
- 2.7 Surface Structure of Moon

- 2.8 Earth Shine
- 2.9 The Tides - Tsunami.

Eclipses

- 2.1 Types of Eclipses – Lunar and Solar Eclipse (no derivations), Duration of a Solar Eclipse
- 2.11 Importance of Total Solar Eclipses
- 2.12 Comparison of Solar and Lunar Eclipses
- 2.13 Occultations

Unit 3 (8 hrs.)

Planetary Phenomena

- 3.1 Bode's Law
- 3.2 Direct Motion and Retrograde Motion
- 3.3 Stationary Points
- 3.4 Transit of an Inferior Planet - Concept only
- 3.5 Astronomical Instruments

The Solar System

- 3.6 Kepler's Laws of Planetary Motion, Comets, Meteors
- 3.7 Astronomical Seasons - Causes of Seasons
- 3.8 Calendar

Unit 4 (7 hrs.)

The Stellar Universe

- 4.1 The Colour and Size of Stars
- 4.2 Double and Multiple Stars
- 4.3 Variable Stars - Novae, Star Clusters, Nebulae

Constellations

- 4.4 Zodiacal Constellations

Galaxies

- 4.5 The Milky Way

Unit 5 (7 hrs.)

Observation and Visit to Planetarium

Observation : Sun spots, planets, meteors, constellations, moon and its craters, comets and eclipses

Visit to Planetarium – Special show

TEXT BOOKS AND REFERENCE BOOKS

Kumaravelu S., Susheela Kumaravelu, *Astronomy*. Sivakasi: A.Bhaskara Selvan, Revised and Enlarged Edition 2005, Reprint 2009.

Bhatia, V.B, *Text Book of Astronomy and Astrophysics with elements of Cosmology*. New Delhi: Narosa, 2001.

JOURNALS

International Journal of Astronomy and Astrophysics
New Astronomy Elsevier journal
The Astronomical Journal IOP Science
Archive for History of Exact Sciences
Astronomy Letters
Astronomy Reports
Astrophysical Bulletin

WEB RESOURCES

Sky and Telescope's. The Essential guide to astronomy, Important new happenings in astronomy and latest space events. Newsletter.

<http://www.skyandtelescope.com> & <https://twitter.com/skyandtelescope>.

National Aeronautics and Space administration. News and features about NASA research. Newsletter

<http://www.ndtv.com/topic/national-aeronautics-and-space-administration>.

<http://www.nasa.gov/news/index.html>

<http://science.nasa.gov/>

<http://www.livescience.com/space/>

<http://www.universetoday.com/>

<http://abcnews.go.com/Technology/Space>

http://www.sciencedaily.com/news/space_time/astronomy/

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Component – 50 marks

List of Evaluation Modes:

Quiz

Assignments

Presentation

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**General Elective Course Offered by Department of Mathematics to students of
B A. / B.Sc. Degree**

**SYLLABUS
(Effective from the academic year 2015-2016)**

ESSENTIALS OF LOGIC AND ITS APPLICATIONS

CODE: 15MT/GE/ EL23

CREDITS : 3

L T P : 3 0 0

TOTAL TEACHING HOURS : 39

OBJECTIVES OF THE COURSE

- To augment knowledge into mathematical logic
- To introduce basic concepts of Graph Theory
- To study the applications of Discrete Mathematics

Unit 1 (8 hrs.)

Logics

- 1.1 Connectives
- 1.2 Parsing Trees
- 1.3 Truth Tables
- 1.4 Tautology
- 1.5 Tautological Implications
- 1.6 Predicate Calculus
- 1.7 Quantifiers

Unit 2 (9 hrs.)

Lattice

- 2.1 Poset
- 2.2 HasseDiagram
- 2.3 Lattices – Simple Examples
- 2.4 Properties of Lattices (without proof)
- 2.5 Duality Principle

Unit 3 (8 hrs.)

Boolean Algebra and Logical Gates

- 3.1 Definition of Boolean Algebra
- 3.2 Switching Circuits

Unit 4 (9 hrs.)

Graph Theory

- 4.1 Basic Concepts
- 4.2 Simple Graph – Multi-Graph

- 4.3 Digraph – Degree – Regular Graph
- 4.4 Incidence – Adjacency
- 4.5 Complete Graph – Bipartite
- 4.6 Subgraphs Spanning Subgraph
- 4.7 Some Special Classes of Graphs
- 4.8 Paths – Cycles – Connectedness

Unit 5

(5 hrs.)

Project

- 5.1 Applications of Lattices and Boolean Algebra
- 5.2 Logical Circuits
- 5.3 Graph Theory

TEXT BOOKS

Venkatraman M.K., N. Sridharan and N. Chandrasekaran, *Discrete Mathematics*, Chennai: National Publishing Co., 2000 (Reprint 2007)

Chapter 9 : Sections 1 – 8, 13 – 15

Chapter 10: Sections 1,2,4,5,8

Balakrishnan V.K., *Schaum's Outline of Theory and Problems of Graph Theory*, New Delhi: Tata McGraw Hill Co. Inc., 1997, Tenth reprint 2011

Chapter 1: Sections 1.1 – 1.6

Chapter 2: Sections 2.1 – 2.3

Chapter 3: Sections 3.1 – 3.2

(Note: Concepts with examples, theorem statements and simple problems only)

BOOKS FOR REFERENCE

Lipschutz Seymour, Marc Lars Lipson, *Schaum's outline of Theory and Problems of Discrete Mathematics*, Second edition, Eleventh reprint 2002, New Delhi: Tata McGraw-Hill Publishing Company Limited, 1999.

Norman, L. Biggs, *Discrete Mathematics*, second edition, India: Oxford, 2003.

Raju Solai, Chandrasekar, Krishnamoorthy and Ganesh, *Discrete Mathematical Structures*, Kumbakonam: Anuradha Agencies, 2003.

Santha S., *Discrete Mathematics with Combinatorics and Graph Theory*. New Delhi: Cengage Learning India, 2010.

Sharma, *Discrete Mathematics*, Chennai: Macmillan, 2003.

Yadav S. K., *Discrete Mathematics with Graph Theory*. New Delhi: Ane Books, 2013.

WEB RESOURCES

[http://world.mathigon.org/Graph_Theory.](http://world.mathigon.org/Graph_Theory)
<http://press.princeton.edu/titles/10314.html>
<http://www.open-graphtheory.org/>

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

Component - 50 marks

List of Evaluation Modes:

Seminars

Quiz

Assignments

Open Book Test

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

Offered to students of B.A. / B.Sc. Degree

SYLLABUS

(Effective from the academic year 2015-2016)

RESOURCE MANAGEMENT TECHNIQUES

CODE : 15MT/GE/RT53

CREDITS : 3

L T P : 3 0 0

TOTAL TEACHING HOURS : 39

ELIGIBILITY CRITERION

Not offered to students who have done Allied Elective course 15MT/AE/OR45

OBJECTIVE OF THE COURSE

- To create awareness about optimization in utilization of resources

Unit 1

(9 hrs.)

Introduction to Operations Research (OR)

- 1.1 Introduction
- 1.2 Scope of OR
- 1.3 Phases of OR
- 1.4 Uses and Limitation of OR

Linear Programming Problem

- 1.5 Introduction – Formulation of LPP
- 1.6 General Formulation of LPP
- 1.7 Matrix Form of LPP
- 1.8 Graphical Method: Procedure for Solving of a LPP by Graphical Method

Unit 2

(8 hrs.)

Transportation Problem

- 2.1 Introduction
- 2.2 Mathematical Formulation – Unbalanced
- 2.3 Maximization – Northwest Corner Rule, Least Cost Method and Vogel's Approximation Method
- 2.4 Optimality Test: MODI Method

Unit 3

(8 hrs.)

Assignment Problem

- 3.1 Assignment Problem
- 3.2 Mathematical Formulation of an Assignment Problem
- 3.3 Difference between Transportation and Assignment Problem
- 3.4 Hungarian Method
- 3.5 Unbalanced Assignment Problem
- 3.6 Traveling Salesman Problem

Unit 4 (7 hrs.)

Game Theory

- 4.1 Introduction – Basic Terminology
- 4.2 Solution Methods of Pure Strategy Games with Saddle Point
- 4.3 Principle of Dominance
- 4.4 Solution Methods of Mixed Strategy Games
- 4.5 Graphical Method

Unit 5 (7 hrs.)

Project Network Analysis: CPM

- 5.1 Introduction
- 5.2 Development of Network Analysis Concept
- 5.3 Developing the Project Network
- 5.4 Critical Path Analysis
- 5.5 Critical Path Method

TEXT BOOK

Kalavathy . S, *Operations Research*. Fourth Edition, Vikas, 2013.

- Chapter 1: 1.1 – 1.4, 1.6
- Chapter 2: 2.1, 2.2
- Chapter 3: 3.1
- Chapter 8: 8.1 – 8.4, 8.5
- Chapter 9: 9.3 – 9.5, 9.6, 9.6.1
- Chapter 15: 15.1 – 15.7
- Chapter 19: 19.1-19.5

BOOKS FOR REFERENCE

Gupta Premkumar and Hira, D.S., *Operations Research*. New Delhi: S Chand, 2011.

Kapoor.V.K , *Operations Research (Quantitative Techniques for Management)*. New Delhi: Sultan Chand, 2013.

Panneerselvam, R. *Operations Research*. New Delhi : Prentice-hall, 2002.

Swarup Kanti, P.K. Gupta and Man Mohan. *Operations Research*. New Delhi: Sultan Chand 2009.

Sundaresan V., K.S. Ganapathy Subramanian, K. Ganesan. *Resource Management Techniques*. 4th ed. Arapakkam: A.R. Publications, 2007.

Sharma S.D, *Operations Research*. Sixteenth Revised Edition, New Delhi: Kedar Nath Ram Nath, 2009.

JOURNALS

International Journal of mathematics in Operational Research
Journal of the Operational Research Society

WEB RESOURCES

<http://www.worldscientific.com/worldscinet/apjor>
<http://www.scrip.org/journal/apjor/>

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $3 \times 2 = 06$ (Three questions to be set)

Section B: $3 \times 8 = 24$ (Four questions to be set)

Section C: $1 \times 20 = 20$ (Two questions to be set)

One Component - 50 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.Sc. DEGREE: BRANCH – I – MATHEMATICS

SYLLABUS
(Effective from the academic year 2016 -2017)

FORMAL LANGUAGES AND THEORY OF AUTOMATA

CODE: 16MT/UI/FA23

CREDITS : 3

OBJECTIVES OF THE COURSE:

- To introduce basic concepts of graph theory, formal languages and automata theory
- To enhance compiling techniques and expose to computing device

Unit 1

Graph Theory

- 1.1 Definition of a Graph and Examples
- 1.2 Degrees and Subgraphs
- 1.3 Isomorphism of Graphs
- 1.4 Matrix Representation of a Graph
- 1.5 Walks, Trails and Paths
- 1.6 Connectedness and Components (concepts only)
- 1.7 Characterisation of Trees
- 1.8 Connectivity of a Graph
- 1.9 Eulerian Graphs (concepts only)
- 1.10 Hamiltonian Graphs (concepts only)

Unit 2

Automata Theory

- 2.1 Finite Automata (FA) – Introduction and Definition
- 2.2 Representation of Finite Automaton
- 2.3 Acceptability of a String by a Finite Automaton
- 2.4 Language Accepted by a Finite Automaton

Unit 3

Automata Theory(contd.)

- 3.1 Non-deterministic Finite Automata (NFA)
- 3.2 Acceptability of a String by NFA
- 3.3 Equivalence of FA and NFA (concept only)
- 3.4 Procedure for finding an FA equivalent to a given NFA
- 3.5 Properties of Regular Sets (concepts only)

Unit 4

Finite State Machines

- 4.1 Finite-State Machines

4.2 The Monoid of a Finite-State Machine

4.3 The Machine of a Monoid

Formal Languages

4.4 Phase-Structure Grammars

4.5 Chomsky Hierarchy of Languages

4.6 Finite Automata and Regular Languages

4.7 Derivation Trees for Content-Free Grammars

4.8 Normal Forms for Content Free Grammar (concepts only)

Unit 5

Project

5.1 Application of Finite Automata and Formal Language

5.2 Design of Vending Machine

5.3 Document Language Design

5.4 Cryptography

5.5 DNA Computing

TEXT BOOKS

Arumugam, S. and Ramachandran, S. *Invitation to Graph Theory*, Scitech, Reprint December 2013.

Chapter 2: 2.1 – 2.4, 2.8

Chapter 4 4.1, 4.2, 4.4

Chapter 5 5.1, 5.2

Chapter 6 6.1

Venkataraman, M K. N. Sridharan and N. Chandrasekaran, *Discrete Mathematics*, The National 2000.

Chapter 12 Sections 1 – 11, 13 – 20

BOOKS FOR REFERENCE

Behera, Nayak and Pallnayak, *Formal Languages and Automata Theory*. New Delhi: Vikas, 2014.

Kamala Krithivasan and Rama. R., *Introduction to Formal Languages, Automata Theory and Computation*, Chennai: Pearson, 2009.

JOURNALS

Formal Languages and Automata Theory

Journal of Graph Theory

Discrete Applied Mathematics

Information Processing Letters

WEB RESOURCE

<http://www.iitg.ernet.in/dgoswami/Flat-Notes.pdf>

http://xml.cs.nccu.edu.tw/courses/flan/FL2015/lecture_notes.html

PATTERN OF EVALUATION

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

PSTELLA MARIS COLLEGE (AUTONOMOUS), CHENAI-600 086

B.Sc. DEGREE: BRANCH III – PHYSICS

SYLLABUS

(Effective from the academic year 2015 – 2016)

ELECTRONICS -I

CODE:15PH/MC/EL14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To understand the concept of digital principles as applied to microprocessors and computers
- To develop knowledge in combinational logic and sequential logic circuits and their applications

Unit 1 (10 hrs.)

Number Systems and Binary Concept

1.1 Introduction – Analog and Digital Signals – Digital Circuit - Decimal- Binary - Octal and Hexa Number Systems

1.2 Binary Arithmetic – Principles of Addition – Subtraction- 1s Complement and 2s Complement Method - Multiplication and Division

Unit 2 (12hrs.)

Boolean Algebra, Digital Arithmetic Circuits and K-map

2.1 Morgan's Theorem - Implementation of Boolean Algebra Into Circuits Half Adder – Full Adder – Half Subtractor – Full Subtractor - Parallel Binary Adder

2.2 Fundamental Products – SOP and POS Forms -Karnaugh Map - Simplification upto four Variables (SOP Only)-Don't Care Conditions - Realization of Logic Circuits

Unit 3 (12hrs.)

Flip - Flops, Registers and Counters

3.1 Flip-Flops : RS - Clocked RS – D-T- JK and Master Slave Flip-Flops and Their Truth Tables

3.2 Registers and Counters: Shift Registers – Right Shift - Left Shift Registers - Binary Ripple Counter - Decade Counter

Unit 4 (8hrs.)

Integrated Circuits – Fabrication and Characteristics

4.1 Integrated Circuit Technology: Scale of Integration –SSI, MSI, LSI, BLSI. Basic Monolithic Integrated Circuits – Fabrication Process-Epitaxial Growth – Masking and Etching - Diffusion of Impurities

4.2 Transistors for Monolithic Circuits – Monolithic Diodes – Integrated Resistors - and Capacitors

Unit 5

(10 hrs.)

Special Purpose Diodes

5.1 Introduction-Light Emitting Diode (LED) – LED Voltage and Current-Advantages.

5.2. Multicolor Leds- Applications–Power Indicator –Seven Segment Display-
Photo Diode – Operation- Characteristics and Applications

TEXT BOOKS

Malvino Albert Paul.*Electronic Principles*.New Delhi: Tata McGraw Hill, 1984.

Malvino Albert Paul and Leach Donald.*Digital Principles and Application*.New Delhi: Tata McGraw Hill,1981.

Mehta V.K.*Electronic Principles*.New Delhi: S Chand,2014.

BOOKS FOR REFERENCE

Allen Mottershead. *Electronic Devices and Circuits*.New Delhi: Prentice Hall of India, 1982.

Ambrose A and T. Vincent Devaraj.*Elements of Solid State Electronics*.New Delhi: Meera,1990.

Floyd Thomas L.*Digital Fundamentals*.New Delhi :Universal Book Stall, 1997.

Milmann and Halkias.*Integrated Electronics*.New Delhi:Tata McGraw Hill,1992.

Sedha R.S.*Applied Electronics*.New Delhi: S Chand,1997.

JOURNALS

AEU - International Journal of Electronics and Communications

IOSR Journal of Electrical and Electronics Engineering (IOSR-JEEE)

IOSR Journal of Electronics and Communication Engineering (IOSR-JECE)

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 20 x 1 = 20 Marks (All questions to be answered) in 20 minutes

Multiple choice – 8, Fill in the blanks – 4, True or False – 4, Answer briefly – 4

Section B – 3 x 5 = 15 Marks (3 out of 4 to be answered (2 problems & 2 theory)

Section C – 1 x 15 = 15 Marks (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open book tests

Group discussion

Assignments

Problem solving

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Section A – 30 x 1 = 30 Marks (All questions to be answered) in 30 minutes

Multiple choice – 15, Fill in the blanks – 5, True or False – 5, Answer briefly – 5

Section B – 5 x 5 = 25 Marks (5 out of 7 to be answered (5 problems & 2 theory))

Section C – 3 x 15 = 45 Marks (3 out of 5 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI-600086

B.Sc.DEGREE: BRANCH III –PHYSICS

SYLLABUS

(Effective from the academic year 2015 – 2016)

PROPERTIES OF MATTER AND ATOMIC PHYSICS

CODE:15PH/MC/PA14

CREDITS:4

LTP:400

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To develop in students a theoretical understanding of properties of matter
- To enable the students to understand the fundamental concepts of atomic physics and its application in various fields

Unit 1 (10hrs.)

Elasticity

- 1.1 Elasticity - Introduction - Bending of Beams - Expression for the Bending Moment – Depression of the Loaded End of a Cantilever - Expression for Depression at the Midpoint of a Beam Loaded at the Centre (Non-Uniform Bending) Experiment to Determine Young's Modulus 'E' - Expression for Elevation at the Centre of a Beam (Uniform Bending) - Experiment to Determine 'E'
- 1.2 Torsion-Expression for Torque Per Unit Twist-Work Done in Twisting a Wire-Torsional Oscillation of a Body- Expression for Time Period of Torsional Oscillation- Experiment to Determine Rigidity Modulus 'N'

Unit 2 (10hrs.)

Surface Tension

- 2.1 Surface Tension-Explanation of Surface Tension on the Basis of Kinetic Theory-Work Done in Increasing the Surface Area-Angle of Contact
- 2.2 Excess of Pressure Inside a Curved Liquid Surface - Formation of Clouds, Variation of Surface Tension with Temperature- Quincke's Drop

Unit 3 (10hrs.)

Viscosity and Low Pressure

- 3.1 Viscosity- Coefficient of Viscosity - Newton's Law -Stream Line Flow- Turbulent Flow - Critical Velocity - Reynold's Number - Euler's Equation
- 3.2 Poiseuille's Flow - Absolute Determination of Viscosity - Comparison of Viscosities - Stoke's Law - Ostwald Viscometer - Variation of Viscosity with Temperature

Unit 4 (12hrs.)

Positive Rays and Photoelectric Effect

- 4.1 Positive Rays- Aston's Mass Spectrograph
- 4.2 Photoelectric Effect : Introduction-Photoelectric Laws-Laws of Photoelectric Effect - Einstein's Photoelectric Equation - Experimental Verification of Einstein's Photoelectric Equation - Photoelectric Cells
- 4.3 Production of X-Rays-Bragg's Law - Bragg's Spectrometer - X-Ray Spectra-Continuous and Characteristic X-Ray Spectrum - Moseley's Law - Compton Effect-Experimental Verification

Unit 5 (10hrs.)

Atom Model

- 5.1. Introduction to Atom Model - Vector Atom Model - Spatial Quantization - Spin Quantum Number Associated with Vector Atom Model - Shell Character-Electronic Structure-Electronic Configuration-Experimental Confirmation of the Vector Atom Model- Stern- Gerlach's Experiment - Bohr Magnetron
- 5.2. Zeeman Effect-Experimental Arrangement of the Normal Zeeman Effect- Expression for the Zeeman Shift - Paschen Back Effect-Stark Effect

TEXT BOOKS

Arthur Beiser. *Concepts of Modern Physics*. New Delhi: Tata McGraw Hill, 2004.

Mathur, D.S. *Elements of Properties of Matter*. New Delhi: Shyam Lal Charitable Trust, 1993.

Murugesan.R. *Properties of Matter*. New Delhi: S Chand, 2012.

Murugesan.R. *Modern Physics*. New Delhi: S Chand, 2013.

BOOKS FOR REFERENCE

Halliday, David. Robert Resnick and Jearl Walker. *Fundamentals of Physics*. Kundhi: John Wiley, Replica, 2001.

Rajam.J.B. *Atomic Physics*. New Delhi: S Chand, 2000.

Young Hugh D. Freedman Roger A. *University Physics*. New Delhi: Addison Wesley Longman, 1998.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – $20 \times 1 = 20$ Marks (All questions to be answered) in 20 minutes

Multiple choice – 8, Fill in the blanks – 4, True or False – 4, Answer briefly – 4

Section B – $3 \times 5 = 15$ Marks (3 out of 4 to be answered (2 problems & 2 theory))

Section C – $1 \times 15 = 15$ Marks (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Seminar

Quiz

Open book tests

Assignment

Problem solving

.

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Section A – $30 \times 1 = 30$ Marks (All questions to be answered) in 30 minutes

Multiple choice – 15, Fill in the blanks – 5, True or False – 5, Answer briefly – 5

Section B – $5 \times 5 = 25$ Marks (5 out of 7 to be answered (5 problems & 2 theory))

Section C – $3 \times 15 = 45$ Marks (3 out of 5 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

B.Sc. PHYSICS: BRANCH III – PHYSICS

SYLLABUS
(Effective from the Academic year 2015-2016)

EXPERIMENTAL PHYSICS – I

CODE: 15PH/MC/P112

CREDITS : 2
L T P : 0 0 3
TOTAL HOURS : 39

1. Compound Pendulum
2. Young's Modulus - Pin and Microscope – Non-Uniform Bending.
3. Young's Modulus - Uniform Bending – Scale and Telescope
4. Surface Tension- Drop Weight Method.
5. Rigidity Modulus 'G' using Torsion Pendulum with Weights.
6. Lee's Disc – Thermal Conductivity of a Bad Conductor.
7. Spectrometer – Determination of the Refractive Index of the Material of Solid and Liquid Prism.
8. B.G. Figure of Merit- Current Sensitivity.
9. Zener Diode V-I characteristics

TEXT BOOK

Ouseph,C. C., V. Srinivasan and R. Balakrishnan, *A Text Book of Practical Physics. Vol. I & II.* Chennai: S.Viswanathan, 1992.

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT

Total Marks: 50

Duration: 3 Hours

Formula & Procedure	20
Observation & Calculation	20
Result & Accuracy	10

END SEMESTER

Total Marks: 50

Duration: 3 Hours

Formula & Procedure	20
Observation & Calculation	20
Result & Accuracy	10

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
Allied Core Offered by the Department of Physics to Students of Mathematics

SYLLABUS
(Effective from the academic year 2015 – 2016)

PHYSICS - I

CODE: 15PH/AC/PH13

CREDITS: 3

L T P: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVE OF THE COURSE

- To understand the fundamental concepts of Mechanics, Properties and Relativity

Unit 1 (6 hrs.)

Mechanics - I

- 1.1 Centre of Gravity of a Body- a System of Particles in a Straight Line- Compound Body - Centre of Gravity of a Solid Hemisphere and Solid Cone

Unit 2 (7 hrs.)

Mechanics - II

- 2.1 Simple Harmonic Motion – Periodic and Harmonic Motion- Energy of a Harmonic Oscillator- Compound Pendulum- Theory- Determination of ‘G’ with Bar Pendulum
2.2 Planetary Motion - Kepler’s Law– Deduction of Newton’s Law From Kepler’s Law

Unit 3 (6 hrs.)

Elasticity

- 3.1 Elasticity: Moduli of Elasticity – Expression for Bending Moment – Depression at the Loaded End of the Cantilever – Depression and Elevation at the Mid Point of a Loaded Beam (Non- Uniform and Uniform Bending) – Torsion in a Wire – Torque Per Unit Twist – Torsional Oscillations – Expression for Period

Unit 4 (7 hrs.)

Surface Tension and Viscosity

- 4.1 Surface Tension: Definition – Angle of Contact – Variation of Surface Tension with Temperature – Determination of Surface Tension by Drop Weight Method- Interfacial Surface Tension
4.2 Stream Line Flow and Turbulent Flow – Critical Velocity – Euler’s Equation of Continuity of Flow

Unit 5 (13 hrs.)

Relativity

- 5.1 Newton’s Laws of Motion and its Limitations- Inertial Frames of Reference – Newtonian Relativity – Galilean Transformation Equations

- 5.2 Postulates of Special Theory of Relativity- Lorentz Transformation Equations- Length Contraction- Time Dilation- Twin Paradox and Meson Paradox
5.3 Relativistic Momentum (no derivation) – Mass Energy Relation- Physical Significance.

TEXT BOOKS

Murugesan R. *Properties of Matter*. New Delhi: S Chand, 1994.

Narayanamurthi M. & N Nagarathnam. *Dynamics*. Chennai: The National, 1994.

Resnick, Robert. *Introduction to Special Relativity*. New Delhi: Wiley Eastern, 1989.

BOOKS FOR REFERENCE

Goldstein Herbert. Second Edition. *Classical Mechanics*. U.S.A: Addison & Wesley, 1980.

Halliday, David and Robert, Resnick. *Physics Vol.I*. Chennai: New Age, 1995.

Halliday, David Robert Resnick and Walker Jearl. *Fundamentals of Physics*. Kundhi: John Wiley, 2001.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 20 x 1 = 20 Marks (All questions to be answered) in 20 minutes

Multiple choice – 8, Fill in the blanks – 4, True or False – 4, Answer briefly – 4

Section B – 3 x 5 = 15 Marks (3 out of 4 to be answered (2 problems & 2 theory))

Section C – 1 x 15 = 15 Marks (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Seminar/Presentation

Quiz

Assignments

Problem solving

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 Hours

QUESTION PAPER PATTERN

Section A – 30 x 1 = 30 Marks (All questions to be answered) in 30 minutes

Multiple choice – 15, Fill in the blanks – 5, True or False – 5, Answer briefly – 5

Section B – 5 x 5 = 25 Marks (5 out of 7 to be answered (5 problems & 2 theory))

Section C – 3 x 15 = 45 Marks (3 out of 5 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
Allied Core Offered by the Department of Physics to the Students of Mathematics

SYLLABUS
(Effective from the academic year 2015 – 2016)

PHYSICS PRACTICALS- I

CODE:15PH/AC/P112

CREDITS:2
L T P: 0 0 3
TOTAL HOURS: 39

1. Compound Pendulum
2. Young's Modulus 'E' by Non-Uniform Bending- Pin And Microscope
3. Young's Modulus 'E' by Uniform Bending-Scale And Telescope
4. Rigidity Modulus 'G' by Torsional Oscillations (Moment Of Inertia to be assumed)
5. Surface Tension and Interfacial Surface Tension – Drop Weight Method.
6. Spectrometer – Determination of the Refractive Index of the Material of a Prism
7. Post Office Box – Verification of Laws and Determination of Specific Resistance
8. Characteristics of a Zener Diode
9. Newton's Law of Cooling – Verification of Law.

TEXT BOOK

Ouseph, C.C., Srinivasan, V., & Balakrishnan, R. *A Text Book of Practical Physics. Vol. I & II.*, Chennai: S. Viswanathan, 1992.

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT

Total Marks:50

Duration: 3Hours

Formula & Procedure	20
Observation & Calculation	20
Result & Accuracy	10

END SEMESTER

Total Marks : 50

Duration : 3 Hours

Formula & Procedure	20
Observation & Calculation	20
Result & Accuracy	10

STELLA MARIS COLLEGE (AUTONOMOUS), CHENAI-600 086
B.Sc. DEGREE: BRANCH III – PHYSICS

SYLLABUS
(Effective from the academic year 2015 – 2016)

THERMAL PHYSICS AND STATISTICAL MECHANICS

CODE: 15PH/MC/TS24

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To understand the concepts of heat and temperature
- To apply thermodynamic relations to problem solving

Unit 1 (10 hrs.)

Transport Phenomena and Radiation

- 1.1 Blackbody Radiation-Distribution of Energy in the Spectrum of a Black Body- Experimental Arrangement to Study Energy Distribution in Black Body Spectrum Experimental Results-Statements of Stefan-Boltzmann and Wiens' Displacement Law-Quantum Theory of Radiation
- 1.2 Average Energy of Planck's Oscillator-Planck's Hypothesis-Planck's Radiation Relation-Stefan-Boltzmann Law from Planck's Radiation Relation – Wien's and Rayleigh - Jeans Law From Planck's' Radiation Relation

Unit 2 (11hrs.)

Thermodynamics

- 2.1 Thermodynamic Systems-Thermal Equilibrium and Concept of Temperature-Zeroth Law of Thermodynamics –Thermodynamic Processes- Internal Energy- First Law of Thermodynamics (Statement)-Isothermal and Adiabatic Elasticity of a Gas
- 2.2 Second Law of Thermodynamics-Statements of Clausius and Kelvin- Principle of a Heat Engine-Thermodynamics of Refrigeration-Coefficient of Performance - Thermodynamic Potentials (Definition)

Unit 3 (10 hrs.)

Entropy

- 3.1 Entropy- Definition-Entropy Change in Reversible and Irreversible Processes- Entropy and Unavailable Energy-Entropy of a Perfect Gas-Temperature – Entropy Diagram - Technical Importance of T-S Diagram - Law of Increase of Entropy- Entropy and Disorder
- 3.2 Second Law of Thermodynamics in Terms of Entropy- Expression Connecting First and Second Laws of Thermodynamics - Statement of Third Law of Thermodynamics

Unit 4 (10 hrs.)
Maxwell's Thermodynamical Relations and Low Temperature Physics

4.1 Maxwell's Thermo Dynamical Relations

4.2 Deduction From Thermodynamical Relations 1) First and Second Tds

Equations 2) Variation of Intrinsic Energy with Volume 3) $C_p - C_v = R$

4) Clausius –Clapeyron Latent Heat Equation

Unit 5 (11 hrs.)
Low Temperature Physics and Maxwell-Boltzmann Statistics

5.1 Liquefaction of Gases-Liquefaction of Helium- Peculiar Properties of Liquid Helium II-Production of Very Low Temperature-Adiabatic Demagnetization of Paramagnetic Salt-Theory and Experiment

5.2 Definition of Phase Space-Micro and Macro States- Ensembles-Definition of Thermodynamic Probability-Relation between Entropy and Probability-Classical Statistics - Maxwell-Boltzmann Statistics

TEXT BOOKS

Ilangovan. K. *Thermal Physics*. Chennai: Popular, 2004.

Subrahmanyam. N and Lal Brij. *Heat Thermodynamics and Statistical Physics*. New Delhi: S. Chand, 2010.

Mathur.D.S. *Heat and Thermodynamics*. New Delhi: Sultan Chand, 2004.

Rajam,J.B. *Heat and Thermodynamics*. New Delhi: S Chand, 1981.

BOOKS FOR REFERENCE

Kakani,S.L. *Heat, Thermodynamics and Statistical Mechanics*. New Delhi: Sultan Chand, 1989.

Bhatia,V.S. *Thermodynamics and Kinetic Theory*, New Delhi: Shobanlal Nagin Chand, 1993.

Das Gupta ,A.K. *Fundamentals of Statistical Mechanics*. Calcutta: New central 1994.

Gupta and Kumar. *Elementary Statistical Mechanics*. Meerut: Pragati Prakasham, 1993.

JOURNALS

Thermodynamics and Statistical Mechanics - Springer

Classical Continuum Physics – Springer

WEB RESOURCES

<http://www.sites.fas.harvard.edu/6346> : Statistical Mechanics and Thermodynamics

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 20 x 1 = 20 Marks (All questions to be answered) in 20 minutes

Multiple choice – 8, Fill in the blanks – 4, True or False – 4, Answer briefly – 4

Section B – 3 x 5 = 15 Marks (3 out of 4 to be answered (2 problems & 2 theory))

Section C – 1 x 15 = 15 Marks (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open book tests

Group discussion

Assignments

Problem solving

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Section A – 30 x 1 = 30 Marks (All questions to be answered) in 30 minutes

Multiple choice – 15, Fill in the blanks – 5, True or False – 5, Answer briefly – 5

Section B – 5 x 5 = 25 Marks (5 out of 7 to be answered (5 problems & 2 theory))

Section C – 3 x 15 = 45 Marks (3 out of 5 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.Sc. PHYSICS : BRANCH III – PHYSICS

SYLLABUS
(Effective from the Academic year 2015-2016)

EXPERIMENTAL PHYSICS – II

CODE:15PH/MC/P222

CREDITS : 2
L T P : 0 0 3
TOTAL HOURS : 39

1. Bifilar Pendulum
2. Rigidity Modulus 'G' by Static Torsion
3. Surface Tension of a Liquid by Capillary Rise Method
4. Absolute Determination and Comparison of Coefficient of Viscosities of Liquids
5. Sonometer – Verification of Laws and Determination of Frequency of Tuning Fork
6. Potentiometer – Ammeter Calibration (High Range and Low Range)
7. B. G – Determination of Absolute Capacity of a Condenser
8. Spectrometer – Grating – Normal Incidence (i) Standardization of the Grating (N)
(ii) Determination of the Wavelength of the prominent lines of the Mercury Spectrum. (iii) Dispersive Power of the Grating
9. FET Characteristics.

TEXT BOOK

Ouseph, C. C., V. Srinivasan and R. Balakrishnan. *A Text Book of Practical Physics. Vol. I & II.* Chennai: S. Viswanathan, 1992.

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT

Total Marks : 50

Duration : 3 Hours

Formula & Procedure	20
Observation & Calculation	20
Result & Accuracy	10

END SEMESTER

Total Marks : 50

Duration : 3 Hours

Formula & Procedure	20
Observation & Calculation	20
Result & Accuracy	10

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.Sc. DEGREE: BRANCH III – PHYSICS

SYLLABUS
(Effective from the Academic Year 2015 – 2016)

ENVIRONMENTAL STUDIES

CODE : 15PH/GC/ES22

CREDIT : 2

L T P : 2 0 0

TOTAL TEACHING HOUR: 26

OBJECTIVES OF THE COURSE

- To create an awareness about current environmental issues
- To make the students eco-sensitive and eco-friendly
- To educate the students about conservation and management of natural resources

Unit 1

Natural Resources (7hrs.)

- 1.1. Renewable & Non Renewable Resources
- 1.2. Forest Resources – Use and Over Exploitation
- 1.3. Water Resources – Use and Over Utilization of Surface & Ground Water
- 1.4. Mineral Resources – Use and Exploitation
- 1.5. Food Resources – World Food Problems – Effects of Modern Agriculture – Sustainable Agriculture
- 1.6. Energy Resources – Renewable and Non Renewable Energy Sources – Use of Alternative Sources of Energy
- 1.7. Need for Public Awareness in Conservation of Natural Resources

Unit 2

Ecosystems and Biodiversity (6hrs.)

- 2.1. Characteristic Features of Terrestrial and Aquatic Ecosystems – Structure, Function, Food Chain, Food Web & Ecological Pyramids
- 2.2. Ecological Succession. (a brief study)
- 2.3. Definition and Levels of Biodiversity
- 2.4. Hot Spots of Biodiversity
- 2.5. Threats to Biodiversity – Habitat Loss – Poaching of Wildlife – Man & Wildlife Conflicts
- 2.6. Conservation of Biodiversity – *in-Situ* and *ex- Situ* Conservation Methods

Unit 3

Environmental Pollution (7hrs.)

- 3.1. Air Pollution : Sources , Effects and Control
- 3.2. Water Pollution: Sources, Effects and Control
- 3.3. Soil Pollution : Sources, Effects and Control

- 3.4. Noise Pollution : Sources , Effects and Control
- 3.5. Nuclear Hazards
- 3.6. Environmental Impact Assessment
- 3.7. Role of Individual, Society and Government in Prevention of Pollution

Unit 4

Social Issues and the Environment

(6hrs.)

- 4.1 Multidisciplinary Nature of Environmental Studies
- 4.2 Population Explosion and its Impact on Environment
- 4.3 Water Conservation – Rain Water Harvesting – Watershed Management
- 4.4 Environmental Ethics
- 4.5 Climate Change and Global Warming
- 4.6 Role of Information Technology in Environment

TEXT BOOKS

Bharucha, E. *Textbook of Environmental Studies*. (1st edition). Hyderabad: Universities Press, 2005.

BOOKS FOR REFERENCE

Arul, P. *A Textbook of Environmental Studies*, (1st edition), Chennai: Environment Agency, 2004.

Asthara, D.K., M. Asthara. *A Textbook of Environmental Studies*. (1st edition). New Delhi: S. Chand, 2006.

Kaushik, A., C.P. Kaushick. *Perspectives in Environmental Studies*. (2nd edition). New Delhi: New Age 2006.

Singh, H.R. *Environmental Biology*. (1st edition). New Delhi: S Chand, 2005.

PATTERN OF EVALUATION: (only internal evaluation)

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 5 x 3 = 15 Marks (All questions to be answered)

Section B – 4 x 5 = 20 Marks (4 out of 5 to be answered)

Section C – 1 x 15 = 15 Marks (1 out of 2 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
Allied Core Offered by the Department of Physics to Students of Mathematics

SYLLABUS
(Effective from the academic year 2015 – 2016)

PHYSICS - II

CODE:15PH/AC/PH23

CREDITS: 3

L T P: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To understand the principles of Electricity and Magnetism
- To introduce fundamental concepts of Optics and Electronics

Unit 1 **(6 hrs.)**
Electricity

- 1.1 Quantisation of Charge – Conservation of Electric Charge – Coulomb's Law of Force between Charges – Flux of Electric Field – Gauss's Law – Statement and Proof – Electric Field of a Point Charge Using Gauss Law – Electric Potential – Relation between Potential and Field Strength
- 1.2 Capacitance- Capacitance of Parallel Plate Capacitor with and without Dielectric

Unit 2 **(7 hrs.)**
Magnetism

- 2.1 Magnetic Field: Definition of B – Force on a Charge in a Magnetic Field, in an Electromagnetic Field (Lorentz Force) – Maxwell's Electromagnetic Equations (No Derivations) – Physical Significance of the Equations
- 2.2 Electromagnetism: Force on a Current Carrying Conductor in a Magnetic field – Moving Coil Ballistic Galvanometer – Theory, Current and Charge Sensitivity of B.G – Relation Between the Two

Unit 3 **(6 hrs.)**
Geometrical Optics

- 3.1 Defects of Images- Monochromatic Aberrations – Spherical Aberrations in Lenses – Methods of Minimizing Spherical Aberration- Chromatic Aberration – Achromatic Combination of Lenses in Contact and Lenses Separated by a Distance
- 3.2 Optical Instruments: Telescopes – Angular Magnification of Telescopes – Refractive Astronomical Telescope – Terrestrial Telescope – Reflecting Telescopes – Radio Telescope – Hubble Telescope

Unit 4**Physical Optics****(7 hrs.)**

- 4.1 Interference: Newton's Rings – Measurement of Wavelength - Diffraction: Introduction – Fraunhofer Diffraction – Transmission Grating – Normal Incidence – Determination of Wavelength - Polarisation – Double Refraction – Nicol Prism – Optical Activity – Determination of Specific Rotatory Power Using Laurent's Half Shade Polarimeter – Uses of Polaroids

Unit 5**Electronics****(13 hrs.)**

- 5.1 Introduction to Amplifiers - Operational Amplifier – Ideal Op- Amp - CMRR – Inverting and Non- Inverting Op- Amp - Summing, Difference, Integral and Differential Op- Amp
- 5.2 Boolean Algebra- De Morgan's Theorem – Verification - Algebraic Simplification – Implementation of Boolean Algebra into Circuits

TEXT BOOKS

Subramaniam N. and Brijlal. *Optics*. New Delhi: S Chand, 2014.

Kakani, S L, and Bhandari K C. *A Text Book of Optics*. New Delhi: Sultan 2002.

Mahajan, A.S.,and Rangwala, A.A. *Electricity and Magnetism*. New Delhi: Tata McGraw Hill, 1993.

Mehta, V.K. *Principles of Electronics*. New Delhi: S Chand, 1991.

BOOKS FOR REFERENCE

Subrahmanyam, N. and Lal Brij. *A Text Book of Electricity and Magnetism*. Agra: Ratan Prakash, 1994.

Haliday, David and Robert Resnick. *Physics Vol. II*. Chennai: New Age, 1995.

PATTERN OF EVALUATION**Continuous Assessment:**

Total Marks: 50

Duration: 90 mins.

Section A – 20 x 1 = 20 Marks (All questions to be answered) in 20 minutes

Multiple choice – 8, Fill in the blanks – 4, True or False – 4, Answer briefly – 4

Section B – 3 x 5 = 15 Marks (3 out of 4 to be answered (2 problems & 2 theory))

Section C – 1 x 15 = 15 Marks (1 out of 2 to be answered)

Third Component :

List of evaluation modes:

Seminar/Presentation

Quiz

Assignments

Problem solving

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 Hours

QUESTION PAPER PATTERN

Section A – 30 x 1 = 30 Marks (All questions to be answered) in 30 minutes

Multiple choice – 15, Fill in the blanks – 5, True or False – 5, Answer briefly – 5

Section B – 5 x 5 = 25 Marks (5 out of 7 to be answered (5 problems & 2 theory))

Section C – 3 x 15 = 45 Marks (3 out of 5 to be answered)

STELLAMARISCOLLEGE (AUTONOMOUS), CHENNAI – 600 086
Allied Core Offered by the Department of Physics to the Students of Mathematics

SYLLABUS
(Effective from the academic year 2015 – 2016)

PHYSICS PRACTICALS - II

CODE: 15PH/AC/P222

CREDITS:2

L T P: 0 0 3

TOTAL HOURS:39

1. Rigidity Modulus 'G' by Static Torsion
2. Newton's Rings – Determination of Radius of Curvature of a Lens
3. Spectrometer – Grating – Normal Incidence - Determination of Wavelengths (λ)
4. Joule's Calorimeter – Determination of Specific Heat of a Liquid – Half Time Correction
5. Potentiometer – Ammeter Calibration (Low Range)
6. OPAMP- Inverting and Non Inverting Amplifier
7. Specific Capacity of a Solid – Method of Mixtures
8. Carey Foster's bridge –Determination of Specific Resistance
9. Coefficient of Viscosity – Absolute Determination.

TEXT BOOK

Ouseph,C. C., V.Srinivasan and R. Balakrishnan.*A Text Book of Practical Physics. Vol. I & II.*Chennai: S.Viswanathan, 1992.

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT

Total Marks : 50

Duration : 3 Hours

Formula & Procedure	20
Observation & Calculation	20
Result & Accuracy	10

END SEMESTER

Total Marks : 50

Duration : 3 Hours

Formula & Procedure	20
Observation & Calculation	20
Result & Accuracy	10

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.Sc. DEGREE: BRANCH III – PHYSICS

SYLLABUS
(Effective from the academic year 2015 – 2016)

MECHANICS

CODE: 15PH/MC/ME34

CREDITS:4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To understand physical laws and concepts of static and dynamic bodies
- To introduce the idea of Lagrangian Mechanics

Unit 1

Impact (10 hrs.)

- 1.1 Impulse –Impact -Laws of Impact-Conservation of Linear Momentum
- 1.2 Impact between two Smooth Bodies- Direct Impact between two Smooth Spheres
- 1.3 Oblique Impact between two Smooth Spheres-Impact of a Smooth Sphere on a Smooth Fixed Horizontal Plane

Unit 2

Simple Harmonic Motion (10 hrs.)

- 2.1 Periodic and Harmonic Motion- Simple Harmonic Motion-Energy of a Harmonic Oscillator- Examples
- 2.2 Free, Damped Vibrations
- 2.3 Forced Vibrations and Resonance

Unit 3

Rigid Body Dynamics (12 hrs.)

- 3.1 Moment of Inertia of a Uniform Rod- Rectangular Lamina – Uniform Circular Disc – Solid Sphere - Solid Cylinder
- 3.2 The Compound Pendulum- Determination of ‘G’- Centre of Suspension and Centre of Oscillation- Minimum Periods of a Compound Pendulum-Bifilar Pendulum- Parallel and Non-Parallel Threads
- 3.3 Gyroscopic Precision- Gyroscopic Top

Unit 4

Centre of Gravity (10 hrs.)

- 4.1 Centre of Gravity of a Body- a System of Particles in a Straight Line-Compound Body- Remainder
- 4.2 Centre of Gravity of a Solid and Hollow Hemisphere
- 4.3 Centre of Gravity of a Solid Tetrahedron -Solid Cone

Unit 5

Lagrangian Mechanics

(10 hrs.)

5.1 Degrees of Freedom – Constraints

5.2 Principle of Virtual Work and D' Alembert's Principle

5.3 Lagrange's Equation From D' Alembert's Principle – Application- Simple Pendulum – Atwood's Machine

TEXT BOOKS

Mathur, D.S. *Mechanics*. New Delhi: S. Chand, 1994.

Narayanamurthi, M. and Nagarathnam, N. *Dynamics*. Chennai: The National Publishing, 1994.

Narayanamurthi, M. and Nagarathnam, N. *Statics, Hydrostatics and Hydrodynamics*. Chennai: National, 1982.

BOOKS FOR REFERENCE

Goldstein Herbert. *Classical Mechanics*. U.S.A: Addison and Wesley, 1980.

Halliday, David and Robert, Resnick. *Physics Vol.I*. Chennai: New Age, 1995.

Halliday, David Robert Resnick and Walker Jearl. *Fundamentals of Physics*. New Delhi: John Wiley, 2001.

JOURNALS

Science Direct – Publishers

European Journal of Mechanics

WEB RESOURCES

<https://www.coursera.org/course/particles2planets>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 20x1=20

Multiple choice – 10, Fill in the blanks – 5, True or False – 2, Answer briefly – 3

Section B – 3x5=15 (3 out of 4 to be answered (2 problems & 2 theory))

Section C – 1x15=15 (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Presentation of working models

Assignments

Problem solving

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Section A – 30 x 1 = 30 Marks (All questions to be answered) in 30 minutes

Multiple choice – 15, Fill in the blanks – 5, True or False – 5, Answer briefly – 5

Section B – 5 x 5 = 25 Marks (5 out of 7 to be answered (5 problems & 2 theory))

Section C – 3 x 15 = 45 Marks (3 out of 5 to be answered)

STELLA MARIS COLLEGE, (AUTONOMOUS), CHENNAI-600 086
B.Sc. DEGREE: BRANCH III –PHYSICS

SYLLABUS
(Effective from the academic year 2015-2016)

OPTICS AND SPECTROSCOPY

CODE: 15PH/MC/OS34

CREDITS : 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To familiarise the students with fundamental principles of light
- To enable students to apply the principles of optics in relevant fields

Unit 1 (10 hrs.)

Geometrical Optics

- 1.1 Rectilinear Propagation of Light - Reversibility of the Path of the Rays of Light - Laws of Reflection and Refraction of Light
- 1.2 Thick Lenses - Focal Length - Critical Thickness - Power and Cardinal Points of a Thick Lens
- 1.3 Lens Aberrations: Monochromatic Aberrations - Spherical Aberration- Coma- Astigmatism - Curvature of the Field - Distortion - Chromatic Aberrations- Methods of Minimizing Aberrations - Eyepieces: Advantage of an Eyepiece over a Simple Lens - Huyghen's Eyepiece - Construction and Working

Unit 2 (11 hrs.)

Interference

- 2.1 Division of Wave Front : Fresnel's Biprism - Theory - Fringes with White Light
- 2.2 Division of Amplitude: Interference in Thin Films due to Reflected Light - Colours of Thin Films - Newton's Rings - Theory
- 2.3 Interferometers: Michelson's Interferometer - Determination of the Wavelength of a Monochromatic Source of Light

Unit 3 (10 hrs.)

Diffraction

- 3.1 Introduction - Fresnel's Assumptions - Zone Plate- Action of Zone Plate for an Incident Spherical Wave Front - Differences between a Zone Plate and a Convex Lens
- 3.2 Fresnel Type of Diffraction: - Diffraction Pattern Due to a Straight Edge - Positions of Maximum and Minimum Intensities - Diffraction Due to a Narrow Slit
Fraunhofer Type of Diffraction: Fraunhofer Diffraction at a Single Slit- Plane Diffraction Grating – Theory- Experiment to Determine Wavelengths
- 3.3 Resolving Power of Optical Instruments: Rayleigh's Criterion for Resolution – Resolving Power of (i) Telescope and (ii) Microscope

Unit 4 (11 hrs.)

Polarisation

- 4.1 Double Refraction- Optic Axis Principal Plane - Nicol Prism- Construction and Action
- 4.2 Elliptically and Circularly Polarized Light - Quarter Wave Plate - Half Wave Plate. Production and Detection of Circularly Polarized Light and Elliptically Polarized Light
- 4.3 Optical Activity - Fresnel's Explanation - Specific Rotation – Laurent's Half Shade Polarimeter - Experiment to Determine Specific Rotatory Power

Unit 5 (10 hrs.)

Spectroscopy

- 5.1 Infra-Red Spectroscopy - Properties - Origin of Infra-Red Spectra - IR Spectrophotometer – Applications
- 5.2 Scattering of Light - Raman Effect - Classical Theory - Quantum Theory - Mutual Exclusion Principle - Raman Spectrometer-Characteristics of Raman Lines - Applications
- 5.3 Ultraviolet and Visible Spectroscopy - Properties - Spectrophotometer

TEXT BOOKS

Agarwal B. S. *Optics*. Meerut: Kedernath Ramnath, 1979.

Banwell N. Colin., Elaine M. McCash. *Fundamentals of Molecular Spectroscopy*. New Delhi: Tata McGraw Hill, 2006.

Subramaniam N. and Brijlal. *Optics*. New Delhi: S Chand, 2014.

BOOKS FOR REFERENCE

Chang Raymond. *Basic Principles of Spectroscopy*. New Delhi: Tata McGraw Hill, 1971.

Jenkins A. Francis and White. *Fundamentals of Optics*. New Delhi: Tata McGraw Hill, 2001.

JOURNALS

The Journal of the Optical Society of America

Elsevier Journal of Optics & Laser Technology

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 20 x 1 = 20 Marks (All questions to be answered) in 20 minutes

Multiple choice – 8, Fill in the blanks – 4, True or False – 4, Answer briefly – 4

Section B – 3 x 5 = 15 Marks (3 out of 4 to be answered (2 problems & 2 theory))

Section C – 1 x 15 = 15 Marks (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Seminar

Quiz
Open book tests
Assignment
Problem solving

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A – 30 x 1 = 30 Marks (All questions to be answered) in 30 minutes

Multiple choice – 15, Fill in the blanks – 5, True or False – 5, Answer briefly – 5

Section B – 5 x 5 = 25 Marks (5 out of 7 to be answered (5 problems & 2 theory))

Section C – 3 x 15 = 45 Marks (3 out of 5 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.Sc. PHYSICS : BRANCH III – PHYSICS

SYLLABUS
(Effective from the Academic year 2015-2016)

EXPERIMENTAL PHYSICS –III

CODE: 15PH/MC/P332

CREDITS : 2

L T P : 0 0 3

TOTAL HOURS : 39

1. Melde's Apparatus – Determination of the Frequency of the Tuning Fork Using – Transverse and Longitudinal Mode of Vibrations of the String.
2. Newton's Rings – Determination of μ .
3. Potentiometer – Determination of Resistance and Specific Resistance
4. Ballistic Galvanometer – Comparison of EMF and Internal Resistance
5. Latent Heat of Fusion of Ice -Barton's Correction.
6. Multimeter- Conversion of Low Range Ammeter to Of High Range Ammeter.
7. Spectrometer - Dispersive Power of The Prism and Cauchy's Constants
8. OPAMP –Adder, Subtractor, Inverting and Non- Inverting Amplifiers
9. RC Amplifier

TEXT BOOK

Ouseph,C. C., V. Srinivasan and R. Balakrishnan, *A Text Book of Practical Physics.Vol.I & II*.Chennai: S.Viswanathan, 1992.

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT

Total Marks : 50

Duration : 3 Hours

Formula & Procedure	20
Observation & Calculation	20
Result & Accuracy	10

END SEMESTER

Total Marks : 50

Duration : 3 Hours

Formula & Procedure	20
Observation & Calculation	20
Result & Accuracy	10

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI-86
Allied Core Offered by the Department of Physics to Students of Chemistry

SYLLABUS
(Effective from academic year 2015-2016)

PHYSICS-I

CODE:15PH/AC/PH33

CREDITS : 3

LTP : 3 0 0

TOTAL TEACHING HOURS : 39

OBJECTIVES OF THE COURSE

- To acquaint students with the fundamental laws and principles of physics
- To familiarise students with developments in modern optics

Unit 1 (6 hrs.)

Properties of Matter

- 1.1 Elasticity: Moduli of Elasticity – Poisson’s Ratio- Young’s Modulus – Bending of Beams - Expression for Bending Moment-Depression at the Loaded End of the Cantilever-Depression and Elevation at the Mid Point of a Loaded Beam- Torsion in a Wire–Torsional Oscillations–Torque Per Unit Twist- Expression for Period

Unit 2 (7 hrs.)

Surface Tension and Viscosity

- 2.1 Introduction-Experimental Determination of Surface Tension and Interfacial Surface Tension by Drop Weight Method –Variation of Surface Tension with Temperature-Streamline and Turbulent Flow –Critical Velocity- Expression for Critical Velocity- Variation of Viscosity with Temperature

Unit 3 (6 hrs.)

Mechanics

- 3.1 Dynamics: Moment of Inertia – Definition - Compound Pendulum - Expression for the Period of Oscillation-Centre of Suspension and Centre of Oscillation–Minimum Period of Oscillation of a Compound Pendulum- Determination of ‘G’

Unit 4 (13 hrs.)

Relativity

- 4.1 Inertial Frames of Reference-Special Theory of Relativity—Postulates of Special Theory of Relativity-Lorentz Transformation Equations-Length Contraction-Time Dilation – Experimental Evidence – Twin Paradox – Relativistic Momentum (no derivation) – Mass Energy Relation – Physical Significance

Unit 5**(7 hrs.)****Optics**

- 5.1 Interference: Introduction - Interference Due to Reflected Light – Newton's Rings – Measurements of Wavelength
Diffraction: Introduction-Fraunhofer Diffraction- Transmission Grating- Normal Incidence – Determination of Wavelength
- 5.2 Polarisation: Introduction-Plane of Polarization-Polarisation by Refraction-Brewster's Law-Polarisation by Reflection-Double Refraction – Nicol Prism – Nicol Prism as a Polarizer and Analyser – Polaroids-uses of Polaroids

TEXT BOOKS

Murugesan.R, *Properties of Matter*. New Delhi: S. Chand, 2012.

Narayananamurthi.M and Nagaratham.N. *Dynamics*. Chennai: The National, 1994.

Narayananamurthi.M and Nagaratham.N. *Statics*. Chennai: The National, 1994.

Murugesan.R, *Modern Physics*. New Delhi: S Chand, 2013.

Subrahmanyam. Nand Lal Brij. *Textbook of Optics*. New Delhi: Vikas, 2013.

BOOK FOR REFERENCE

Halliday,David and Robert Resnick. *Physics Vol I and II*. Chennai: New Age, 1995.

PATTERN OF EVALUATION**Continuous Assessment:**

Total Marks: 50

Duration: 90 mins.

Section A – 20 x 1 = 20 Marks (All questions to be answered) in 20 minutes

Multiple choice – 8, Fill in the blanks – 4, True or False – 4, Answer briefly – 4

Section B – 3 x 5 = 15 Marks (3 out of 4 to be answered (2 problems & 2 theory))

Section C – 1 x 15 = 15 Marks (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open book tests

Group discussion

Assignments

Problem solving

End Semester Examination

Total Marks: 100

Duration: 3 Hours.

Section A – 30 x 1 = 30 Marks (All questions to be answered) in 30 minutes

Multiple choice – 15, Fill in the blanks – 5, True or False – 5, Answer briefly – 5

Section B – 5 x 5 = 25 Marks (5 out of 7 to be answered (5 problems & 2 theory))

Section C – 3 x 15 = 45 Marks (3 out of 5 to be answered)

STELLAMARISCOLLEGE (AUTONOMOUS), CHENNAI – 600 086
Allied Core Offered by the Department of Physics to the Students of Chemistry

SYLLABUS
(Effective from the academic year 2015 – 2016)

PHYSICS PRACTICALS - I

CODE:15PH/AC/P132

CREDITS:2

L T P: 0 0 3

TOTAL HOURS: 39

1. Compound Pendulum
2. Young's Modulus 'E' by Non-Uniform Bending- Pin and Microscope
3. Young's Modulus 'E' by Uniform Bending-Scale and Telescope
4. Rigidity Modulus 'G' by Torsional Oscillations (Moment of Inertia to be assumed)
5. Surface Tension and Interfacial Surface Tension – Drop Weight Method
6. Spectrometer – Determination of the Refractive Index of the Material of a Prism
7. Post Office Box – Verification of Laws and Determination of Specific Resistance
8. Characteristics of a Zener Diode
9. Newton's Law of Cooling – Verification of Law

TEXT BOOK

Ouseph, C. C., V. Srinivasan and R. Balakrishnan, *A Text Book of Practical Physics. Vol. I & II.*
Chennai: S. Viswanathan, 1992.

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT

Total Marks : 50

Duration : 3 Hours

Formula & Procedure	20
Observation & Calculation	20
Result & Accuracy	10

END SEMESTER

Total Marks : 50

Duration : 3 Hours

Formula & Procedure	20
Observation & Calculation	20
Result & Accuracy	10

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI-600 086

B.Sc. DEGREE: BRANCH III – PHYSICS

SYLLABUS
(Effective from the year 2015-2016)

MATHEMATICAL PHYSICS

CODE: 15PH/MC/MP44

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To enable students to learn various mathematical techniques
- To facilitate the applications of these techniques to physical problems

Unit 1 (8 hrs.)

Vector Calculus

- 1.1 Scalar Point Function - Gravitational Potential and Electrostatic Potential - Vector Point Function – Electric Intensity and Magnetic Field - Directional Derivatives - Gradient of a Scalar Field.
- 1.2 Vector Differentiation – Determination of Velocity and Acceleration From Position Vector - Partial Differentiation of Vectors

Unit 2 (10 hrs.)

Vector Analysis

- 2.1 The Divergence of a Vector Function - the Curl or Rotation of a Vector Function - Geometrical Interpretation - Physical Significance.
- 2.2 Relations between Gradient, Divergence and Curl – Electrostatic Potential and Field – Maxwell’s Equations.

Unit 3 (12 hrs.)

Vector Integration

- 3.1 Vector Integration: Ordinary Integrals of Vectors - Line Integrals - Surface Integrals - Volume Integrals.
- 3.2 Gauss’s Theorem - Statement and Physical Interpretation - Stoke’s Theorem and Green’s Theorem (Statement Only) - Poisson’s Equation and Laplace’s Equations - Their Applications in Gravitation, Hydrodynamics and Electromagnetism.

Unit 4 (12 hrs.)

Differential Equations

- 4.1 Initial and Boundary Value Problems - Applications of First Order Differential Equations - Falling Body Problems - Electrical Circuits (RL and RC).
- 4.2 Second Order Differential Equations with Constant Coefficients: The Characteristic Equation – General Solutions - Applications of Second Order Differential Equations - (i) System of Springs (ii) Electrical Circuits (LCR).

Unit 5**(10 hrs.)****Group Theory**

- 5.1 Group Theory - Definition of Groups - Subgroups - Symmetry Elements Transformation - Point Groups - Representation of a Group.
- 5.2 Applications of Group Theory – Elementary Particles - Application to IR and Raman Active Vibrations.

TEXT BOOKS

Bronson Richard. *Schaum's Outline of Theory and Problems of Differential Equations*. New Delhi: Tata McGraw Hill, 2014.

Gupta B.D. *Mathematical Physics*. New Delhi: Vikas, 2006.

Murray R.Spiegel. *Schaum's Outline of Theory and Problems of Vector Analysis*. New Delhi: Tata McGraw Hill, 1974.

Satyaprakash. *Mathematical Physics*. New Delhi: Sultan Chand, 2004.

BOOKS FOR REFERENCE

Dass M.K. *Mathematical Physics*. New Delhi: S.Chand, 2001.

Prakash Satya. *Mathematical Physics with Classical Mechanics*. New Delhi: Sultan Chand, 2004.

JOURNALS

Journal of Mathematical Physics

Communications in Mathematical Physics

PATTERN OF EVALUATION**Continuous Assessment:**

Total Marks: 50

Duration: 90 mins.

Section A – 20 x 1 = 20 Marks (All questions to be answered) in 20 minutes

Multiple choice – 8, Fill in the blanks – 4, True or False – 4, Answer briefly – 4

Section B – 3 x 5 = 15 Marks (3 out of 4 to be answered (2 problems & 2 theory))

Section C – 1 x 15 = 15 Marks (1 out of 2 to be answered)

Third Component :

List of evaluation modes:

Seminar/Presentation

Quiz

Open book tests

Assignments

Problem solving

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 Hours

QUESTION PAPER PATTERN

Section A – 30 x 1 = 30 Marks (All questions to be answered) in 30 minutes

Multiple choice – 15, Fill in the blanks – 5, True or False – 5, Answer briefly – 5

Section B – 5 x 5 = 25 Marks (5 out of 7 to be answered (5 problems & 2 theory))

Section C – 3 x 15 = 45 Marks (3 out of 5 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.Sc. PHYSICS : BRANCH III – PHYSICS

SYLLABUS
(Effective from the Academic year 2015-2016)

EXPERIMENTAL PHYSICS –IV

CODE: 15PH/MC/P442

CREDITS : 2

L T P : 0 0 3

TOTAL HOURS : 39

1. Newton's Law of Cooling – (i) Verification (ii) Determination of Specific Heat Capacity of a Liquid (iii) Determination of Emissivity of the Surface
2. Joule's Calorimeter – Determination of Specific Heat Capacity of a Liquid – Barton's Correction.- use P.OBox to find Resistance of the Coil
3. Polarimeter– Determination of Specific Rotatory Power
4. Determination Of Self Inductance Using LCR Resonance Circuit
5. Potentiometer – Determination of EMF of a Thermocouple
6. B.G. – High Resistance by Leakage
7. Field along the axis of the Coil – Determination of M and M'
8. Study of Universal Gates
9. K- Map- Simplification

TEXT BOOK

Ouseph,C. C., V. Srinivasan and R. Balakrishnan, *A Text Book of Practical Physics. Vol.I & II.*Chennai: S.Viswanathan, 1992.

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT

Total Marks : 50

Duration : 3 Hours

Formula & Procedure	20
Observation & Calculation	20
Result & Accuracy	10

END SEMESTER

Total Marks : 50

Duration : 3 Hours

Formula & Procedure	20
Observation & Calculation	20
Result & Accuracy	10

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 600 086
B.Sc. DEGREE: BRANCH III – PHYSICS

SYLLABUS
(Effective from the academic year 2015 -2016)

PHYSICS –II

CODE: 15PH/AC/PH43

CREDITS : 3

L T P : 3 0 0

TOTAL TEACHING HOURS : 39

OBJECTIVES OF THE COURSE

- To understand the basic concepts of electricity and magnetism
- To familiarise students with developments in modern physics and electronics

Unit 1 (6 hrs.)

Electricity

- 1.1 Coulomb's Law of Inverse Squares - Flux of Electric Field - Gauss's Law – Application of Gauss's Law to Determine Field a Point Charge, Spherical Charge Distribution, Infinite Line Charge Distribution and Cylindrical Charge Distribution
- 1.2 Conservative Nature of Electrostatic Field – Electric Field – Electric Potential – Potential at a Point Due to Point Charge- Relation between Potential and Field Strength, Capacitance : Principle- Capacitance of a Parallel Plate Capacitor with and Without Dielectric

Unit 2 (5 hrs.)

Magnetism

- 2.1 Magnetic Field - Force on a Charge in a Magnetic Field - Force on a Charge in an Electro Magnetic Field (Lorentz Force) - Maxwell's Electromagnetic Equations (no derivations) - Physical Significance of the Equations.- Magnetic Properties of Materials - Relation Between Relative Permeability and Susceptibility
- 2.2 Hysteresis- Magnetometer Method of Drawing Hysteresis Curve - Energy Laws – Retentivity - Coercivity - uses of Hysteresis Curves

Unit 3 (5 hrs.)

Electromagnetism

- 3.1 Force on a Current Carrying Conductor in a Magnetic Field – Moving Coil Ballistic Galvanometer - Figure of Merit of Ballistic Galvanometer for Charge and Current Sensitivity

Unit 4 (10 hrs.)

Modern Physics

- 4.1 MASER : Description and working of Ammonia MASER
LASER : LASER Action – Population Inversion – Carbon Dioxide LASER
Applications
- 4.2 Holography : Principles – Preparation of Holograms Applications- Fibre
Optics : Principles – Characteristics – Classification – Applications

Unit 5 (13 hrs.)

Electronics

- 5.1 Introduction to Amplifiers - Operational Amplifier - Ideal Op - Amp - CMRR
- Inverting and Non- Inverting Op-Amp – Summing - Difference - Integral
and Differential Op - Amp.
- 5.2 Boolean Algebra- De Morgan's Theorem – Verification. Algebraic
Simplification – Implementation of Boolean Algebra into Circuits

TEXT BOOKS

Mehta, V.K. *Principles of Electronics*. New Delhi: S Chand , 2014.

Murugesan.R. *Modern Physics*, New Delhi: S Chand, 2013.

Subrahmanyam, N. and Lal Brij. *A Text Book of Electricity and Magnetism*. Agra: Ratan Prakash, 1994.

BOOKS FOR REFERENCE

Haliday, David and Robert Resnick. *Physics Vol. II*. Chennai: New Age, 1995.

Kakani, S L, and Bhandari K C. *A Text Book of Optics*. New Delhi: Sultan Chand, 2002.

Laud .B.B. *Lasers and Non – Linear Optic*. New Delhi: Wiley Eastern, 1991.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 20 x 1 = 20 Marks (All questions to be answered) in 20 minutes

Multiple choice – 8, Fill in the blanks – 4, True or False – 4, Answer briefly – 4

Section B – 3 x 5 = 15 Marks (3 out of 4 to be answered (2 problems & 2 theory)

Section C – 1 x 15 = 15 Marks (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Seminar

Quiz

Open book tests

Assignment

Problem solving

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Section A – 30 x 1 = 30 Marks (All questions to be answered) in 30 minutes

Multiple choice – 15, Fill in the blanks – 5, True or False – 5, Answer briefly – 5

Section B – 5 x 5 = 25 Marks (5 out of 7 to be answered (5 problems & 2 theory))

Section C – 3 x 15 = 45 Marks (3 out of 5 to be answered)

STELLAMARISCOLLEGE (AUTONOMOUS), CHENNAI – 600 086
Allied Core Offered by the Department of Physics to the Students of Chemistry

SYLLABUS
(Effective from the academic year 2015 – 2016)

PHYSICS PRACTICALS - II

CODE: 15PH/AC/P242

CREDITS:2

L T P: 0 0 3

TOTAL HOURS: 39

1. Rigidity Modulus 'G' By Static Torsion
2. Newton's Rings – Determination of Radius of Curvature of a Lens
3. Spectrometer – Grating – Normal Incidence - Determination of Wavelengths (λ)
4. Joule's Calorimeter – Determination of Specific Heat of a Liquid – Half Time Correction
5. Potentiometer – Ammeter Calibration (Low Range)
6. OPAMP- Inverting And Non Inverting Amplifier
7. Specific Capacity of A Solid – Method of Mixtures
8. Carey Foster's Bridge –Determination of Specific Resistance
9. Coefficient of Viscosity – Absolute Determination

TEXT BOOK

Ouseph,C. C., V. Srinivasan and R. Balakrishnan, *A Text Book of Practical Physics. Vol.I & II.* Chennai: S.Viswanathan, 1992.

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT

Total Marks : 50

Duration : 3 Hours

Formula & Procedure	20
Observation & Calculation	20
Result & Accuracy	10

END SEMESTER

Total Marks : 50

Duration : 3 Hours

Formula & Procedure	20
Observation & Calculation	20
Result & Accuracy	10

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 600 086

B.Sc. BRANCH III – PHYSICS

**SYLLABUS
(Effective from the academic year 2015-2016)**

ELECTROMAGNETISM

CODE: 15PH/MC/EM54

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To enable students to understand the fundamental concepts of classical electromagnetic theory
- To understand the complementary nature of electric and magnetic phenomena

Unit 1 (10 hrs.)

Electrostatics

- 1.1 Electrostatic Field - Coulomb's Law – Divergence and Curl of Electrostatic Field – Gauss's Law – Application – Cylindrical Charge Distribution
- 1.2 Electric Potential - Poisson's Equation – Laplace's Equation – Work Done in Moving a Charge – Energy of a Point Charge Distribution - Energy of a Continuous Charge Distribution – Electrostatic Boundary Conditions

Unit 2 (10 hrs.)

Electrostatic Fields In Matter

- 2.1 Polarisation - Induced Dipoles – Alignment of Polar Molecules
- 2.2 Capacitors - Parallel Plate Capacitors-Field Inside a Dielectric – Gauss's Law in the Presence of Dielectrics

Unit 3 (15 hrs.)

Magnetostatics

- 3.1 Biot – Savart Law – Steady Currents – Magnetic Fields Due to Steady Currents Flowing (I) in a Long Straight Wire at a Point Near It (Ii) Along a Circular Coil at a Point on Its Axis (Iii) Along a Solenoid at a Point on its Axis- Divergence and Curl of **B** - Straight Line Currents
- 3.2 Ampere's Law – (I) Magnetic Field at a Point Near a Long Straight Wire Carrying Steady Current. – (Ii) Magnetic Field of a Long Solenoid (Iii) Magnetic Field of a Toroidal Coil – Comparison of Magnetostatics and Electrostatics- Lorentz Force Law - Currents – Current Density
Magnetic Vector Potential - Ampere's Law in Terms of Vector Potential – Magnetostatic Boundary Conditions

Unit 4 (8 hrs.)

Magnetostatic Fields in Matter

- 4.1 Magnetic Properties of Materials – Torque and Forces on Magnetic Dipoles– Magnetization
- 4.2 Linear and Non-Linear Media – Magnetic Susceptibility – Magnetic Field and its Equations (I) $B = \mu_o (H+M)$ (Ii) $\mu = \mu_o (1+\chi_M)$ (Iii) $\mu_x = 1+\chi_M$

Unit 5

(9 hrs.)

Electrodynamics

- 5.1 Faraday's Laws - Electromagnetic Induction - Inductance - Self Inductance - Mutual Inductance - Energy in Magnetic Fields
- 5.2 Maxwell's Equations - Maxwell's Equations and Magnetic Charge - Maxwell's Equations inside Matter - Boundary Conditions

TEXT BOOKS

Halliday David, Resnik Robert and Walker Jearl. *Fundamentals of Physics*. New Delhi: John Wiley, 2005.

Sehgal, D.L., K.L. Chopra, N.K. Sehgal. *Electricity and Magnetism*. New Delhi: Sultan Chand, 1992.

Tewari K.K. *Electricity and Magnetism*. New Delhi: S Chand, 1987.

BOOKS FOR REFERENCE

Chattopadhyay D., and Rakshit P.C. *Electricity and Magnetism*. Kolkata: New Central Book Agency, 2005.

Griffiths David J. *Introduction to Electrodynamics*. New Delhi: Prentice, 1997.

Mahajan A.S and A. A Rangwala. *Electricity and Magnetism*. New Delhi: Tata McGraw Hill, 1988.

JOURNALS

Journal of Magnetism and Magnetic Materials - Elsevier
www.journals.elsevier.com/journal-of-magnetism-and-magnetic-materials

Student Science Journal: Electricity and Magnetism
www.planetseed.com › Science › Student Science Journal

WEB RESOURCES

Electricity and Magnetism | Physics | MIT OpenCourseWare
ocw.mit.edu › Courses › Physics

Science Center Spectrum - Electricity and magnetism
www.sdtb.de/Electricity-and-magnetism.1107.0.html

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 20 x 1 = 20 Marks (All questions to be answered) in 20 minutes

Multiple choice – 8, Fill in the blanks – 4, True or False – 4, Answer briefly – 4

Section B – 3 x 5 = 15 Marks (3 out of 4 to be answered (2 problems & 2 theory))

Section C – 1 x 15 = 15 Marks (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open book tests

Group discussion

Assignments

Problem solving

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Section A – 30 x 1 = 30 Marks (All questions to be answered) in 30 minutes

Multiple choice – 15, Fill in the blanks – 5, True or False – 5, Answer briefly – 5

Section B – 5 x 5 = 25 Marks (5 out of 7 to be answered (5 problems & 2 theory))

Section C – 3 x 15 = 45 Marks (3 out of 5 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

B.Sc. DEGREE: BRANCH – III – PHYSICS

SYLLABUS

(Effective from the academic year 2015 – 2016)

MICROPROCESSORS AND MICROCONTROLLERS

CODE: 15PH/MC/MM54

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To understand the architecture of microprocessor 8085
- To develop programming skills for writing assembly languages for microprocessor 8085
- To learn the basic concepts of microcontroller 8051

Unit 1

Central Processing Unit (CPU) (10 hrs.)

- 1.1 Bus Structure - Address, Data and Control System Bus - Memory and I/O Interface Block Diagram - CPU 8085
- 1.2 Architecture: General Purpose Registers, ALU, Accumulator, Program Counter, Instruction Register, Stack, Push/Pop Operations, Flag Register

Unit 2

Addressing Modes and Instruction Set (10 hrs.)

- 2.1 Addressing Modes: Direct, Register, Immediate, Register in-Direct Addressing Modes
- 2.2 Instruction Set: Data Transfer Group, Arithmetic Group, and Logic Group Instruction

Unit 3

Software Program (10 hrs.)

- 3.1 Arithmetic Operations: Addition, Subtraction, Multiplication and Division of Single Byte Numbers - Multi-Byte Addition
- 3.2 Search an Array for a given Byte-Sorting an Array in Ascending / Descending Order
- 3.3 Conversion of BCD to Hexadecimal and Vice Versa-Square Root of a Positive Single Byte Number

Unit 4

Interfacing I/O devices and Interrupt Circuit (10 hrs.)

- 4.1 Type of Interfacing Devices: Address Decoding for I/O - Input and Output Ports - Programmable I/O Ports - Programmable Interface - Programming the 8255A
- 4.2 8085 Interrupt Circuit-Restart Instructions - Hardware Interrupts - Interrupt Priorities

Unit 5

Microcontrollers and Embedded systems (12hrs.)

- 5.1 Micro-Controller - 8051 - Architecture-Applications
- 5.2 Embedded System Concept - Embedded Microcontroller Pic Series - Applications

TEXT BOOKS

Ramesh Gaonkar. *Microprocessor Architecture, Programming and Applications with the 8085*. New Delhi: Penram, 1997.

Vijayendran, V. *Fundamentals of Microprocessor- 8085 Architecture Programming and Interfacing*. Chennai: S. Viswanathan, 2006.

Vahid Frank and Givargis Tony. *Embedded System Design-Unified Hardware Software Introduction*. New Delhi, John Wiley, 2002.

BOOKS FOR REFERENCE

Adithya .P. Mathur. *Introduction to Microprocessors*. New Delhi: Tata McGraw Hill, 1995.

Er.R Gopalsamy. *Microcontroller*. Madurai: Veni, 2004.

Ghosh,A.K., and P.K. Sridhar. *0000 to 8085 Introduction to Microprocessor for Engineers and Scientists*. New Delhi: PHI, 1995.

Kenneth J. Ayala. *8051 Microcontroller – Architecture, Programming and applications*. New Delhi: Penram, 1996.

Mohammed Rafi Qubbaman. *Microprocessors and Microcomputer – Based System Design*. New Delhi: UBS, 1986.

Rajkamal. *Microcontroller, Architecture, Programming, Interfacing and System Design*. U. K: Pearson, 2005.

JOURNALS

Elsevier - Journal of Microprocessors and Microsystems: Embedded Hardware Design

WEBRESOURCES

<http://www.phy.davidson.edu/FacHome/dmb/py310/8085.pdf>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 20x1=20

Multiple choice – 10, Fill in the blanks – 5, True or False – 2, Answer briefly – 3

Section B – 3x5=15 (3 out of 4 to be answered (2 problems & 2 theory))

Section C – 1x15=15 (1 out of 2 to be answered)

Third Component :

List of evaluation modes:

Quiz

Open book tests

Assignments

Problem solving

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Section A – 30 x 1 = 30 Marks (All questions to be answered) in 30 minutes

Multiple choice – 15, Fill in the blanks – 5, True or False – 5, Answer briefly – 5

Section B – 5 x 5 = 25 Marks (5 out of 7 to be answered (5 problems & 2 theory))

Section C – 3 x 15 = 45 Marks (3 out of 5 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 600 086

B.Sc. DEGREE: BRANCH III – PHYSICS

SYLLABUS

(Effective from the year 2015 – 2016)

SOLID STATE PHYSICS

CODE : 15PH/MC/SS54

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS : 52

OBJECTIVES OF THE COURSE

- To study crystal bonding and imperfections in crystals
- To learn the properties of solids

Unit 1 (6 hrs.)

Crystal Bonding

- 1.1 Bonding in Solids – Bond Energy- Bond Length-Types of Bonding –Primary Bonds- Ionic Bonding – Potential Energy Diagram of Ionic Molecule
- 1.2 Covalent Bond (Qualitative Treatment Only) – Properties of Covalent Solids
Metallic Bond – Properties of Metallic Solids

Unit 2 (14 hrs.)

Crystal Imperfections

- 2.1 Classification of Imperfections- Point Defects - Schottky and Frenkel Defects – Electronic Defects- Energy of Formation of a Vacancy-Equilibrium Concentration of Schottky and Frenkel Defects in Ionic Crystals
- 2.2 Line Defects- Edge Dislocation- Burgers Vector- Screw Dislocation

Unit 3 (10 hrs.)

Electrical Properties of Solid

- 3.1 Classical Free Electron Theory of Metals – the Free Electron Gas – Drude Lorentz Free Electron Theory – Ohm's Law – Expressions for Electrical Conductivity – Thermal Conductivity-Wiedemann and Franz Ratio
- 3.2 Hall Effect– Hall Voltage – Hall Coefficient – Mobility and Hall Angle – Experimental Determination of Hall Coefficient

Unit 4 (11 hrs.)

Magnetic Properties of Solids

- 4.1 Different Types of Magnetic Materials– Langevin's Theory of Diamagnetism (Qualitative Treatment Only)–Langevin's Theory of Paramagnetism-Curie's Law-Failure of Langevin's Theory-Weiss Theory of Paramagnetism-Curie-Weiss Law
- 4.2 Ferromagnetism-Domain Theory of Ferromagnetism- Exchange Energy-Magnetic Energy-Anisotropic Energy-Domain Wall-Hysteresis Loop of a Ferro Magnetic Material-Explanation of Hysteresis with Domain Theory-Antiferro and Ferrimagnetic Materials- Application of Ferromagnets and Ferrites

Unit 5**(11 hrs.)****Superconductivity**

- 5.1 Introduction—Effect of Magnetic Field – Magnetic Properties of Superconductors – Perfect Diamagnetism or the Meissner Effect – Type I and Type II Superconductors – Isotope Effect
- 5.2 Thermodynamic Effects – Entropy, Specific Heat, Thermal Conductivity – Energy Gap- BCS Theory of Superconductivity – Application of Superconductors

TEXT BOOKS

Ilangovan. K. *Solid State Physics*. Chennai: S.Viswanathan 2013.

Planisamy P K. *Solid state Physics*. Chennai: SCITECH, 2006.

Saxena, B.S., R.C. Gupta and P.C. Saxena. *Fundamentals of Solid State Physics*, Meerut: Pragati, 2001.

Singhal, R.L. *Solid State Physics*. Meerut: K. Nath, 2015.

BOOKS FOR REFERENCE

Azarof Leonid. V. *Introduction to Solids*. New Delhi: Tata McGraw Hill, 2002.

Charles Kittel. *Introduction to Solid State Physics*. Singapore: Kin Keong, 2005.

Ali Omar M.. *Elementary Solid State Physics*. New Delhi: Replik, 2006.

Saxena. H.C. and Agarwal. K.L. *Principles of Electronics and Solid State Physics*. Agra: Ravi, 2005.

JOURNALS

Journal of Solid State Physics — An Open Access Journal
Solid State Sciences - Journal - Elsevier

WEBRESOURCES

www.solid.phys.ethz.ch/

www.springer.com › Home › Materials

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $20 \times 1 = 20$ Marks (All questions to be answered) in 20 minutes

Multiple choice – 8, Fill in the blanks – 4, True or False – 4, Answer briefly – 4

Section B – $3 \times 5 = 15$ Marks (3 out of 4 to be answered (2 problems & 2 theory))

Section C – $1 \times 15 = 15$ Marks (1 out of 2 to be answered)

Third Component s:

List of evaluation modes:

Seminars

Quiz

Open book tests

Group discussion

Assignments

Problem solving

.

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Section A – $30 \times 1 = 30$ Marks (All questions to be answered) in 30 minutes

Multiple choice – 15, Fill in the blanks – 5, True or False – 5, Answer briefly – 5

Section B – $5 \times 5 = 25$ Marks (5 out of 7 to be answered (5 problems & 2 theory))

Section C – $3 \times 15 = 45$ Marks (3 out of 5 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.Sc. PHYSICS : BRANCH III – PHYSICS

SYLLABUS
(Effective from the Academic year 2015-2016)

EXPERIMENTAL PHYSICS –V

CODE: 15PH/MC/P552

CREDITS : 2

L T P : 0 0 3

TOTAL HOURS :39

1. Spectrometer – i– d Curve.
2. Spectrometer - Solar Spectrum
3. Ballistic Galvanometer –Coefficientof Mutual Inductance
4. Potentiometer – Calibration of High Range Voltmeter
5. Copper Voltmeter – Determination of E.C.E of Copper – T. G
6. Field along the Axis– Vibration Magnetometer
7. Carey Foster’s Bridge- Verification of Laws and Specific Resistance.
8. Microprocessor- Basic Arithmetic Operations.
9. SineWave Generator - 741
Square Wave Generator – 555

TEXT BOOK

Ouseph,C. C., V. Srinivasan and R. Balakrishnan, *A Text Book of Practical Physics. Vol.I & II.*
Chennai: S.Viswanathan, 1992.

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT

Total Marks : 50

Duration : 3 Hours

Formula & Procedure	20
Observation & Calculation	20
Result & Accuracy	10

END SEMESTER

Total Marks : 50

Duration : 3 Hours

Formula & Procedure	20
Observation & Calculation	20
Result & Accuracy	10

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086

B.Sc. DEGREE : BRANCH III - PHYSICS

SYLLABUS

(Effective from the academic year 2015 – 2016)

ELECTRONICS - II

CODE: 15PH/MC/EL64

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To study the design and applications of amplifiers
- To understand the basic principles of operational amplifier

Unit 1 (10 hrs.)

Circuit Analysis

- 1.1 Linear Circuit Analysis - Open and Short Circuits - the Voltage and Current Divider Circuit
- 1.2 Superposition Theorem - Transfer Theorems – Thevenin's Theorems – Norton's Theorem

Unit 2 (12 hrs.)

Transistor Biasing

- 2.1 Introduction – Transistor as an Amplifier in CE Arrangement - Biasing of Transistor – Faithful Amplification – Stability Factor
- 2.2 Methods of Transistor Biasing – Voltage Divider Bias Method -Operating Point – Load Line Analysis –DC Load Lines

Unit 3 (10 hrs.)

Transistor Amplifiers

- 3.1 Transistor Amplifiers : Single Stage Transistor Amplifier– Practical Circuit of Transistor Amplifier – Multistage Transistor Amplifier - Definition of Gain-Frequency Response- Decibel Gain and Bandwidth
- 3.2 RC Coupled Transistor Amplifier (No Derivation) – Operation – Frequency Response - Advantages – Disadvantages

Unit 4 (10 hrs.)

Special Semiconductor Devices

- 4.1 Field Effect Transistors – JFET – Working – Channel Conductance – Space Charge Distribution – Difference Between JFET and Bipolar Transistor – JFET as an Amplifier – IV Characteristics – Pinch Off Voltage – Parameters of JFET
- 4.2 Uni Junction Transistor – Construction – Operation – Inter base Resistor – Equivalent Circuit – Intrinsic Stand Off Ratio – IV Characteristics – Peak

Voltage Valley Current – Valley Voltage Negative Resistance Region – Relaxation Oscillator

Unit 5

(10 hrs.)

Operational Amplifier

- 5.1 Differential Amplifier – CMRR – Operational Amplifier - Functional Diagram – Virtual Ground – Non Inverting – Inverting Modes of Operation – Gain Equation
- 5.2 Operational Amplifier Application – Adder- Subtractor - Scale and Sign Changer – Differentiator – Integrator – Voltage Follower- Comparator. Electronic Analog Computation – Solution of Simultaneous Equations – Differential Equation

TEXT BOOKS

Gayakwad R.A. *Op. Amps & Linear Integrated Circuits*. New Delhi: Prentice, 1998.

Malvino Albert Paul and Leach Donald. *Digital Principles and Applications*. New Delhi: Tata McGraw Hill, 1981.

Malvino Albert Paul. *Electronic principles*. New Delhi: Tata McGraw Hill, 1984.

Mehta, V. *Principles of Electronics*. New Delhi: S Chand, 2014.

Sedha R.S. *Applied Electronics*. New Delhi: S Chand, 2008.

BOOKS FOR REFERENCE

Allen Mottershead. *Electronic Devices and Circuits*. New Delhi: Prentice, 1982.

Ambrose A & T Vincent Devaraj. *Elements of Solid State Electronics*. K.K. Dist: Meera 1990.

Floyd Thomas L. *Digital Fundamentals*. New Delhi: Universal, 1997.

Milmann and Halkias. *Integrated Electronics*. New Delhi: Tata McGraw Hill, 1992.

JOURNAL

IOSR – Journal of Electrical and Electronics Engineering. (IOSR – JEEE)

WEBRESOURCE

www.Electronics.com/

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $20 \times 1 = 20$ Marks (All questions to be answered) in 20 minutes

Multiple choice – 8, Fill in the blanks – 4, True or False – 4, Answer briefly – 4

Section B – $3 \times 5 = 15$ Marks (3 out of 4 to be answered (2 problems & 2 theory))

Section C – $1 \times 15 = 15$ Marks (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open book tests

Group discussion

Assignments

Problem solving

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 Hours

QUESTION PAPER PATTERN

Section A – $30 \times 1 = 30$ Marks (All questions to be answered) in 30 minutes

Multiple choice – 15, Fill in the blanks – 5, True or False – 5, Answer briefly – 5

Section B – $5 \times 5 = 25$ Marks (5 out of 7 to be answered (5 problems & 2 theory))

Section C – $3 \times 15 = 45$ Marks (3 out of 5 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

B.Sc. DEGREE : BRANCH – III – PHYSICS

SYLLABUS

(Effective from the academic year 2015 – 2016)

QUANTUM MECHANICS AND RELATIVITY

CODE: 15PH/MC/QR64

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS:52

OBJECTIVES OF THE COURSE

- To introduce the basic concepts and fundamental phenomena of quantum physics
- To understand the relationship between space and time, mass and energy.

Unit 1 (8 hrs.)

Wave like Properties of Particles

- 1.1 Matter Waves- De Broglie Postulates- De Broglie Wavelength-Davisson and Germer Experiment-Wave -Particle Duality
- 1.2 Complementarity Principle- Einstein's Interpretation of Duality for Radiation-Wave Functions- Superposition Principles
- 1.3 Properties of Matter Waves- Relation Between Wave, Group and Particle Velocities

Unit 2 (12 hrs.)

Schrödinger's Equations and Applications

- 2.1 Time Independent Schrödinger's Equation
- 2.2 Applications to One Dimensional Problem: Particle in a One Dimensional Box- the Step Potential- Rectangular Potential Barrier- Examples of Barrier Penetration by Particles
- 2.3 Application to Three Dimensional Problems: the Free Particle- Particle in Three Dimensional Box- Degeneracy

Unit 3 (10 hrs.)

Quantum Mechanical Operators

- 3.1 Definition of an Operator- Operator Algebra- Eigen Values and Eigen Functions
- 3.2 Commutation Relation between Momentum and Free Particle Hamiltonian Operators
- 3.3 Linear Operators- Hermitian Operators- Properties- Parity Operators- Properties- Commutation Relation between Parity and Symmetric Hamiltonian Operators

Unit 4 (12 hrs.)

Relativity

- 4.1 The Experimental Background of the Theory of Relativity- Galilean Transformations- Newtonian Relativity- Attempts to Locate the Absolute Frame
- 4.2 Michelson-Morley Experiment- Explanation of Negative Results- Postulates of Special Theory of Relativity
- 4.3 Relativistic Kinematics- Lorentz Transformation Equation (Derivation) – Consequence of Lorentz Transformation Equation

Unit 5**(10 hrs.)****Relativistic Mechanics**

- 5.1 (i) Length Contraction (ii) Time Dilation Experimental Verification of Length Contraction and Time Dilation Concepts- Meson Paradox- Twin Paradox
5.2 Relativistic Mechanics - Relativistic Energy and Momentum
5.3 Mass - Energy Equivalence- Evidence in Support of Mass- Energy Relation between Momentum and Energy

TEXT BOOKS

Gupta S.L., V. Kumar, H V Sharma, R C Sharma. *Quantum Mechanics*. Meerut: Jai Prakash Nath, 2004.

Prakash Sathya. *Relativistic Mechanics*. Meerut: Pragathi, 1993.

Kamal Singh ,S.P.Singh. *Elements of quantum mechanics*. New Delhi: S Chand, 2005.

BOOKS FOR REFERENCE

Beiser Arthur. *Concepts of Modern Physics*, New Delhi: Tata McGraw Hill, 2004.

Eisberg Robert, Robert Resnick. *Quantum Physics*. New York: John Wiley, 2002.

Mathews P.M. *A Text Book of Quantum Mechanics*. New Delhi: Tata McGraw Hill, 1976.

Merzbacher Eugen. *Quantum Mechanics*. New York: John Wiley, 1999.

JOURNAL

International Journal of Quantum Information (World Scientific)
Quantum Physics News - Phys.org

WEB RESOURCE

www.quantumrelativity.com/
phys.columbia.edu/~cqft/physics.htm

PATTERN OF EVALUATION**Continuous Assessment:**

Total Marks: 50

Duration: 90 mins.

Section A – 20 x 1 = 20 Marks (All questions to be answered) in 20 minutes

Multiple choice – 8, Fill in the blanks – 4, True or False – 4, Answer briefly – 4

Section B – 3 x 5 = 15 Marks (3 out of 4 to be answered (2 problems & 2 theory))

Section C – 1 x 15 = 15 Marks (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open book tests

Group discussion

Assignments
Problem solving

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Section A – 30 x 1 = 30 Marks (All questions to be answered) in 30 minutes

Multiple choice – 15, Fill in the blanks – 5, True or False – 5, Answer briefly – 5

Section B – 5 x 5 = 25 Marks (5 out of 7 to be answered (5 problems & 2 theory))

Section C – 3 x 15 = 45 Marks (3 out of 5 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 600 086
B. Sc. DEGREE : BRANCH III - PHYSICS

SYLLABUS
(Effective from the academic year 2015 -2016)

NUCLEAR AND PARTICLE PHYSICS

CODE:15PH/MC/NP64

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS:52

OBJECTIVES OF THE COURSE

- To learn the fundamental concepts of nuclear physics
- To acquaint students with the phenomenon of radioactivity, nuclear energy and elementary particles

Unit 1 (10hrs.)

Nucleus

- 1.1 Nuclear Density - Binding Energy Per Nucleon - Packing Fraction - Nuclear Stability - Magnetic Moment - Nuclear Radius- Nuclear Charge - Nuclear Force - Meson Theory of Nuclear Force
- 1.2 Nuclear Model - Liquid Drop Model - Semi Empirical Mass Formula- Shell Model- Magic Numbers - Evidence (Qualitative Study Only)

Unit 2 (10hrs.)

Radioactivity

- 2.1 Decay Constant - Law of Successive Disintegration - Radioactive Equilibrium Ideal Equilibrium - Secular and Transient - Radioactive Series
- 2.2 Alpha Decay - Tunneling Effect - Range of Alpha Particle- Geiger Nuttal Law- Fine Structure - Beta Decay – K Electron Capture - Fermi Neutrino Theory - Beta Energy Spectrum, Gamma Decay – Principles of Internal Conversion - Interaction of Gamma Ray with Matter - Units of Radioactivity - Radiation Effects

Unit 3 (10hrs.)

Accelerators and Detectors

- 3.1 Detectors:Geiger Muller Counter – Characteristics - Efficiency – Scintillation Counter -Nuclear Emulsion Technique
- 3.2 Accelerators:Linear Accelerator - Linear Hadron Collider–Cyclotron - Cyclotron Condition – Limitations –Synchrocyclotron - Electron and Proton Synchrotron

Unit 4 (12hrs.)

Nuclear Energy

- 4.1 Nuclear Reactions -Q Value - Threshold Value - Endoergic Reaction - Transmutation by Protons, Neutrons and Alpha, Particles - Artificial Radioactivity – Radioisotopes
- 4.2 Nuclear Fission - Chain Reaction - Controlled and Uncontrolled - Multiplication Factor - Power Reactors - Reactors in India - Nuclear Fusion - Thermonuclear Reaction - C- N Cycle - Proton - Proton Cycle – Plasma

Unit 5 (10hrs.)

Elementary Particles and Nuclear Resonance

- 5.1 Elementary Particles - Leptons - Mesons - Baryons - Fundamental Interactions - Their Strength – Antiparticle - Strange Particles - Quarks, Conservation Laws
- 5.2 Nuclear Resonance Spectroscopy: NMR- Introduction, Experimental Technique - Applications (Qualitative Study Only)

TEXT BOOKS

Murugesan .R. *Modern Physics*. New Delhi: S Chand, 2013.

Gupta A. B. and Dipak Ghosh. *Atomic and Nuclear physics*. Calcutta: Books and Allied, 1999.

BOOKS FOR REFERENCE

Beiser, Arthur. *Concepts of Modern Physics*. New Delhi: Tata McGraw Hill, 2004.

Chang, Raymond, , *Basic principles of Spectroscopy*, New Delhi: Tata McGraw Hill, 1971.

Ilandovan. K. *Nuclear Physics*. Chennai: MJP, 2012.

Littlefield, T A and Thorley N. *Atomic and Nuclear Physics – an Introduction*. London: Van Nostrand, 1979.

Rajam J. B. *Atomic Physics*. New Delhi: S Chand, 2000.

Ronald Gautreau and William Savin. *Schaum's Series*. New Delhi: Tata McGraw Hill, 2004.

Sanjiv Puri. *Modern Physics – Concepts and Applications*. New Delhi: Narosa, 2009.

Journals

Journal of Nuclear Physics

Physics Letters B: Nuclear, Elementary and High Energy Physics

Nuclear Engineering and Design

Webresources

www. Journal of nuclear Physics.com

Scienceenergy.gov/np

www.saha.ac.in

PATTERN OF EVALUATION**Continuous Assessment:**

Total Marks: 50

Duration: 90 mins.

Section A – 20 x 1 = 20 Marks (All questions to be answered) in 20 minutes

Multiple choice – 8, Fill in the blanks – 4, True or False – 4, Answer briefly – 4

Section B – 3 x 5 = 15 Marks (3 out of 4 to be answered (2 problems & 2 theory))

Section C – 1 x 15 = 15 Marks (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Seminar

Quiz

Open book tests

Assignment

Problem solving

.

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Section A – 30 x 1 = 30 Marks (All questions to be answered) in 30 minutes

Multiple choice – 15, Fill in the blanks – 5, True or False – 5, Answer briefly – 5

Section B – 5 x 5 = 25 Marks (5 out of 7 to be answered (5 problems & 2 theory))

Section C – 3 x 15 = 45 Marks (3 out of 5 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

B.Sc. PHYSICS : BRANCH III – PHYSICS

SYLLABUS

(Effective from the Academic year 2015-2016)

EXPERIMENTAL PHYSICS –VI

CODE: 15PH/MC/P662

CREDITS : 2

L T P : 0 0 3

TOTAL HOURS : 39

OBJECTIVE OF THE COURSE

➤ To expose the students to the technique of handling the measuring instruments

1. Spectrometer - narrow angled prism
2. Spectrometer : $i - i'$ curve of a prism.- Stoke's formula
3. Young's modulus – Koenig's method
4. Field along the axis – Determination of H and B
5. Hysteresis – Magnetometer method – B-H curve
6. Ballistic Galvanometer – Comparison of Mutual Inductance
7. Carey Foster's Bridge- Temperature Coefficient
8. Decade Counter- 7490
9. Microprocessor- Sorting and Conversion(one)

TEXT BOOK

Ouseph,C. C., V. Srinivasan and R. Balakrishnan, *A Text Book of Practical Physics. Vol.I & II.*
Chennai: S.Viswanathan, 1992.

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT

Total Marks : 50

Duration : 3 Hours

Formula & Procedure	20
Observation & Calculation	20
Result & Accuracy	10

END SEMESTER

Total Marks : 50

Duration : 3 Hours

Formula & Procedure	20
Observation & Calculation	20
Result & Accuracy	10

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 600 086
Allied Elective Course Offered by Department of Physics to
Chemistry, Plant Biology and Plant Biotechnology
and Advanced Zoology and Biotechnology

SYLLABUS
(Effective from the academic year 2015-2016)

FUNDAMENTALS OF NANOSCIENCE

CODE: 15PH/AE/FN45

CREDITS: 5

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce students to the developing field of nanoscience and technology
- To provide an understanding of the methods of synthesis, characterisation techniques and applications of nanomaterials

Unit 1 (13hrs.)

Introduction to Nanoscience

- 1.1 Introduction- Nano and Nature-Background to Nanotechnology- Nanoscale
- 1.2 Bulk to Nano Transition- NanosizeEffects - Size Dependent Phenomena - Quantum Confinement

Unit 2 (13 hrs.)

Nano Particles and its Properties

- 2.1 Metal Nanoparticles: Structural and Optical Properties
- 2.2 Semiconductor Nanoparticles: Semiconductor Quantum Dots, Correlation of Properties with Size
- 2.3 CarbonNanostructures: Introduction- Fullerenes- -CNT-Graphene- Properties

Unit 3 (13 hrs.)

Synthesis of Nanomaterials

- 3.1 Physical Method: Ball Milling, Sputter Deposition.
- 3.2 ChemicalMethods: Co-Precipitation- Sol-Gel Synthesis- Solvothermal - Bio Synthesis of Nanoparticles (Metal Nano ParticlesAu, Ag)
- 3.3 Vapour Method-Thermal Evaporation-Chemical Vapour Deposition (CVD).

Unit 4 (13 hrs.)

Characterisation Techniques

- 4.1 Powder X-Ray Diffraction
- 4.2Scanning Electron Microscope(SEM)- Transmission Electron Microscope(TEM).
- 4.3 UV-Vis Absorption Spectroscopy-Photo Luminescence.

Unit 5**(13 hrs.)****Applications of Nanomaterials**

- 5.1 Applications in Chemical Sciences: Solar Cells, Catalysis Photo-catalytic Applications,
5.2 Applications in Life Sciences: Biosensors, Nanomedicine, Drug Delivery.

TEXT BOOKS

GuoZhong Cao. *Nanostructures and Nanomaterials*. U.K: Imperial College, 2004.

Viswanathan B. *Nano Materials*. India : Narosa, 2010.

Pradeep T. *Nano: The Essentials*. New Delhi: Tata Mcgraw Hill, 2007.

BOOKS FOR REFERENCE

P. Poole Charles, Jr. Frank J. Owens. *Introduction to Nanotechnology*. New Delhi: Wiley, 2009.

D. Miller John, *A Hand Book on Nanophysics*. India: Dominant, 2008.

Mick Wilson, Kamal Kannangara Geoff Smith, Michelle Simmons, Burkhard Raguse. *Nanotechnology- Basic Science and Emerging Technologies*. New Delhi: Overseas, 2005.

JOURNALS

American Chemical Society publishers
Journal of Physical Chemistry (Review articles)
Chemical Reviews
Springerlink Publishers
Journal of Nanoparticle Research
Elsevier Publishers
Nano Today

WEB RESOURCES

<http://www.slideshare.net/MazharLaliwala/introduction-to-nanoscience-and-nanotechnology>

PATTERN OF EVALUATION**Continuous Assessment**

Total Marks: 50

Duration: 90 mins.

Section A – 5x3= 15 (All questions to be answered)

Section B – 4x5= 20 (4 out of 5 to be answered)

Section C – 1x15=15 (1 out of 2 to be answered)

Third Component:

Project
Assignments
Seminar

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Section A – 10 x 3 = 30 Marks (All questions to be answered)

Section B – 5 x 5 = 25 Marks (5 out of 7 to be answered)

Section C – 3 x 15 = 45 Marks (3 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

B.Sc. DEGREE: BRANCH III – PHYSICS

SYLLABUS
(Effective from the academic year 2015 – 2016)

LASER PHYSICS

CODE: 15PH/ME/LP55

CREDITS: 5

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To study the principles of Laser
- To acquaint student with different types of Lasers and their applications

Unit 1 (13 hrs.)

Basic Theory

- 1.1 Quantum Nature of Light – Energy Levels – Thermal Equilibrium - Population-Population Inversion - Absorption – Spontaneous and Stimulated Emission – Condition for Stimulated Emission
- 1.2 Einstein’s Coefficients – Relation Between Them – Schawlow -Towne’s Threshold Condition for Laser Oscillations in Terms of Population Difference
- 1.3 Basic Components of a Laser- Active Medium- Pumping Agents- Different Pumping Methods- Optical Resonator- Action of Optical Resonator- Optical Resonator – Cavity Configuration - Plane Parallel Cavity-Confocal Cavity- Hemispherical and Long Radius Cavity

Unit 2 (16 hrs.)

Rate Equations and Solid State Lasers

- 2.1 Laser Rate Equation- Two Level System- Three Level System- Four Level System (Qualitative Treatment Only)-Qualitative Explanation of Line Broadening Mechanism
- 2.2 Classification of Lasers (on the Basis of Active Medium) - Solid State Laser -Nd: YAG Laser–General Description-Structure- Energy Level Diagram – Working
- 2.3 Laser Beam Characteristics – Introduction- Directionality-Divergence- Coherence- Temporal and Spatial Coherence- Monochromaticity

Unit 3 (10 hrs.)

Gas and Liquid Lasers

- 3.1 Gas Lasers–Molecular Gas Laser (Carbon Dioxide Laser)-General Description-Structure - Energy Level Diagram – Working
- 3.2 Liquid Laser – Dye Laser - Description - Energy Level Diagram – Working

3.3 Chemical Laser– HCl Laser – CO Laser

Unit 4 (13 hrs.)

Semiconductor Laser and Holography

- 4.1 Semiconductor Laser – Intrinsic Semiconductor Laser - Doped Semiconductor Laser
- 4.2 PN Junction– Population Inversion-Energy Level Diagrams- Homojunction Laser- Diode Laser Operation- Advantages of Laser Diodes Over LED
- 4.3 Introduction to Holography –Recording and Reconstruction of the Image - Characteristics – Applications in Holography

Unit 5 (13 hrs.)

Applications

- 5.1 Laser in Industry – Drilling - Cutting – Welding – Laser Printing - Lasers in Nuclear Energy – Isotope Separation – Nuclear Fusion- Lasers in Defense- Lidar – Precision Length Measurement – Velocity Measurement
- 5.2 Lasers in Medicine – Cancer Therapy– Laser Eye Surgery- Laser Angioplasty
- 5.3 Lasers in Consumer Electronics Industry –Bar Code Scanners - Lasers in Communications-Block Diagram-Basic Principles of Optical Computers- Laser Ablations.

TEXT BOOKS

Avahanulu .M.N. *An Introduction to Lasers*. New Delhi: S Chand, 2005.

Laud B.B. *Lasers and Non – Linear Optics*. New Delhi: Wiley, 1985.

BOOKS FOR REFERENCE

Thyagarajan K. & Ghatak, A.K. *Lasers*. Chennai: Macmillan, 1981.

Wison, J & Hawkes J F B. *Optoelectronics–An Introduction*. New Delhi: Prentice Hall, 1987.

JOURNALS

Laser Physics – Springer
link.springer.com/journal/11490

Journal of Laser Applications
Scitation.aip.org/content/lia/journal/jla

WEBRESOURCE

Institute of Physics - For physics • For physicists • For all ...
www.iop.org/

Laser Physics - Complete University Guide
www.thecompleteuniversityguide.co.uk › Courses › Options

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Duration: 90 mins.

Section A – 5x3= 15 (All questions to be answered)

Section B – 4x5= 20 (4 out of 5 to be answered)

Section C – 1x15=15 (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Quiz

Open book tests

Group discussion

Assignments

Seminar

Problem solving

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Section A – 10 x 3 = 30 Marks (All questions to be answered)

Section B – 5 x 5 = 25 Marks (5 out of 7 to be answered)

Section C – 3 x 15 = 45 Marks (3 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

B.Sc. DEGREE: BRANCH III – PHYSICS

SYLLABUS
(Effective from the academic year 2015 – 2016)

ESSENTIALS OF NANOSCIENCE

CODE: 15PH/ME/EN55

CREDITS: 5

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce the students to the developing field of nanoscience and technology
- To understand the methods of synthesis, characterisation techniques and applications of nanomaterials

Unit 1 (13hrs.)

Introduction to Nanoscience and Nanotechnology

- 1.1 Introduction- Nano and Nature- Scientific Revolution, Definition of Nanotechnology, Emergence of Nanotechnology
- 1.2 Bulk to Nano Transition-Nanosize Effects - Size Dependent Phenomena - Bohr Exciton radius, Quantum Confinement

Unit 2 (13hrs.)

Types of Nanostructures and Functional Nanomaterials

- 2.1 Definition of a Nano System - Types of Nanocrystals-One Dimensional (1D)-Two Dimensional (2D) -Three Dimensional (3D) Nanostructured Materials - Quantum Dots (0 D) - Quantum Wire - Core/Shell Structures
- 2.2 Carbon (Fullerene, CNT, Graphene), Noble Metals (Au, Ag), Metal Oxides (TiO₂, SnO₂, ZnO), Semiconductors (CdS, CdSe, CdTe), Magnetic Nanoparticles, Semiconductor Nanocomposites (Si:Ge)

Unit 3 (13hrs.)

Synthesis of Nanomaterials

- 3.1 Physical Method: Ball Milling, Sputter Deposition, Ion Beam Techniques.
- 3.2 Chemical Method: Wet Chemical Synthesis – Sol-Gel Processing, Co-Precipitation, Hydrothermal, Chemical Bath Deposition
- 3.3 Vapour Method: Thermal Evaporation - Chemical Vapor Deposition (CVD)

Unit 4 (13hrs.)

Characterisation Techniques

- 4.1 Powder X-Ray Diffraction
- 4.2 UV-Vis Absorption Spectroscopy-Photo Luminescence
- 4.3 Scanning Electron Microscopy (SEM)- Transmission Electron Microscopy (TEM)

Unit 5

(13hrs.)

Applications of Nanomaterials

- 5.1 Applications in Physics: Nanoelectronics, Quantum Dot and Dye Sensitized Solar Cells, Photovoltaics, Photocatalytic Applications, CNT Based Transistor and Field Emission Display
- 5.2 Applications in Other Fields of Science: Nanosensors, Nanomedicine, Nanocoatings, Nanopaints

TEXT BOOKS

GuoZhong Cao. *Nanostructures and Nanomaterials*. U.K: Imperial College Press, 2004.

Viswanathan. B. *Nano Materials*. India: Narosa, 2010.

Pradeep T. *Nano: The Essentials*. New Delhi: Tata Mcgraw Hill, 2007.

BOOKS FOR REFERENCE

John D. Miller. *A Hand Book on Nanophysics*. India: Dominant, 2008.

Charles P. Poole, Jr., Frank J. Owens. *Introduction to Nanotechnology*. New Delhi: Wiley, 2009.

Mick Wilson, Kamal Kannangara, Geoff Smith, Michelle Simmons, Burkhard Raguse. *Nanotechnology- Basic Science and Emerging Technologies*. New Delhi: Overseas, 2005.

JOURNALS

American Chemical Society publishers
Journal of Physical Chemistry (Review articles)
Chemical Reviews
Springerlink Publishers
Journal of Nanoparticle Research
Elsevier Publishers
Nano Today

WEBRESOURCE

<http://www.slideshare.net/MazharLaliwala/introduction-to-nanoscience-and-nanotechnology>

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Duration: 90 mins.

Section A – $5 \times 3 = 15$ (All questions to be answered)

Section B – $4 \times 5 = 20$ (4 out of 5 to be answered)

Section C – $1 \times 15 = 15$ (1 out of 2 to be answered)

Third Component:

Project

Assignments

Seminar

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Section A – $10 \times 3 = 30$ Marks (All questions to be answered)

Section B – $5 \times 5 = 25$ Marks (5 out of 7 to be answered)

Section C – $3 \times 15 = 45$ Marks (3 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENAI-600 086

B.Sc. DEGREE: BRANCH III – PHYSICS

SYLLABUS

(Effective from the academic year 2015 – 2016)

COMMUNICATION SYSTEMS

CODE:15PH/ME/CS55

CREDITS: 5

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To acquaint students with concepts of communication systems
- To understand the principles of optical and mobile communication systems

Unit 1 (13 hrs.)

Communication Principles

- 1.1 Types of Modulation – Amplitude Modulation – Modulation Factor – Analysis of Amplitude Modulated Wave – Energy Distribution in AM Wave
- 1.2 Frequency Modulation - Analysis of Frequency Modulated Wave – Phase Modulation – Comparison of Frequency and Amplitude Modulation
- 1.3 Pulse Amplitude Modulation – Pulse Width – Pulse Coded Modulation (Principles Only)

Unit 2 (13 hrs.)

Radiation Propagation

- 2.1 Fundamentals of Electromagnetic Waves – Propagation of Waves – Ground Waves – Sky Waves
- 2.2 Space Wave Propagation – Effect of Earth's Curvature – Atmospheric Effects- Ionosphere and Its Stratification

Unit 3 (13 hrs.)

RADAR Systems and Microwave Generations

- 3.1 Radar Systems – Basic Principles – Basic Pulsed Radar System – Block Diagram and Description – Radar Range Equation – Uses of Radar – Doppler Radar Systems
- 3.2 Microwave Communication – Introduction – Generation of Microwaves – Magnetron Oscillator – Working – Klystron Oscillator – Velocity Modulation– Multicavity Klystron – Reflex Klystron

Unit 4 (13hrs.)

Fibre Optic Communication

- 4.1 Introduction – Importance of Optical Fibres – Propagation of Light Waves in an Optical Fibre – Basic Structure of an Optical Fibre – Propagation of Light Wave Through an Optic Fibre – Acceptance Angle and Acceptance Cone of a Fibre – Modes of Propagation – Meridinal and Skew Rays
- 4.2 Classification of Optical Fibres – Stepped Index Fibre – Disadvantages of Monomode Fibre – Graded Index Multimode Fibre – Fibre Losses – Attenuation in Optic Fibres- Material or Impurity Loss – Absorption Loss – Radiation Induced Losses

Unit 5 (13 hrs.)

Basics of Wireless and Mobile Communications

- 5.1 Introduction - Present Day Mobile Communication - Radio Transmission Techniques- Cellular Concept - Operational Channels - Making a Call
- 5.2 Modern Wireless Communication Systems : First Generation Networks - Second Generation Networks - Tdma/Fdd - Cdma/Fdd Standard - Mobile Networks - 3g - Third Generation Networks - Bluetooth - Wireless Local Area Networks (W-Lan)

TEXT BOOKS

Ambrose, A., T. Vincent Devraj. *Elements of Solid State Electronics*, K. K. DT: Meera 1990.

Mehta. V.K. *Principles of Electronics*. New Delhi : S Chand, 1993.

Sarkar Subir Kumar. *Optical Fibres and Fibre Optic Communication Systems*. New Delhi: S Chand, 1997.

Jochen Schiller. *Mobile Communications*. Second Edition. U.K: Pearson Education, 2003.

BOOKS FOR REFERENCE

Haykin, Simon. *Digital Communications*. New Delhi: John Wiley, 1998.

Kennedy, George. *Electronic Communication Systems*. New Delhi: McGraw, 1984.

Lathi B.P. *Communication System*. New Delhi: New Delhi: Wiley, 1981.

Kaveh Pahlavan, Prasanth Krishnamoorthy. *Principles of Wireless Networks*. First Edition. U.K: Pearson Education, 2003.

JOURNAL

AEU - International Journal of Electronics and Communications

IOSR Journal of Electronics and Communication Engineering(IOSR-JECE)

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Duration: 90 mins.

Section A – $5 \times 3 = 15$ (All questions to be answered)

Section B – $4 \times 5 = 20$ (4 out of 5 to be answered)

Section C – $1 \times 15 = 15$ (1 out of 2 to be answered)

Third Component:

Project

Assignments

Seminar

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Section A – $10 \times 3 = 30$ Marks (All questions to be answered)

Section B – $5 \times 5 = 25$ Marks (5 out of 7 to be answered)

Section C – $3 \times 15 = 45$ Marks (3 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

General Elective Course Offered by Department of Physics to
B A. / B.Sc. / B.Com. / B.C.A. / B.S.W. Degree Programmes
SYLLABUS

(Effective from the academic year 2015 – 2016)

PHYSICS OF MUSIC

CODE: 15PH/GE/PM22

CREDITS: 2

L T P: 2 0 0

TOTAL TEACHING HOURS: 26

OBJECTIVE OF THE COURSE

- To learn and appreciate the principles of sound behind music

Unit 1 (8 hrs.)

Introduction

- 1.1 Waves - Properties of Waves- Wave Motion- Sound Propagation- Echoes- Interference - Resonance and Beats
- 1.2 Sources of Sound- Sound Intensity and Loudness- Response of the Human Ear- Decibel Scale

Unit 2 (9 hrs.)

Elements of Music

- 2.1 Harmonic Series and Natural Modes; Steady Tones
- 2.2 Percussion Instruments- – Mirudangam-Drums- Natural Modes of Vibration - Standing Waves, Hammered and Plucked Strings- Bowed Strings- Violin, Veena and Guitar

Unit 3 (9 hrs.)

Flow-driven and Valve-driven Instruments

- 3.1 Tuning Temperaments
- 3.2 Flow-Driven Instruments - Valve-Driven Instruments; Pipe Organs.

TEXT BOOKS

Subramaniam N. and Brijlal. *Sound*. New Delhi: S Chand, 2000.

Thomas D. Rossing. *The Science of Sound*. Third Edition. New Delhi: Addison-Wesley, 2002.

John Backus. *The Acoustical Foundations of Music*. Second Edition. New York: Norton: 1977.

N.H. Fletcher and T.D. Rossing. *The Physics of Musical Instruments*. Second Edition. U.K: Springer.

BOOKS FOR REFERENCE

John R. Pierce. *The Science of Musical Sound*, Revised Edition. New York: Freeman, 1992.

John S. Rigden. *Physics and the Sound of Music*. New York: Freeman, 1984,

PATTERN OF EVALUATION

No End Semester Examination.

Continuous Assessment Test - I

25 Marks

Section A – 5 x 1 = 5 Marks (All questions to be answered)

Section B – 2 x 5 = 10 Marks (2 out of 3 to be answered)

Section C – 1 x 10 = 10 Marks (1 out of 2 to be answered)

Third Component:

25 Marks

List of Evaluation modes:

Seminar

Quiz

Open book tests

Assignment

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI-86

**General Elective Course Offered by Department of Physics to
B A./B.Sc(Other than Mathematics, Physics, Chemistry) / B.Com. / B.C.A. / B.S.W.
Degree Programmes**

SYLLABUS

(Effective from the academic year 2015 – 2016)

BASIC PRINCIPLES OF PHYSICS

CODE: 15PH/GE/BP22

CREDITS: 2

L T P:1 0 1

TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE

- To learn the basic concepts of physics
- To understand the principles of various machines through experiments

Unit 1

Mechanics

(8 hrs.)

1.1 Newton's Laws of Motion- Conservation of Linear Momentum. Impulse- Collision- Centripetal and Centrifugal Forces –First and Second Order of Levers –Simple Machines

1.2.Experiments

I Conservation of Linear Momentum

II Centripetal and Centrifugal Forces

III Simple Machines

Unit 2

Optics

(9 hrs.)

2.1 Light – Characteristics of Light- Reflection – Refraction – Interference – Diffraction - Polarization- Electromagnetic Spectrum- Microscope-Telescope-Spectrometer
Laser- Stimulated Emission – Principle of Laser Action

2.2 Experiments

i. Parts of Optical Instruments

ii Study of Spectrum Using Prism and Transmission Grating

iii Determination of Thickness of Thin Wire Using LASER

Unit 3

Electricity

(9 hrs.)

3.1 Ohm's Law- Resistance in Series and Parallel- Electromagnetic Induction- Lenz's Law- Magnetic Materials- Different Types of Magnetic Materials- DC and AC-Three Phase AC

3.2 Experiments

i. Verification of Ohm's Law

ii Study of Magnetic Properties

iii Generation of EMF Using Induction Coil

TEXT BOOK

Halliday, David and Robert Resnick. *Physics Vol I and II*. Chennai: New Age, 1995.

BOOKS FOR REFERENCE

Narayananmurthi. M and Nagaratham. N. *Dynamic*. Chennai: The National, 1994.

Subrahmanyam. Nand Lal Brij. *Textbook of Optics*. New Delhi: Vikas, 2013.

Murugesan R. *Electricity and Magnetism*. New Delhi: S Chand, 2013.

PATTERN OF EVALUATION

No End Semester Examination.

Continuous Assessment Test - I

25 Marks

Section A – 5 x 1 = 5 Marks (All questions to be answered)

Section B – 2 x 5 = 10 Marks (2 out of 3 to be answered)

Section C – 1 x 10 = 10 Marks (1 out of 2 to be answered)

Third Component:

25 Marks

List of Evaluation modes:

Seminar

Quiz

Open book tests

Assignment

Presentation of working model

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

**General Elective Course Offered by Department of Physics to
B A. / B.Sc. / B.Com. / B.C.A. / B.S.W. Degree Programmes**

SYLLABUS

(Effective from the academic year 2015 – 2016)

BASICS OF COMMUNICATION SYSTEMS

CODE: 15PH/GE/BC23

CREDITS: 3

L T P: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To study the basic concepts of communication
- To understand the principles of optical and mobile Communications

Unit 1

Radiation Propagation

(8 hrs.)

- 1.1 Fundamentals of Electromagnetic Waves – Propagation of Waves
- 1.2 Ground Waves – Sky Waves – Space Waves.

Unit 2

Communication Principles

(8 hrs.)

- 2.1 Radio Broadcasting – Transmission and Reception – Demodulation
- 2.2 Types of Modulation – Amplitude Modulation – Frequency Modulation

Unit 3

RADAR systems

(11hrs.)

- 3.1 Radar Systems – Basic Principles– Block Diagram and Description
- 3.2 Radar Range Equation – Uses of Radar

Unit 4

Basics of Wireless Communication

(6hrs.)

- 4.1 Wireless Transmission: Introduction to Mobile Communications-Frequencies-Signals- Signal Propagation -Cellular Systems – GSM

Unit 5

Mobile Communications(6hrs)

- 5.1 Basic Functions in Mobile Systems- Location Management –Roaming

TEXT BOOKS

Ambrose, A., T. Vincent Devraj, *Elements of Solid State Electronics*.K.K. Dist: Meera, 1990.

Jochen Schiller, *Mobile Communications*. 2nd edition. New Delhi: Addison-Wesley, 2003.

Mehta. V.K., *Principles of Electronics*. New Delhi: S Chand, 1993.

SarkarSubir Kumar, *Optical Fibres and Fibre Optic Communication Systems*. New Delhi: S Chand, 1997.

BOOKS FOR REFERENCE

Haykin, Simon, *Digital Communications*. New Delhi: John Wiley, 1998.

Kennedy, George, *Electronic Communication Systems*. New Delhi: Tata McGraw Hill, 1984.

Lathi B.P., *Communication System*, New Delhi: Wiley Eastern Limited, 1981.

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 5x 3 = 15 Marks (All questions to be answered)

Section B – 4x 5 = 20 Marks (4 out of 5 to be answered)

Section C – 1 x 15 = 15 Marks (1 out of 2 to be answered)

Third Component :

List of Evaluation modes:

Seminars

Quiz

Group discussion

Assignments

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

**General Elective Course Offered by Department of Physics to
B A. / B.Sc. / B.Com. / B.C.A. / B.S.W. Degree programmes
SYLLABUS**

(Effective from the academic year 2015 – 2016)

DIGITAL PHOTOGRAPHY

CODE: 15PH/GE/DP23

CREDITS: 3

L T P: 2 0 1

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To learn the basics of Photography and the different types of Camera Operations
- To have basic knowledge of Digital Photography
- To acquire basic skills in Adobe Photoshop

Unit 1 (8hrs.)

Camera and Lighting

- 1.1 The History and Aesthetics of Photography – Components of Camera - Comparison Between Human Eye and Camera - Basics of Cameras and Art- Rules of Photography
- 1.2 Lighting: Front Lighting- Side Lighting-Back Lighting- Indoor Lighting-Available Light-Artificial Light-Using Flash-Bounce Flash-Fill in Flash

Unit 2 (8 hrs.)

Digital Photography

- 2.1 Digital Cameras- Basics- Viewing and Focusing Systems- View Finder-Range Finder Lens: Wide Angle Lenses-Telephoto Lenses-Zoom Lenses-Mirror Lens
- 2.2 Shutters- Aperture- F-Number Scale F-Numbers and Exposure Time
Modes of Transferring Technique-Color Mixing-Resolution-Colour Saturation

Unit 3 (11 hrs.)

Demonstration and Hands on Training Handling Camera

- 3.1 Handling Camera: DSLR - Controls - to Hold and Shoot, to Set Exposure, to Compose - Learning Different Shooting Modes
- 3.2 Creative Lighting - to Create a Mood with Lighting - Shooting Practice - Outdoor and Indoor

Unit 4

Demonstration and Hands-on Training - Photoshop Basics (6hrs.)

4.1 Photoshop Tools and Palettes - Understand Managing Image Files - Saving, Uploading, Posting. – Image Editing, Layers and Filters in Photoshop.

Unit 5

Demonstration and Hands-on Training - Photoshop Images (6 hrs.)

5.1 Electronic Images - Their Scaling and Use: Imaging for the Internet - Gain Proficiency with Image Editing – File Size and Print Size.

TEXT BOOK

George T. Carver. & Eugene E. Lee. *Beginning Photography*. New Jersey: Prentice Hall, 1985.

BOOK FOR REFERENCE

Busch David D. *Digital Photography*. New Jersey: Prentice Hall, 2014.

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 5 x 3 = 15 Marks (All questions to be answered)

Section B – 4 x 5 = 20 Marks (4 out of 5 to be answered)

Section C – 1 x 15 = 15 Marks (1 out of 2 to be answered)

Third Component:

List of Evaluation modes:

Scrap book

Portfolio

Assignments

Seminars

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 600 086

**General Elective Course Offered by Department of Physics to
B A. / B.Sc. / B.Com. / B.C.A. / B.S.W. Degree Programmes**

**SYLLABUS
(Effective from the academic year 2015-2016)**

HOME ELECTRICAL INSTALLATIONS

CODE: 15PH/GE/HE23

CREDITS: 3

L T P: 2 0 1

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To understand the working principles of domestic electrical appliances
- To gain the ability to carry out simple electrical repair works

Unit 1 (13 hrs.)

Basic Electric Circuits

- 1.1 Basic Facts : Electric Circuits – Basic Components Used in an Electric Circuit – Complete Circuit- Lighting Circuits - Series and Parallel Circuits
- 1.2 Switches – Types of Switches – Plugs and Its Types – Safety Practices and Measurements

Unit 2 (6 hrs.)

Electrical Connections

- 2.1 Principles of Single Phase and Three Phase Connections. Fuses-Fuse Wire – Melting Point – Causes and Repairing a Fuse- the Earth Wire – Lightning Conductor
- 2.2 Using and Paying for Electricity- Consumption- KWH- Meters

Unit 3 (7 hrs.)

Home Appliances

- 3.1 Electric Iron – Heater- Microwave Oven- Incandescent and Fluorescent Lamps -CFL-Starter-Inverter- Electric Fan-Regulator (SCR)-Control Rheostat
- 3.2 Rice Cooker(Thermostat)-Voltage Stabilizer

Unit 4 (7 hrs.)

Demonstration and Hands-on Training-I

- 4.1. Experiments on Closed, Open, Short, Series and Parallel Circuits.
- 4.2. Wiring Practice of Switches and Plugs.
- 4.3. Measurement of Current and Voltage Using Multimeter.

Unit 5

(6 hrs.)

Demonstration and Hands-on Training-II

- 5.1 Replacing Fuses
- 5.2 A Model of House Wiring
- 5.3 Tubelight Connection

BOOKS FOR REFERENCE:

Bob Fairbrother. *Electricity in the Home*. New York: Bell and Bain, 1998.

Lindslaey Trevor. *Basic Electrical Installation Work*. Great Britain: Newnes, 2005.

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 5 x 3 = 15 Marks (All questions to be answered)

Section B – 4 x 5 = 20 Marks (4 out of 5 to be answered)

Section C – 1 x 15 = 15 Marks (1 out of 2 to be answered)

Third Component:

List of Evaluation modes:

Presentation of working models

Assignments

Problem solving

Seminars

STELLA MARIS COLLEGE (AUTONOMOUS), CHENAI-600 086

B.Sc. DEGREE: BRANCH III – PHYSICS

**General Elective Course Offered by Department of Physics to
B A./ B.Sc. / B.Com. / B.C.A. / B.S.W. Degree**

SYLLABUS

(Effective from the academic year 2015 – 2016)

ENERGY PHYSICS

CODE: 15PH/GE/EP23

CREDITS: 3

L T P: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To understand various types of energy
- To stress the importance of conservation of energy and the need for alternate source of energy

Unit 1

Introduction

(9 hrs.)

- 1.1 Energy : Sources of Energy - Forms of Energy- Potential , Kinetic, Mechanical, Chemical and Thermal Units of Energy, Uses of Energy, Energy Conversion
- 1.2 Non-Renewable Energy – Coal, Petroleum, Gas ,Renewable Energy- Solar, Wind, Biomass, Geothermal and Nuclear , Advantages and Disadvantages

Unit 2

Non-Renewable Energy

(10 hrs.)

- 2.1 Coal - Early Uses as Fuel,-Electricity Generation, Petroleum- Composition, Reservoirs – Uses
- 2.2 Natural Gas – Process, Conversion to Electrical Energy

Unit 3

Renewable Energy

(10 hrs.)

- 3.1 Solar Energy- Solar Energy Conversion, Solar Pond, Solar Voltaic Cell Conversion, Wind Energy , Wind Mill Types ,Geothermal-Power Plants, Uses of Geothermal Water
- 3.2 Biomass Energy – Biofuel Conversion Process, Gasification of Bio Mass, Nuclear: Nuclear Fission and Fusion, Power Reactors Hydroelectric Power, Principle - Production of Power

Unit 4

Energy and Environment

(5 hrs.)

- 4.1 Energy and Environment, Conservation of Energy, Energy Consumption, Calorific Values of Energy

Unit 5

Energy Audit and Planning

(5 hrs.)

5.1 Sustainable Energy Development, Present and Future, Need of Alternate Source of Energy.

5.2 Energy Audit

TEXT BOOK

Ashok V. Desai. *Non-conventional Energy*. New Delhi: New Age, 2001.

BOOKS FOR REFERENCE

Ashwin Paramar. *Energy Future*, New Delhi: Dominant, 2001.

Tiwari. G. N. and Ghosal M. K. *Renewable Energy resources*. New Delhi: Narosa, 2007.

Vandana. S. *Alternative Energy*. New Delhi: A P H, 2002.

PATTERN OF EVALUATION

No End Semester Examination.

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 5 x 3 = 15 Marks (All questions to be answered)

Section B – 4 x 5 = 20 Marks (4 out of 5 to be answered)

Section C – 1 x 15 = 15 Marks (1 out of 2 to be answered)

Third Component :

List of Evaluation modes:

Seminars

Quiz

Group discussion

Assignments

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

**Independent Elective Course Offered by Department of Physics to
B A. / B.Sc. / B.Com. / B.C.A. / B.S.W. Degree Programmes**

SYLLABUS

(Effective from the academic year 2015 – 2016)

GEOPHYSICS

CODE: 15PH/UI/GP23

CREDITS: 3

OBJECTIVE OF THE COURSE

- To learn the basics of Geophysics and the dynamics of Earth

Unit 1

The Earth as a Planet

- 1.1 Solar System - Kepler's Law of Planetary Motion - Bode's Law
- 1.2 Characteristics of Planet - Origin of the Solar System - Earth's Structure

Unit 2

Gravity and the Figure of the Earth

- 2.1 Earth Size and Shape - Gravitation- Law of Universal Gravitation- Gravitational Acceleration - Gravitational Potential
- 2.2 Earth's Rotation - Earth's Figure and Gravity

Unit 3

Seismology and Seismic Waves

- 3.1 Elastic Theory- Elastic - an Elastic and Plastic Behavior of Materials - Elastic Waves - Body Waves - Surface Waves
- 3.2 Seismograph – Introduction - Various Seismometers - Seismic Wave Propagation- Introduction - Huygens's Principle – Diffraction - Fermat's Principle

Unit 4

Geomagnetism

- 4.1 Introduction - Discovery of Magnetism - Magnetic Properties of Material- Diamagnetic - Paramagnetic – Ferromagnetic - Curie Temperature
- 4.2 Magnetometers - Flux Gate Magnetometer - Proton Precession Magnetometer

Unit 5

Petroleum Geology

- 5.1 Introduction (Origin and Theory of Hydrocarbons) - Source Rock – Migration - Reservoir Rock - Classification of Reservoir Rocks - Physical Characteristic of Reservoir Rock (Depth, Area and Thickness, Porosity, Permeability) - Cap Rocks
- 5.2 Traps - Types of Traps (Structural Traps, Salt Dome Traps, Stratigraphic Traps, Combinational Traps)

TEXT BOOKS

Baker Hugher *INTEQ. Petroleum Geology*. Mexico: Bureau of Mines, 1999.

Robert.J.Lilie. *Whole Earth Geophysics*. New Jersey: Prentice, 1999.

William Lowrie, *Fundamentals of Geophysics*. U.K: Cambridge, 1997.

REFERENCE BOOKS

Don.L.Anderson. *Theory of the Earth*, Boston: Blackwell Scientific, 1989

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 10 x 3 = 30 Marks (All questions to be answered)

Section B – 5 x 5 = 25 Marks (5 out of 7 to be answered)

Section C – 3 x 15 = 45 Marks (3 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

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SYLLABUS

(Effective from the academic year 2015 – 2016)

ASTROPHYSICS

CODE: 15PH/UI/AP23

CREDITS: 3

OBJECTIVE OF THE COURSE

- To learn about stars and constellations

Unit 1

Our Place in the Universe and Solar System

- 1.1 Introduction: Our Place in the Universe-the Sky- the Constellation- Annual Motion of the Sun-Wanderers-Time and the Calendar
- 1.2. The Solar System: Introduction-Asteroids-Meteoroids-Meteors-Comets-Solar Photon- Magnetosphere- Solar Flares-Maunder Minimum-Solar-Terrestrial Relations

Unit 2

Stars-Introduction

- 2.1 Stars: Description-Stellar Distances -Absolute Magnitude- Stellar Spectra-the Hertzsprung Russell Diagram
- 2.2 Stellar Sizes-Binary Stars-Eclipsing Binaries-Common Stars- Stellar-Mileposts

Unit 3

Life History of Stars

- 3.1 Life History of Stars: The Internal Structure of a Star
- 3.2 Stellar Evolution- Supernovae, Pulsars, Black Holes- Chandrasekhar's Limit and Neutron Stars

Unit 4

Our Galaxy

- 4.1 Our Galaxy: Star Clusters-Interstellar Matter - the Galaxy-Stellar Population- the Centre of the Galaxy
- 4.2 Light and Telescope : the Nature of Light – Telescopes- Detecting Light – Invisible Radiation- the Inverse Square Law

Unit 5

The Universe

- 5.1 The Universe-Galaxies-the Distance Scale-the Expanding Universe
- 5.2 Radio Galaxies- Cosmology

TEXT BOOKS

Abhyankar. *Astrophysics-Stars and Galaxies*. Hyderabad: University, 2001.

BOOKS FOR REFERENCE

Baidayanath Basu. *An Introduction to Astrophysics*. New Delhi: Prentice, 1997.

Bhatia V.B. *Astronomy and Astrophysics with Elements of Cosmology*. New Delhi: Narosa, 2001.

Kumaravelu and Susheela Kumaravelu. *Astronomy*. Nagercoil: Diocesan, 1981.

Owen Gingerich. *New Frontiers in Astronomy*. San Fransisco: W.H.Freeman, 1970.

JOURNAL

The Astrophysical Journal - IOPscience
iopscience.iop.org/0004-637X/

International Journal of Astronomy and Astrophysics
www.scirp.org/journal/ijaa/

WEB RESOURCES

Astrophysics - NASA Science - Science@NASA
science.nasa.gov/astrophysics

Astronomy, astrophysics & cosmology - physicsworld.com

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 10 x 3 = 30 Marks (All questions to be answered)

Section B – 5 x 5 = 25 Marks (5 out of 7 to be answered)

Section C – 3 x 15 = 45 Marks (3 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE : PSYCHOLOGY

SYLLABUS
(Effective from the academic year 2016 - 2017)

BASIC PSYCHOLOGY- I

CODE: 16PY/MC/BP14

CREDITS: 4

L T P : 4 0 0

TOTAL TEACHING HOURS : 52

OBJECTIVES OF THE COURSE

- To introduce students to the basic concepts in Psychology
- To acquaint students with the scientific nature of Psychology

Unit 1 (10 hrs.)

Introduction

- 1.1 Definition of Psychology
- 1.2 Psychology as a science: Methods of Psychology
- 1.3 Different schools of Psychology and modern perspectives of Psychology
- 1.4 Scope and branches of Psychology

Unit 2 (12 hrs.)

Sensation and Perception

- 2.1 Sensation: Basic concepts and processes in sensation
- 2.2 Types of senses
- 2.3 Sensory adaptation, habituation and integration of senses
- 2.4 Perception- basic concepts, learning, set, motivation and emotion
- 2.5 External influences on perception- Figure ground separation
- 2.6 Different processes of perception- laws of organization, depth perception, constancy of perception, perception of movement

Unit 3 (10 hrs.)

Consciousness

- 3.1 Fundamental Process, nature of consciousness
- 3.2 Variations in levels of consciousness and brain activity
- 3.3 Sleep and dreams: stages of sleep and sleep disorders
- 3.4 Dreams: theory of dreams
- 3.5 Meditation, Hypnosis
- 3.6 Psi Phenomena
- 3.7 Psychoactive drugs

Unit 4 (10 hrs.)

Learning

- 4.1 Definition of learning
- 4.2 Theories of learning - Classical conditioning, Operant conditioning, Cognitive Learning, Social Learning

Unit 5

(10Hrs.)

Memory

- 5.1 Meaning and Stages of memory
- 5.2 Atkinson and Shiffrin Model: sensory, short-term, long term memory
- 5.3 Levels of processing theories
- 5.4 Long term memory-organizations and process
 - 5.4.1 Organization of long term memory
 - 5.4.2 Encoding and storing long term memories
 - 5.4.3 Retrieval from long term memory
- 5.5 Forgetting- Motivated forgetting, Interference, amnesia
- 5.6 Techniques of improving memory

BOOKS FOR STUDY

Morgan, C.T., King, R.A., Weisz, J.R., & Schopler, J. *Introduction to Psychology, 7th Edition*. Singapore: McGraw-Hill, 2007.

Hilgard, E.R., Atkinson, R.L., R.C., *Introduction to Psychology, 14th Edition*. Wordsworth Pub. Co., 2009.

Baron, R.A., *Psychology, 5th Edition*. India: Prentice Hall, 2002.

BOOKS FOR REFERENCE

Myers, D.G., *Psychology, 5th Edition*. New York: Worth Publishers, 2004

Kalat, J., *Introduction to Psychology, 8th Edition*. Wordsworth Pub. Co, 2007.

Feldman, R.S., *Understanding Psychology, 6th Edition*. New Delhi: Tata McGraw Hill, 2006.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 2 = 6 marks (all questions to be answered in 50 words)

Section B – 3 x 8 = 24 marks (3 out of 5 questions to be answered in 250 words)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words)

Third Component:

List of evaluation modes:

Seminars

Assignments

Quiz

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A: 10 x 2 = 20 Marks (all 10 questions to be answered in 50 words each)

Section B: 5 x 8 = 40 Marks (5 out of 8 questions to be answered in 250 words each)

Section C: 2 x 20 = 40 Marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE : PSYCHOLOGY

SYLLABUS
(Effective from the academic year 2016 - 2017)

DEVELOPMENTAL PSYCHOLOGY-I

CODE: 16PY/MC/DP14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To understand the developmental concepts and processes of development of the human being
- To comprehend the development through the various life stages, challenges in development

Unit 1 (10 Hrs.)

Human Development

- 1.1 Human Development through the Life Span
- 1.2 Theoretical Approaches to Development –
 - 1.2.1 Psychosexual Development (Freud)
 - 1.2.2 Cognitive Development (Piaget)
 - 1.2.3 Moral Development - Kohlberg
 - 1.2.4 Psychosocial Development – Eric Erickson
 - 1.2.5 Social Learning theory – Albert Bandura

Unit 2 (10 Hrs.)

Prenatal Development, Infancy and Babyhood

- 2.1 Conception: Fertilization, Heredity and Environment
- 2.2 Prenatal Development, Birth: stages, methods and settings of childbirth.
- 2.3 Characteristics of infancy and babyhood
- 2.4 Physical development in infancy and babyhood
- 2.5 Health in infancy and babyhood
- 2.6 Motor development in infancy and babyhood
- 2.7 Perceptual development in infancy and babyhood
- 2.8 Cognition and language development in infancy and babyhood
- 2.9 Challenges in infancy and babyhood

Unit 3 (12 Hrs.)

Early Childhood, Late Childhood and Puberty

- 3.1 Characteristics of early childhood, late childhood and puberty
- 3.2 Physical development in early childhood, late childhood and puberty
- 3.3 Health in early childhood, late childhood and puberty
- 3.4 Motor development in early childhood, late childhood and puberty
- 3.5 Perceptual development in early childhood and late childhood

- 3.6 Cognition and language development in early childhood and late childhood
- 3.7 Challenges in early childhood, late childhood and puberty

Unit 4 (10 Hrs.)

Adolescence- Dimensions of Developmental

- 4.1 Characteristics of Adolescence, Developmental tasks of adolescence
- 4.2 Physical changes, maturation in adolescence, Psychological impact of physical changes
- 4.3 Health concerns of adolescence, Cognitive development in adolescence.

Unit 5 (10 Hrs.)

Adolescence – Psychosocial Changes

- 5.1 Social changes during adolescence
- 5.2 Identity formation
- 5.3 Approved sex roles
- 5.4 Family relationships
- 5.5 Relationship with peers
- 5.6 Personality changes
- 5.7 Challenges in adolescence , Children in Conflict with Law
- 5.8 Promotion of Healthy Development – Development of Life Skills

BOOKS FOR STUDY

Hurlock B, Elizabeth *Developmental Psychology: A Life-Span Approach* Tata McGraw-Hill Education Pvt. Ltd., 2010

Shaffer, David R. *Developmental Psychology. 9th Edition.* Wadsworth, Canada, 2014

Santrock John. *Life Span Development* 13 Edition McGraw Hill Education , 2011

BOOKS FOR REFERENCE

Santrock, John W. *Child Development. 11th edition.* Tata McGraw Hill Publishing Company, 2007.

Papilia, Diane E., Sally Wendos Olds. *Human Development. 11th Edition.* Tata McGraw Hill Publishing Co, 2009.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 3 x 2= 6 marks (all questions to be answered in 50 words)

Section B – 3 x 8= 24 marks (3 out of 5 questions to be answered in 250 words)

Section C – 1x20=20 marks (1 out of 2 questions to be answered in 1200 words)

Third Component:

List of evaluation modes:

Seminars

Assignments

Quiz

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A: $10 \times 2 = 20$ Marks (all 10 questions to be answered in 50 words each)

Section B: $5 \times 8 = 40$ Marks (5 out of 8 questions to be answered in 250 words each)

Section C: $2 \times 20 = 40$ Marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE : PSYCHOLOGY

SYLLABUS
(Effective from the academic year 2016 - 2017)

SOCIAL PSYCHOLOGY-I

CODE: 16PY/AC/SP15

CREDITS: 5

L T P : 5 0 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To introduce students to the basic concepts of Social Psychology
- To familiarise students with the various applications of Social Psychology

Unit 1 (13 Hrs.)

Introduction to Social Psychology:

- 1.1 Meaning and Definition of Social Psychology
- 1.2 Nature of Social Psychology and Scope of Social Psychology
- 1.3 Research methods in social psychology
- 1.4 Social Psychology in the new millennium

Unit 2 (13 Hrs.)

Social Perception

- 2.1 Definition of Self-concept : self- image, self-esteem, self-presentation
- 2.3 Impression Formation and Impression Management
- 2.4 Attribution- Meaning and definition
- 2.5 Theories of attribution,
- 2.6 Attribution errors

Unit 3 (13 Hrs.)

Attitude

- 3.1 Nature and Formation of Attitudes
- 3.2 Theories of attitude change
- 3.3 The fine Art of Persuasion – Resistance to Persuasion

Unit 4 (13 Hrs.)

Conformity

- 4.1 Definition of Conformity
- 4.2 Factors influencing conformity
- 4.3 Classic studies- Sheriff, Asch, Milgram's obedience studies - Resisting Social Pressure

Unit 5 (13 Hrs.)

Interpersonal Attraction and Altruism

- 5.1 The Beginning of Attraction: Proximity, physical attraction, similarity
- 5.2 The need to affiliate and the Effect of Observable characteristics.
- 5.3 Altruism, Prosocial Behaviour: meaning and definition
- 5.4 Internal and external influences on decision to help
 - 5.4.1 Increasing helping Behaviour

BOOKS FOR STUDY

Baron A. & Byrne D, *Social Psychology*. 13th edition. Prentice-Hall of India, 2014.

Myers David G., *Social Psychology*. 11th Edition. McGraw Hill Book Company, 2012.

BOOKS FOR REFERENCE

Singh Arun *Social Psychology* .Eastern Economy Edition, India ,2015

Susan T, Fiske Daniel. *Handbook of Social Psychology Vol I and Vol II*, New Jersey: Published by John Wiley and Sons. 2010.

Schneider, Frank W, Gruman, Jamie, A., *Applied Social Psychology-Understanding Social problems and Practical Problems*. New Delhi: Sage South Asia,2012.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 3 x 2= 6 marks (all questions to be answered in 50 words)

Section B – 3 x 8= 24 marks (3 out of 5 questions to be answered in 250 words)

Section C – 1x20=20 marks (1 out of 2 questions to be answered in 1200 words)

Third Component:

List of evaluation modes:

Seminars

Assignments

Quiz

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A: 10 x 2 = 20 Marks (all 10 questions to be answered in 50 words each)

Section B: 5 x 8 = 40 Marks (5 out of 8 questions to be answered in 250 words each)

Section C: 2 x 20 = 40 Marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE : PSYCHOLOGY

SYLLABUS
(Effective from the academic year 2016 - 2017)

ENVIRONMENTAL STUDIES

CODE :16PY/GC/ES12

CREDIT : 2

L T P: 2 0 0

TOTAL TEACHING HOUR: 26

OBJECTIVES OF THE COURSE

- To create an awareness on current environmental issues
- To educate the students about conservation and management of natural resources
- To train the students to be eco sensitive

Unit 1

Introduction

(6 hrs.)

- 1.1 Components of The Environment – Classification and Characteristics of Resources – Renewable and Non – Renewable Resources
- 1.2 Need for Public Awareness in Conservation of Natural Resources
- 1.3 Energy Flow in Ecosystems – Aquatic and Terrestrial – Food Chain and Food Web

Unit 2

Pollution and Socio Economic Aspects of the Environment

(10 hrs.)

- 2.1 Types of Pollution – Air, Water, Solid Waste, Noise
- 2.2 Problems - Greenhouse Effect – Depletion of the Ozone Layer – Climate Change
- 2.3 Bio Diversity - Definition - Loss of Bio Diversity – Threats to Biodiversity and Conservation of Biodiversity.
- 2.4 Human Behaviour: - Population – Urbanisation – Poverty (as cause and result of pollution and degradation)
- 2.5 Technology: - Agriculture and Industry – Deforestation. Use, Misuse and Abuse of the Resources
- 2.6 Effects and Consequences Of Environmental Problems

Unit 3

Sustainable Development, Remedies and Policy Implications

(10 hrs.)

- 3.1 Environmental Disasters Natural and Human Made – Bhopal Gas Tragedy – Chernobyl Accident – Fukushima Nuclear Crisis - Gulf War – Love Canal Episode – Tsunami – Volcanic Eruptions
- 3.2 Methods Evolved to Measure and Check Environmental Degradation and Pollution – Carbon Footprint, Carbon Credit, Ecological Footprint and Ecological Shadow
- 3.3 Environmental Movements in India – Chipko Movement, Narmada Bachao Andolan, Sethu Samudram Project

- 3.4 Environmental Acts – Policy Measures with Respect to India
3.5 International Environmental Agreement – Stockholm Conference – Montreal Protocol – RIO Meet – Kyoto Conference – UN Conference on Climate Change (Copenhagen)

Field visit

Eco initiatives at the campus : Garbage segregation and Vermicomposting – Graywater recycling – Rainwater harvesting – Solar powered lights – Bio diversity

BOOKS FOR STUDY

Bharucha, E., *Textbook of Environmental Studies*. (1st edition), Hyderabad: Universities Press, 2005.

BOOKS FOR REFERENCE

Ignacimuthu, S. *Environmental Awareness and Protection*. New Delhi: Phoenix, 1997.

Jadhav, H and. Bhosale V. M., *Environmental Protection and Laws*. New Delhi: Himalaya, 1995.

Mies, M. and Shiva V., *Ecofeminism*. London: Zed Books, 1989.

Odum, E.P., *Fundamentals of Ecology*. U.S.A: W.B. Saunders Co. 1971.

Singh, H.R., *Environmental Biology*. (1st edition), New Delhi: S.Chand, 2005.

PATTERN OF EVALUATION (Totally Internal)

CONTINUOUS ASSESSMENT (CA): One Hour Test – 25 Marks
Objective Quiz – 25 Marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc.DEGREE : PSYCHOLOGY

SYLLABUS
(Effective from the academic year 2016 - 2017)

BASIC PSYCHOLOGY-II

CODE: 16PY/MC/BP25

CREDITS: 5

LTP : 5 0 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To introduce students to the basic concepts of Psychology
- To familiarize students to the applications of the concepts

Unit 1 (11 hrs.)

Thinking, Reasoning and Language

- 1.1 Basic elements of thought-Concepts, propositions and images
- 1.2 Reasoning
- 1.3 Decision Making
- 1.4 Problem Solving
- 1.5 Language

Unit 2 (15 hrs.)

Intelligence and Creativity

- 2.1 Definition of Intelligence
- 2.2 Determinants of Intelligence
- 2.3 Theories of intelligence: Factor theories and cognitive theories
- 2.4 Recent trends in intelligence-multiple intelligence, emotional intelligence, social intelligence
- 2.5 Assessment of intelligence
- 2.6 Creative Thinking
 - 2.6.1 Insight in Creative thinking
 - 2.6.2 Stages in Creative thinking
 - 2.6.3 Nature of Creative thinking
 - 2.6.4 Characteristics of Creative thinking

Unit 3 (11 hrs.)

Motivation

- 3.1 Definition of Motivation, Motivation and Behavior
- 3.2 Theories of motivation – Instinct, Drive – Reduction, Arousal, Incentive, Cognitive, Humanistic
- 3.3 Types - Biological motives, Social motives
- 3.4 Frustration and conflict of motives

Unit 4 (13 hrs.)

Emotion

- 4.1 Definitions of Emotions: Nature of emotions
- 4.2 Cognitive appraisal and emotion, Subjective experience and emotion, bodily changes and emotion, facial expression and emotion
- 4.3 Theories of emotion – James – Lange Theory, Cannon Bard Theory, Cognitive Theory
- 4.4 Emotions: Gender and Culture
- 4.5 Assessment of Emotions- Management of emotions

Unit 5 (15 hrs.)

Personality

- 5.1 Definition and Concept of Personality
- 5.2 Approaches - Psychoanalytic approach, Behaviouristic approach, Cognitive approach, Humanistic approach, Factor Analytic Approach (An Overview)
- 5.3 Determinants of Personality
- 5.4 Assessment of Personality – Questionnaire, Rating Scales and Projective Tests

BOOKS FOR STUDY

Morgan, C.T., King, R.A., Weisz, J.R., & Schopler, J. *Introduction to Psychology, 7th Edition*. Singapore: McGraw- Hill, 2007.

Hilgard, E.R., Atkinson, R.L., R.C., *Introduction to Psychology, 14th Edition*. Wordsworth Pub. Co., 2009.

Baron, R.A., *Psychology, 5th Edition*. India: Prentice Hall, 2002.

BOOKS FOR REFERENCE

Myers, D.G., *Psychology, 5th Edition*, Worth Publishers: New York, 2004.

Feldman, R.S., *Understanding Psychology, 6th Edition*, New Delhi: Tata McGraw Hill, 2006.

Kalat, J., *Introduction to Psychology, 8th Edition*, Wordsworth Pub. Co., 2007

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 3 x 2 = 6 marks (all questions to be answered in 50 words)

Section B – 3 x 8 = 24 marks (3 out of 5 questions to be answered in 250 words)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words)

Third Component:

List of evaluation modes:

Seminars

Assignments

Quiz

End semester examination:

Total Marks: 100

Duration: 3 hours

Section A: $10 \times 2 = 20$ Marks (all 10 questions to be answered in 50 words each)

Section B: $5 \times 8 = 40$ Marks (5 out of 8 questions to be answered in 250 words each)

Section C: $2 \times 20 = 40$ Marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE : PSYCHOLOGY

SYLLABUS
(Effective from the academic year 2016 - 2017)

DEVELOPMENTAL PSYCHOLOGY-II

CODE: 16PY/MC/DP24

CREDITS: 4

L T P : 4 0 0

TOTAL TEACHING HOURS : 52

OBJECTIVES OF THE COURSE

- To understand the developmental concepts and processes of development of the human being
- To comprehend the development through the various life stages, challenges in development

Unit 1 (10 Hrs.)

Adulthood – Early Adulthood

- 1.1 Characteristics of adulthood developmental task
- 1.2 Physical, sensory, and psychomotor functioning,
- 1.3 Health in adulthood, changes in interest in adulthood, social mobility, sex role adjustment
- 1.4 Personal and social hazards of adulthood, intellectual development
- 1.5 Vocational adjustment, marital adjustment, adjustment to parenthood.

Unit 2 (10 Hrs.)

Adulthood – Middle Adulthood

- 2.1 Characteristics of middle age, developmental tasks
- 2.2 Physical changes, sensory, Psychomotor functioning
- 2.3 Health in middle age, intellectual changes

Unit 3 (11 Hrs.)

Middle Adulthood- Psychosocial Aspects

- 3.1 Personal and social hazards, changes in interests, work in the middle age
- 3.2 Adjustment to changed family patterns, marital hazards of middle age
- 3.3 Relationship with maturing children and aging parents.

Unit 4 (10 Hrs.)

Adulthood – Late Adulthood

- 4.1 Characteristics of old age, developmental tasks
- 4.2 Physical development, sensory and psychomotor functioning, intellectual changes
- 4.3 Health in old age, social adjustment in old age, physical hazards, psychological hazards, religion, and positive aging

Unit 5

(11 Hrs.)

Late Adulthood- Psychosocial Aspects

- 5.1 Social issues related to aging, relationship with siblings, friends, adult children; family management of elder care
- 5.2 Adjustment to retirement, adjustment to single-hood, vocational and family hazards of old age, living arrangements for the elderly;
- 5.3 Death: facing death; three aspects of death, coping with loss

BOOKS FOR STUDY

Hurlock B, Elizabeth *Developmental Psychology: A Life-Span Approach*
Tata McGraw-Hill Education Pvt. Ltd., 2010
Shaffer, David R. *Developmental Psychology. 9th Edition.* Wadsworth, Canada, 2014
Santrock John. *Life Span Development* 13 Edition McGraw Hill Education , 2011

BOOKS FOR REFERENCE

Papilia, Diane E., Sally Wendos Olds. *Human Development. 11th Edition.* Tata McGraw Hill Publishing Co, 2009.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

- Section A – 3 x 2= 6 marks (all questions to be answered in 50 words)
- Section B – 3 x 8= 24 marks (3 out of 5 questions to be answered in 250 words)
- Section C – 1x20=20 marks (1 out of 2 questions to be answered in 1200 words)

Third Component:

List of evaluation modes:

- Seminars
- Assignments
- Quiz

End Semester Examination:

Total Marks: 100

Duration: 3 hours

- Section A: 10 x 2 = 20 Marks (all 10 questions to be answered in 50 words each)
- Section B: 5 x 8 = 40 Marks (5 out of 8 questions to be answered in 250 words each)
- Section C: 2 x 20 = 40 Marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc.DEGREE : PSYCHOLOGY

SYLLABUS
(Effective from the academic year 2016 - 2017)

FOUNDATIONS OF BIO PSYCHOLOGY

CODE: 16PY/AC/BI25

CREDITS: 5

LTP : 5 0 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To understand the physiological basis of behavior
- To familiarize students to the applications of the concepts

Unit 1

(13 hrs.)

Biopsychology as a neuroscience

- 1.1 Definition of Biopsychology
- 1.2 Biological approach to behaviour
 - 1.2.1 Biological explanations of behaviour
 - 1.2.2 Career Opportunities
- 1.3 Genetics and Behavior
 - 1.3.1 Mendelian Genetics
 - 1.3.2 Heredity and Environment
 - 1.3.3 The Evolution of Behavior
- 1.4 The Use of Animals in Research
 - 1.4.1 Reasons for Animal Research
 - 1.4.2 The Ethical Debate

Unit 2

(13 hrs.)

Nervous system

- 2.1 Structure of the Vertebrate Nervous System
 - 2.1.1 The Spinal Cord
 - 2.1.2 The Autonomic Nervous System
 - 2.1.3 The Hindbrain
 - 2.1.4 The Midbrain
 - 2.1.5 The Forebrain
 - 2.1.6 The Ventricles
- 2.2 The Cerebral Cortex
 - 2.2.1 Organization of the Cerebral Cortex
 - 2.2.2 The Occipital Lobe
 - 2.2.3 The Parietal Lobe
 - 2.2.4 The Temporal Lobe
 - 2.2.5 The Frontal Lobe
 - 2.2.6 Functioning of the Cerebral Cortex

- 2.3 Research Methods
 - 2.3.1 Effects of Brain Damage
 - 2.3.2 Effects of Brain Stimulation
 - 2.3.3 Recording Brain Activity
 - 2.3.4 Correlating Brain Anatomy with Behavior
 - 2.3.5 Brain Size and Intelligence

Unit 3 (15 hrs.)

Nerve Cells and Nerve Impulses

- 3.1 The Cells of the Nervous System
 - 3.1.1 Anatomy of Neurons and Glia
 - 3.1.2 The Blood–Brain Barrier
 - 3.1.3 Nourishment in Vertebrate Neurons
- 3.2 The Nerve Impulse
 - 3.2.1 The Resting Potential of the Neuron
 - 3.2.2 The Action Potential
 - 3.2.3 Propagation of the Action Potential
 - 3.2.4 The Myelin Sheath and Saltatory Conduction
 - 3.2.5 Local Neurons

Unit 4 (15 hrs.)

Synapses and Synaptic transmission

- 4.1 The Concept of the Synapse
 - 4.1.1 The Properties of Synapses
 - 4.1.2 Relationship among EPSP, IPSP, and Action Potentials
- 4.2 Chemical Events at the Synapse
 - 4.2.1 The Discovery of Chemical Transmission at Synapses
 - 4.2.2 The Sequence of Chemical Events at a Synapse

Unit 5 (9 hrs.)

Drugs and Addictions

- 5.1 Drug Mechanisms
- 5.2 A Survey of Abused Drugs
- 5.3 Alcohol and Alcoholism
- 5.4 Addiction
- 5.5 Medications to Combat Substance Abuse

BOOKS FOR STUDY

Kalat. W James, *Biological Psychology*, 11th edition, USA: Wadworth, Belmont, 2013.

Neil. R. Carlson, *Foundations of Physiological Psychology*. 6th Edition. New Delhi: Pearson Education, 2007.

BOOKS FOR REFERENCE

John. P.J. Pinel, *Biopsychology*. 6th Edition. New Delhi: Pearson Education, 2007.

Rosenzweig. R. Mark, Breedlove. S. Mark, Leiman. L. Arnold, *Biological Psychology*. 3rd Edition. Sunderland: Sinauer Associates Inc., 2002.

PATTERN OF EVALUATION

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Duration: 90 mins

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Section B – $3 \times 8 = 24$ marks (3 out of 5 questions to be answered in 250 words)

Section C – $1 \times 20 = 20$ marks (1 out of 2 questions to be answered in 1200 words)

Third Component:

List of evaluation modes:

Seminars

Assignments

Quiz

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A: $10 \times 2 = 20$ Marks (all 10 questions to be answered in 50 words each)

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Section C: $2 \times 20 = 40$ Marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE : PSYCHOLOGY

SYLLABUS
(Effective from the academic year 2016 - 2017)

RESEARCH METHODS IN PSYCHOLOGY

CODE: 16PY/MC/RM34

CREDITS: 4

L T P : 4 0 0

TOTAL TEACHING HOURS : 52

OBJECTIVES OF THE COURSE

- To enable students to understand the research process and techniques in Psychology
- To equip students with the skills to understand research

Unit 1 (10 Hrs.)

Introduction to Research Methodology

- 1.1 Definition and Meaning of Research
- 1.2 Characteristics of Research
- 1.3 Objectives of Research
- 1.4 Types of Research
- 1.5 Significance of Research
- 1.6 Criteria of Good Research

Unit 2 (12 Hrs.)

Research Process

- 2.1 Formulation of research problem
- 2.2 Concepts, Variables, Hypothesis
- 2.3 Review of Literature
- 2.4 Research Designs
 - 2.4.1 Exploratory
 - 2.4.2 Descriptive
 - 2.4.3 Experimental
- 2.5 Sampling
 - 2.5.1 Definition
 - 2.5.2 Significance of Sampling
 - 2.5.3 Types of Sample Designs: Non-probability Sampling, Probability Sampling

Unit 3 (10 Hrs.)

Methods and Tools of Data Collection and Analysis of Data

- 3.1 Sources of data – Primary and Secondary sources
- 3.2 Methods of data collection
 - 3.2.1 Observation method
 - 3.2.2 Interview method
 - 3.2.3 Questionnaires
 - 3.2.4 Case study Method
 - 3.2.5 Survey Method
- 3.3 Processing and Interpretation of data

Unit 4 (10 Hrs.)
Measurement and Scaling Techniques

- 4.1 Measurement in Research
- 4.2 Levels of Measurement
- 4.3 Scaling Techniques
- 4.4 Sources of error in measurement

Unit 5 (10 Hrs.)
Report Writing

- 5.1 Significance of Report writing
- 5.2 Types of Report writing
- 5.3 American Psychological Association (APA) style of report writing – An Overview
- 5.4 Writing of a Research Proposal

BOOKS FOR STUDY

Haslam S Alexander & Mc Garty Craig., *Research Methods and Statistics in Psychology*. New Delhi: Sage Publications India, 2003.
Kothari C.R., *Research Methodology-Methods and Techniques*, New Delhi: Wiley Eastern, 1985.

BOOKS FOR REFERENCE

Tripathi, P.C ., *A Text Book of Research Methodology in Social Science*, New Delhi: Sultan Chand & Sons, 2005.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

- Section A – 3 x 2= 6 marks (all questions to be answered in 50 words)
- Section B – 3 x 8= 24 marks (3 out of 5 questions to be answered in 250 words)
- Section C – 1x20=20 marks (1 out of 2 questions to be answered in 1200 words)

Third Component:

List of evaluation modes:

- Seminars
- Assignments
- Quiz

End semester examination:

Total Marks: 100

Duration: 3 hours

- Section A: 10 x 2 = 20 Marks (all 10 questions to be answered in 50 words each)
- Section B: 5 x 8 = 40 Marks (5 out of 8 questions to be answered in 250 words each)
- Section C: 2 x 20 = 40 Marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE : PSYCHOLOGY

SYLLABUS
(Effective from the academic year 2016 - 2017)

STATISTICS FOR PSYCHOLOGY-I

CODE: 16PY/MC/ST34

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To familiarize students to various descriptive statistical methods used in Psychology
- To train students in the use of statistical tools for data analysis

Unit 1 (7 Hrs.)

Introduction to Statistics

- 1.1 Meaning, need and importance of statistics
- 1.2 Functions and limitations of statistics
- 1.3 Descriptive and Inferential statistical methods – An introduction

Unit 2 (10 Hrs.)

Organization of Data

- 2.1 Coding, Tabulation and Classification of Data
- 2.2 Frequency Distributions
 - 2.2.1 Discrete and continuous
 - 2.2.2 Cumulative frequencies
 - 2.2.3 Percentage frequencies
- 2.3 **Graphical Representations**
 - 2.3.1 Bar Graph
 - 2.3.2 Histogram
 - 2.3.3 Pie Graph
 - 2.3.4 Frequency Polygon

Unit 3 (15 Hrs.)

3.1 Measures of Central Tendency

- 3.1.1 Arithmetic Mean
- 3.1.2 Median
- 3.1.3 Mode
- 3.1.4 Combined mean
- 3.1.5 Merits and demerits of the measures of central tendencies.

3.2 Measures of Variability

- 3.2.1 The range
- 3.2.2 Quartile Deviation
- 3.2.3 Average Deviation
- 3.2.4 Standard deviation
- 3.2.5 Combined SD
- 3.2.6 Coefficient of variation.

Unit 4 (10 Hrs.)

Correlation

- 4.1 Types of correlation: Positive and Negative linear correlation, Linear and curvilinear, Simple, Multiple, Partial
- 4.2 Estimating the Correlation Coefficient - Pearson Product-moment, Rank order Method
- 4.3 Testing its significance

Unit 5 (10 Hrs.)

Normal Distribution

- 5.1 Normal Distribution - Characteristics
- 5.2 Measures of Divergence from normality
 - 5.2.1 Skewness
 - 5.2.3 Kurtosis

BOOKS FOR STUDY

- Gupta, S.P., *Statistical Methods*. New Delhi: Sultan Chand and sons, 2002.
S.K. Mangal *Statistics in Psychology and Education*. (2nd ed). New Delhi: Prentice – Hall of India, 2002.
Garrett, H.E. *Statistics for Psychology and Education*., 1968.

BOOKS FOR REFERENCE

- Arthur Aron, Elaine N. Aron, Elliot. J. Coups. *Statistics for Psychology*. (4th ed.). New Delhi: Pearson Education Inc. 2006.
Frederick. J. Gravetter & Larry . B. Walluan., *Essentials of Statistics for the Behavioural Sciences*. 2nd ed. New York: West Publishing Company, 1995.
Jack Lewin and James Alan Fox. *Elementary Statistics in Social Research*. 10th edition. New Delhi: Pearson Education, 2006.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

- Section A – 3 x 2= 6 marks (all questions to be answered in 50 words)
- Section B – 3 x 8= 24 marks (3 out of 5 questions to be answered in 250 words)
- Section C – 1x20=20 marks (1 out of 2 questions to be answered in 1200 words)

Third Component:

List of evaluation modes:

- Seminars
- Assignments
- Quiz

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A: $10 \times 2 = 20$ Marks (all 10 questions to be answered in 50 words each)

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STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE : PSYCHOLOGY

SYLLABUS
(Effective from the academic year 2016 - 2017)

HEALTH PSYCHOLOGY

CODE: 16PY/AC/HP35

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To familiarise students to health and wellness and the impact of psychological factors on health and disease
- To enable students to understand specific health issues that warrant an in-depth look

Unit 1 (13 Hrs.)

Introduction to Health Psychology- Health Behaviour

- 1.1 Definition of Health Psychology
- 1.2 The need for Health Psychology
- 1.3 Introduction to Health Behaviour
- 1.4 Factors influencing the practice of Health Behaviour
- 1.5 Training for a career in Health Psychology

Unit 2 (13 Hrs.)

Stress and Stress Management

- 2.1 Definition of stress
- 2.2 Categories of stressors
- 2.3 Predisposing factors
- 2.4 Effects of Stress: GAS, Type A behaviour and stress. Psychoneuroimmunology
- 2.5 Methods of Coping with stress

Unit 3 (13 Hrs.)

Chronic and Terminal Illness

- 3.1 Nature of illness
- 3.2 Psychosocial factors of illness
- 3.3 Management of illness, Palliative Care
 - 3.3.1 Pain and its impact
 - 3.3.2 Impact of chronic and terminal illness on individual, family and community
 - 3.3.3 Issues related to care giving: care giver stress, caregiver burnout

Unit 4 (13 Hrs.)

Modification of Health Behaviour

- 4.1 The patient/Practitioner relationship
- 4.2 Changing health behaviour by changing health beliefs
- 4.3 Cognitive Behavioral approaches to health behaviour change
- 4.4 Appropriate venue for health habit modification

Unit 5

(13 Hrs.)

Health Care Intervention and Prevention

- 5.1 Health enhancing behavior – Diet, Exercise, Weight control, Yoga, Meditation
- 5.2 Development of healthy Life Style, Quality of life
- 5.3 Influence of health settings on patient behaviour – out patient, inpatient, aftercare, and home based care
- 5.4 Accident prevention

BOOKS FOR STUDY

Shelley E.Taylor., *Health Psychology*. 6th edition. Tata McGraw Hill edition, 1995.

Edward P.Sarafino. *Health Psychology*. John Wiley and Sons, 1994.

BOOKS FOR REFERENCE

David F Marks, Michael Murray, Brian Evans, Carla Willig, Cailine Woodall and Catherine M.Sykes, *Health Psychology: Theory, Research and Practice*. 2nd edition. New Delhi: Sage Publications, 2008.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

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Section B – 3 x 8= 24 marks (3 out of 5 questions to be answered in 250 words)

Section C – 1x20=20 marks (1 out of 2 questions to be answered in 1200 words)

Third Component:

List of evaluation modes:

Seminars

Assignments

Quiz

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A: 10 x 2 = 20 Marks (all 10 questions to be answered in 50 words each)

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STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE : PSYCHOLOGY

SYLLABUS
(Effective from the academic year 2016 - 2017)

STATISTICS FOR PSYCHOLOGY-II

CODE: 16PY/MC/ST45

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To familiarize students to various inferential statistical methods used in Psychology
- To train students in the use of statistical tools for data analysis

Unit 1 (13 Hrs.)

Inferential Statistics

- 1.1 Statistical Inference – Meaning
- 1.2 Hypothesis Testing – Introduction
 - 1.2.1 Types of Hypothesis
 - 1.2.2 Steps in Hypothesis Testing
- 1.3 Testing of Significance – Test of Significance Approach

Unit 2 (13 Hrs.)

Parametric Tests

- 2.1 Small Sample Tests
 - 2.1.1 't' Test
 - 2.1.2 F Test
 - 2.1.3 ANOVA

Unit 3 (13 Hrs.)

Large Sample Tests

- 3.1 Standard Error – Means
- 3.2 Standard Error - Variances
- 3.3 Standard Error - Correlation Coefficient
- 3.4 Standard Error - Regression Coefficient

Unit 4 (13 Hrs.)

Non Parametric Tests

- 4.1 Chi Square Test
- 4.2 Kruskal Wallis Test
- 4.3 Sign Test
- 4.4 Mann Whitney u Test

Unit 5**(13 Hrs.)****Regression**

- 5.1 Introduction to Simple Linear Regression Model
- 5.2 Introduction to Multiple Regression Model
- 5.3 Properties of Regression Coefficient
- 5.4 Knowledge of applications of Linear Regression Models

BOOKS FOR STUDY

Gupta, S.P., *Statistical Methods*. New Delhi: Sultan Chand and sons, 2002.
S.K. Mangal *Statistics in Psychology and Education*. (2nd ed). New Delhi: Prentice – Hall of India, 2002.
Garrett, H.E. *Statistics for Psychology and Education*., 1968.

BOOKS FOR REFERENCE

Arthur Aron, Elaine N. Aron, Elliot. J. Coups. *Statistics for Psychology*.(4th ed.).New Delhi: Pearson Education Inc. 2006.
Frederick. J. Gravetter & Larry . B. Wallnau., *Essentials of Statistics for the Behavioural Sciences*. 2nd ed. New York: West Publishing Company, 1995.
Jack Lewin and James Alan Fox. *Elementary Statistics in Social Research*.10th edition. New Delhi: Pearson Education, 2006.

PATTERN OF EVALUATION**Continuous Assessment:****Total Marks: 50****Duration: 90 mins**

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Section B – 3 x 8= 24 marks (3 out of 5 questions to be answered in 250 words)
Section C – 1x20=20 marks (1 out of 2 questions to be answered in 1200 words)

Third Component:

List of evaluation modes:

Seminars
Assignments
Quiz

End Semester Examination:**Total Marks: 100****Duration: 3 hours**

Section A: 10 x 2 = 20 Marks (all 10 questions to be answered in 50 words each)
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STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE : PSYCHOLOGY

SYLLABUS
(Effective from the academic year 2016 - 2017)

SOCIAL PSYCHOLOGY II

CODE: 16PY/AC/SP45

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To facilitate students to have a deeper understand of the concepts in Social Psychology
- To enable students to understand the application of social psychology in social life

Unit 1 (12 Hrs.)

Group Dynamics

- 1.1 Meaning and Definition Group
- 1.2 Formation of groups, Types of Groups
- 1.3 Social facilitation, social loafing
- 1.4 Deindividuation
- 1.5 Group Polarization
- 1.6 Group think
- 1.7 Leadership

Unit 2 (13 Hrs.)

Aggression

- 2.1 Meaning and Definition of aggression
- 2.2 Types of Aggression
- 2.3 Theoretical Perspectives- Biological theories, Drive theories, Modern theories
- 2.4 Influence on aggression- Social determinants, Situational determinants
- 2.5 Management of aggression

Unit 3 (14 Hrs.)

Prejudice

- 3.1 Meaning and definition of prejudice
- 3.2 The Nature of Prejudice
- 3.3 Sources of Prejudice- Social Sources; cognitive sources; emotional sources
- 3.4 Discrimination, Stereotypes, Racism, Sexism
- 3.5 Techniques for countering the effects of Prejudice in India.

Unit 4 (13 Hrs.)

Conflict and Peace Making

- 4.1 Meaning and Definition of conflicts
- 4.2 Conflict: Social dilemmas, competition, perceived injustice, Misperception.

- 4.3 Conflict resolution – concept and strategies
- 4.4 Peacemaking; meaning and definition
- 4.5 Strategies for peace: Contact, co-operation, communication, conciliation.

Unit 5 **(13 Hrs.)**

Application of Social Psychology:

- 5.1 Legal System: Effects of police procedures and media coverage; Eyewitness Testimony- Effects of judges and defendants.
- 5.2 Organization: Job satisfaction: Attitudes about work, Prosocial behaviour at work, Leadership: Patterns of influence within groups.
- 5.3 Health: Responding to health related information- the emotional and physiological effects of stress- coping with stress.
- 5.4 Applying Social Psychology to Sports, Military and Media.

BOOKS FOR STUDY

Myers David G., *Social Psychology. 11th Edition.* McGraw Hill Book Company, 2012.
Baron A. & Byrne D, *Social Psychology. 13th edition.* Prentice-Hall of India, 2014

BOOKS FOR REFERENCE

Singh Arun Social Psychology .Eastern Economy Edition, India ,2015
Susan T, Fiske Daniel. *Handbook of Social Psychology Vol I and Vol II*, New Jersey Published by John Wiley and Sons, 2010.
Schneider, Frank W, Gruman, Jamie, A. *Applied Social Psychology-Understanding Social problems and Practical Problems.* New Delhi: Sage South Asia, 2012.

PATTERN OF EVALUATION

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Third Component:

List of evaluation modes:

- Seminars
- Assignments
- Quiz

End semester examination:

Total Marks: 100

Duration: 3 hours

- Section A: 10 x 2 = 20 Marks (all 10 questions to be answered in 50 words each)
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STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: PSYCHOLOGY

SYLLABUS

(Effective from the academic year 2016 - 2017)

ABNORMAL PSYCHOLOGY-I

CODE: 16PY/MC/AB55

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To understand abnormal behaviour and its causes
- To study the various minor mental disorders, their treatment and Prevention

Unit 1 (12 Hrs.)

Introduction to Abnormal Psychology

- 1.1 Psychological Abnormality -Definition of abnormal behaviour
- 1.2 Historical views of abnormal behaviour and its treatment, Current Perspectives of abnormality
- 1.3 Incidence of mental disorders. Classification of mental disorders – International Classification of Diseases – 10 (ICD-10) and Diagnostic and Statistical Manual of Mental Disorders (DSM) – An Overview
- 1.4 Humanitarian approach, Contemporary views of abnormal behaviour

Unit 2 (13 Hrs.)

Childhood and adolescence Disorders

- 2.1 Defiant and conduct disorder
- 2.2 Attention- Deficit/Hyperactivity disorders
- 2.3 Pervasive Developmental Disorders
- 2.4 Mental Disorders Treatment
- 2.5 Treatment and Prevention

Unit 3 (12 Hrs.)

Stress Disorders

- 3.1 Psychological Stress disorders
 - 3.1.1 Acute and Posttraumatic Stress disorders
- 3.2 Physical Stress Disorders
 - 3.2.1 Psychophysiological disorders
- 3.3 Treatment and Prevention

Unit 4 (14 Hrs.)

Anxiety Related Disorders

- 4.1 Anxiety disorders – Generalized Anxiety Disorder, Panic Disorders
- 4.2 Phobias - Specific Phobias, Social Phobia
- 4.3 Obsessive Compulsive Disorder

- 4.4 Biological, Psychosocial and Socio Cultural causal factors for all anxiety disorders
- 4.5 Treatment and Prevention

Unit 5 (14 Hrs.)

Somatoform and Dissociative Disorders

- 5.1 Somatoform Disorder- Conversion Disorder, Somatization Disorder, Pain Disorder, Hypochondriasis and Body Dysmorphic Disorder
- 5.2 Dissociative Disorders- Dissociative Amnesia and Fugue, Depersonalization Disorder, Dissociative Identity Disorder
- 5.3 Biological, Psychosocial and Socio cultural causal factors of Somatoform and Dissociative Disorders
- 5.4 Treatment and Prevention

BOOKS FOR STUDY

- Barlow David H. & Durand V. Mark, *Abnormal Psychology. 2nd edition.* New York: Brooks/Cole Publishing Co, 2000.
- Sarason Irwin G, Sarason. Barbara. *Abnormal Psychology.* New Delhi: Prentice Hall Publication, 2005.
- Barlow, D. H. & Durand, V.M., *Abnormal Psychology – An Integrative Approach. 6 Edn,* Wadsworth: Cengage Learning, 2009.
- Comer. J Ronald, *Fundamentals of Abnormal Psychology* New York: Worth Publishers, 2009.

BOOKS FOR REFERENCE

- Robert C. Carson, James N. Butcher, Susan Mineka, Jill M. Hooley. *Abnormal Psychology. 13th edition.* Pearson Education, 2007.

PATTERN OF EVALUATION

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Duration: 90 mins

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- Section C – 1x20=20 marks (1 out of 2 questions to be answered in 1200 words)

Third Component:

List of evaluation modes:

- Seminars
- Assignments
- Quiz

End Semester Examination:

Total Marks: 100

Duration: 3 hours

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STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE : PSYCHOLOGY

SYLLABUS
(Effective from the academic year 2016 - 2017)

EXPERIMENTAL PSYCHOLOGY- PRACTICAL

CODE: 16PY/MC/EP55

CREDITS: 5

L T P : 3 0 4

TOTAL HOURS : 65

OBJECTIVES OF THE COURSE

- To enable students understand the use of experiments in Psychology
- To acclimatize them to interpret and draw conclusions based on the norms given in the manual

Ten Experiments to be conducted, with the minimum of two from each of the units.

Unit 1

Sensation and Attention

1. Distraction of Attention
2. Determination of two point threshold
3. Division of Attention
4. Span of Attention
5. Visual Acuity
6. Mapping of Blind Spot
7. Colour Blindness

Unit 2

Perception

8. Muller Lyer Illusion
9. Set in perception
10. Perception of Space in Depth
11. Perception of Size Constancy

Unit 3

Learning

12. Transfer of Learning - Habit Interference
13. Maze Learning
14. Knowledge of Results
15. Study of Learning by Insight
16. Proactive and Reactive Inhibition
17. Study of Bilateral Transfer

Unit 4

Thinking

18. Concept Formation
19. Problem Solving
20. T Puzzle
21. Heart and Bow

Unit 5

Motor Skills

22. Motor Learning
23. Manual Dexterity
24. Finger Dexterity
25. Steadiness Test
26. Minnesota Rate of Manipulation Test

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

50 (Record, Assignment, Test)

End semester examination:

Total Marks: 100

Duration: 3 hours

(Viva, Record, Conduction, Plan and Procedure, Results and Tabulation, Discussion, Conclusion)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE : PSYCHOLOGY

SYLLABUS
(Effective from the academic year 2016 - 2017)

COUNSELLING PSYCHOLOGY

CODE: 16PY/MC/CP55

CREDITS: 5

L T P : 5 0 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To understand the basic processes of counselling
- To learn the application of the counselling skills

Unit 1 (12 Hrs.)

Counselling – An Introduction

- 1.1 Introduction: Definitions of Counselling, Scope of counselling
- 1.2 The client counsellor relationship
- 1.3 Characteristics of an effective counsellor
- 1.4 Counselling Skills and Core conditions of counselling
- 1.5 Ethics in counselling

Unit 2 (14 Hrs.)

Approaches to Counselling

- 2.1 Approaches to Counselling: The Directive approach
- 2.2 Behaviouristic Approach
- 2.3 Humanistic Approach – Roger’s Client Centered Approach
- 2.4 Cognitive Behaviour Therapeutic Approach
- 2.5 The Eclectic approach

Unit 3 (13 Hrs.)

The Egan Model of Counselling – the Skilled Approach

- 3.1 Stage – 1 Problem Exploration and Clarification
 - Part I – Attending and Listening, orienting oneself to the present
Micro skills – active listening – verbal and non-verbal messages and behaviour
 - Part II – Helper’s response and clients self-exploration
Helpers skills – accurate empathy (primary level), respect, genuineness, concreteness
Client’s skill – self-exploration
- 3.2 Stage – 2 Integrative understanding / dynamic self-understanding
 - Part I – Focusing, summarizing, probing for missing experiences, behaviour
Feelings

Unit 4 (14 Hrs.)

The Egan Model of Counselling – the Skilled Approach

4.1 Part II – Helper’s skills – all the skills of Stage-1, self-disclosure, immediacy, confrontation.

Client’s skill – non-defensive listening, dynamic self-understanding.

4.2 Stage-3 Facilitating action; developing a new perspective; preferred scenario

Part I – Helping the client see alternatives
Helping the client choose and formulate an action plan
Helping the client implement and evaluate.

Part II – Helper’s skill-
All the skills of stages 1 & 2

Elaboration of action programmes:

(Problem solving, decision making, behaviour modification, ‘home work’ training in inter personal skills)

Support from the helper

Client’s skill: Cooperation, risk-taking, and acting

Unit 5 (12 Hrs.)

Counselling of Special Groups

5.1 Marital and Family Counselling

5.2 School counselling

5.3 Youth Counselling

5.4 Career counselling

5.5 Work place counselling

5.6 De-addiction Counselling

5.7 AIDS Counselling

5.8 Grief counselling

5.9 Counselling suicidal clients.

5.10 Gerontological Counselling

5.11 Telephone, Online Counselling

5.12 Crises Counselling

5.13 Counselling in disaster situation

BOOKS FOR STUDY

Egan Gerard, *The Skilled Helper*, Brooks: Cole Publishing, 1982.

Gibson L Robert & Mitchell H Marianne. *Introduction to counseling and Guidance*. 6th edn. Delhi: Pearson Education, 2003.

Burnard Philip. *Counselling Skills Training – A sourcebook of Activities*. New Delhi: Viva Books Private Limited, 1995.

BOOKS FOR REFERENCE

Nelson-Jones, *The theory and Practice of Counseling*. 2nd Edn. London: Holt, Rinehart and Winston Ltd. 1995.

Patterson. Lewis, Welfel. Reynolds, Elizabeth. *The Counselling Process*. Bangalore: Eastern Press, 2001.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 3 x 2 = 6 marks (all questions to be answered in 50 words)

Section B – 3 x 8 = 24 marks (3 out of 5 questions to be answered in 250 words)

Section C – 1x20=20 marks (1 out of 2 questions to be answered in 1200 words)

Third Component:

List of evaluation modes:

Seminars

Assignments

Quiz

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A: 10 x 2 = 20 Marks (all 10 questions to be answered in 50 words each)

Section B: 5 x 8 = 40 Marks (5 out of 8 questions to be answered in 250 words each)

Section C: 2 x 20 = 40 Marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: PSYCHOLOGY

SYLLABUS
(Effective from the academic year 2016 - 2017)

ABNORMAL PSYCHOLOGY-II

CODE: 16PY/MC/AB65

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To understand the various mental disorders
- To understand the causes and treatment of mental disorders

- Unit 1** (15 Hrs.)
Psychosis - Mood Disorders
1.1 Mood Disorders- Unipolar Mood Disorders
1.2 Biological, psychosocial, socio-cultural causal factors in Unipolar Mood Disorders
1.3 Bipolar Disorders
1.4 Biological, Psychosocial and socio cultural causal factors affecting Bipolar Disorders
1.5 Treatment and Prevention
- Unit 2** (15 Hrs.)
Psychosis - Schizophrenia
2.1 Schizophrenia- Clinical features of Schizophrenia
2.2 Subtypes of Schizophrenia
2.3 Causes of Schizophrenia
2.4 Treatment and Prevention
- Unit 3** (10 Hrs.)
Personality Disorders
3.1 Disorders of Adult Personality and Behaviour - Clinical features, Causes
3.2 Specific Personality Disorders – Paranoid, Schizoid, Dissocial, Histrionic, Borderline
3.2 Treatment and Prevention
- Unit 4** (15 Hrs.)
Substance Related Disorders
4.1 Addiction Disorders- Alcohol abuse and dependence
4.2 Addiction Disorders - Drug abuse and drug dependence
4.3 Treatment and Prevention

Unit 5

(10 hrs.)

Sexual Disorders and Gender Identity Disorder

- 5.1 Sexual dysfunctions
- 5.2 Causes and treatment of sexual dysfunctions
- 5.3 Paraphilias – causes and treatment
- 5.4 Sexual variants, Sexual and gender variants
- 5.5 Gender Identity Disorder
- 5.6 Treatment and Prevention

BOOKS FOR STUDY

- Barlow H. David & Durand V. Mark, *Abnormal psychology. 2nd edition*. Brooks\Cole Publishing Co, 2000.
- Comer.J Ronald *Fundamentals of Abnormal Psychology* New York: Worth Publishers, 2009
- Irwin G. Sarason, Barbara Sarason. *Abnormal psychology*. New Delhi: Prentice Hall Publication, 2005.

BOOKS FOR REFERENCE

- Robert C. Carson, James N. Butcher, Susan Mineka, Jill M. Hooley. *Abnormal psychology*. 13th edition. Pearson Education, 2007.

- Barlow, D. H. & Durand, V.M. *Abnormal Psychology – An Integrative Approach*. 6 Edn, Wadsworth: Cengage Learning, 2009.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

- Section A – 3 x 2 = 6 marks (all questions to be answered in 50 words)
- Section B – 3 x 8 = 24 marks (3 out of 5 questions to be answered in 250 words)
- Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words)

Third Component:

List of evaluation modes:

- Seminars
- Assignments
- Quiz

End Semester Examination:

Total Marks: 100

Duration: 3 hours

- Section A: 10 x 2 = 20 Marks (all 10 questions to be answered in 50 words each)
- Section B: 5 x 8 = 40 Marks (5 out of 8 questions to be answered in 250 words each)
- Section C: 2 x 20 = 40 Marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE : PSYCHOLOGY

SYLLABUS
(Effective from the academic year 2016 - 2017)

PSYCHOLOGICAL ASSESSMENT - PRACTICAL

CODE: 16PY/MC/PT65

CREDITS: 5

L T P : 3 0 4

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To enable students to develop the skills for Psychological testing
- To familiarize students on the different types of testing and the appropriate use of a test

Ten test to be conducted with a minimum of two from each of the units

Unit 1

Intelligence and Achievement

1. Multiple Intelligence Scale
2. Raven's Standard Progressive Matrices
3. Bhatia's Battery of performance test
4. Wechsler Adult Intelligence Test (WAIS)
5. Wechsler Intelligence Scale for Children (WISC)
6. Binet Kamath Test of Intelligence
7. Achievement Motivation Scale
8. Wallach-Kogan Creativity Test

Unit 2

Personality

9. Eysenck Personality Inventory
10. Test of Self -concept scale
11. Test of values
12. Locus of Control
13. Adjustment Scale
14. Self-esteem Scale

Unit 3

Emotion

15. Trait and State Anxiety Scale
16. Trait and State Anger Expression Inventory
17. Becks Depression Scale
18. Sentence completion test

Unit 4

Career, Interest and Aptitude

19. Chatterjee's non language preference record
20. Vocational interest tests
21. Career Maturity Scale
22. Holland Vocational Typology
23. Thurstone's Interest Schedule

Unit 5

Attitude Scale

23. Spiritual Attitude scale
24. Marriage Attitude Scale
25. Alcohol and Drugs Attitude Scale
26. Scientific Attitude Scale

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

50 (Record, Assignment, Test)

End Semester Examination:

Total Marks: 100

Duration: 3 hours

(Viva-, Record-, Conduction-, Plan and Procedure-, Results and Tabulation-, Discussion-, Conclusion)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE : PSYCHOLOGY

SYLLABUS
(Effective from the academic year 2016 - 2017)

APPLIED PSYCHOLOGY

CODE: 16PY/MC/AP65

CREDITS: 5

L T P : 5 0 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE:

- To introduce students to an understanding about the interface between Society and Psychology
- To familiarise students with the various Applications of Psychology

Unit 1 (13 Hrs.)

Introduction to Applied Psychology

- 1.1 Definition of Applied Psychology
- 1.2 Importance of Applied Psychology
- 1.3 Geriatric Psychology

- 1.3.1 Meaning and Definition of Geriatric Psychology
- 1.3.2 Nature and scope of Geropsychology
- 1.3.3 Cognitive, Social and health factors that impact aging
- 1.3.4 Role of Geriatric Psychologist

Unit 2 (13 Hrs.)

Sports Psychology

- 2.1 Meaning and definition of Sports Psychology
- 2.2 Nature and Scope of Sports Psychology
- 2.3 Personality, attitude, motivation, aggression and social factors in sports
- 2.4 Role of Sports Psychologist

Unit 3 (13 Hrs.)

Forensic Psychology

- 3.1 Meaning and Definition of Forensic Psychology
- 3.2 Nature and Scope of Forensic Psychology
- 3.3 Areas of Forensic Psychology
- 3.4 Role of Forensic Psychologist

Unit 4 (13 Hrs.)

Positive Psychology

- 4.1 Meaning and Definition of Community Psychology
- 4.2 Nature and Scope of Community Psychology
- 4.3 Happiness and Psychological well-being
- 4.4 Coping and Resilience
- 4.5 Role of Community Psychologist

Unit 5**(13 Hrs.)****Cyber Psychology**

5.1 Meaning and Definition of Cyber Psychology

5.2 Nature and Scope of Cyber Psychology

5.3 Motivation, emotions, individual differences in human –computer interface

5.4 Role of Cyber Psychologist

BOOKS FOR STUDY

W. L. Gregory, W.J.Burroughs, *Introduction to Applied Psychology*. Scott, Foresman and Company, 1989.

Sharma, Ramnath, Sharma Rachana, *Advanced Applied Psychology (Vol I &II)*, Atlantic. New Delhi .2004

Jain.R, *Sports Psychology*. New Delhi: D.K Publishers, 2005.

Curt R.Bartol, *Forensic Psychology*. New Delhi: Sage Publications, 2012.

Kent L. Norman, *Cyber psychology* Cambridge University Press, 2008.

Schaie,W, & Willis,S. L, *Hand Book Of the Psychology of Aging*. NewYork :Elsevier Publication, 2011.

Snyder.C.R, Lopez.J.Shane, *Positive Psychology*, Sage South Asia Edition. 2011

BOOKS FOR REFERENCE

Cyberpsychology, Behavior, and Social Networking, Journal published by Thomson Reuters
Davey C. Graham, *Applied Psychology* 1st Edition. Britian: BSP Blackwell And British Council Library, 2011.

Jarvis, M, *Sports Psychology- A students Handbook*, Rutledge. Sessesx, 2006.

Style Charlotte, *Brilliant Postive Psychology*, Pearson India.2011

PATTERN OF EVALUATION**Continuous Assessment:****Total Marks: 50****Duration: 90 mins**

Section A – 3 x 2= 6 marks (all questions to be answered in 50 words)

Section B – 3 x 8= 24 marks (3 out of 5 questions to be answered in 250 words)

Section C – 1x20=20 marks (1 out of 2 questions to be answered in 1200 words)

Third Component:

List of evaluation modes:

Seminars

Assignments

Quiz

End Semester Examination:**Total Marks: 100****Duration: 3 hours**

Section A: 10 x 2 = 20 Marks (all 10 questions to be answered in 50 words each)

Section B: 5 x 8 = 40 Marks (5 out of 8 questions to be answered in 250 words each)

Section C: 2 x 20 = 40 Marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI-86.
Allied Elective offered by the Department of Psychology to students of
B.Sc. (Mathematics), B.Com., B.Com (CS), B.Com (A&F), BBA, BSW and
B.C.A. Degree Programme

SYLLABUS
(Effective from the academic year 2016-2017)

CONSUMER PSYCHOLOGY

CODE: 16PY/AE/CP45

CREDITS : 5

L T P : 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE:

- To enable students to understand the rationale behind ‘How and Why’ Consumers Behave
- To understand the internal and external influences that impel individuals to act in Consumption- Related ways

Unit 1

Introduction to Consumer Psychology (12 hrs.)

1.1 The Science of Consumer Behaviour:

- Definition and meaning of Consumer Behaviour
- 1.2 Nature of Consumer Behaviour
- 1.3 Scope of Consumer Behaviour
- 1.4 Importance of Consumer Behaviour

Unit 2

Consumer Motivation (15 hrs.)

- 2.1 Meaning of Motivation, Types of Motives, Dynamic Nature of Motives-Needs and Goals of Consumers

Consumer Personality

- 2.2 Meaning of Personality, Facets of Personality, Personality Traits and Consumer Behaviour

Unit 3

Consumer in the Social and Cultural Settings (12 hrs.)

- 3.1 Family and Consumer Related Roles
- 3.2 Social Standing and Consumer Behaviour
- 3.3 Culture’s Influence on Consumer Behaviour
- 3.4 Reference Groups
- 3.5 Psychographics
- 3.6 Indian Context

Unit 4**Consumer Communication Process****(14 hrs.)**

- 4.1 Definition of Communication
- 4.2 Communication Process-Traditional Media and New Media
- 4.3 Designing Persuasive Communication Messages
- 4.4 The Indian Context

Unit 5**Consumer Decision-Making Process****(12hrs.)**

- 5.1 Stages of Decision Making
- 5.2 Types of Decision Making
- 5.3 Consumer Decision Making Model- EKBMModel
- 5.4 Consumer Insights

BOOKS FOR STUDY

Schiffman, Leon G, Wisenblitt, Joseph, Kuman S Ramesh. *Consumer behaviour*. Chennai. Pearson Education, Inc.2015.

Sharma, Rajwanti, Sharma, Jai Pal. *Consumer Behaviour*. New Delhi. JBC Press.2014.

BOOKS FOR REFERENCE

Blythe, Jim *Consumer Behaviour*. New Delhi. Sage .2013.

Graves Philip. *Consumer.ology*. London. Nicholas Brealey. 2013.

Pasricha, Seema. *Consumer Psychology*. New Delhi. Deep & Deep .2005

Sharan, A.K. *Consumer Psychology*. Bangalore. Neha Publishers & Distributors.1999.

JOURNALS

Journal of Consumer Behaviour

<http://www.ingentaconnect.com/content/jws/cbh/2004/00000004/00000002;jsessionid=51edeavs d1c7i.alice#>

WEB RESOURCES

Consumer-Brand Relationship

http://dx.doi.org/10.1207/s15327663jcp1501_10

What consumers want?

[https://img-](https://img-ssl.tedcdn.com/r/images.ted.com/images/ted/65912_240x180.jpg?quality=89&w=320)

[ssl.tedcdn.com/r/images.ted.com/images/ted/65912_240x180.jpg?quality=89&w=320](https://img-ssl.tedcdn.com/r/images.ted.com/images/ted/65912_240x180.jpg?quality=89&w=320)

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 3 x 2= 6 marks (all questions to be answered in 50 words)

Section B – 3 x 8= 24 marks (3 out of 5 questions to be answered in 250 words)

Section C – 1 x 20=20 marks (1 out of 2 questions to be answered in 1200 words)

Third Component:

List of evaluation modes:

Seminars

Assignments

Case studies

End semester examination:

Total Marks: 100

Duration: 3 hours

Section A: 10 x 2 = 20 Marks (all 10 questions to be answered in 50 words each)

Section B: 5 x 8 = 40 Marks (5 out of 8 questions to be answered in 250 words each)

Section C: 2 x 20 = 40 Marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE : PSYCHOLOGY

SYLLABUS
(Effective from the academic year 2016 - 2017)

HUMAN RESOURCE MANAGEMENT

CODE: 16PY/ME/HR55

CREDITS: 5

L T P : 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To understand and appreciate the concept and role of Human Resource Management in organizations
- To familiarize the students to various processes and Human Resource Management systems

Unit 1 (10 Hrs.)

Introduction to Human Resource Management (HRM)

- 1.1 Meaning, Definition and Scope of HRM
- 1.2 Role and Functions of HRM in the organization
- 1.3 HR Systems, HR Information Systems (HRIS or HRMS)
- 1.4 Policies and Procedures-Overview
- 1.5 Changing trends and Challenges in HRM

Unit 2 (12 Hrs.)

Recruitment and Selection

- 2.1 Recruitment and Selection- Human Resource Planning (short and long term)
- 2.2 Job analysis, description and specification
- 2.3 Recruitment and Selection - Different methods of recruitment – Interviews and methods of interviews
- 2.4 Sources of recruiting
- 2.5 The different processes in recruiting

Unit 3 (13 Hrs.)

Training and Development

- 3.1 Training and Development – Need and Impact (Training Calendar)
- 3.2 Designing Training methodology
- 3.3 Effectiveness Training -Managing star performers and underperformers
- 3.4 Multiskilling
- 3.5 HR process reengineering

Unit 4 (14 Hrs.)

Performance Assessment

- 4.1 Performance Assessment, approach to performance appraisal
- 4.2 Stages in Performance Evaluation - Performance Evaluation Systems
- 4.3 Different Methods- MBO, 360^o evaluation, Balanced Score Card
- 4.4 Performance evaluation and Development
- 4.5 Management Development Programs (MDP)

Unit 5**(16 Hrs.)****Industrial Disputes, Compensation and Labour Laws**

5.1 Industrial Disputes- Strikes, Lock outs

5.2 Grievances and Redressal

5.3 Compensation and Benefits:

5.3.1 Different components of Compensation Benefits; Compensation Surveys and its Benefits

5.3.2 Productivity and Performance related compensation

5.3.3 Role of Compensation in retention

5.4 Pay Grading Scales –Development and career progression

5.5 Collective Bargaining, Trade Unions, Staff associations,

5.6 Labor Laws in India an overview

BOOKS FOR STUDY

Ashwathappa . K, *Human Resource and Personnel Management: Text and Cases*. New Delhi: Tata McGraw Hill, 2005.

Edwin B. Flippo, *Personnel Management*. New York: McGraw Hill, 1984.

T.V.Rao, *Human Resource Management*. New York: McGraw Hill, 2006.

BOOKS FOR REFERENCE

Keith Davis & John W. Newstrom. *Human relations at work*. New York: McGraw Hill, 2006.

Michael Armstrong, *A Handbook of Human Resource Practice*. 8th Edn, London: Kogan, 2001.

David S. Decenzo and Stephen Robbins, *Personnel/Human Resource Management*. 3rd Edn. New Delhi: Prentice Hall, 1988.

Venkata Ratham C.S, Shrivastava B.K, *Personnel Management and Human Resources*. New Delhi: Tata McGraw Hill, 1998.

PATTERN OF EVALUATION**Continuous Assessment:****Total Marks: 50****Duration: 90 mins**

Section A – 3 x 2= 6 marks (all questions to be answered in 50 words)

Section B – 3 x 8= 24 marks (3 out of 5 questions to be answered in 250 words)

Section C – 1x20=20 marks (1 out of 2 questions to be answered in 1200 words)

Third Component:

List of evaluation modes:

Seminars

Assignments

Quiz

End Semester Examination:**Total Marks: 100****Duration: 3 hours**

Section A: 10 x 2 = 20 Marks (all 10 questions to be answered in 50 words each)

Section B: 5 x 8 = 40 Marks (5 out of 8 questions to be answered in 250 words each)

Section C: 2 x 20 = 40 Marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE : PSYCHOLOGY

SYLLABUS
(Effective from the academic year 2016 - 2017)

ORGANIZATIONAL PSYCHOLOGY

CODE: 16PY/ME/OP55

CREDITS: 5

L T P : 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To familiarize students to the fundamental knowledge of organizational psychology
- To help students comprehend the dynamics of human behaviour in an organization

Unit 1 (10 Hrs.)

Introduction to Organizational Psychology

- 1.1 Definition of Organization and Organizational Structure
- 1.2 Relevance of Psychology in organization
- 1.3 Meaning and Definition organizational psychology
- 1.4 Scope of organizational psychology
- 1.5 historical development of organizational psychology,
- 1.6 Pioneers on personnel selection
- 1.7 Challenges for organizational Psychology – virtual work place, virtual employees, worker involvement, changing technology and skills.

Unit 2 (12 Hrs.)

Organizational Culture and Dynamics

- 2.1 Organizational Culture
 - 2.1.1 Definition, creating and sustaining an ethical and customer responsive culture
 - 2.1.2 Employees learn culture
- 2.2 Organizational Dynamics
 - 2.2.1 Contemporary issues for managers
 - 2.2.2 Forces for change
 - 2.2.3 Managing planned change
- 2.2.3 Resistance to change
- 2.2.4 Overview to the approaches to change

Unit 3 (13 Hrs.)

Assessment of Job, Performance and People

- 3.1 Job Analysis-Definition
 - 3.1.1 Job-oriented approach, Person-oriented approach
 - 3.1.2 Purpose of job analysis
- 3.2 Performance Appraisal-Definition
 - 3.2.1 Reasons for appraisal
 - 3.2.2 Methods of performance appraisal

- 3.3 Selecting employees-Definition
 - 3.3.1 Recruitment process, interviews, psychological test
- 3.4 Training-Definition
 - 3.4.1 Training methods-on the job and off the job training

Unit 4 (15 Hrs.)

Work Motivation and Job Satisfaction

- 4.1 Meaning and definition of motivation
 - 4.1.1 Early theories of work motivation – Need Hierarchy, Two Factor theory
 - 4.1.2 Contemporary theories of motivation: ERG theory; McClelland's theory of needs, Reinforcement theory
- 4.2 Job satisfaction
 - 4.2.1 Nature of job satisfaction
 - 4.2.2 Antecedents of job satisfaction-environment antecedents and personal antecedents
 - 4.2.3 Potential effects of job satisfaction

Unit 5 (15 Hrs.)

Work groups, Work Teams and Leadership

- 5.1 Definition of Work Groups and Work Teams
 - 5.1.1 Important Group concepts-roles, norms, group cohesiveness, process loss
 - 5.1.2 Building effective teams-Context, composition, work design, process
- 5.2 Leadership
 - 5.2.1 Definition of leadership
 - 5.2.2 Styles of Leadership
 - 5.2.3 Behavioural theories-Managerial Grid
 - 5.2.4 Contingency theories- Fred Fiedler Model
 - 5.2.5 Situational theory- Hersey and Blanchard's Model

BOOKS FOR STUDY

- Schultz, D. and Schultz, S.E. *Psychology and Work Today*. New Delhi: Pearson Inc, 2004.
Robbins, S.P. *Organizational Behavior*. 11th Edition. New Delhi: Prentice Hall of India, 2005.
Spector E Paul, *Industrial and Organizational Psychology*, 2008

BOOKS FOR REFERENCE

- Mamta,Pandey,Yogendra Singh. *Organizational Behaviour*. New Delhi: A.I.T.B.S Publishers, 2004.
Davis, Keith, John Newstorm. *Human Behaviour at Work: Organizational Behaviour*. New York: McGraw Hill Book-Irwin: 11th Edition, 2002.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 3 x 2= 6 marks (all questions to be answered in 50 words)

Section B – 3 x 8= 24 marks (3 out of 5 questions to be answered in 250 words)

Section C – 1x20=20 marks (1 out of 2 questions to be answered in 1200 words)

Third Component:

List of evaluation modes:

Seminars

Assignments

Quiz

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A: 10 x 2 = 20 Marks (all 10 questions to be answered in 50 words each)

Section B: 5 x 8 = 40 Marks (5 out of 8 questions to be answered in 250 words each)

Section C: 2 x 20 = 40 Marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE : PSYCHOLOGY

SYLLABUS
(Effective from the academic year 2016 - 2017)

PROJECT

CODE : 16PY/ME/PR55

Credits: 5

Students must undertake a survey on a relevant topic. Every student is required to complete this project under the supervision and guidance of a faculty member. This report will be evaluated internally by two examiners.

The project report will be evaluated for 100 Marks

Pattern of evaluation

Internal – Total 50

Project report – 25 marks

Internal VIVA – 25 marks

External – Total 50

Project report – 25 marks

Internal VIVA – 25 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE : PSYCHOLOGY

SYLLABUS
(Effective from the academic year 2016 - 2017)

REHABILITATION PSYCHOLOGY

CODE: 16PY/ME/RP55

CREDITS: 5

L T P : 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE:

- To familiarize students to Rehabilitation Psychology which focuses on the needs and resources of the individual with a disability
- To help students understand the role of a Rehabilitation Psychologist in practice and services within a network of biological, psychological, social, environmental and political capacities

Unit 1 (13 Hrs.)

Introduction to Rehabilitation Psychology

- 1.1 Meaning and definition of rehabilitation
- 1.2 Impairment, Handicap, Disability due to psychiatric disorders
- 1.3 Goals of rehabilitation
- 1.4 Objectives of rehabilitation
- 1.5 Principles of rehabilitation
- 1.6 Impact of disability on the individual, family and community
- 1.7 Individual and community based rehabilitation

Unit 2 (12 Hrs.)

Nature and Need of various Disabilities

- 2.1 Mental Retardation
- 2.2 Low Vision and Blindness
- 2.3 Hearing and Speech Disability
- 2.4 Orthopedic Neuromuscular Disability, Cerebral Palsy and Multiple Disabilities
- 2.5 Mental Illness

Unit 3 (13 Hrs.)

Personality Attributes of Persons with Disabilities

- 3.1 Personality Development of Persons with Disabilities
- 3.2 Personality Traits and Coping Styles
- 3.3 Personality Assessment
- 3.4 Psychological Adjustment to Disability

Unit 4 (14 Hrs.)

Psychological Assessment and Training

- 4.1 Assessment of Intelligence, Cognitive Function and Adaptive Behaviours
- 4.2 Assessment of Aptitude, Interest and Special Abilities

- 4.3 Training Needs Analysis, Planning and Implementation of Training Programme
- 4.4 Careers for the disabled
- 4.5 Role of Rehabilitation Psychologist in different settings

Unit 5 **(13 Hrs.)**

Frameworks for Intervention

- 5.1 Addressing barriers to rehabilitation
- 5.2 Overview of Policies, Laws and Programs for the disabled (National and International)
- 5.3 National Action Plan for Skill Training of Persons with Disabilities
- 5.4 Increasing human resources for rehabilitation

BOOKS FOR STUDY

T.F. Riggat, EdD, Dennis R. Maki, PhD, CRC, NCC. Myron G. Eisenberg, PhD, *Hand book of rehabilitation counselling*.

NCC, *Psychology of Disability: Second Edition (Springer Series on Rehabilitation)* - Social Science, 2003.

BOOKS FOR REFERENCE

Carolyn L. Vash PhD, PhD Crewe Nancy M.. ks T.F. Riggat, EdD, Dennis R. Maki, PhD, CRC, *Counseling Theories and Techniques for Rehabilitation Health Professionals* edited by Fong Chan, PhD, CRC, Norman L. Berven, PhD, Kenneth R. Thomas, DEd

WebLink

http://www.who.int/disabilities/world_report/2011/chapter4.pdf
www.un.org/disabilities/convention/conventionfull.shtml

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 3 x 2= 6 marks (all questions to be answered in 50 words)

Section B – 3 x 8= 24 marks (3 out of 5 questions to be answered in 250 words)

Section C – 1x20=20 marks (1 out of 2 questions to be answered in 1200 words)

Third Component:

List of evaluation modes:

Seminars

Assignments

Quiz

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A: 10 x 2 = 20 Marks (all 10 questions to be answered in 50 words each)

Section B: 5 x 8 = 40 Marks (5 out of 8 questions to be answered in 250 words each)

Section C: 2 x 20 = 40 Marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI-600 086.
General Elective offered by the Department of Psychology to students of
B.Com/ B.Sc. / B.C.A. / B.S.W. Degree Programmes

SYLLABUS

(Effective from the academic year 2016-2017)

BASIC SKILLS IN COUNSELLING
(Skill Development Course)

CODE: 16PY/GE/BC22

CREDITS: 2

L T P: 2 0 0

TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE:

- To understand Basics in Helping Relationships
- To train students in individual and group approaches to counselling through the participatory method

Unit 1

Introduction to Counselling (10 hrs.)

- 1.1 Definition and Goals of Counselling
- 1.2 Characteristics of a Counsellor
- 1.3 Concepts of Advice, Guidance and Psychotherapy in relation to counselling
- 1.4 Ethics in counselling
- 1.5 Individual and Group Counselling

Unit 2

Counselling Process (10 hrs.)

- 2.1 Basics Steps to Counselling (Case study & Role play) – Practical Sessions
- 2.2 Skills in Building Counselling Relationships

Unit 3

Areas in Counselling (6 hrs.)

- 3.1 Counselling in Educational institutions
- 3.2 Counselling in Organizations
- 3.3 Counselling in Families
- 3.4 Counselling in Communities
- 3.5 Online Counselling

BOOKS FOR STUDY

Baron, A. Robert. *Psychology*. New Delhi: Prentice Hall, 2007.

Patterson. Lewis, Welfel. Reynolds, Elizabeth. *The Counselling Process*. Bangalore: Eastern Press, 2001.

WEB RESOURCES

Basic Counselling Skills: Role-play
https://youtu.be/OwW8x_0YGLI

01-Carl Rogers on Empathy
<http://www.youtube.com/watch?v=iMi7uY83z->

PATTERN OF EVALUATION

No End Semester Exam
Continuous Assessment

Total Marks : 50

Case Studies
Presentation
Assignment

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SYLLABUS
(Effective from the academic year 2016 - 2017)

GENERAL PSYCHOLOGY

CODE: 16PY/GE/GP23

CREDITS: 3

L T P: 3 0 0

TOTAL TEACHING HOURS: 39

***Students of BSW are not eligible**

OBJECTIVES OF THE COURSE:

- To Introduce the basic principles of Psychology
- To familiarize students to the applications of these principles

Unit 1

Introduction to Psychology (7 hrs.)

- 1.1 Definition and Scope of Psychology
- 1.2 Scientific Methods in Psychology
- 1.3 Schools of Psychology
- 1.4 Branches of Psychology

Unit 2

Cognitive Processes (8 hrs.)

- 2.1 Sensation and Perception
- 2.2 Learning and Memory
- 2.3 Creativity

Unit 3

Intelligence (7 hrs.)

- 3.1 Concept & Definition of Intelligence
- 3.2 Determinants of Intelligence
- 3.3 Theories of Intelligence and Assessment

Unit 4

Personality (11 hrs.)

- 4.1 Definition of Personality
- 4.2 Psychoanalytic theories
- 4.3 Humanistic theories
- 4.4 Factor analytic theories

Unit 5

Affective Factors (6 hrs.)

- 5.1 Nature of Motivation, Types of Motives
- 5.2 Nature of Emotions, Types of Emotions

BOOKS FOR STUDY

Baron, A. Robert. *Psychology*. New Delhi: Prentice Hall, 2004.

Meyers, G. David. *Exploring Psychology*. New York: Worth, 2008.

BOOKS FOR REFERENCE

Christensen.I.P. H.L.Wagner. *Psychology*. U.K: BIOS Scientific, 2004

Hall, Calvin and Lindzey Gardner. *Introduction to Personality theory*. New York: John Wiley,2000.

JOURNALS

Journals of Psychology

WEB RESOURCES

Utube: Classical Conditioning, Operant Conditioning, Cognitive Learning Theories

<https://www.youtube.com/watch?v=hhqumfpxuzI>

<https://www.youtube.com/watch?v=H6LEcM0E0io>

https://www.youtube.com/watch?v=NjTxQy_U3ac

<https://i.ytimg.com/vi/6-YWrPzsmEE/mqdefault.jpg>

PATTERN OF EVALUATION

No End Semester Exam

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 3 x 2 = 6 marks (all questions to be answered in 50 words)

Section B – 3 x 8 = 24 marks (3 out of 5 questions to be answered in 250 words)

Section C – 1 x20 =20 marks (1 out of 2 questions to be answered in 1200 words)

Third Component:

List of evaluation modes:

Quiz

Assignments

Case studies

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SYLLABUS

(Effective from the academic year 2016-2017)

FUNDAMENTALS OF HUMAN BEHAVIOUR

CODE: 16PY/GE/HB22

CREDITS: 2

L T P: 2 0 0

TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE:

- To help students understand basic Principles of Psychology
- To Create Self-Awareness and Understanding of various aspects of Human Behaviour

Unit 1

Introduction to Psychology (10 hrs.)

- 1.1 Definition of Psychology and Basic concepts- Cognitive and Affective factors
- 1.2 Methods of studying Human Behaviour- Introspection, Observation, Interview, Case Study, Questionnaire, Experimental Method

Unit 2

Cognitive Processes (8 hrs.)

- 2.1 Perception, Attention, Learning, Memory, Creativity
- 2.2 Intelligence and Concept Formation

Unit 3

Affective Factors and Personality (8 hrs.)

- 3.1 Motivation (Primary and Secondary Motives)
- 3.2 Emotion (Negative and Positive Emotions), physiological Basis of Emotions
- 3.3 Definition, Assessment and Development of Personality

BOOKS FOR STUDY

Baron, A. Robert. *Psychology*. New Delhi: Prentice Hall, 2007.

Bowdon-Tom Butler. *50 Psychology Classics*. London: Nicholas Brealey, 2008.

WEB RESOURCES

[http://tedtalkspsychology.com/10-myths-about-psychology-debunked-with ben-ambridge/](http://tedtalkspsychology.com/10-myths-about-psychology-debunked-with-ben-ambridge/)

PATTERN OF EVALUATION

No End Semester Exam

Continuous Assessment

Total Marks : 50

Assignment
Case Studies

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SYLLABUS

(Effective from the academic year 2016-2017)

PSYCHOLOGY OF ADOLESCENCE

CODE: 16PY/GE/PA23

CREDITS: 3

L T P: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE:

- To give students a basic understanding of Adolescent Psychology
- To help them understand the impact of Mass Media in shaping their Personality

Unit 1

Introduction to Adolescence (5 hrs.)

- 1.1 Meaning of Adolescence
- 1.2 Needs and Problems of Adolescence

Unit 2

Adolescence (8 hrs.)

- 2.1 Physical development: Growth Spurt and its Psychological impact
Health Concerns- Psychological Impact (Eating Disorders & Substance Abuse, Sexual Behaviour, Teenage Pregnancy).
- 2.2 Social Development: Egocentrism, Relationship with Family, Peer Group and Society

Unit 3

Adolescence and Personality Development (9 hrs.)

- 3.1 Emotional Development: Identity-Early Adolescence, Mid Adolescence and Late Adolescence
- 3.2 Emotions of Adolescence, Hormones, Emotional Competence
- 3.3 Personality Development: Personality Traits and Temperament in Adolescence

Unit 4

Adolescence and the Mass Media (8 hrs.)

- 4.1 Types of Media
- 4.2 Media Habits of Today's Youth
- 4.3 Developmental differences in processing Mass Media

Unit 5

Impact of Media on Adolescent Behaviour (9hrs.)

- 5.1 Aggression
- 5.2 Fear

- 5.3 Desensitization
- 5.4 Eating Disorder, Obesity
- 5.5 Sexual Belief and Behaviour
- 5.6 Adolescent as Consumer
- 5.7 Occupational Choice

BOOKS FOR REFERENCE

- Kirsh, Steven, Children, *Adolescents and Media Violence*. London: Sage, 2006
- Kroger, Jane. *Identity Development*, London: Sage Publications, London.2007
- Papalia.E. Diane, Feldman, Duskin Feldman. *Human Development*, New Delhi: TATA McGraw-Hill.2005.
- Santrock, John, *Adolescence*. New Delhi: Tata McGraw-Hill Publishing Company Ltd. 2007.
- Singhal, Suhila. Dua Pratibha, *Budding Teens-Understanding Adolescence*. New Delhi. Atlantic Publishers.2010.
- Strasburger. Victor C, Wilson, Barbara, J. *Children Adolescents and the Media*. New Delhi. Sage Publications.2006

JOURNALS

- Journal of Adolescence- Francis and Taylor online
- Journal of Adolescence and Youth-Springer pub
- The Role of Communication Technology in Adolescent Relationships and Identity Development Betty, Steven L. Berman, Megan L. Smith
- <http://link.springer.com/journal/10566/44/1/page/1>

PATTERN OF EVALUATION

No End Semester Exam

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 3 x 2= 6 marks (all questions to be answered in 50 words)

Section B – 3 x 8= 24 marks (3 out of 5 questions to be answered in 250 words)

Section C – 1x20=20 marks (1 out of 2 questions to be answered in 1200 words)

Third Component :

List of evaluation modes:

Quiz

Assignments

Case studies

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SYLLABUS

(Effective from the academic year 2016-2017)

PERSONALITY ENRICHMENT

CODE: 16PY/GE/PE23

CREDITS: 3

L T P: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE:

- To help students understand themselves in relationship with others
- To enable students improve their Personal and Communication Skills

Unit 1

Introduction to Personality (9 hrs.)

- 1.1 Overview of Determinants of Personality: Physical, Intellectual, Emotional, Social, Education, Sex, and Family

Unit 2

Getting Acquainted with Ourselves (8 hrs.)

- 2.1 Self-Discovery
2.2 Self-Disclosure- Advantages; Johari Window
2.3 Self-Esteem- Strategies to improve Self- Esteem
2.4 Values- Development of Values, Clarifying Personal Values

Unit 3

Interpersonal Communication and Relationships (9 hrs.)

- 3.1 Communication Process
3.2 Verbal and Nonverbal Communication
3.3 Listening- Barriers to Listening
3.4 The Fear of Getting Acquainted- Inaccuracy in Social Perception
3.5 Developing Positive Relationships

Unit 4

Resolving Interpersonal Conflict (7 hrs.)

- 4.1 Causes of Conflicts
4.2 Positive and Negative effects of Conflicts
4.3 Behaviour Styles of Conflict Management
4.4 Learning to be Assertive

Unit 5

Emotions & Stress

(6 hrs.)

- 5.1 Characteristics of Emotions
- 5.2 Dealing with Emotions like Fear, Anxiety, Anger and Guilt
- 5.3 Stress- Causes
- 5.4 Tips for Managing Stress

BOOKS FOR STUDY

Hurlock, Elizabeth .*Personality Development*. New Delhi: Tata McGraw Hill Publishing Co, Ltd. 2003.

Walker, Velma. Lynn Brooke. *Becoming aware*, Iowa: Kendall/Hunt Publishing Company.2009.

BOOKS FOR REFERENCE

Kindler, Herbert S., Ginsburg, Marilyn. *Measure and Manage Stress*. C.A: Crip Publications and Inc.2004.

Schwebel, Andrew, I. Harvey, A. Barocas. *Personal Adjustment and Growth*. U.S.A: Wm.C.Brown Publishers. 2000.

WEB RESOURCES

Stress
<https://www.youtube.com/watch?v=O0OkAs8nD0k>

Johari Window
https://i.ytimg.com/vi_webp/-7FhcvoVK8s/mqdefault.webp

PATTERN OF EVALUATION

No End Semester Exam

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 3 x 2= 6 marks (all questions to be answered in 50 words)

Section B – 3 x 8= 24 marks (3 out of 5 questions to be answered in 250 words)

Section C – 1x20=20 marks (1 out of 2 questions to be answered in 1200 words)

Third Component:

List of evaluation modes:

Quiz

Assignments

Case studies

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SYLLABUS

(Effective from the academic year 2016-2017)

INTRODUCTION TO SOCIAL BEHAVIOR

CODE: 16PY/GE/SB22

CREDITS: 2

L T P: 2 0 0

TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE:

- To provide students with a basis for understanding interactions of individuals and societies
- To enable students to understand perception of people and social events

Unit 1 (10hrs.)

Introduction to Social behaviour

- 1.1 Definition of Social Behaviour
- 1.2 Understanding social behaviour
- 1.3 Social influence and Social Cognition

Unit 2 (8hrs.)

Social Perception

- 2.1 Meaning of Social Perception
- 2.2 Basic principles of Social Perception
- 2.3 Attitudes- Prejudice, Stereotypes, Discrimination

Unit 3 (8hrs.)

Types of Social Behaviour

- 3.1 Pro-Social Behaviour
- 3.2 Anti- Social Behaviour

BOOKS FOR STUDY

Baron. A Robert, Byrne. Donn. *Social Psychology*. New Delhi: Prentice Hall, 2004.

WEBSITE

<https://www.youtube.com/watch?v=F-o8nIYxEIQ> I'll have What She's Having: Mapping social behaviour

PATTERN OF EVALUATION

No End Semester Exam

Continuous Assessment

Total Marks : 50

Assignment

Case Studies

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI -600 086
B.A/B.Sc/B.Com./B.C.A/B.S.W/B.V.A. DEGREE COURSE
FOUNDATION COURSE-SANSKRIT

SYLLABUS

(Effective from the academic year 2015-2016)

VYAKARANA AND KATHA

CODE: 15SN/FC/VK13

CREDITS: 3

L T P: 3 1 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To encourage and motivate students to practice the pragmatic moral and ethical codes embedded in Katha (Fable) forms of literature in Sanskrit Language.

Unit 1 (7 hrs.)

BASICS OF SANSKRIT

- 1.1 Introduction to Language
- 1.2 Introduction to Alphabets of Sanskrit
- 1.3 Swaritavali, Linga, Vacana
- 1.4 Sankhya, Nouns, Verbs

Unit 2 (15 hrs.)

VYAKARANA

- 2.1 Vyakarana Pravesa–2 &3 Letter Words,
- 2.2 Noun Declension
- 2.3 Verb Conjugation in {Past, Present, Future Tense}
- 2.4 Sandhi, Simple Sentence Constructions,
- 2.5 Introduction to Different Types of Compounds

Unit 3 (10 hrs.)

HISTORY OF SANSKRIT LITERATURE

- 3.1 Introduction to Sanskrit Literature,
- 3.2 Classification of Literature
- 3.3 Important Works of Sanskrit Katha / Fables
- 3.4 Kathasaritsagara, Brhatkatha, Pancatantra, Hitopadesa

Unit 4 (10 hrs.)

FABLES

- 4.1 Introduction Vishnu sarma
- 4.2 Introduction to Pancatantra
 - 4.2.1 Story from Mitrabhedha- Dharmabuddhi & Papabuddhi

Unit 5

(10 hrs.)

FABLES

5.1 Introduction Narayana pandita

5.2 Introduction to Hitopadesa

5.2.1 Story from Mitralabha-Jaradgava

BOOKS FOR STUDY

Subasri. R. *Vyakaranapravesa*. Chennai: Vignasha, 2015.

Subasri. R. *Gyanabindu I*. Chennai: Vignasha, 2015.

BOOKS FOR REFERENCE

Ramaratnam. *Sanskrit for Beginners*. Chennai: N. R. Publication, 2001

SamsktaSri (Part 1-3). *Sanskrit Education Society*, Bangalore: 2000.

Vishnusarman. *Pancatantra*. New Delhi: MLBD, 1999.

NarayanaPandita. *Hitopadesa*. New Delhi: J P Publishing, 2005.

Aiyar Ramachandra, T K. *A Short History of Sanskrit Literature*. Palghat: R.S.Vadhyar&Sons, 2011.

Macdonell A A. *History of Sanskrit Literature*. London: Penguin Books, 1989.

WEB RESOURCES

www.learnsanskrit.org

www.sanskrit.samkrtam.com

<http://shastranethralaya.org>

www.forum.shastranethralaya.org

www.sanskritebooks.org

<https://grammarofsanskrit.wordpress.com/>

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Duration: 90 mins.

SECTION A - 5x3=15 All questions to be answered, all questions are based on Grammar

SECTION B - 3x5=15 Any three out of five questions to be answered

Annotate and explain - two questions are choice based

Three text based questions on Fables

SECTION C - 2x10=20. Any two questions to be answered out of three. Questions based on Grammar, Fable and History of Sanskrit Literature

Third Component

Assignment - 20 Marks

Flash cards - 10Marks

Test -20 Marks

End Semester Examination

Total Marks: 100

Duration: 3 Hours

SECTION A – 10 x 3=30. Answer any 10 questions out of 12. Questions 1-4 based on Katha
Question 5 on Give the meanings {simple words from the text} in English

Questions 6-10 based on History of Sanskrit Literature.

Questions 11 & 12 based on Grammar .

SECTION-B – 5 x 8=40. Answer any 5 questions out of 8. Questions 13 – 15 based on Text
Questions 16 –18 based on History of Sanskrit Literature.
Question No: 19 &20 based on Grammar

SECTION-C - 3x10=30. Answer any 3 questions out of 5. Questions 21 & 22 on texts based on Katha
Questions 23 & 24 on History of Sanskrit Literature
Question 25 based on Grammar.

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B.A/B.Sc/B.Com./B.C.A/B.S.W/B.V.A. DEGREE COURSE
FOUNDATION COURSE-SANSKRIT

SYLLABUS

(Effective from the academic year 2015-2016)

KHANDAKAVYA AND MAHABHARATA

CODE: 15SN/FC/KM23

CREDITS :3

L T P: 3 1 0

TOTAL TEACHING HOURS : 52

OBJECTIVES OF THE COURSE

- To acquaint the students with the rich treasures of Sanskrit Literature through short lyrical verses of Sataka and Classical Indian Epic- Mahabharata.

Unit 1 (12 hrs.)

VYAKARANA

- 1.1 Demonstrative Pronoun Declension,
- 1.2 Verb Conjugation In {Imperative, Potential Mood}
- 1.3 Avyayas, Upasargas,
- 1.4 Krdanta Pratyayas (Ktva, Lyap, Tumun Etc),
- 1.5 Adjectives,
- 1.6 Simple Sentence Construction
- 1.7 Simple Translation Exercises

Unit 2 (10 hrs.)

KHANDAKAVYAS

- 2.1 Introduction to Khandakavyas
- 2.2 Introduction to Sandesa Kavyas,
- 2.3 Introduction to Devotional literature
- 2.4 Introduction to Sataka Literature.

Unit 3 (15 hrs.)

SABHARANJANASATAKA

- 3.1 Introduction to Nilakanta Dikshita and his works
- 3.2 Sabharanjanasataka [selected 25 verses]

Unit 4 (5 hrs.)

MAHABHARATA

- 4.1 Introduction to Mahabharata
- 4.2 Influence of Mahabharata in later Sanskrit literary works.

Unit 5 (10 hrs.)

VIDURANITI

- 5.1 Viduraniti- selected (10) verses

BOOKS FOR STUDY

Subasri. R. *Vyakaranapravesa*. Chennai: Vignasha, 2015.

Subasri. R. *Gyanabindu I*. Chennai: Vignasha, 2015.

BOOKS FOR REFERENCE

Ramaratnam. *Sanskrit for Beginners*. Chennai: N. R. Publication, 2001

SamsktaSri (Part 1-3). *Sanskrit Education Society*, Bangalore: 2000.

Aiyar Ramachandra, T K. *A Short History of Sanskrit Literature*. Palghat: R.S.Vadhyar&Sons, 2011.

Macdonell A A. *History of Sanskrit Literature*. London: Penguin Books, 1989

Dikshita Nilakanta. *Sabharanjanasatakam*. Varanasi: Chaukambha Publishers, 2006

ViduraNiti, Varanasi: Chaukambha Publishers, 1997

Brough John. *Poems from the Sanskrit*. London: Penguin Publication, 1977

WEB RESOURCES

www.learnsanskrit.org

www.sanskrit.samkrtam.com

<http://shastranethralaya.org>

www.forum.shastranethralaya.org

www.sanskritebooks.org

<https://grammarofsanskrit.wordpress.com>

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Duration: 90 mins.

SECTION A - 5x3=15. All questions to be answered. All questions are based on Grammar

SECTION B - 3x5=15 Any three out of five questions to be answered

Annotate and explain - two questions are choice based

Three text based questions on Khandakavyas

SECTION C - 2x10=20. Any two questions to be answered out of three. Each based on

Grammar, Satakas and History of Sanskrit literature

Third Component:

Assignment - 20 Marks

Recitation - 10 Marks

Test -20 Marks

End Semester Examination

Total Marks: 100

Duration: 3 Hours

SECTION A -10 x 3=30. Answer any 10 questions out of 12. Questions 1-4 based on Sabharanjanasataka
Question 5 on Give the meanings {simple words from the text} in English
Questions 6-10 based on History of Sanskrit Literature.
Questions 11 & 12 based on Grammar

SECTION B - 5 x 8=40. Answer any 5 questions out of 8. Questions 13 – 15 based on Text Viduraniti and Sabaranjanasataka
Questions 16 –18 based on History of Sanskrit Literature.
Question No: 19 &20 based on Grammar

SECTION C - 3 x 10=30. Answer any 3 questions out of 5. Questions 21 & 22 on texts based on Sataka literature
Questions 23 & 24 on History of Sanskrit Literature
Question 25 based on Grammar.

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B.A/B.Sc/B.S.W/B.V.A. DEGREE COURSE
FOUNDATION COURSE-SANSKRIT

SYLLABUS

(Effective from the academic year 2015-2016)

MAHAKAVYA AND RAMAYANA

CODE: 15SN/FC/ MR33

CREDITS :3

L T P: 3 1 0

TOTAL TEACHING HOURS : 52

OBJECTIVES OF THE COURSE

- To facilitate the students to read and appreciate the Sanskrit Poetry and its aspects through Mahakavyas (Major Epic Poetry) and Classical Indian Epic- Ramayana

Unit 1		(12 hrs.)
VYAKARANA		
1.1	Declension of Interrogative pronouns,	
1.2	4 th type Conjugations of selected verbs,	
1.3	Taddhita pratyayas { matup, tarap, mayat etc }	
1.4	Sentences with pratyayas	
1.5	10 th type Conjugations of selected verbs	
Unit 2		(10 hrs.)
MAHAKAVYAS		
2.1	Introduction to Mahakavyas	
2.2	Characteristic feature of A Mahakavya,	
2.3	Introduction to Pancamahakavyas	
2.4	Important Mahakavyas.	
Unit 3		(12 hrs.)
RAGHUVAMSA		
3.1	Raghuvamsa Mahakavya (Canto XII) Selected verses	
Unit 4		(10 hrs.)
RAMAYANA		
4.1	Raghuvamsa Mahakavya (Canto XII) Selected verses	
4.2	Introduction to Ramayana	
4.3	Influence of Ramayana in later Sanskrit Literature.	
Unit 5		(8 hrs.)
ALANKARAS		
5.1	Alankaras from Kuvalayananda	
5.2	Upama, Rupaka	
5.3	Svabhavokti and Ullekha	
5.4	Vyatireka,	

- 5.5 Vyajastuti and Ananvaya,
5.6 Arthantaranyasa,

BOOKS FOR STUDY

Subasri. R. *Vyakaranapravesa*. Chennai: Vignasha, 2015.

Subasri. R. *Gyanabindu III*. Chennai: Vignasha, 2015.

BOOKS FOR REFERENCE

Ramaratnam. *Sanskrit for Beginners*. Chennai: N. R. Publication, 2001

SamsktaSri (Part 1-3). *Sanskrit Education Society*, Bangalore: 2000.

Aiyar Ramachandra, T K. *A Short History of Sanskrit Literature*. Palghat: R.S.Vadhyar and Sons, 2011.

Macdonell A A. *History of Sanskrit Literature*. London: Penguin Books, 1989

RaghuvamsaMahakavya (Canto XII), Palghat: R.S.Vadhyar and Sons, 1985.

Kale M R. *RaghuvamsaMahakavya*. New Delhi: MLBD, 2000.

Dikshita Appayya. *Kuvalayanandam*., Palghat: R.S.Vadhyar and Sons, 1992

WEB RESOURCES

www.learnsanskrit.org

www.sanskrit.samkrtam.com

<http://shastranethralaya.org>

www.forum.shastranethralaya.org

www.sanskritebooks.org

<https://grammarofsanskrit.wordpress.com>

www.vedicbooks.com

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Duration: 90 mins.

SECTION A - 5 x 3 = 15. All questions to be answered. All questions are based on Grammar

SECTION B - 3 x 5 = 15. Any three out of five questions to be answered. Annotate and

explain - two questions are choice based

Two text based questions on Raghuvamsa

One based on Alankara

SECTION C - 2 x 10 = 20. Any two questions to be answered out of three. Questions based on Grammar, Mahakavyas and Ramayana

Third Component:

Assignment - 20 Marks
Recitation - 10 Marks
Test -20 Marks

End Semester Examination

Total Marks: 100

Duration: 3 Hours

SECTION A – 10 x 3 = 30. Answer any 10 questions out of 12. Questions 1-4 based on Raghuvamsa
Question 5 on Give the meanings {simple words from the text} in English
Questions 6-10 based on History of Sanskrit Literature.
Questions 11 & 12 based on Grammar

SECTION-B – 5 x 8 = 40. Answer any 5 questions out of 8. Questions 13 & 14 based on Raghuvamsa
Questions 15&16 based on Alankaras
Questions 17 & 18 based on History of Sanskrit Literature.
Questions 19 &20 based on Grammar

SECTION-C - 3x10=30. Answer any 3 questions out of 5. Questions 21 & 22 on texts based on Raghuvamsa
Questions 23 & 24 on History of Sanskrit Literature
Question 25 based on Grammar.

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI -600 086
B.A/B.Sc./B.S.W/B.V.A. DEGREE COURSE
FOUNDATION COURSE-SANSKRIT

SYLLABUS

(Effective from the academic year 2015 - 2016)

RUPAKA AND GADYA

CODE: 15SN/FC/RG43

CREDITS: 3

L T P: 3 1 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To enable the students to appreciate the Sanskrit Natakas (Indian Theatre art) and Prose works of Sanskrit literature.

Unit 1 (12 hrs.)

VYAKARANA

- 1.1 'A', 'E' 'U' ending masculine Noun
- 1.2 'A', 'E' Feminine Noun Declensions
- 1.3 Upapada Vibhakti,
- 1.4 Non-Textual Translations,
- 1.5 Prose order for Simple Verses,
- 1.6 Simple Comprehension
- 1.7 Simple Sentences to complete the conversations.

Unit 2 (10hrs.)

DASRUPAKA

- 2.1 Introduction To Dramas- Dasrupaka,
- 2.2 Origin And Development,
- 2.3 Types of Sanskrit Dramas,
- 2.4 Characteristics of Nataka,
- 2.5 Some Important Dramas,
- 2.6 Allegorical Plays,
- 2.7 Bhasa's 13 Plays
2.7.1 Authorship and Divisions of Bhasa's Plays

Unit 3 (15hrs.)

DUTAVAKYA

- 3.1 One Act Play – Bhasa's Dutavakyam (edited)

Unit 4 (8 hrs.)

GADYA LITERATURE

- 4.1 Introduction to Prose Literature
- 4.2 Origin and Development of Prose

Unit 5

(7hrs.)

GADYA

5.1 Selected Prose Passage - Chandrapida Charitam

5.2 Prose Literature

5.3 Bhana and Dandin.

BOOKS FOR STUDY

Subasri. R. *Vyakaranapravesa*. Chennai: Vignasha, 2015.

Subasri. R. *Gyanabindu IV*. Chennai: Vignasha, 2015.

BOOKS FOR REFERENCE

Ramaratnam. *Sanskrit for Beginners*. Chennai: N. R. Publication, 2001

SamsktaSri (Part 1-3). *Sanskrit Education Society*, Bangalore: 2000.

Aiyar Ramachandra, T K. *A Short History of Sanskrit Literature*. Palghat: R.S.Vadhyar&Sons, 2011.

Macdonell A A. *History of Sanskrit Literature*. London: Penguin Books, 1989

Bhasa. *Dutavakyam Bhasanatakachakram*. New Delhi: MLBD, 2000.

Chandrapida Charitam. Palghat: R S Vadhyar and Sons, 2011.

Bana. *Kadambari*. Varanasi: Chowkambha Publications, 1999.

Woolner A C. *Bhasa Natakachakra. Translations and Notes*. London: Penguin Books, 1998.

WEB RESOURCES

www.learnsanskrit.org

www.sanskrit.samkrtam.com

<http://shastranethralaya.org>

www.forum.shastranethralaya.org

www.sanskritebooks.org

<https://grammarofsanskrit.wordpress.com>

www.vedicbooks.com

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50

Duration: 90mins.

SECTION A – 5 x 3 = 15. All questions to be answered. All questions are based on Grammar

SECTION B - 3 x 5 = 15. Any three out of five questions to be answered

Annotate and explain - two questions are choice based from text

Two text based questions on Dutavakyam

One based on Prose literature

SECTION C - 2 x 10 = 20. Any two questions to be answered out of three. Questions based on Grammar, Dutavakyam and Chandrapida charitam

Third Component:

Assignment - 20 Marks

Prose reading - 10 Marks

Test -20 Marks

End Semester Examination

Total Marks: 100

Duration: 3 Hours

SECTION A – 10 x 3 = 30. Answer any 10 questions out of 12. Questions 1-4 based on Dutavakyam

Question 5 on Give the meanings {simple words from the text} in English

Questions 6-10 based on History of Sanskrit Literature.

Questions 11 & 12 based on Grammar

SECTION B – 5 x 8 = 40. Answer any 5 questions out of 8. Questions 13 & 14 based on Dutavakyam

Questions 15&16 based on Chandrapidacaritam

Questions 17 & 18 based on History of Sanskrit Literature.

Questions 19 &20 based on Grammar

SECTION C – 3 x 10 = 30. Answer any 3 questions out of 5. Questions 21 & 22 on texts based on Dutavakyam

Questions 23 & 24 on Prose selection (textual) and History of Sanskrit Literature

Question 25 based on Grammar.

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI -600 086
General Elective course offered by the Department of Sanskrit to
B.A/B.Sc/B.Com./B.C.A/B.S.W/B.V.A. Degree

SYLLABUS

(Effective from the academic year 2015-2016)

SPOKEN SANSKRIT

CODE: 15 SN/GE/SS22

CREDITS : 2

LTP : 2 0 0

TOTAL TEACHING HOURS:26

OBJECTIVES OF THE COURSE

- Practical applicability of the Language is encouraged
- Opportunity to speak the language fluently.

Unit 1 (11hrs.)

- 1.1 Introduction to language Sanskrit
- 1.2 Introduction to Alphabets, Verbs, Nouns

Unit 2 (10 hrs.)

- 2.1 Introducing two letter words
- 2.2 Three letter words
- 2.3 Samasa(compound words)
- 2.4 Tense and Moods
- 2.5 Noun declension
- 2.6 Sentence translations

Unit 3 (5 hrs.)

- 3.1 Exercises from unknown passages for translation.

BOOKS FOR STUDY

Janaki S S. *Spoken Sanskrit*. Chennai: KSRI Publication, 2000.

BOOKS FOR REFERENCE

Ramaratnam. *Sanskrit for Beginners*. Chennai: N. R. Publication, 2001

SamsktaSri (Part 1-3). Sanskrit Education Society, Bangalore: 2000.

SamsktaSri (Part 4-6). Sanskrit Education Society, Bangalore: 2000.

WEB RESOURCES

www.learnsanskrit.org

www.sanskrit.samkrtam.com

Pattern of Evaluation (Totally Internal)

Evaluation is divided into three parts

Situational conversation (25 Marks)

A presentation about themselves (10 Marks)

My favorite Location/Holiday trip etc (15 Marks)

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI -600 086
General Elective course offered by the Department of Sanskrit to
B.A/B.Sc/B.Com./B.C.A/B.S.W/B.V.A. Degree

SYLLABUS

(Effective from the academic year 2015-2016)

STRESS MANAGEMENT IN SANSKRIT LITERATURE

CODE: 15 SN/GE/SM23

CREDITS : 3

LTP : 3 0 0

TOTAL TEACHING HOURS:39

OBJECTIVES OF THE COURSE

- To adapt Ayurveda methods of good health to suit the modern living
- To practice the simple steps prescribed in Sanskrit texts for stress management.

Unit 1		(7 hrs.)
1.1 Introduction		
1.2 Modern life style		
1.3 Causes of stress		
Unit 2		(10 hrs.)
2.1 Role of Mind		
2.2 Mind control references from Yoga sutra texts		
2.3 Mind control references from Bhagavad Gita and Upanishads.		
2.4 Energy chakras and Yoga asanas.		
Unit 3		(10 hrs.)
3.1 Sthitaprajnalakshana from Bhagavad-Gita		
3.2 How to attain Physical, Mental and Spiritual Health – references from Major Upanishad, Control of Anger and other Shaddoshas.		
3.4 Ayurvedic references on food (Vata, Pitta and Kapha) and control of stress.		
Unit 4		(6 hrs.)
4.1 Practical sessions on Asanas		
Unit 5		(6 hrs)
5.1 Practical sessions on Pranayama		

BOOK FOR STUDY

Bhagavad Gita. Varanasi: Shri Bhavans Publications, 1998.

108 Upanishads. Varanasi: Shri Bhavans Publications, 1998.

BOOKS FOR REFERENCE

Frawley David. *Yoga and Ayurveda*. New Delhi: MLBD, 1999.

Witz, Klaus.G. *The supreme Wisdom of the Upanishads*, New Delhi: MLBD, 1993.

Joshi Kireet. *Bhagavad gita and Contemporary Crisis*. New Delhi: Nag publishers, 1993.

WEB RESOURCES

www.indiaheritage.org

www.sanskritdocuments.org

www.vedpradip.com

Pattern of Evaluation (Totally Internal)

No End Semester Examination

Evaluation is divided into two parts

Yoga Asanas practical demo of Asanas (25 Marks)

MCQs test on Stress management (25Marks)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
BSW DEGREE: BACHELOR OF SOCIAL WORK

SYLLABUS

(Effective from the academic year 2015 – 2016)

SOCIAL WORK PROFESSION - HISTORY AND PHILOSOPHY

CODE: 15SW/MC/SP14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To help students gain an understanding of the history and philosophy of Social Work and its emergence as a profession
- To help students understand Social Work as a profession – its beliefs, values and principles
- To help students develop an understanding of the various methods and fields of Social Work practice

Unit 1

Historical Development of Social Work Profession (11 hrs.)

- 1.1 Overview of Historical Development of Social Work in England and USA
- 1.2 Historical Development of Social Work in India - Social Service and Traditional Social Institutions
- 1.3 Contribution of Social Reformers – Raja Ram Mohan Roy, Sarojini Naidu, Periyar, of Christian Missionaries and Other Religions, of Gandhi and NGOs to Social Work in India

Unit 2

Social Work Profession (11 hrs.)

- 2.1 Social Work Profession: Meaning and Definition of Social Work as a Profession
- 2.2 Origin and Growth of Social Work Profession in India
- 2.3 Goals and Functions, Principles and Scope of Social Work Profession
- 2.4 Beliefs and Values, Code of Ethics (NASW)

Unit 3

Definition and Meaning of Concepts relevant to Social Work (10 hrs.)

- 3.1 Social Service
- 3.2 Social Security
- 3.3 Social Change
- 3.4 Social Welfare
- 3.5 Social Policy
- 3.6 Social Planning
- 3.7 Social Action
- 3.8 Social Development
- 3.9 Empowerment

Unit 4
Introduction to Social Work Theory (10 hrs.)
4.1 Conceptual understanding of Theory
4.2 Importance of Theory in Social Work
4.3 Major Theories in Social Work - Problem Solving Model, Behaviour Modification Model, and Crisis Intervention Model

Unit 5
Social Work Education and Practice (10 hrs.)
5.1 Social Work Education in India
5.2 Importance of Field Work and Supervision in Social Work Education
5.3 Professional Associations - International Federation of Social Workers (IFSW), The National Association of Social Workers (NASW), National Association of Professional Social Workers in India (NAPSWI), and the Professional Social Worker's Association (PSWA)

TEXT BOOKS

Payne, M. *Modern Social Work Theory*. New York: Palgrave MacMillan, 2005.

Payne, M. *The Origins of Social Work - Continuity and Change*. New York: Palgrave Macmillan, 2005.

Joshi, S., C. *Hand Book of Social Work*. New Delhi: Akansha, 2004.

BOOKS FOR REFERENCE

Adams, R. *Social Work and Empowerment*. New York: Palgrave Macmillan, 2003.

Alston, M. and Mckinnon, J. *Social Work – Fields of Practice*. Australia: Oxford U P, 2003.

Banks, S. *Ethics and Values in Social Work*. New York: Palgrave Macmillan, 2001.

Black, K., J. *Development in Theory and Practice- Paradigms and Paradoxes*. Jaipur: Rawat, 2007.

Bogo, M. *Social Work Practice- Concepts, Processes and Interviewing*. New York: Columbia University Press, 2006.

Clark, L., C. *Social Work Ethics – Politics, Principles and Practice*. New York: Palgrave Macmillan, 2001.

Desai, M. *Ideologies and Social Work- Historical and Contemporary Analyses*. Jaipur: Rawat, 2006.

Doel, M. and Shardlow, M., S. *Modern Social Work Practice- Teaching and Learning in Practice Settings*. London: Ashgate, 2005.

Dominelli, L. *Social Work-Theory and Practice for a Changing Profession*. New Delhi: Rawat, 2005.

Subhedar, T. S. *Field Work Training in Social Work*. Jaipur: Rawat, 2001.

Sumit Dutta. *Social Work and Social Development*. New Delhi: Wisdom Press, 2013.

Thompson, N. *Understanding Social Work- Preparing and Practice*. New York: Palgrave Macmillan, 2002.

JOURNAL

The Journal of Social Work Education (JSWE)

WEB RESOURCES

www.socialworktoday.com

www.cswe.org

www.naswdc.org

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 4 x 3 = 12 marks (All questions to be answered)

Section B – 3 x 6 = 18 marks (3 out of 5 questions to be answered)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered)

Third Component:

List of evaluation modes:

Seminars

Assignments

Problem Solving Case Studies

Quiz

Open book tests

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 3 = 30 marks (All questions to be answered)

Section B – 5 x 6 = 30 marks (5 out of 8 questions to be answered)

Section C – 2 x 20 = 40 marks (2 out of 4 questions to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

BSW DEGREE: BACHELOR OF SOCIAL WORK

SYLLABUS

(Effective from the academic year 2015 – 2016)

FIELD WORK - I

CODE: 15SW/MC/FW12

CREDITS: 2

LAB SESSIONS AND OBSERVATION VISITS

These are structured experiences in a skill lab setting, which provide an opportunity of “learning by doing” in a safe environment. Learning about social realities, others and self is essentially through inputs, group experiences and simulation games. The skill lab sessions equip students with knowledge, attitudes and practice skills in keeping with social work values, beliefs and ethics. The students are exposed to social realities existing in society, a critical analysis of such situations and the need to work towards human development.

The observation visits aim to make the students oriented to various organisation in the field of social work, such as non-governmental organisations involved in welfare and development activities, government bodies involved in development work, hospitals and health care organisations, organisations in the care of aged, women and children

OBJECTIVES OF FIELD WORK

- To develop understanding of situations in the world of reality through experiencing situations in a laboratory settings, using imagination and fantasy.
- To develop the capacity to reflect over one’s own behaviour, and its effect on self and others and with the help of the facilitator, develop understanding of the same.
- To develop skills to establish relationship with clients and client groups by participating in games for listening, verbal communication and understanding non-verbal messages – body language and life skills.
- To acquire skills of observation and develop an understanding of society’s response to social problems through various services.
- To develop understanding and appreciation and ability to critically evaluate the efforts of voluntary and government programmes.
- To develop an appreciation of the significances of social work intervention in these programmes by recording.

The **topics** for **field Lab** Sessions:

- a. Self-Awareness
- b. Communication skills
- c. Interpersonal relationship.
- d. Indian social problems
- e. Values and ethics in Social Work.
- f. Leadership and personality development.

The **visits** to the organisations include:

- a. Children

- b. Elderly
- c. The differently abled (physically/mentally)
- d. Governmental agencies involved in Social Work

METHOD OF ASSESSMENT

1. Presentation of consolidated report on various lab sessions and observation visits.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
BSW DEGREE: BACHELOR OF SOCIAL WORK

SYLLABUS

(Effective from the academic year 2015 -2016)

FUNDAMENTALS OF SOCIOLOGY

CODE: 15SW/AC/SS15

CREDITS : 5

L T P : 5 0 0

TOTAL TEACHING HOURS.: 65

OBJECTIVES OF THE COURSE

- To understand Sociology as a discipline and its relevance in Social Work
- To develop an understanding of basic Sociological concepts about society, its structure and dynamics
- To develop in students the ability to analyse the Indian social system, social phenomena and social problems
- To develop an interest and commitment to change society for the better

Unit 1

Individual in Society (13 hrs.)

- 1.1 Sociology as a discipline and its relevance to Social Work
- 1.2 Relationship and difference between Sociology and Social Work
- 1.3 Society – Definition, Characteristics, Types
- 1.4 Socialisation – Definition, Meaning, Process, Agents and Functions
- 1.5 Social Control – Definition, Meaning, Forms and Functions
- 1.6 Culture – Definition, Meaning, Components of Culture, Cultural Lag
- 1.7 Definition, Meaning, Characteristics – Folkways, Mores and Norms
- 1.8 Social Groups – Definition, Meaning, Types

Unit 2

Social Stratification (10 hrs.)

- 2.1 Caste and Class – Definition, Difference Between Caste and Class, Changing Patterns, Impact of Caste on Indian Society
- 2.2 Gender Roles, Gender issues and Gender Discrimination in India
- 2.3 Social Mobility – Definition, Meanings, forms of Social Mobility

Unit 3

Social Institutions (12 hrs.)

- 3.1 Marriage – Definition, Meaning, Types, Functions, Changing Trends
- 3.2 Family – Definition, Meaning, Types, Functions, Changing Patterns
- 3.3 Kinship – Definition, Meaning, Types
- 3.4 Religion – Definition, Meaning, Functions

Unit 4

Social Change and Social Movements (13 hrs.)

- 4.1 Concept of Social Change, Factors Contributing to Social Change, Acceptance or Resistance to Social Change, Causes for Social Change in India
- 4.2 Social Movements – Definition, Meaning, Types and factors essential for Social Movements

Unit 5

Social Problems in India

(17 hrs.)

5.1 Social Problems – Definition, Meaning, Types, Causes and Preventive Measures/Programmes – Government of the Different Social Problems in India – Poverty, Unemployment, Crime, Overpopulation, Addiction, Illiteracy, Environmental Pollution, Juvenile Delinquency, Child Labour and Health and Nutrition

TEXT BOOKS

Rao Shankar, C.N. *Principles of Sociology*. New Delhi: S.Chand

BOOKS FOR REFERENCE

Dhanagare, D., N. *Indian Sociology*. Jaipur and New Delhi: Rawat, 1993.

Frances, V., Moulder. *Social Problems of the Modern World*. U.S.A.: Eve Harward, 2000.

Mac, Iver R., M. and Page, C., H. *Society: An Introductory Analysis*. Chennai: Macmillan, 1990.

Ram, Ahuja. *Social Problems in India*. Jaipur and New Delhi: Rawat, 1997.

Sharma, Rajendra, K. *Indian society – Institutions and Change*. New Delhi: Atlantic, 1997.

Shepard, Jon, M. *Sociology*. New York: West Publishing Co, 1981.

Upadhyaya, Sharma, V., P. *Contemporary Indian Society* New Delhi: Anmol, 1992.

JOURNALS

Journal of Sociology

Society for the study of Social Problems – Per – reviewed Journal.

WEB RESOURCES

<http://www.sociologyguide.com/>

<http://www.importantindia.com/3910/essay-on-social-problems-in-india/>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 4 x 3 = 12 marks (All questions to be answered)

Section B – 3 x 6 = 18 marks (3 out of 5 questions to be answered)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered)

Third Component:

List of evaluation modes:

Seminars

Assignments

Problem Solving Case Studies

Quiz

Open book tests

End Semester Examination:

Total Marks: 100

Duration: 3 hrs.

Section A – 10 x 3 = 30 marks (All questions to be answered)
Section B – 5 x 6 = 30 marks (5 out of 8 questions to be answered)
Section C – 2 x 20 = 40 marks (2 out of 4 questions to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A. / B.Sc. / B.Com / B.C.A. / B.V.A. / B.S.W. DEGREE

SYLLABUS
(Effective from the Academic Year 2015 – 2016)

ENVIRONMENTAL STUDIES

CODE : 15SW/GC/ES12

CREDIT : 2

L T P: 2 0 0

TOTAL TEACHING HOUR: 26

OBJECTIVES OF THE COURSE

- To create an awareness on current environmental issues
- To educate the students about conservation and management of natural resources
- To train the students to be eco sensitive

Unit 1

Introduction (6 hrs.)

- 1.1 Components of The Environment – Classification and Characteristics of Resources – Renewable and Non – Renewable Resources
- 1.2 Need for Public Awareness in Conservation of Natural Resources
- 1.3 Energy Flow in Ecosystems – Aquatic and Terrestrial – Food Chain and Food Web

Unit 2

Pollution and Socio Economic Aspects of the Environment (10 hrs.)

- 2.1 Types of Pollution – Air, Water, Solid Waste and Noise
- 2.2 Problems - Greenhouse Effect – Depletion of the Ozone Layer – Climate Change
- 2.3 Bio Diversity - Definition - Loss of Bio Diversity – Threats to Biodiversity and Conservation of Biodiversity.
- 2.4 Human Behaviour: - Population – Urbanisation – Poverty (as cause and result of pollution and degradation)
- 2.5 Technology: - Agriculture and Industry – Deforestation. Use, Misuse and Abuse of the Resources
- 2.6 Effects and Consequences of Environmental Problems

Unit 3

Sustainable Development, Remedies and Policy Implications (10 hrs.)

- 3.1 Environmental Disasters Natural and Human Made – Bhopal Gas Tragedy – Chernobyl Accident – Fukushima Nuclear Crisis - Gulf War – Love Canal Episode – Tsunami – Volcanic Eruptions
- 3.2 Methods Evolved to Measure and Check Environmental Degradation and Pollution – Carbon Footprint, Carbon Credit, Ecological Footprint, and Ecological Shadow
- 3.3 Environmental Movements in India – Chipko Movement, Narmada Bachao Andolan, Sethu Samudram Project
- 3.4 Environmental Acts – Policy Measures with Respect to India

3.5 International Environmental Agreement – Stockholm Conference – Montreal Protocol – RIO Meet – Kyoto Conference – UN Conference on Climate Change (Copenhagen)

Field visit

Eco initiatives at the Campus: Garbage segregation and Vermicomposting – Graywater recycling – Rainwater harvesting – Solar powered lights – Biodiversity

BOOKS FOR STUDY

Bharucha, E., *Textbook of Environmental Studies (1st edition)*. Hyderabad: U P, 2005.

BOOKS FOR REFERENCE

Ignacimuthu, S. *Environmental Awareness and Protection*. New Delhi: Phoenic, 1997.

Jadhav, H and. Bhosale V. M. *Environmental Protection and Laws*. New Delhi: Himalaya, 1995.

Mies, M. and V. Shiva. *Ecofeminism*. London: Zed Books, 1989.

Odum, E.P. *Fundamentals of Ecology*. U.S.A: W.B. Saunders Co. 1971.

Singh, H.R. *Environmental Biology*. (1st edition), New Delhi: S. Chand, 2005.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 4 x 3 = 12 marks (All questions to be answered)

Section B – 3 x 6 = 18 marks (3 out of 5 questions to be answered)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered)

Third Component

List of evaluation modes:

Assignments

Quiz

Open book tests

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

BSW DEGREE: BACHELOR OF SOCIAL WORK

SYLLABUS

(Effective from the academic year 2015 -2016)

**SOCIAL WORK METHODS – I
(Case Work and Group Work)**

CODE: 15SW/MC/SM24

CREDITS : 4

L T P : 4 1 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To introduce students to various methods of Social Work practice
- To enable students to identify the appropriate usages of the various methods in practice
- To equip students with knowledge in various models of Case Work and Group Work

Unit 1

Introduction (10 hrs.)

- 1.1 Introduction to the methods of Social Work – Definition, Meaning - Case Work, Group Work, Community Organisation, Social Action, Social Work Administration and Social Work Research as practice methods . Integrated Method of Social Work
- 1.2 Shifts in focus of practice – from expert/professional to collaborative partner

Unit 2

Social Case Work (11 hrs.)

- 2.1 Historical Evolution of Case Work - Objectives, Principles, Philosophy
- 2.2 Values, Skills and Techniques of Case Work
- 2.3 Social Case Work process
- 2.4 Models of Social Case Work – Basic Principles of Psychosocial Model, Life Model perspective in Social Case Work.

Unit 3

Recording and Supervision in Social Case Work (10 hrs.)

- 3.1 Recording in Social Case Work – Definition, Types, Need and Importance of Recording
- 3.2 Supervision in Case Work – Meaning, Need and Importance
- 3.3 Role of a Social Case Worker in different settings – Medical, Child Guidance Clinics, Correctional Settings, Family and Child Welfare Settings and Geriatric Care

Unit 4

Social Group Work (11 hrs.)

- 4.1 Historical Evolution of Group Work – Objectives, Principles, Philosophy
- 4.2 Skills and Values of Group Work
- 4.3 Social Group Work Process

- 4.4 Models of Social Group Work – Basic Principles of Social Goals Model, Reciprocal Model, Remedial Model
- 4.5 Types of Group – Treatment and Task Group, Open and Closed Groups

Unit 5

Recording and Supervision in Social Group Work (10 hrs.)

- 5.1 Recording in Social Group Work – Definition, Types, Need and Importance of Recording
- 5.2 Supervision in Group Work – Meaning, Need and Importance
- 5.3 Role of a Social Group Worker in different settings – Community Development Settings, Residential Settings, Clinical, Schools, Addiction Centres

TEXT BOOKS

Konopka, G., *Social Group Work - A Helping Process*, New York: Englewood Cliffs, 1972.

Friedlander, W., A., *Concepts and Methods of Social Work*, New York: Englewood Cliffs: Prentice Hall 1976.

Trecker, Harleigh, B., *Social Group Work- Principles and Practice*, New York; Association Press, 1970.

BOOKS FOR REFERENCE

Davies, M., *Companion to Social Work*, New York: Atlantic Publishers, 2002.

Devi, R. and Prakash, R., *Social Work Methods - Practices and Perspectives*. Jaipur: Mangal Deep Publications, 2004.

Encyclopedia of Social Work Vol. 1,2,3, *National Association of Social Workers*. Washington D.C: NASW, 1996.

Gangarade, K., D., *Dimensions of Social Work in India*. New Delhi: Marawah 1976.

Garvin, D., Gutierrez, M. and Galinsky, J., *Handbook of Social Work with Groups*. Jaipur: Rawat Publications, 2004.

Joshi, S., C., *Hand Book of Social Work*. New Delhi: Akansha Publishing House, 2004.

Kumar, Hajira, *Theories in Social Work Practice*. New Delhi: Friends, 1995.

Thompson, N., *Understanding Social Work - Preparing and Practice*. New York Palgrave Macmillan, 2002.

JOURNALS

The Indian Journal of Social Work

WEB RESOURCES

www.socialworkers.org

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 4 x 3 = 12 marks (All questions to be answered)

Section B – 3 x 6 = 18 marks (3 out of 5 questions to be answered)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered)

Third Component:

List of evaluation modes:

Seminars

Assignments

Problem Solving Case Studies

Quiz

Open book tests

End Semester Examination:

Total Marks: 100

Duration: 3 hours.

Section A – 10 x 3 = 30 marks (All questions to be answered)

Section B – 5 x 6 = 30 marks (5 out of 8 questions to be answered)

Section C – 2 x 20 = 40 marks (2 out of 4 questions to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

BSW DEGREE: BACHELOR OF SOCIAL WORK

SYLLABUS

(Effective from the academic year 2015 – 2016)

FIELD WORK - II

CODE: 15SW/MC/FW22

CREDITS: 2

LAB SESSIONS AND OBSERVATION VISITS

These are structured experiences in a skill lab setting, which provide an opportunity of “learning by doing” in a safe environment. Learning about social realities, others and self is essentially through inputs, group experiences and simulation games. The skill lab sessions equip students with knowledge, attitudes and practice skills in keeping with social work values, beliefs and ethics. The students are exposed to social realities existing in society, a critical analysis of such situations and the need to work towards human development.

The observation visits aim to make the students oriented to various organisation in the field of social work, such as non-governmental organisations involved in welfare and development activities, government bodies involved in development work, hospitals and health care organisations, organisations in the care of aged, women and children.

OBJECTIVES OF FIELD WORK

- To develop understanding of situations in the world of reality through experiencing situations in a laboratory settings, using imagination and fantasy.
- To develop the capacity to reflect over one’s own behaviour, and its effect on self and others and with the help of the facilitator, develop understanding of the same
- To develop skills to establish relationship with clients and client groups by participating in games for listening, verbal communication and understanding non-verbal messages – body language and life skills
- To acquire skills of observation and develop an understanding of society’s response to social problems through various services
- To develop understanding and appreciation and ability to critically evaluate the efforts of voluntary and government programmes
- To develop an appreciation of the significances of social work intervention in these programmes by recording

The **topics** for **field Lab Sessions**:

- a. Reality walk – meeting various people and understanding the reality of life situations
- b. The city slums through an NGO involved in developmental work
- c. Time Management
- d. Societal Analysis
- e. Stress Management and Problem Solving

The **visits** to the organisations include:

- a. Children
- b. Elderly
- c. The differently abled (physically/mentally)
- d. Governmental agencies involved in Social Work
- e. Government hospitals – specific departments

Skill training in alternate media of communication – street theatre, folk songs and folk dance.

METHOD OF ASSESSMENT

1. Presentation of consolidated report on various lab sessions and observation visits.
2. Presentation of the alternate media for communication in a slum community according to the needs of the community and also in collaboration with a NGO.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI-86.

BSW DEGREE: BACHELOR OF SOCIAL WORK

SYLLABUS

(Effective from the academic year 2015-2016)

INTRODUCTION TO PSYCHOLOGY

CODE: 15SW/AC/PY25

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To develop an overall understanding of human growth
- To understand the basic concepts of Psychology and its relevance to Social Work practice

Unit 1

Introduction to Psychology and Development (10 hrs.)

- 1.1 Definition of Psychology, Nature of Psychology
- 1.2 Principles of Development
- 1.3 Developmental Tasks

Unit 2

Approaches to Personality (12 hrs.)

- 2.1 Definition of Personality, brief discussion of the Psychoanalytic Approach
- 2.2 Behaviorist Approach (Skinner), Humanistic Approach (Maslow, Rogers)
- 2.3 Psychosocial Approach (Erik Erikson)

Unit 3

Human Development (15hrs.)

- 3.1 Prenatal Development: Conception, Stages of Prenatal Development, Factors affecting Prenatal Development
- 3.2 Issues in the Indian Context – Foeticides, Female Infanticide, Infancy and Childhood
- 3.3 Physical Growth, Motor Development, Cognitive Development, Social and Emotional Development

Unit 4

Adolescence (16 hrs.)

- 4.1 Physical Changes, Emotional, Cognitive and Social aspects of Development, Identity and Development of Self, Education and Career Concerns
- 4.2 Adulthood: Early, Middle and Late Adulthood: Physical Changes, Needs
- 4.3 Tasks in the Family, Community and Work

Unit 5

Adjustment (12hrs.)

- 5.1 Concept of Adjustment and Maladjustment, Factors in Adjustment

- 5.2 Stress - Concept and Causes of Stress
- 5.3 Frustration - Concept and Causes of Frustration
- 5.4 Conflict - Concept and Types of Conflict Coping Strategies: Task Oriented, Emotional and Defense Mechanisms

TEXT BOOKS

Hurlock, Elizabeth. *Developmental Psychology a Life-Span Approach*. New Delhi: Tata McGraw-Hill, 2007.

Newman and Newman. *Development through Life*. U.S.A:Thomason Wadsworth, 2003.

BOOKS FOR REFERENCE

Hall Calvin, Lindzey Gardner. *Introduction to Personality Theory*. New York: John Wiley and Sons, 2000.

Schwebel, Andrew,I. Harvey, A. Barocas. *Personal Adjustment and Growth*. U.S.A: Wm.C.Brown Publishers, 2000.

WEB RESOURCES

allpsych.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

- Section A – 4 x 3 = 12 marks (All questions to be answered)
- Section B – 3 x 6 = 18 marks (3 out of 5 questions to be answered)
- Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered)

Third Component Tests:

List of evaluation modes:

- Seminars
- Assignments
- Problem Solving Case Studies
- Quiz
- Open book tests

End Semester Examination:

Total Marks: 100

Duration: 3 hours

- Section A – 10 x 3 = 30 marks (All questions to be answered)
- Section B – 5 x 6 = 30 marks (5 out of 8 questions to be answered)
- Section C – 2 x 20 = 40 marks (2 out of 4 questions to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
BSW DEGREE: BACHELOR SOCIAL WORK

SYLLABUS
(Effective from the academic year 2015 -2016)

SOCIAL WORK METHODS – II
(Community Organisation and Social Action)

CODE: 15SW/MC/SM34

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To enable students to understand Community Organisation and Social Action as methods of Social Work
- To enable students to identify the appropriate usage of Community Organisation and Social Action in appropriate situations
- To enable students develop insights into models and strategies of Community Organisation and Social Action

Unit 1

Community Organisation (10 hrs.)

- 1.1 Concept, Definition, Objectives, Philosophy, Principles
- 1.2 Evolution of Community Organisation as a Method of Social Work

Unit 2

Process of Community Organisation (10 hrs.)

- 2.1 Relationship Building
- 2.2 Study and Survey
- 2.3 Analysis
- 2.4 Assessment
- 2.3 Discussion
- 2.4 Organisation
- 2.5 Action
- 2.6 Reflection/Evaluation
- 2.7 Modification
- 2.8 Continuation

Unit 3

Community Organisation Models (10 hrs.)

- 3.1 J. Rothman- Social Planning, Locality Development, Social Action
- 3.2 Murray Ross- General Content, Specific Content, Process Objective
- 3.3 Sanders Model

Unit 4

Social Action (8 hrs.)

- 4.1 Concept, Definition and Objectives
- 4.2 Social Action – as a method of Social Work
- 4.3 Typology of Social Action – Elitist Social Action, Popular Social Action
- 4.4 An Introduction to Social Action Models – Paulo Freire and Saul Alinsky

Unit 5

An Introduction to Social Action Movements in India

(12 hrs.)

- 5.1 Gandhian Movement
- 5.2 Chipko Movement
- 5.3 Narmada Bachao Andolan
- 5.4 Dalit Movement
- 5.5 Naxalbari Movement
- 5.6 Self Help Group Movements
- 5.7 Self-Respect Movement

TEXT BOOKS

Kumar, S., *Methods for Community Participation – A Complete Guide for Practitioners*. New Delhi: Vistaar Publications, 2002

Ross, Murray, G., *Community Organisation: Theory, Principles and Practice*. New York: Harper and Row, 1955.

BOOKS FOR REFERENCE

Devi, R., Prakash, R., *Social Work Methods, Practices and Perspectives Vol 1, 2, 3*. Jaipur: Mangal Deep, 2004.

Josi, A., K., *Emigration and Social Change*. Jaipur: Rawat Publications, 2005.

Katare, M., P., *Social Work and Rural Development*. New Delhi: Arise, 2006.

Maidment, J., Egan, R., *Practice Skills in Social Work and Welfare - More Than Just Common Sense*. Australia: Allen and Unwin, 2006.

Nash, M., Mundford, R., Donoghue, K., *Social Work Theories in Action*. London: Jessica Kingsley, 2005.

Rao, M., S., A., *Social Movements in India*. New Delhi: Manohar, 2004.

Srinivas, M., N., *Social Change in Modern India*. New Delhi: Orient Longman, 2003.

Thompson, N., *Understanding Social Work - Preparing and Practice*. New York: Palgrave Macmillan, 2002.

JOURNALS

Community Development Journal-<http://www.oxfordjournals.org/>

WEB RESOURCES

[www.betterworldhandbook.com/action10\(orgs\).html](http://www.betterworldhandbook.com/action10(orgs).html)

www.who.int/healthpromotion/conferences

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 4 x 3 = 12 marks (All questions to be answered)

Section B – 3 x 6 = 18 marks (3 out of 5 questions to be answered)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered)

Third Component:

List of evaluation modes:

Seminars

Assignments

Problem Solving Case Studies

Quiz

Open book tests

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 3 = 30 marks (All questions to be answered)

Section B – 5 x 6 = 30 marks (5 out of 8 questions to be answered)

Section C – 2 x 20 = 40 marks (2 out of 4 questions to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

BSW DEGREE: BACHELOR OF SOCIAL WORK

SYLLABUS

(Effective from the academic year 2015 – 2016)

FIELD WORK – III

CODE: 15SW/MC/FW32

CREDITS: 2

RURAL CAMP AND CONCURRENT FIELD WORK

The students will attend the rural camp before concurrent Field Work begins. The broad aim of Field Work is to provide opportunities for students to apply the knowledge learnt in the classroom situations and to plan, implement and evaluate these experiences while working with individuals, groups and communities. These will be in keeping with the placement agency's philosophy, policy and goals and use of guided supervision.

OBJECTIVES OF FIELD WORK

- To develop an understanding of the rural social system with special reference to a specific poverty group
- To develop an understanding of government intervention in relation to poverty groups in the region and the related structures of decision-making and intervention
- To develop the capacity to appreciate and make a critical analysis of interventions of both voluntary organisation and the government agencies
- To experience in-group living, appreciate its value in terms of self-development, interpersonal relationships, sense of organisation, management and mutual responsibility
- To acquire skills in planning, organising, implementing the camp
- To understand the organisation, its philosophy and goals and to prepare an organisation's profile
- To understand the community, the needs and problems of the communities by preparing a community profile
- To analyse the organisations' structure, functioning and its networking strategies

METHODS OF ASSESSMENT

1. A seminar will be organised to present group papers to cover the activities of the camp
2. A report on their observations and learning of the organisations and Community

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

BSW DEGREE: BACHELOR OF SOCIAL WORK

SYLLABUS

(Effective from the academic year 2015-16 onwards)

INDIAN ECONOMY AND DEVELOPMENT ISSUES

CODE: 15SW/AC/IE35

CREDITS : 5

L T P : 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To enable students understand the basic concepts of Economics and its relevance to Social Work
- To enable students to develop awareness of the significance in the study of development issues and their inter- relations with social change
- To help students acquire knowledge of the administrative structure and different organisations involved with rural and urban development

Unit 1

Economic Concepts relevant for Social Work (13 hrs.)

- 1.1 Rural and Urban Economic Structure – Primary, Secondary and Tertiary; Rural and Urban Demography and its Impact on Economy, GDP and GNP
- 1.2 Rural-Urban Divide – distinguishing features of Rural and Urban Economies; Urbanisation and Industrialisation as Urban Processes
- 1.3 Concept of PQLI, Human Development Index, Gender Development Index; Rural and Urban Poor

Unit 2

India as a Developing Economy (13 hrs.)

- 2.1 Development – Meaning and Concept; Characteristics of a Developing Economy, Classifications according to the World Development Report
- 2.2 Overview of Development in India – Social Development as an Approach to Development, Inclusive Growth and Development
- 2.3 Economic Growth Model vs the People Centred Development Model, Five Year Plans related to Development in India

Unit 3

Poverty Definition, Concept, Meaning and Types (11 hrs.)

- 3.1 Absolute and Relative – Dimensions, Magnitude, Measure, Poverty Gap; Determinants of Rural and Urban Poverty
- 3.2 Poverty in Developing Countries in contrast to Poverty in First World Countries
- 3.3 Poverty Alleviation Programmes launched by the Government of India

Unit 4

Developmental Issues in India

(15 hrs.)

- 4.1 Unemployment, Population Explosion, Education
- 4.2 Agrarian Crisis, Displacement, Housing, Health and Environment, Land Related Issues
- 4.3 Globalisation, Privatisation and Liberalisation, Scope for Social Work Practice in Developmental Issues

Unit 5

Administrative System

(13 hrs.)

- 5.1 Rural Administrative Structure: Panchayati Raj System; Gram Sabha (Village Level)
- 5.2 Panchayat Union Block Level), District Panchayat (District Level)
- 5.3 Urban Local Bodies: Town Panchayats, Municipalities, Corporations

TEXT BOOKS

Agarwal, A.N. *Indian Economy: Nature, Problem and Progress*. New Delhi: Vikas Niraj Prakash, 1994.

Dutt, Rudder, Sundharam, K.P. M. *Indian Economy*. New Delhi: Chand & Company, 2006.

Kumar, H. *Social Work and Developmental Issues*. New Delhi: Aakar Books, 2005.

BOOKS FOR REFERENCE

Adams, R. Dominelli and Payne. M. *Social Work – Themes, Issues and Critical Debates*. New York: Palgrave in association with the Open University, 2002.

Bhat, Anil. *Development and Social Justice - Micro Action by Weaker Section*. New Delhi: Sage Publications, 1989.

Bhattacharya, S. *Social Work Administration and Development*. Jaipur: Rawat, 2006.

Dahiwala, S. M. *Understanding Indian Society - The Non-Brahmanic Perspective*. Jaipur: Rawat Publications, 2006.

Jogdand, P.G. and Michael. S. M. *Globalisation and Social Movements - Struggle for a Humane Society*. Jaipur: Rawat Publications, 2006.

Pant, S.K. *Human Development- Concept and Issues in the Context of Globalisation*. Jaipur; Rawat, 2006.

Papalia, D. Wendkos, S. and Feldman, R.D. *Human Development*. New Delhi: Tata McGraw - Hill, 2004.

Phadke, V. S. and Banerjee, Guha, S. *Urbanisation Development and Environment*. Jaipur: Rawat, 2007.

Radhakrishna, R. and Shovan, Ray. *Handbook of Poverty in India - Perspectives, Policies and Programmes*. New Delhi: Oxford University Press, 2006.

Verma, K. Manish. *Development, Displacement and Resettlement*. Jaipur: Rawat, 2004.

WEB RESOURCES

http://en.wikipedia.org/wiki/Poverty_alleviation_programmes_in_India

<http://www.yourarticlelibrary.com/poverty/21-major-poverty-alleviation-programmes-launche>

<http://planningcommission.nic.in/plans/planrel/fiveyr/welcome.html>

<http://planningcommission.gov.in/plans/planrel/12thplan/welcome.html>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 4 x 3 = 12 marks (All questions to be answered)

Section B – 3 x 6 = 18 marks (3 out of 5 questions to be answered)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered)

Third Component:

List of evaluation modes:

Seminars

Assignments

Problem Solving Case Studies

Quiz

Open book tests

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 3 = 30 marks (All questions to be answered)

Section B – 5 x 6 = 30 marks (5 out of 8 questions to be answered)

Section C – 2 x 20 = 40 marks (2 out of 4 questions to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

BSW DEGREE: BACHELOR OF SOCIAL WORK

SYLLABUS

(Effective from the academic year 2015 – 2016)

GENERALIST PRACTICE IN SOCIAL WORK

CODE: 15SW/MC/GP44

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To help students understand knowledge in Generalist Practice as a method of Social Work
- To equip students with practice skills in Generalist Practice
- To enable students to use Generalist Practice in Social Work

Unit 1

Introduction to Generalist Practice (11 hrs.)

- 1.1 Concepts – Systems, Human Beings in a Systems Framework, Applying Systems Theory to Social Work Practice
- 1.2 Goals and Purpose of Social Work in Systems Approach
- 1.3 Basic Systems in Generalist Practice and Resource Systems
- 1.4 Levels of Social Work Practice- Micro, Mezzo, Macro and Generalist Practice

Unit 2

Generalist Practice – Interaction, Engagement and Assessment (11 hrs.)

- 2.1 Interaction and Engagement – Meaning, Formation of One to One Action System and Relationship in Action System. Interview in Interaction
- 2.2 Assessment – Meaning, Process, Stages in Assessment Phase - Identification of Needs, Identification of the Nature of the Need, Identification of the Potential Strengths and Resources in the Ecosystem, Collecting Information, and Analysing the Information
- 2.3 Skills used during the Interview

Unit 3

Planning (10 hrs.)

- 3.1 Planning – Components of a Plan, Goals and Objectives, Planning with Multi-person Client Systems
- 3.2 Factors affecting a Plan of Action - Community, Agency, Social Problem, Worker and Client
- 3.3 Agreement between Worker and Client

Unit 4

Intervention (10 hrs.)

- 4.1 Direct Practice – Meaning, Action to enable use of Available Resources, Referral, and Use of Programme

- 4.2 Indirect Practice – Meaning, Approaches in Indirect Practice – Action as Mediation, Influence, Environmental Change, Coordination of Services, Actions to Change Organisations and Actions to Change the Community
- 4.3 Role of Change Agent

Unit 5

Evaluation & Termination (10 hrs.)

- 5.1 Evaluation –Meaning and Types of Evaluation, Techniques for Evaluation, Recording, Programme Evaluation, Client Participation, Confidentiality
- 5.2 Termination – Meaning and Types of Termination - Planned and Unplanned Termination, Components of Termination, Disengagement

TEXT BOOKS

Louise C. Johnson and Stephen J. Yanca. *Social Work Practice: A Generalist Approach*. Allyn & Bacon, 2009.

REFERENCE BOOKS

Ashman, Kirst, Karen, K. *Introduction to Social Work and Social Welfare - Thinking Perspectives*. USA: Thomson Kearning Brooks, 2003.

Bogo, M. *Social Work Practice- Concepts, Processes and Interviewing*. Jaipur: Rawat, 2006.

Devi, R., and Prakash, R., *Social Work Methods - Practices and Perspectives Vol 1,2,3*. Jaipur: Mangal Deep, 2004.

Encyclopedia of Social Work, Vol. 1,2,3. National Association of Social Workers, Washington D.C: NASW, 1996.

Goldstein, H. *Social Work Practice - A Unitary Approach*. Columbia: SC University of South Caroline Press, 1980.

Hepworth, D. H. and Larsen, J. A. *Direct Social Work Practice - Theory and Skills*. London: The Dorsey Press, 1993.

Johnson, Louise. *Social Work Practice - A Generalist Approach*. London: Aelyn and Bacon, 1983.

Milner, J. and O'Bryner, P. *Assessment in Social Work*. New York: Palgrave 2002.

Payne, M. *Modern Social Work Theory*. New York: Palgrave MacMillan, 2005.

Pincus, A. and Minahan. *A Social Work Practice Model and Method*. K. Illinois: Peacock Publishers, 1973.

Thompson, N. *Understanding Social Work- Preparing and Practice*. New York: Palgrave Macmillan, 2002.

JOURNALS

Journal of Advanced Generalist Social Work Practice, Springfield College

The Advanced Generalist: Social Work Research Journal, Wichita State University

WEB RESOURCES

www3.spfldcol.edu

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 4 x 3 = 12 marks (All questions to be answered)

Section B – 3 x 6 = 18 marks (3 out of 5 questions to be answered)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered)

Third Component:

List of evaluation modes:

Seminars

Assignments

Problem Solving Case Studies

Quiz

Open book tests

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 3 = 30 marks (All questions to be answered)

Section B – 5 x 6 = 30 marks (5 out of 8 questions to be answered)

Section C – 2 x 20 = 40 marks (2 out of 4 questions to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

BSW DEGREE: BACHELOR OF SOCIAL WORK

SYLLABUS

(Effective from the academic year 2015 – 2016)

FIELD WORK - IV

CODE: 15SW/MC/FW44

CREDITS: 4

CONCURRENT FIELD WORK

The broad aim of Field Work is to provide opportunities for students to apply the knowledge learnt in the classroom situations and to plan, implement and evaluate these experiences while working with individuals, groups and communities. These will be in keeping with the placement agency's philosophy, policy and goals and use of guided supervision.

OBJECTIVES OF FIELD WORK

- To develop an understanding and sensitivity towards the needs and problems of individuals and families
- To identify 3 cases and draw up a face sheet
- To draw up a family profile of two families
- To execute simple referrals
- To identify groups in existence and study the functions/ activities of the group
- To conduct a group activity with any one existing group in the community
- To visit and interact with different groups that exists in the community (Youth, Women, Children and Senior Citizens)

METHODS OF ASSESSMENT

1. In relation to task and personal growth
2. An internal viva voce will be conducted

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
BSW DEGREE: BACHELOR OF SOCIAL WORK

SYLLABUS

(Effective from the academic year 2015 -2016)

HUMAN RIGHTS, SOCIAL JUSTICE AND ADVOCACY

CODE: 15SW/AC/HR45

CREDITS: 5

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To develop an understanding of the Basic Human Rights and the Provisions for ensuring Justice
- To develop an understanding of Human Rights with specific reference to Special Groups
- To sensitise the students on the various strategies for the protection of Human Rights

Unit 1

Introduction to Human Rights (12 hrs.)

- 1.1 Definition, Important milestones in the History of Human Rights
Importance of Awareness on Human Rights
- 1.2 Introduction to Categories of Rights – Civil, Political, Social, Economic and Cultural Rights from a generational perspective, Right to Environment, Right to Sustainable Development
- 1.3 Social Justice – Concept and Meaning, Distributive Justice – Concept and Meaning, Growth with Justice and Equity
- 1.4 Introduction to Protective Discrimination & Affirmative Action

Unit 2

International Human Rights Instruments (13 hrs.)

- 2.1 A brief overview on the processes: Declaration, Convention, Ratification, Reservations
- 2.2 Universal Declaration of Human Rights, 1948
- 2.3 International Covenant on Civil and Political Rights
- 2.4 International Covenant on Economic, Social and Cultural Rights

Unit 3

A Brief Overview on the Indian Constitution (12 hrs.)

- 3.1 The Preamble
- 3.2 Fundamental Rights and Fundamental Duties
- 3.3 Directive Principles of State Policy

Unit 4

Justice Issues and Rights of Marginalised Groups (13 hrs.)

- 4.1 Justice issues Concerning Children, Guiding Principles and a brief overview of the Convention on the Rights of the Child, 1989
- 4.2 Justice issues Concerning Women, a brief overview on the Convention on the Elimination of All forms of Discrimination against Women, 1979

- 4.3 Justice Issues Concerning Dalits, Tribes
- 4.4 Justice Issues Concerning Worker's Rights – Unorganised labour.
- 4.5 Justice Issues concerning Disabled

Unit 5

Introduction to Strategies for Protection of Human Rights (15 hrs.)

- 5.1 Role of key organisations working in the field of Human Rights
- 5.2 Fact finding, Advocacy: Types, Lobbying, Negotiation
- 5.3 Role of National Human Rights Commission, State Human Commission
- 5.4 Human Rights Education
- 5.5 Public Interest Litigation
- 5.6 Right to Information
- 5.7 FIR, Free legal Aid

TEXT BOOKS

Agarwal. *International Law and Human Rights*. New Delhi: Central Law, 2002.

Birch Janice. *SHR: Human Rights Training Module*. New Delhi: Human Rights Law Network, 2010.

BOOKS FOR REFERENCE

A World Watch Institute Report. *State of the World. Progress towards a Sustainable Society*. USA: World Watch Institute, 1998.

Bajwa, G. S. *Human Rights in India, Implementation & Violations*. New Delhi: Oscar, 1995.

Bakshi, P. M. *The Constitution of India*. Jaipur: Rawat, 2000.

Dewan, V. K. *Law Relating to Offences Against Women* New Delhi: Sage, 1996.

Gupta, D. N. Chandrachur, and, Singh, *Human Rights Acts, Statutes and Constitutional Provisions*. Rajat: New Delhi, 2003.

Human Rights Watch, *Broken People – Caste Violence Against India's "Untouchables"*. UK: Human Rights Watch, 1999.

Jayshree, P. M. *Dalit Human Rights Violation*. New Delhi: Rajat, 2000.

JOURNALS

Journal of Human Rights Practice - <http://jhrp.oxfordjournals.org>

WEB RESOURCES

<http://www.ohchr.org>

(United Nations Human rights: Office of the High Commissioner for Human Rights)

<https://www.amnesty.org>

(Amnesty International)

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 4 x 3 = 12 marks (All questions to be answered)

Section B – 3 x 6 = 18 marks (3 out of 5 questions to be answered)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered)

Third Component:

List of evaluation modes:

Seminars

Assignments

Problem Solving Case Studies

Quiz

Open book tests

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 3 = 30 marks (All questions to be answered)

Section B – 5 x 6 = 30 marks (5 out of 8 questions to be answered)

Section C – 2 x 20 = 40 marks (2 out of 4 questions to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
BSW DEGREE: BACHELOR OF SOCIAL WORK

SYLLABUS

(Effective from the academic year 2015 – 2016)

FIELDS OF SOCIAL WORK

CODE: 11SW/MC/FS54

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To develop an understanding regarding the macro level of practice in Social Work
- To develop skills in students to envisage, plan and work out strategies in working with different macro level interventions

Unit 1

Social Work Interventions with Family, Children, Adolescents and Youth

(16 hrs.)

- 1.1 Intervention with Family and Children –Indian Families, Prospects and Problems, Problems of Children, Children in Special Circumstances, Emerging Issues in the Areas of Family and Child Welfare, Services in the Field of Family and Child Welfare, Role of Social Worker
- 1.2 Intervention with Adolescents and Youth –Definition, Demographic Profile, Needs, Specific Problems and Services for Youth, School Social Work, Role of Social Worker, National Policy on Youth

Unit 2

Social Work Interventions with the Senior Citizens **(10 hrs.)**

- 2.1 Definition of the Aged, Changes –Physiological, Economic and Social, Common Problems of the Elderly, Services for the Senior Citizens.
- 2.2 Legislation and Policies for the Senior Citizens

Unit 3

Social Work Interventions with the Rural and Urban Communities **(14 hrs.)**

- 3.1 Definition of Rural and Urban Community and Rural and Urban Community Development, Emerging Trends in Urban and Rural Development
- 3.2 Current Issues in Urban Areas, Different Services in the Field of Urban and Rural Community Development, Role of Social Worker

Unit 4

Social Work Interventions with the Displaced **(15 hrs.)**

- 4.1 Meaning, Causes, Problems of Displacement –Social, Economic, Psychological, Cultural, Rehabilitation, Problems of Rehabilitation –Awareness, Resources, Opportunities
- 4.2 Legislations –The Displaced Persons Claims and Other Laws Repeal Bill (2004), Programmes, Services, Role of Social Worker

Unit 5

Social Work Interventions with Industries

(10 hrs.)

5.1 Definition, Concept, Meaning – Labour Welfare and Industrial Relations, Industrial Welfare Measures

5.2 The Need and Importance of Social Work Services in the Field of Labour Welfare and Industrial Relations

TEXT BOOKS

Gore, M., S. *Indian Youth - Process of Socialisation*. New Delhi: Vishva Yuvak Kendra, 1977.

Hurlock, Elizabeth. *Development Psychology- A Life Span Approach*. New Delhi: Tata McGraw Hill, 1985.

BOOKS FOR REFERENCE

Brandon, M., Schofield, G., and Trinder, L. *Social Work With Children*. New York: Palgrave, 1998.

Colton, P., Sanders, M., R., and Williams, M. *An Introduction to working with Children – A Guide for Social Workers*. New York: Palgrave Macmillan, 2001.

Devi, Laxmi. *Child and Family Welfare- Institute for sustainable development*, New Delhi: Anmol, 1998

Johri, P., K. *Social Work for Community Development*. New Delhi: Amol, 2005.

Kaila, H., L. *Women, Work And Family*. New Delhi: Rawat, 2005.

Liebig, S., P., Rajan, I., S. *An Aging India- Perspectives, Prospects and Policies*. Jaipur: Rawat, 2005.

Ledwith, M. *Community Development*. Jaipur: Rawat, 2005.

Katara, M., P. *Social Work and Rural Development*. New Delhi: Arise, 2006.

Kumar, S. *Methods for Community Participation – A Complete Guide for Practitioners*, New Delhi: Vistaar, 2002.

Mohan, S. *Urban Development New Localism*. New Delhi: Rawat, 2005.

Nagpaul, H. *Social Work in Urban India*. Jaipur: Rawat, 2005.

Phillips, I., Ray, Mo, Marshall, M. *Social Work With Older People*. New York: Palgrave Macmillan, 2006.

Radhakrishna, R., and Ray, Shovan. *Handbook of Poverty in India- Perspectives, Policies and Programmes*. New Delhi: Oxford University Press, 2006.

Sandhya, N. *Indian Society*. New Delhi: Vrinda Publications (P) Ltd., 2005.

Sharma, Ram Nath and Sharma, Rachana. *Child Psychology*. New Delhi: Atlantic, 2006.

Twelvetrees, A. *Community Work*. New York: Palgrave, 2002.

Verma, K., Manish. *Development, Displacement and Resettlement*. Jaipur: Rawat, 2004.

JOURNALS

The Indian Journal of Social Work

WEB RESOURCES

www.socialworkers.org

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 4 x 3 = 12 marks (All questions to be answered)

Section B – 3 x 6 = 18 marks (3 out of 5 questions to be answered)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered)

Third Component:

List of evaluation modes:

Seminars

Assignments

Problem Solving Case Studies

Quiz

Open book tests

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 3 = 30 marks (All questions to be answered)

Section B – 5 x 6 = 30 marks (5 out of 8 questions to be answered)

Section C – 2 x 20 = 40 marks (2 out of 4 questions to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

BSW DEGREE: BACHELOR OF SOCIAL WORK

SYLLABUS

(Effective from the academic year 2015 – 2016)

FIELD WORK - V

CODE: 15SW/MC/FW54

CREDITS: 4

CONCURRENT FIELD WORK

The broad aim of Field Work is to provide opportunities for students to apply the knowledge learnt in the classroom situations and to plan implement and evaluate these experiences while working with residents in an institution. These will be in keeping with the placement agency's philosophy, policy and goals and use of guided supervision.

OBJECTIVES OF FIELD WORK

- To organise and conduct a programme based on the needs assessed
- To develop skills in resource mobilisation
- To identify 3 cases and draw up a face sheet and case analysis
- To execute simple referrals
- To identify groups in existence and study the functions/ activities of the group
- To conduct groups work with any one existing group
- To acquire the skills in report writing
- To acquire the basic skills of administration

METHODS OF ASSESSMENT

1. In relation to tasks achieved and personal growth
2. An internal viva voce will be conducted.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
BSW DEGREE: BACHELOR OF SOCIAL WORK

SYLLABUS
(Effective from the academic year 2015 -2016)

BASIC RESEARCH AND STATISTICS FOR SOCIAL WORK

CODE: 15SW/MC/RS54

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS : 52

OBJECTIVES OF THE COURSE

- To develop an understanding of the nature, purpose and importance of social work research
- To develop competence to conceptualise a problem, analyse and assess social problems and needs at the micro-level
- To acquire research skills in conducting research by developing ability to prepare appropriate tools and collect, analyse and interpret data through appropriate tables

Unit 1

Introduction (10hrs.)

- 1.1 Social Research – Definition, Stages in the Process of Social Research
- 1.2 Concept of Objectivity in Research, Scientific Approach to Research, Variables, Concepts, Constructs, Hypothesis, Research Question
- 1.3 Types of Research
- 1.4 Social Work Research – Definition, Meaning, Stages in the Social Work Research Process. Social Work Research as a Method of Social Work

Unit 2

Basic Research Designs and Tools for Data Collection (10 hrs.)

- 2.1 Research Design – Descriptive, Experimental and Exploratory
- 2.2 Identifying and Formulating a Research Problem Relevant to Social Work
- 2.3 Sources of Data – Primary and Secondary
- 2.4 Tools for Data Collection – Observation, Observation Guide, Interview, Interview Schedule, Interview Guide, Mailed Questionnaire

Unit 3

Sampling and Scaling Techniques (11hrs.)

- 3.1 Concepts and Meaning of Sampling – Frame, Unit and Universe
- 3.2 Sampling Techniques – Random Sampling – Simple Random, Stratified, Multistage. Non- Random Sampling – Convenient, Purposive and Quota
- 3.3 Scaling Techniques – Definition, Meaning, Types, Need and Uses – of Nominal, Ordinal, Ratio, Interval; Rating Scale, Summated Scale (Likert Scale), Factor Scale Multidimensional Scale

Unit 4

Data Processing, Analysis, Interpretation and Reporting (11 hrs.)

- 4.1 Data Processing – Editing, Coding, Classification, Tabulation, Transcription
- 4.2 Outline of a Good Research Report

4.3 Diagrammatic Presentation of Data – One, Two and Three Dimensional Diagrams, Pie Charts, Pictograms and Cartograms

Unit 5

Basic Statistical analysis of data (10 hrs.)

5.1 Statistics – Definition, Meaning, Need and Importance of Statistics in Research

5.1 Frequency and Percentage Distribution – Preparation of One, Two and Three Way Tables

5.2 Measures of Central Tendency – Mean, Median and Mode – Definition, Meaning, Need and Importance, Calculation – Continuous and Discrete Series (Direct Method Only)

TEXT BOOKS

Bajpai. *Methods of Social Survey and Research*. Kanpur: Kila Ghar, 1982.

Gupta. *Statistical Methods*. New Delhi: Sultan Chand and Sons, 1985.

Kothari. *Research Methodology; Methods and Techniques*. Chennai: Wiley Eastern Ltd, 1978.

BOOKS FOR REFERENCE

Antony, Joseph. *Methodology for Research*. Bangalore: Bangalore Theological 1986.

Birtha, Mikkelsen. *Methods for Development Work and Research*. New Delhi: Sage, 1995.

Hubert, M., Blalock, Jr. *An Introduction to Social Research*. New Jersey: Prentice Hall.

Jack, D., Houglass. *Investigate Social Research Individual and Field Team Research*. London: Sage Publications, 1976.

Jaspal, Singh. *Introduction to Methods of Social Research*. New Delhi: Sterling Publishers Pvt, Ltd, 1991.

Kerlinger. *Foundations of Behavioural Research* New Delhi: Surjeet Publications, 1964.

Ramachandran, P. *Survey Research For Social Work. A Primer: Institute of Community Organization Research*. Mumbai 1990.

Reddy. *Research Methodology in Social Sciences*. New Delhi: Daya Publishing House, 1987.

JOURNALS

The Indian Journal of Social Work Research – TISS

Journal of Social Work

WEB RESOURCES

www.socialworksearch.com

www.socialworksearch.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 4 x 3 = 12 marks (All questions to be answered)

Section B – 3 x 6 = 18 marks (3 out of 5 questions to be answered)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered)

Third Component:

List of evaluation modes:

Seminars

Assignments

Problem Solving Case Studies

Quiz

Open book tests

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 3 = 30 marks (All questions to be answered)

Section B – 5 x 6 = 30 marks (5 out of 8 questions to be answered)

Section C – 2 x 20 = 40 marks (2 out of 4 questions to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
BSW DEGREE: BACHELOR OF SOCIAL WORK

SYLLABUS

(Effective from the academic year 2015 -2016)

SOCIAL WORK ADMINISTRATION

CODE: 15SW/MC/AD54

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To help develop the ability to apply the basic principles of Social Work to administration of social welfare and development agencies
- To enable in understanding of the procedures related to establishment and management of social welfare organisation/agencies governmental and non-governmental organisations
- To assist students develop an understanding of HRM and the administration process in the agency in the total frame of Social Work practice

Unit 1

Evolution of Social Welfare Administration (12 hrs.)

- 1.1 Concept - Voluntary Social Work, Social Welfare, Social welfare Administration
- 1.2 Evolution of Social Welfare in India and Social Welfare Administration in India
- 1.3 Brief overview of Social Welfare Administration – at the State level and Central level, Structure and functions of Central Social Welfare Board and State Social Welfare Board, Indian Council for Social Welfare
- 1.4 Social Work Administration as method in Social Work – Definition and Principles

Unit 2

Elements of Administration – I (8 hrs.)

- 2.1 Functions of the Board Members of a Social Welfare Organisation
- 2.2 Types of Committees
- 2.3 The role of Planning and Policy Making
- 2.5 Methods of Fund raising
- 2.4 Budgeting – Purpose and Principles
- 2.6 Accounting – Principles, fundamental books of accounts to be maintained in an Organisation

Unit 3

Elements of Administration – II (8 hrs.)

- 3.1 Co-ordination – Principles
- 3.2 Importance of Public Relations
- 3.3 Importance of Communication
- 3.4 Staffing – Process
- 3.5 Supervision – Purpose and Principles
- 3.6 Evaluation – Principles, Functions, Types and areas of Evaluation

Unit 4

Introduction to Non-Government Organisation (15 hrs.)

- 4.1 Definition, Characteristics, Types - Non Government Organisations
- 4.2 Role of NGO, Problems and Challenges faced by NGOs
- 4.3 Registration Procedures related to NGOs - Societies Registration Act, 1860 and Tamil Nadu Societies Registration Act, 1975
- 4.4 Foreign Contribution Regulation Act, 2011, Tax Exemptions Available Under 80G

Unit 5

Human Resources Management (9 hrs.)

- 5.1 Meaning, Definition, basic concepts in Human Resources
- 5.2 Principles and Philosophy of HRM
- 5.3 Relationship between Social Work and Human Resource Management

TEXT BOOKS

Bhattacharya, Sanjay. *Social Work Administration and Development*. Jaipur: Rawat, 2006.

Skidmore, Rex, A. *Social Work Administration Dynamic Management and Human Relationships*. New Jersey: Prentice Hall, 1990.

REFERENCE BOOKS

Chowdhry, Paul. D. *Social Welfare Administration*. New Delhi: Atma Ram, 1970.

Dharmarajan, Shivan. *NGO Development Initiative and Public Policy*. New Delhi: Kanishka, 1998.

Kirs. Ashman. Karen. K. *Introduction to Social Work and Social Welfare, Critical Thinking Perspectives*, U.S.A: Thomson, 2003.

Parmar, P. M. *Social Work and Social Welfare in India*. New Delhi: Sublime, 2002.

Pawar, S. N. Ambedkar, J. B. and Shrikant, D. *NGOs and Development: The Indian Scenario*. New Delhi: Rawat, 2004.

Wormer, Van, Katherin. *Introduction to Social Welfare and Social Work*, London: Thomson, 2006.

JOURNALS

Human Service Organisations, Management, Leadership and Governance - <http://www.tandfonline.com/action/journalInformation?journalCode=wasw20#.VOwJEdHlq1s>

WEB RESOURCES

<http://socialjustice.nic.in/>

<http://www.researchgate.net/journal>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 4 x 3 = 12 marks (All questions to be answered)

Section B – 3 x 6 = 18 marks (3 out of 5 questions to be answered)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered)

Third Component:

List of evaluation modes:

Seminars

Assignments

Problem Solving Case Studies

Quiz

Open book tests

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 3 = 30 marks (All questions to be answered)

Section B – 5 x 6 = 30 marks (5 out of 8 questions to be answered)

Section C – 2 x 20 = 40 marks (2 out of 4 questions to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
BSW DEGREE: BACHELOR OF SOCIAL WORK

SYLLABUS
(Effective from the academic year 2015 -2016)

HEALTH CARE SERVICES

CODE: 15SW/MC/HC54

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To understand the concept and dimensions of health- physical, social environmental and mental health
- To help to give the student an insight into the etiology, symptoms, treatment, and prevention of communicable diseases, non-communicable diseases, deficiency diseases
- To help the student understand the role of the government in the health issues

Unit 1

Introduction (8 hrs.)

- 1.1 Health – Definition, Concept of Physical, Social, Mental, Spiritual and Positive Health, Indicators of Health, Determinants of Health
- 1.2 Concept of Prevention – Definition, Levels of Prevention, Levels of Intervention
- 1.3 Hygiene – Definition, Importance of Personal Hygiene
- 1.4 Sanitation – Definition, Meaning, Need and Importance

Unit 2

Nutrition and Health (10 hrs.)

- 2.1 Nutrition – Definition, Meaning, Classification of Foods, Functions and Sources of Proteins, Fats, Minerals, Carbohydrates and Vitamins
- 2.2 Concept of - Malnutrition, PEM, Balanced Diet

Unit 3

Diseases (13 hrs.)

- 3.1 Communicable Diseases – Definition, Meaning, Types, Causes, Symptoms, Treatment and Prevention (Malaria, Tuberculosis, HIV/AIDS)
- 3.2 Non Communicable Diseases - Definition, Meaning, Types, Causes, Symptoms, Treatment and Prevention – (Diabetes, Hypertension, Cardio-Vascular Diseases)
- 3.3 Mental Health - Definition, History, Characteristics of a Mentally Healthy Person, Types of Mental Illness – Definition, Meaning, Types, Causes, Symptoms, Treatment and Prevention - Major and Minor Mental Illnesses – Schizophrenia, MDP, Anxiety, Phobia, OCD, Hysteria)
- 3.4 Psycho-Physiological Disorders - Definition, Meaning, Types, Causes, Symptoms, Treatment and Prevention – Respiratory Disorders, Digestive Disorders

Unit 4

Alternate Systems of Health Care (10 hrs.)

- 4.1 AYUSH (Ayurvedha, Yoga, Unani, Siddha, Homeopathy) – Definition, Etiology, Principles, Treatment Measures

Unit 5

Health Care Services (11 hrs.)

- 5.1 Voluntary Health Agencies in India – Role of - Indian Red Cross Society, Indian Council for Child Welfare, Tuberculosis Association in India, Central Social Welfare Board, Family Planning Association of India
5.2 Health Programmes in India – Overview of National Malaria Eradication Programme, Diarrhoeal Diseases Control Programme, National Filarial Control Programme, National Tuberculosis Control Programme, STD Control Programme
5.3 Role of International Organisations – WHO, UNICEF, FAO

TEXT BOOKS

Mangal, S., K. *Introduction to Abnormal Psychology*. New Delhi: Sterling Publishers, 2004.

Park, J., E., and Park, K, *Textbook of Preventive and Social Medicine*. Jabalpur: Banarsidas.

Park, K. *Textbook of Prevention and Social Medicine*. Jabalpur: Banarsidas.

BOOKS FOR REFERENCE

Abraham, Verghese. *Introduction to Psychiatry*. BI 1996.

Anderson, G., M. *Communicable Disease Control*. New York: Macmillan.

Bajjee. *Textbook of Preventive and Social Medicine*. New Delhi: Jaypee Brothers Medical Publishers, 1995.

Chauhan, S., S. *Mental Hygiene – A Science of Adjustment*. New Delhi:

JOURNALS

Indian Journal on Public Health
Indian Journal on Community Health

WEB RESOURCES

www.health.com
www.aarogya.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 4 x 3 = 12 marks (All questions to be answered)

Section B – 3 x 6 = 18 marks (3 out of 5 questions to be answered)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered)

Third Component:

List of evaluation modes:

Seminars

Assignments

Problem Solving Case Studies

Quiz

Open book tests

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 3 = 30 marks (All questions to be answered)

Section B – 5 x 6 = 30 marks (5 out of 8 questions to be answered)

Section C – 2 x 20 = 40 marks (2 out of 4 questions to be answered)

STELLAMARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
BSW DEGREE: BACHELOR OF SOCIAL WORK

SYLLABUS

(Effective from the academic year 2015 -2016)

GENDER AND DEVELOPMENT – ISSUES AND CONCERNS

CODE: 15SW/MC/GD64

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To gain an understanding of Gender positions in society
- To enable students comprehend the various domains of development and its impact on men and women
- To understand the various approaches to development processes specifically for women
- To empower students with skills in social work practice for women's development

Unit 1

Introduction – Gender and Development (10 hrs.)

- 1.1 Gender and Development – Meaning and Definition
- 1.1 Women in the Development Process: Need and Importance, Developmental Rights of Women, WID, WAD, GAD, GEM
- 1.2 Significance of Women's Development; Positive and Negative Indices of Women Development

Unit 2

Basic Concepts in Understanding Women's Development (10 hrs.)

- 2.1 Sex and Gender, Gender Stereotypes, Gender Relations, Gender Division of Labour,
- 2.2 Gender Roles and Responsibilities, Gender Discrimination, Equity and Equality
- 2.3 Gender Mainstreaming, Concept of Patriarchy, Feminism

Unit 3

Gender and Work (11hrs.)

- 3.1 Concept of Work, Problems of Women at Work, Women's Triple Role, Trends in Women's Work Participation, Invisibility of Women's Work, Glass Ceiling
- 3.2 Women and Self- Employment, Self- Help Groups Micro-Enterprises and Women's Development

Unit 4

Legislations Related to Women (11hrs.)

- 4.1 Legal Rights of Women with Reference to Inheritance, Adoption, Education, Employment, Health, Marriage, Divorce and Maintenance

4.2 CEDAW – Convention on Elimination of All Forms of Discrimination
Against Women and Girls

Unit 5

Empowerment Strategies for Women (10 hrs.)

5.1 Empowerment: Definition and Meaning, Types and Levels of Women's Empowerment

5.2 Needs of Women – Practical and Strategic Needs of Women (PGN/SGN)

5.3 National Policy for Empowerment of Women 2001, Social Work and Women's Empowerment

TEXT BOOKS

Bhasin, Kamala and Agarwal. *Women and the Media- Analysis, Alternatives and Actions*. New Delhi: Kali and Women, 1984.

Bhatia Anju. *Women's Development and NGOs*. Jaipur: Rawat, 2000.

Blumberg R.L and Dwaraki L. *India's Educated Women Options and Constraints*. New Delhi: Hindustan, 1980.

Devandar, Kiran. *Status and Positions of Women in India*. New Delhi: Shakti Books, 1985.

BOOKS FOR REFERENCE

Kanhere U.S. *Women and Socialisation*. New Delhi: Mittal, 1980.

Kaushik, Susheela. *Women's Oppression – Patterns and Perspectives*. New Delhi: Shakti Books, 1985.

Kidwai M.H. *Women under different Social and Religious Laws*. New Delhi: Seema, 1979.

Marilee Karl. *Women and Empowerment - Participation and Decision Making*. London: Zed, 1995.

Marilyn Carr, Martha Chen, Renana Thabvala. *Speaking Out: Women's Economic Empowerment in South Asia*. London: IT Publications on behalf of Aga Khan Foundation Canada and UNIFEM, 1996.

Neera Desai and Maitreyi Krishnaraj. *Women and Society in India*. New Delhi: Ajanta, 1987.

JOURNALS

Indian Journal of Gender Studies, Feb 2015

International Journal of Gender Studies in Developing Societies

WEB RESOURCES

<http://www.un.org/womenwatch/daw/cedaw>

<http://wcd.nic.in>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 4 x 3 = 12 marks (All questions to be answered)

Section B – 3 x 6 = 18 marks (3 out of 5 questions to be answered)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered)

Third Component:

List of evaluation modes:

Seminars

Assignments

Problem Solving Case Studies

Quiz

Open book tests

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 3 = 30 marks (All questions to be answered)

Section B – 5 x 6 = 30 marks (5 out of 8 questions to be answered)

Section C – 2 x 20 = 40 marks (2 out of 4 questions to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

BSW DEGREE: BACHELOR OF SOCIAL WORK

SYLLABUS

(Effective from the academic year 2015 – 2016)

FIELD WORK - VI

CODE: 15SW/MC/FW64

CREDITS: 4

CONCURRENT FIELD WORK

OBJECTIVES OF FIELD WORK

- To record systematically using the Integrated Social Work process
- To enable students practice the Integrated Approach in specialised settings
- To record systematically using the Integrated Social Work process
- To acquire the skills of fund raising and resource mobilisation
- To acquire the skills in report writing
- To acquire the basic skills of administration
- To develop skills working with different client systems using the integrated approach in practice – integrating methods

METHODS OF ASSESSMENT

1. In relation to tasks achieved and personal growth and change
2. An external comprehensive viva voce of all the six semesters fieldwork learning will be conducted.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

BSW DEGREE: BACHELOR OF SOCIAL WORK

SYLLABUS

(Effective from the academic year 2015 – 2016)

PROJECT

CODE: 15SW/MC/PR64

CREDITS: 4

Every student in her VI Semester is required to complete a project under the supervision and guidance of a faculty member who will guide the student on topics related to social issues and social work practice. The report will be evaluated internally by 2 examiners:

1. Faculty of the Social Work Department who has guided the student
2. A second faculty of the BSW Department

The examiners shall evaluate the project report for 100 marks each. A candidate failing in the research project will be required to repeat it under guidance during the following academic year and secure at least a minimum of 50% marks.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
BSW DEGREE: BACHELOR OF SOCIAL WORK

SYLLABUS

(Effective from the academic year 2015 – 2016)

BLOCK PLACEMENT

CODE: 15SW/MC/BP62

CREDITS: 2

The Block Field Work is intended to give the students an opportunity to work as a full-time trainee in the selected organisation so as to learn the day-to-day role and tasks of a full-time social worker for 25 working days.

OBJECTIVES OF BLOCK PLACEMENT

- To understand organisation's goals and administrative functioning
- To be sensitive to existing social issues in the placement
- To be efficient in carrying out day-to-day activities of the organisation
- To develop skill in documentation, communication, observation, planning and organising programmes
- To mobilise funds if required

METHODS OF ASSESSMENT

1. In relation to task and personal growth
2. Sharing of their learning experience
3. Presentation of a consolidated report to be submitted

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**Allied Elective Course Offered by Department of Social Work to
B.Sc./B.Com./B.C.A Degree**

SYLLABUS

(Effective from the academic year 2015-16 onwards)

FOOD AND NUTRITION

Allied Elective Offered by the Department of Social Work

CODE: 15SW/AE/FN45

CREDITS: 5

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To develop an overall understanding about the importance of Nutrition
- To understand the food groups, deficiency diseases, adulteration in food and the government programmes on Nutrition
- To understand the world food problems and importance of Food Security

Unit 1

Food and Nutrition

(14 hrs.)

- 1.1 Food and Nutrition – Definition, Meaning, Classification of foods, Function and Sources of Proteins, Fats, Minerals, Carbohydrates and Vitamins, concept of a Balanced Diet
- 1.2 Fat soluble Vitamins – Vitamin A, Vitamin D, E & K
- 1.3 Water Soluble Vitamins – Vitamin C, Thiamine, Riboflavin, Niacin, Pantothenic acid, Biotin, Folic acid, Vitamin B12, Vitamin B6

Unit 2

Health and Nutritional Problems in India

(14 hrs.)

- 2.1 Definition of Health and Fitness, Factors influencing Health and Wellbeing
- 2.2 Gender and Health, Approaches to the Management of Fitness and Health, Diet and exercise, Effect of specific Nutrients on Work performance and Physical Fitness. Nutrients that support physical activity (metabolic pathways) Mobilisation of fuel stores during Exercise
- 2.3 Significance of Physical fitness and Nutrition in Prevention and Management of Weight control regimes. Nutrition guidelines for maintenance of Health and Fitness.- Nutrition, Exercise, Physical Fitness and health- their inter relationship
- 2.4 Protein Energy Malnutrition- Malnutrition – Indicators, Problems, Preventive and Social Measures of Malnutrition. Micronutrient Deficiencies-Vitamin Deficiencies

Unit 3

Food Adulteration, Contamination and Food Hygiene

(12 hrs.)

- 3.1 Common Adulterants, Food colourants – Permitted and Non permitted Flavouring principles in different foods – flavours of Spices, vegetables and fruits, fats and oils, meat, milk- artificial flavours

- 3.2 Contamination of foods -different sources of contamination of foods-by plants, animal, sewage, soil, air, water, human beings. Fermentation, Putrefaction and Decay
- 3.3 Food Hygiene and Sanitation in Food- Food safety, Hygienic Food Handling

Unit 4

Government Programmes on Nutrition and National and International Organisations (14 hrs.)

- 4.1 Integrated Child Development Services (ICDS) Programme, Nutrient Deficiency Control Programme
- 4.2 Supplementary Feeding Programme
- 4.3 National Organisations – ICMR, ICAR, CSWB, SSWB, NIN, CSIR, International Organisations – FAO, WHO, UNICEF, AFPRO, World Bank, CARE – their role in combating Malnutrition

Unit 5

Food Security (11 hrs.)

- 5.1 Definition, World Food problems
- 5.2 Agricultural Liberalisation and Food Security
- 5.3 Right to Food, National Food Security Act 2013

TEXT BOOKS

M.Swaminathan, *Principles of Nutrition and dietetics*, Bangalore: The Bangalore Printing and Publishing. India, 1988.

M.Swaminathan, *Food and Nutrition Vol-I*, Bangalore: The Bangalore Printing and Publishing. India, 1988.

M.Swaminathan, *Food and Nutrition Vol-II*, Bangalore: The Bangalore Printing and Publishing. India, 1988.

BOOKS.FOR REFERENCE

Bhavana Shabarwala. *Public Health & Nutritional Care*-Common Wealth, 1999.

Fisher P.Bender, A. *The Value of Foods*. London: Oxford U P, 1971.

Joshi, S.A. *Nutrition and Dietetics*. New Delhi: Tata McGraw Hill, 1992.

Raheena, Begum, *A Textbook of Foods, Nutrition and Dietetics*. New Delhi: Sterling, 1989.

Shukla, P.K. *Nutrition Problems of India*. P.K Prentice Hall of India, 1982.

Williams, S.R. *Nutrition and Diet Therapy*. St. Louis: Times Mirror/Mosby college, 1989.

Wilson Fisher. *Principles of Nutrition*. Willey Eastern., 1971.

WEB RESOURCES

en.wikipedia.org/wiki/Nutrition
www.nutritionj.com/
www.who.int/topics/nutrition/en/

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 4 x 3 = 12 marks (All questions to be answered)
Section B – 3 x 6 = 18 marks (3 out of 5 questions to be answered)
Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered)

Third Component:

List of evaluation modes:

Seminars
Assignments
Problem Solving Case Studies
Quiz
Open book tests

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 3 = 30 marks (All questions to be answered)
Section B – 5 x 6 = 30 marks (5 out of 8 questions to be answered)
Section C – 2 x 20 = 40 marks (2 out of 4 questions to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
Allied Elective Course Offered by Department of Social Work to
B.Sc./B.Com./B.C.A Degree

SYLLABUS
(Effective from the academic year 2015 -2016)

SOCIAL ENTERPRISE MANAGEMENT

CODE: 15SW/AE/SE45

CREDITS : 5

L T P : 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide students with an overview on Social Enterprise as a major sector
- To introduce concepts underlying Social Enterprise Management
- To equip students with skills and strategies that would empower them to become Social Entrepreneurs or take up Leadership/Managerial roles in social Enterprises

Unit 1

Social Enterprise – The Third Sector (13 hrs.)

- 1.1 Understanding the three sectors – Public, Private and the Third Sector
- 1.2 Brief history of the emergence of the Third Sector
- 1.3 Definition & Meaning - Social Enterprise
- 1.4 ‘Business at the base of the Pyramid’ – understanding the Latent Market Potential of the Poor

Unit 2

Social Entrepreneurship (12 hrs.)

- 2.1 Characteristics of a Social Entrepreneur
- 2.2 Role of a Social Entrepreneur
- 2.3 Case studies – Javed Abidi, Jeroo Billimoria, Bill Drayton, J.B.Schramm, M. Yunus, Kailash Satyarthi, Bindeshwar Pathak, Anand Kumar, Madhav Chavan, Vinayak Lohani

Unit 3

Social Enterprise Management (13 hrs.)

- 3.1 Vision, Mission, Objectives of the Social Enterprise
- 3.2 Need Assessment-Baseline Survey, Participatory Project Planning Techniques, PRA, RRA, Logical Frame Work Analysis
- 3.3 Development of a Product or Service

Unit 4

Resources of Enterprise (15 hrs.)

- 4.1 Registration of the Enterprise – Introduction to Tamil Nadu Societies Registration Act, 1975
- 4.2 Introduction to Foreign Contribution (Regulation) Act, 2011
- 4.3 HR, Structure of the Organisation
- 4.4 Revenue Model
- 4.5 Organisation Management & systems

4.6 Marketing, Network & relationship

Unit 5

Measuring Impact of Social Enterprises

(12 hrs.)

5.1 The challenges faced by Social Enterprises in measuring their impact

5.2 Debates surrounding the Measurement of Social Impact

5.3 Approaches/methods used to measure impact of Social Enterprises

TEXT BOOKS

Ridley-Duff, R. J. and Bull, M. *Understanding Social Enterprise: Theory and Practice*, London: Sage, 2011.

Bornstein, David. *How to Change the World*, New York: Penguin Books. 2005.

BOOKS OF REFERENCE

Prahlad, C. K. *The Fortune at the Bottom of the Pyramid*, New Jersey: Wharton School, 2005.

Bansal, Rashmi, *I have a dream*, Noida: Westland and Tranquebar Press, 2011.

Yunus, M, *Banker to the Poor*, USA: Penguin Books, 1999

Padaki & Manjulika, *Management Development in Non-Profit Organisation*, New Delhi: Sage. 2005

Chambers, R. *The Origins and Practice of Participatory Rural Appraisal*, World Bank. UK: Elsevier Science Ltd, 1994

Crutchfield, R. Leslie and McLeod Heather, Grant, *Forces for Good: The Six Practices of High-Impact Nonprofits*, USA: HB Printing, 2007.

Nicholls, Alex. *Social Entrepreneurship, New Models of Sustainable Social Change*, Oxford: Oxford University Press, 2006.

Kramer.R, Mark. *Measuring Innovation: Evaluation in the Field of Social Entrepreneurship*, USA: Foundation Strategy Group, 2005.

JOURNALS

Journal of Social Entrepreneurship (<http://www.tandfonline.com>)

WEB RESOURCES

<https://www.ashoka.org>

<http://www.skollfoundation.org>

Video on Arvind Hospitals - <https://www.youtube.com/watch?v=4Mg3-eOQYYQ>

Video on “Building Social Business Ventures” by Muhammad Yunus

<https://www.youtube.com/watch?v=kW-4gJmXy5M>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 4 x 3 = 12 marks (All questions to be answered)

Section B – 3 x 6 = 18 marks (3 out of 5 questions to be answered)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered)

Third Component:

List of evaluation modes:

Seminars

Assignments

Problem Solving Case Studies

Quiz

Open book tests

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 3 = 30 marks (All questions to be answered)

Section B – 5 x 6 = 30 marks (5 out of 8 questions to be answered)

Section C – 2 x 20 = 40 marks (2 out of 4 questions to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

BSW DEGREE: BACHELOR OF SOCIAL WORK

SYLLABUS

(Effective from the academic year 2015 – 2016)

DISABILITY REHABILITATION AND SOCIAL WORK PRACTICE

CODE: 15SW/ME/DS55

CREDITS: 5

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To enable students to understand about different forms of Disability
- To acquire knowledge on Rehabilitative measures
- To enable the students to understand the multi-disciplinary approach to Rehabilitation
- To prepare the students to play an active role as social workers in working with persons with Disability

Unit 1

Disability (14 hrs.)

- 1.1 Definitions and Causes
- 1.2 Types of various Disabilities
- 1.3 Prevention of Disabilities at Primary, Secondary and Tertiary Levels

Unit 2

Impact of Disability on Persons with Disability and their Families (12 hrs.)

- 2.1 Reactions of Parents, Family members and ways of coping
- 2.2 Needs and Problems of Persons with Disability and their families, Community based Rehabilitation, Inclusive Approach and Accessibility
- 2.3 Across the Life Span and at Critical Stages in their lives and Social Work Intervention at each Stage

Unit 3

Contextual Understanding of Disability: Contemporary Perspectives (12hrs.)

- 3.1 Contextual understanding from a Medical, Family, Social, Gender and Psychological perspectives
- 3.2 Construction of Disability and Rehabilitation through various discourses
- 3.2 Understanding of Limitations, Strengths and Potentials of Persons with Disabilities

Unit 4

Multidisciplinary Rehabilitation Team and their Roles (14 hrs.)

- 4.1 Process of Rehabilitation: Early Identification, Treatment, Fitment of Aids and Appliances

- 4.2 Education, Vocational Rehabilitation and Social Integration within the Family and Community
- 4.3 Legal issues in Rehabilitation and Implications

Unit 5

Intervention strategies at Individual, Family and Community levels

(13hrs.)

- 5.1 Problem focused, Self Help/support Groups, Assertiveness Training, Life Skills Enrichment
- 5.2 Family level - Family Crisis Intervention, Family centered Intervention, Parent Guidance, Parent Training, Community Level, Community Awareness, Education. Role of a Social Worker in different settings such as Hospital, Treatment centres, Homes, Rehabilitation Centre, the Community and Associations of Persons with Disability
- 5.3 Person with Disabilities, Equal opportunities, Protection of Rights and Full Participation Act of 1995. Government Programmes for the Disabled, Net working with other service organisations available in the community, Job placement for the Disabled - Organised Sectors and Self-employment, Utilisation of Government and other available resources, Concept of Guidance, type of guidance, Vocational, Educational and Personal

TEXT BOOKS

Albrecht G.L, Katherine D Seelman & Michael Bury. *Hand Book of Disability Studies*. London: Sage, 2001.

Grant, Learning disability: *A Lifecycle Approach to Valuing People*. London: Open U P, 2005.

Hegarty Seamus & Mithu Alur. *Education and Children with Special Needs*. London: Sage, 2002.

Karant, Pratibha & Joe Rozario. *Learning Disability in India*. London: Sage, 2003.

Moore. *Researching Disability Issues*. London: Open U P, 2005.

BOOKS FOR REFERENCE

Clark Joan Simeon. *Disabled citizens* London: George Allen & Unwin, 1970.

Gajendragadkar S.N. *Disabled in India USA*: California U P, 1983.

Narasimhan M.C. *Disability a Continuing Challenge*. USA: Michigan U P, 1989.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 4 x 3 = 12 marks (All questions to be answered)

Section B – 3 x 6 = 18 marks (3 out of 5 questions to be answered)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered)

Third Component:

List of evaluation modes:

Seminars

Assignments

Problem Solving Case Studies

Quiz

Open book tests

End Semester Examination:

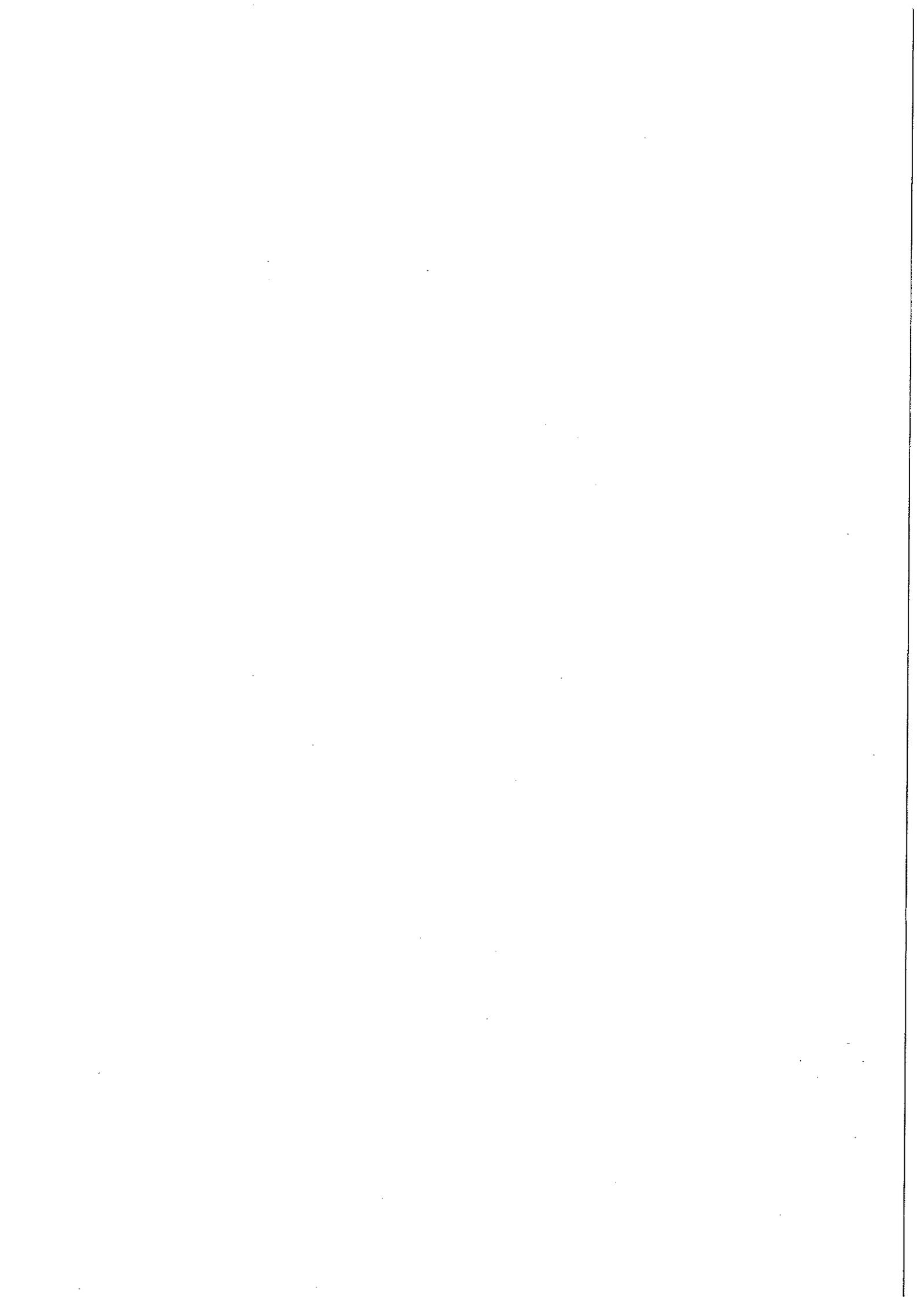
Total Marks: 100

Duration: 3 hours

Section A – $10 \times 3 = 30$ marks (All questions to be answered)

Section B – $5 \times 6 = 30$ marks (5 out of 8 questions to be answered)

Section C – $2 \times 20 = 40$ marks (2 out of 4 questions to be answered)



STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

BSW DEGREE: BACHELOR OF SOCIAL WORK

SYLLABUS

(Effective from the academic year 2015 – 2016)

DISASTER PREPAREDNESS AND RISK REDUCTION

CODE: 15SW/ME/DR55

CREDITS: 5

LECTURE: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To understand the process of disaster management
- To analyse the role of a social worker in disaster management

Unit 1

Disasters – Introduction (14 hrs.)

- 1.1 Concept and Definition of Disaster
- 1.2 Types of Disaster – Natural and Human Made: Cyclone, Flood, Landslide, Fire, Earthquake, Avalanches, Tsunami, Forest Fires, Accidents in Coal Mines, Drought, War, Terrorism and Technological Disasters
- 1.3 Displacement

Unit 2

Disaster Management Cycle and Management Issues related to Disaster (12 hrs.)

- 2.1 Pre-disaster: Prevention, Mitigation, Preparedness, Disaster Management Toolkit
- 2.1 During Disaster: Response
- 2.2 Post-disaster: Relief, Recovery and Rehabilitation
- 2.3 Mitigation through Capacity Building, Disaster Risk and Vulnerability Reduction, and Disaster Related Infrastructure Development

Unit 3

Disaster Analysis and Technology for Disaster Management (13 hrs.)

- 3.1 Disaster Mapping, Risk Assessment, SWOT Analysis
- 3.2 Psychosocial Vulnerability Analysis and Intervention
- 3.3 Technology for Disaster Management: Early Warning Systems, Remote Sensing & GIS Technology

Unit 4

Role of Various Organisations in Disaster Management (13 hrs.)

- 4.1 Role of State, Armed Forces / NGOs, INGOs, Philanthropists in Disaster Situations
- 4.2 Role of Community, Development Workers, Volunteers and Media
- 4.3 Role of Social Work

Unit 5

Legislations for Disasters

(13 hrs.)

5.1 Disaster Management Framework in India

5.2 Recommendation of the 18th World Conference on Disaster Management (Toronto)

5.3 The HUGO Model

5.4 Do No Harm Intervention

5.5 HAP Framework

TEXT BOOK

Goel, S. L. *Encyclopedia of Disaster Management*. New Delhi: Deep & Deep, 2001.

BOOKS FOR REFERENCE

Bose, B. C. *Disaster Management in India*. New Delhi: Rajat, 2007.

Bose, B. C. *Disaster Management in 21st Century*. New Delhi Rajat Publication, 2007.

Goel, S. L. *Disaster Management Organisations and Management, Health Management of Human Being and Animals*. New Delhi: Deep & Deep, 2001.

Newburn, Tim. *Disaster & After*. London: Jessica Kingsley, 1993.

Roy, Sanjay, K. *Refugees and Human Rights*. Jaipur: Rawat, 2001.

Smita. *Locked Homes Empty Schools*. New Delhi: Zubaan, 2007.

Singh, R. B. *Disaster Management*. Jaipur: Rawat, 2000.

Sinha, Prabhas Chandra. *Disaster Management Process, Law, Policy & Strategy*. New Delhi: SBS, 2006.

Sinha, Prabhas Chandra. *Disaster Relief, Rehabilitation & Emergency Humanitarian Assistance*. New Delhi: SBS, 2006.

Sinha, Prabhas Chandra. *Disaster Vulnerabilities & Risks*. New Delhi: SBS, 2006.

Sinha, Prabhas Chandra. *Disaster Mitigation, Preparedness, Recovery & Response*, New Delhi: SBS, 2006.

Verma, K. Manish. *Development, Displacement and Resettlement*. Jaipur: Rawat, 2004.

JOURNALS

The International Journal of Disaster Risk Reduction (IJDRR)

National Institute of Disaster Management (NIDM)

WEB RESOURCES

www.unisdr.org

www.ndma.gov

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 4 x 3 = 12 marks (All questions to be answered)

Section B – 3 x 6 = 18 marks (3 out of 5 questions to be answered)

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Quiz

Open book tests

End Semester Examination:

Total Marks: 100

Duration: 3 hours

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STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 86

BSW DEGREE: BACHELOR OF SOCIAL WORK

SYLLABUS

(Effective from academic year 2015-2016)

ECOLOGY, DEVELOPMENT AND SOCIALWORK INTERVENTION

CODE: 15SW/ME/EI55

CREDITS: 5

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To enable students to understand the need for protecting the environment
- To create awareness on the issues related to environmental concerns
- To sensitise students and train them with suitable skills to sustain the work towards environment sustenance

Unit 1

Introduction to Environmental Studies and Natural Resources

(14hrs.)

- 1.1 Definition, Scope and Importance – Need for Public Awareness – Forest Resources: Use and Over-Exploitation, Deforestation, Case Studies
- 1.2 Timber Extraction, Mining, Dams, Ground Water, Floods, Drought, Conflicts over water, Dams-benefits and problems – Mineral resources: Use effects on forests and Tribal people
- 1.3 Water resources: Use and Over-Utilisation of surface and Exploitation, Environmental effects of Extracting and using Mineral Resources, Case Studies
- 1.4 Food resources: World food problems, changes caused by Agriculture and Overgrazing, effects of Modern Agriculture, Fertiliser-Pesticide problems
- 1.5 Water logging, Salinity, case studies – Energy Resources: Growing Energy Needs, Renewable and Non-renewable energy sources, use of Alternate Energy sources
- 1.6 Land resources: Land as a resource, Land Degradation, human induced Landslides, Soil Erosion and Desertification – role of an individual in Conservation of Natural Resources – equitable use of Resources for Sustainable lifestyles

Unit 2

Ecology, Ecosystem and Bio-diversity

(11hrs.)

- 2.1 Concept of Ecology, Ecosystem - types of Ecological pyramids, Energy flow in Ecosystems-Functions of Ecosystems
- 2.2 Ecological succession-Food web-Food chain, Urban Ecology, Solid Waste-waste Management
- 2.3 Types of Ecosystem, characteristic features, structure and function of the Forest Ecosystem, Grassland Ecosystem, Desert Ecosystem, Aquatic Ecosystems (Ponds, Lakes, Rivers, Oceans, Estuaries)
- 2.4 Bio-diversity-Types of Biodiversity, Conservation at the Global ,National and Local levels, In-situ, Ex-situ Conservation of Bio-diversity, Hot Spots

of Bio-diversity, Loss of Biodiversity, problems, Threats to Biodiversity
2.5 Endangered and Endemic species in India, Poaching of Wildlife, Man-Wildlife conflicts, Endangered and Endemic species in India

Unit 3

Sustainable Development and Environmental Laws (16 hrs.)

- 3.1 Sustainable Development -concept, approaches, 3R-principle, Urban problems related to Energy
- 3.2 Water Conservation, Rain Water- Harvesting, Watershed Management- Fragile ecosystem development, Resettlement and Rehabilitation of people; its problems and concerns
- 3.3 Climate change, Global Warming, Acid rain, Ozone layer depletion, Nuclear accidents. Organic farming and supply chains for Sustainable Agriculture Case Studies. – Wasteland reclamation
- 3.4 Challenges to Sustainability, issues on Poverty, Health, Food, Energy, Ecofeminism
- 3.5 Environment Protection Acts, Air (Prevention and Control of Pollution) Act, Water (Prevention and control of Pollution) Act, Wildlife Protection Act, Forest conservation Act, Issues involved in enforcement of Environmental legislation, Consumerism and Waste products, Public Awareness

Unit 4

Environmental Social Work (11hrs.)

- 4.1 Environmental Social Work - Concept, Principles, Govt. of India policy on Environment
- 4.2 Global meetings on environment-BRIC, SAARC, UN Conventions on Environmental issues -Millennium Declaration & Summit, International Conference on Financing for Development
- 4.3 United Nations Conferences and reports on Environment: UN Conference on the Human Environment (1972), World Commission on Environment and Development (1987), General Assembly Special Session on the Environment (1997), World Summit on Sustainable Development (2002), UN Conference on Sustainable Development (2012)

Unit 5

Social Work Intervention Towards Sustainability (13 hrs.)

- 5.1 Sustainability- Issues in sustainability, Eco-social Approach to Sustainability. Role of Social Workers in protecting the Environment and safe guarding it
- 5.2 United Nations Environment - Program(1972). Stockholm Conference, Rio-Di-Jenero Meet (1992), Lemaperu (2014), Narmadha Bacchao Andolan, Chipko Movement
- 5.3 Right to Sustainable Development, Advocacy, Lobbying, Environment education for public, Schools and Colleges

TEXT BOOKS

Agarwal. *International Law and Human Rights*. New Delhi: Central Law Publications, 2002.

Bajwa, G., S. *Human Rights in India, Implementation & Violations*. New Delhi: Oscar, 1995.

Ignacimuthu, S. *Environmental Awareness and Protection*. New Delhi: Phoenic, 1997.

Jadhav, H. V.M Bhosale. *Environmental Protection and Laws*. New Delhi: Himalaya, 1995.

BOOKS FOR REFERENCE

Ashish Bakshi, P., M. *The Constitution of India*. New Delhi: Asish,

Chandrachur Gupta, D., N. and, Singh. *Human Rights Acts, Statutes and Constitutional Provisions*. New Delhi: Rajat, 2003.

Coates, J. *Ecology and Social Work toward a New Paradigm*. Nova Scotia: Fernwood, 2003.

Dewan, V., K, *Law Relating to Offences Against Women*. New Delhi: Sage Publications, 1996.

Gitterman, A., & Germain, C. B. *The Life Model of Social Work Practice*. New York: Columbia U P 2008.

Katya. *Environmental Concern, Depleting Resources, Sustainable Development*. Jaipur: Pointer, 1997.

Kumar .R. *Environmental Pollution Health Hazard in India*. Efferent New Delhi: Offset, 1987.

Mary, N. L. *Social Work in a Sustainable World*. Chicago: Lyceum, 2008.

Mies. M. V. Shiva. *Ecofemisim*, London: Zed, 1989.

Odum, E. P. *Fundamentals of Ecology*. U.S.A: W. B. Saunders Co, 1971.

Sinha, P. C. *Inter National Tourism of Sustainable Development*, New Delhi: Anmol, 1998.

Zapf M. K. *Social Work and the Environment: Understanding People and Place*. Ontario: Canadian Scholars, 2009.

WEB RESOURCES

[www. publications.gc.ca/Collection-R/LoPBdP/BP/bp317-e.htm](http://www.publications.gc.ca/Collection-R/LoPBdP/BP/bp317-e.htm)

[www. unep.org/Documents/Default.asp?DocumentID=287](http://www.unep.org/Documents/Default.asp?DocumentID=287)

[enwikipedia.org/.../United_Nations_Conference_on_Sustainable_Development...](http://en.wikipedia.org/.../United_Nations_Conference_on_Sustainable_Development...)

www.socialworktoday.com/archive/092011p20.shtml

www.ecosocialwork.org/index.php?option=com_content...id...

www.academia.edu/4139398/Greeningof_Social_Work

www.unom.ac.in/uploads/admissions/cbcs/2008-2009/syllabusmsw.doc

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 4 x 3 = 12 marks (All questions to be answered)

Section B – 3 x 6 = 18 marks (3 out of 5 questions to be answered)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered)

Third Component:

List of evaluation modes:

Seminars

Assignments

Problem Solving Case Studies

Quiz

Open book tests

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 3 = 30 marks (All questions to be answered)

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STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
BSW DEGREE: BACHELOR OF SOCIAL WORK

SYLLABUS

(Effective from the academic year 2015 -2016)

INTERNATIONAL CO-OPERATION AND HUMANITARIAN ASSISTANCE

CODE: 15SW/ME/IH55

CREDITS : 5

L T P : 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To develop an understanding in the students on the concepts and the need for International Co-operation and Humanitarian Assistance
- To understand the role of Social Work profession in International Co-operation and Humanitarian Assistance

Unit 1

Basic Concepts in International Co-operation (11 hrs.)

- 1.1 International Co-operation – Definition, Meaning and Need
- 1.2 Issues that call for International Cooperation – Global Poverty, Health, Education, Conflict, Peace and Security, Disaster Relief, Environment and Climate Justice
- 1.3 Centre on International Co-operation – Role and Programmes

Unit 2

Basic Concepts in Humanitarian Assistance and Relief (12 hrs.)

- 2.1 Definition, Meaning, Origin, Guiding Principles of Humanitarian Assistance, Aid and Relief, Funding Sources and Channels; Funding for Emergencies
- 2.2 Related Concepts – Humanitarianism, Humanitarian Aid, Humanitarian Response, Development Assistance, Donors, Relief, Humanitarian Needs
- 2.3 Types of Aid Agencies – International Governments, Individuals, Trusts and Foundations, and Private Companies and Corporation

Unit 3

Laws for International Co-operation, Humanitarian Assistance and Relief (12 hrs.)

- 3.1 International Humanitarian Law
- 3.2 Declaration on Principles of International Law Concerning Friendly Relations and Co-Operation Among States in Accordance with the Charter of the United Nations – Vienna Protocol
- 3.3 Global Humanitarian Reports

Unit 4

Organisations for International Co-operation, Humanitarian Assistance and Relief (15 hrs.)

- 4.1 Role of United Nations in Humanitarian Assistance

- 4.2 Role and Functions of CARE (Co-Operative and Assistance for Relief Everywhere), CARITAS, International Red Cross and Red Crescent Movement, Feed the Children, OXFAM, Save the Children, World Vision International, USAID
- 4.3 Role of Ngos in Humanitarian Assistance and Relief, Role of Governments
- 4.4 Humanitarian Accountability – Meaning, Importance and the Role and Functions of HAPI (Humanitarian Accountability and Partnership International) in Accountability

Unit 5

International Social Work and Humanitarian Assistance (15 hrs.)

- 5.1 International Social Work and Humanitarian Aid; Aid for Reducing Global Poverty, Child Protection, Human Rights Violations, Refugee and Migrant Issues, Conflict Resolution
- 5.2 Relief and Developmental Approach in Humanitarian Assistance
- 5.3 Role and Skills of an International Social Worker Need for Cultural Competencies

TEXT BOOKS

Kalpana Rajaram. *International Organizations, Conferences and Treaties*. New Delhi: Spectrum Books, 2005.

BOOKS FOR REFERENCE

Carlsnaes, Walter, et al eds. *Handbook of International Relations*. SAGE 2012.

Jean E. Krasno (ed.), *The United Nations: Confronting the Challenges of a Global Society*, London: Lynne Rienner, 2004.

John Baylis and Steve Smith, *The Globalization of World Politics: An Introduction to International Relations*, New York: Oxford University, 2001

Le Roy Bennett, *International Organizations: Principles and Issues*, New Jersey: Prentice Hall Inc., 19982.

Reus-Smit, Christian, and Duncan Snidal, eds. *The Oxford Handbook of International Relations* 2010.

JOURNALS

The Journal of Humanitarian Assistance

The Journal of International Humanitarian Assistance and Legal Studies

WEB RESOURCES

www.international.gc.ca/.../humanitarian...ahi.aspx?lang=eng

www.iha-info.org

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 4 x 3 = 12 marks (All questions to be answered)

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Third Component:

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Problem Solving Case Studies

Quiz

Open book tests

End Semester Examination:

Total Marks: 100

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STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
General Elective Course Offered by Department of Social Work to
B.Sc./B.Com./B.C.A Degree

SYLLABUS
(Effective from the academic year 2015 -2016)

MIGRATION ISSUES AND HUMAN SECURITY

CODE: 15SW/GE/MH22

CREDITS : 2

L T P : 200

TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE

- Understand migration in the context of development and displacement
- Explore current and emerging trends on internal and International migrations
- Acquire knowledge on determinants of migration and rights of Migrants
- Understand the relationship between migration and development

Unit 1

Introduction

(8 hrs.)

1.1 Basic Concepts and Definition of Migration, Causes and Consequences of Migration, Historical Migration in India

1.2 Types, Issues and Challenges- Poverty, Seasonal, Displacement, Unemployment. Labour Migration in India, Brain Drain, Feminisation of Migration, Internal and International Migrants - Push and Pull Factors, Patterns and Trends, Illegal Migrants and Human Trafficking, Refugees

Unit 2

International Migration Policies

(10 hrs.)

2.1 Globalisation and Migration; Trends in International Migration; Skill and Gender Composition of Migration Flows - India Diaspora – Remittances – Socio Cultural Implications

2.2 UN Convention 1990- UN International Migration Policies, Role and Functions of Ministry of Overseas Affairs, IOM (International Organisation for Migration), International Migration Law

Unit 3

Migration and Human Security

(8 hrs.)

- 3.1 Meaning and Concept, Need and Importance
- 3.2 Multi-Lateral Protection and Migration Issues, Colombo Process
- 3.3 Indian Emigration Policy, Indian Passport Act 2008, the Inter- State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979

TEXT BOOKS

AmalDatta, *Human Migration. A Social Phenomenon*. India: Mittal, 2003.

Caroline B. Brettel, James F. Hollifield, *Migration Theory: Talking Across Disciplines*, Routledge, 2000.

DeveshKapur. *Diaspora, Development, and Democracy: The Domestic Impact ofInternational Migration from India*. India: Princeton University Press, 2010.

BOOKS FOR REFERENCE

David.J.Siddle. *Migration, Mobility and Modernisation*.Liverpool: Routledge, 2012

R. MansellProthero and Murray Chapman.*Circulation in Third World Countries*. London: Routledge and Kegan Paul, 1983.

JOURNALS

Internal Migration in India, Workshop Compendium Vol 1 & 2, UNICEF in collaboration with ICSSR, SDTT.

Ethnicity, Identity and Migration Studies, Routledge, Taylor & Francis Group.

Migration and Development, Routledge, Taylor& Francis Group.

Migration Studies is an international refereed journal, Oxford University Press.

Journal of International Migration and Integration, Population Studies, Springer

Journal of Immigrant & Refugee Studies, Routledge, Taylor & Francis Group.

Crossings: Journal of Migration and Culture, Intellect Publishers, USA

Internal Migration in India- Initiative for a better Inclusion of Internal Migration in India- Policy Briefs.

India Migration Report 2009- Past, Present and the Future Outlook, Cambridge University Press, New Delhi

WEB RESOURCES

<http://www2.ohchr.org/english/bodies/cmw/cmw.html>

<http://moia.gov.in/services>

PATTERN OF EVALUATION

No End Semester Examination

List of evaluation modes:

Seminars

Assignments

Problem Solving Case Studies

Quiz

Open book tests

Test

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
General Elective Course Offered by Department of Social Work to
B.Sc./B.Com./B.C.A Degree

SYLLABUS

(Effective from the academic year 2015 – 2016)

MARRIGE AND FAMILY LIFE EDUCATION

CODE: 15SW/GE/MF22

CREDITS: 2

LECTURE: 2

TOTAL TEACHING HOURS: 26

OBJECTIVE OF THE COURSE

- To enable students establish a meaningful understanding of family life, marriage and responsible parenthood
- To help the students acquire the skills necessary to develop and maintain satisfying and stable relationships
- To help the students gain knowledge on the services available for the welfare of the family

Unit 1

The Family

(9 hrs.)

- 1.1 Definition, Characteristics and Functions of a Family, Importance of the Family for Individual, Types of Family, Changing Trends
- 1.2 Marriage: Definition, Functions and Types of Marriages, Marriage- a Relationship, Purpose of Marriage, Reasons for Marriage - Positive and Negative, Right Outlook

Unit 2

Conjugal Harmony

(9 hrs.)

- 2.1 Husband and Wife Relationship: Differences Between Men and Women, Accepting Differences, Mutual Adjustments, Changing Roles of Husband & Wife Today (Career Women) and Appropriate Division of Roles
- 2.2 Communication in Marriage, Importance of Communication Between Partners in Marriage, Importance of Listening in Marriage, Handling Conflicts in Marriage
- 2.3 Sexuality Definition, Determinants of Sexuality, Sex Education- Female Reproductive System, Male Reproductive System, Fear of Sex, Pregnancy and Birth. Family Planning

Unit 3

Family Disorganisation

(8 hrs.)

- 3.1 Factors Contributing to Family Disorganisation, Families in Difficult Situations (Harassment and Violence in Families, Addiction, Extra-Marital Affairs, Marital Rape, STD, HIV / AIDS, Separation, Divorce, Desertion, Single Parent Families)
- 3.2 Family Welfare Services
Pre- Marital Counselling, Family Counselling Centres, Family Court, All Women's Police Station

TEXT BOOKS

Kapadia, K., M. *Marriage and Family in India*. Australia: Oxford University Press, 1976.

William, J., Goode. *The Family*. New Delhi: Prentice Hall of India, Pvt. Ltd., 1989.

BOOKS FOR REFERENCE

Betty, Carter and Monica, Mc Goldrick. *The Changing Family Life Cycle – A Framework for Family Therapy*. London: Ashgate, 1974.

Evely, Millis, Duvall. *Family Development*. London: Routledge and Kegan Paul, 1982.

Kaila, H., L. *Women, Work And Family*, New Delhi: Rawat Publications, 2005.

Klemers. *Marriage and Family Relationships*. London: Sage Publications 1995.

Marie, Mascarenhas. *Family Life Education of Value Education*. New Jersey: Prentice Hall 1999.

Pimeta, J. *Grooming you for Marriage*. Mumbai: St. Paul's Publications, 1998

JOURNALS

Journal of Family Issues

Journal of Marriage and Family Life

WEB RESOURCES

www.familylife.com

www.focusonthefamily.com

PATTERN OF EVALUATION

No End Semester Examination

List of evaluation modes:

Seminars

Assignments

Problem Solving Case Studies

Quiz

Open book tests

Test

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
General Elective Course Offered by Department of Social Work to
B.Sc./B.Com./B.C.A Degree

SYLLABUS

(Effective from the academic year 2015 – 2016)

CONFLICT AND PEACE BUILDING

CODE: 15SW/GE/CP23

CREDITS: 3

L T P: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To develop appreciation for India's multi-cultural and multi- religious traditions and sensitivity towards difference
- To need to create peace and integration among people
- To develop the capacity to understand the wide range of activities associated with capacity building, reconciliation and societal transformation

Unit 1

Introduction to the problems affecting Indian Society: Meaning and Forms (7 hrs.)

- 1.1 Criminalisation and Communalisation of Politics
- 1.2 Majority vs. Minority and Religious Fundamentalism
- 1.3 Fanaticism, Regionalism and Terrorism

Unit 2

Structural violence in Indian Society and its causative factors: Brief overview (8 hrs.)

- 2.1 Caste Violence and Communal Violence
- 2.2 State-sponsored Violence and Violence on Ethnic Groups
- 2.3 Resource-based Violence, Conflict over Land, Forest and Water

Unit 3

Peace Building (8 hrs.)

- 3.1 Working on Rights Based Approach, The Gandhian Approach, and Hizkias Assefa Approach
- 3.2 Inter- Religious and Intra- Religious Approach
- 3.3 Skills in Peace Building - Effective Communication, Dialogues, Negotiation, Empathy, Problem Solving

Unit 4

Peace Interventions and Social Change (8 hrs.)

- 4.1 The Role of Civil Society, Media, and Religious Leaders in Building Lasting Peace
- 4.2 John Paul Lederach's Model of Hierarchical Intervention Levels
- 4.3 Paul Galtung's Model Conflict Resolution
- 4.4 Ron Kraybill's Model on Conflict Resolution

Unit 5

National and International agencies and their Interventions (8 hrs.)

5.1 UN Initiative for Peace

5.2 Peace March, Peace Movements, and Peace Corps

TEXT BOOKS

Raghavan V.R. *Conflict Resolution and Peace Building in Sri Lanka*, New Delhi: Tata McGraw-Hill, 2005

Shukla R.P. *Value Education and Human Rights*. New Delh: Sarup & Sons, 2004.

BOOKS FOR REFERENCE

Arulsamy.S. *Religion for a New Society*. Delhi: ISPCCK, 2000.

Dominelli Lena. *Anti-Oppressive Social Work Theory and Practice*. New York: Palgrave Macmillan, 2002.

Thomson Neil. *Anti-Discriminatory Practice*. London: Macmillan Press, 1997.

Thomson Neil. *Promoting Equality- Challenging Discrimination and Oppression*. New York: Palgrave Macmillan, 2003.

Raj Bala Mathur. *NGOs and Human Rights Movements*. Jaipur: Aadi, 2012.

Sumit Dutta. *Social Work and Social Development*. New Delhi: Wisdom Press, 2013.

PUBLICATIONS

- *Preparing for Peace: Conflict Transformation Across Cultures*, Syracuse University Press, 1995, ISBN 0-8156-2725-4
- *Building Peace: Sustainable Reconciliation in Divided Societies*, U.S. Institute of Peace, 1997, ISBN 1-878379-73-9
- *The Journey Toward Reconciliation*, Pennsylvania: Herald Press, 1999, ISBN 0-8361-9082-3
- *A Handbook of International Peace building: Into The Eye Of The Storm*, Jossey-Bass, 2002, ISBN 0-7879-5879-4
- *The Little Book of Conflict Transformation*, Good Books, 2003, ISBN 1-56148-390-7
- *The Moral Imagination: The Art and Soul of Building Peace*, Oxford University Press, 2005, ISBN 0-19-517454

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 4 x 3 = 12 marks (All questions to be answered)

Section B – 3 x 6 = 18 marks (3 out of 5 questions to be answered)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered)

Third Component:

List of evaluation modes:

Seminars

Assignments

Problem Solving Case Studies

Quiz

Open book tests

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
General Elective Course Offered by Department of Social Work to
B.Sc./B.Com./B.C.A Degree

SYLLABUS

(Effective from the academic year 2015 – 2016)

CORPORATE SOCIAL RESPONSIBILITY

CODE: 15SW/GE/CR23

CREDITS: 3

L T P: 3

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To provide knowledge on Corporate Social Responsibility and its role in the welfare and development of society
- To make the students to understand the social ethics and Corporate Social Responsibility in global scenario

Unit 1

CSR - Overview of Corporate Social Responsibility (8 hrs.)

- 1.1 Definition, Concepts, Need to be Socially Responsible
- 1.2 Corporate Social Responsibility in Indian Context and International
- 1.3 Values and Ethics in Corporate Social Responsibility
- 1.4 Companies Act 2012

Unit 2

Corporate Community Participation and Introduction to CSR Project Proposal/Policy (8 hrs.)

- 2.1 Corporate Community Perspective on Building Successful Partnership
- 2.2 Tools and Techniques in Partnership

Unit 3

Implementation of Corporate Social Responsibility (7 hrs.)

- 3.1 Pay-Roll Giving (PRG)
- 3.2 Direct Project Funding (DPF)
- 3.3 Direct Intervention Method (DIM)
- 3.4 Networking

Unit 4

Case studies of Successful CSR Initiative (8 hrs.)

- 4.1 AMM Foundation and Bajaj Auto
- 4.2 TCS and Wipro
- 4.3 HMT and MRF

Unit 5

Project Proposal (8 hrs.)

- 5.1 Introduction to Project Proposal
- 5.2 Creation of CSR Project Proposal/Policy

TEXT BOOK

Harsh Shrivastava and Shankar Venkateswaran. *The Business of Social Responsibility*.
Bangalore: Books for Change, 2000.

BOOKS FOR REFERENCE

Alex Nicholls. *Social Entrepreneurship: New Models of Sustainable Social Change*. Oxford University Press, 2006.

Bhatia, S. K. *International Human Resource Management*. New Delhi: Deep & Deep, 2005.

David Bornstein. *How To Change the World, Social Entrepreneurs and the Power*. Oxford University Press, 2007.

Mahmoudi. M. *Global Strategic Management*. New Delhi: Deep & Deep, 2005.

Robbins, P. *Greening the Corporations: Management Strategy and the Environmental Challenge*. London: Earthscan, 2001.

William B. Werther and David B. Chandler. *Strategic Corporate Social Responsibility: Stakeholders in a Global Environment*. India: Sage, 2005.

WEB RESOURCES

www.indiacsr.in

www.indianjournalofmanagement.com

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 4 x 3 = 12 marks (All questions to be answered)

Section B – 3 x 6 = 18 marks (3 out of 5 questions to be answered)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered)

Third Component:

List of evaluation modes:

Seminars

Assignments

Problem Solving Case Studies

Quiz

Open book tests

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
General Elective Course Offered by Department of Social Work to
B.Sc./B.Com./B.C.A Degree

SYLLABUS
(Effective from the academic year 2015 – 2016)

HUMAN RIGHTS AND JUSTICE ISSUES

CODE: 15SW/GE/HJ23

CREDITS: 3

L T P : 4 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To develop in students an overall understanding of the Basic Human Rights and Justice issues
- To develop in students a commitment towards ensuring Human Rights with specific reference to Special Groups
- To sensitise the students on the various Human Rights and Justice Issues prevailing in the Indian Society

Unit 1

Human Rights – Introduction (6 hrs.)

- 1.1 Definition and Importance of Human Rights, Important historical milestones in the Evolution of Human Rights
- 1.2 Categories of Rights – Generational Perspective

Unit 2

Introduction to International Human Rights Instrument (8 hrs.)

- 2.1 Universal Declaration of Human Rights, 1948 International Covenant on Civil and Political Rights
- 2.3 International Covenant on Economic, Social and Cultural Rights

Unit 3

Introduction to the Indian Constitution (4 hrs.)

- 3.1 The Preamble
- 3.2 Fundamental Rights and Fundamental Duties
- 3.3 Directive Principles of State Policy

Unit 4

A Brief Overview of Justice Issues Concerning: (12 hrs.)

- 4.1 Women
- 4.2 Children
- 4.3 Dalits
- 4.4 Tribes
- 4.5 Unorganised Labourers
- 4.7 Prisoners
- 4.8 Agricultural farmers
- 4.9 Displaced people
- 4.10 Differently abled

- Unit 5**
Introduction to Strategies for Protection of Human Rights (9 hrs.)
5.1 Human Rights Education
5.2 Consumer rights
5.3 Public Interest Litigation
5.4 Right to Information
5.5 FIR, Free legal Aid
5.6 Key organisations working in the field of Human Rights.

TEXT BOOKS

Agarwal. *International Law and Human Rights*. New Delhi: Central Law, 2002.

Birch Janice. *SHR: Human Rights Training Module*. New Delhi: Human Rights Law Network, 2010.

BOOKS FOR REFERENCE

A World Watch Institute Report. *State of the World. Progress towards a Sustainable Society*. USA: World Watch Institute, 1998.

Bajwa, G. S. *Human Rights in India, Implementation & Violations*. New Delhi: Oscar, 1995.

Bakshi, P. M. *The Constitution of India*. Jaipur: Rawat, 2000.

Dewan, V. K. *Law Relating to Offences against Women* New Delhi: Sage, 1996.

Gupta, D. N. Chandrachur, and, Singh, *Human Rights Acts, Statutes and Constitutional Provisions*. Rajat: New Delhi, 2003.

Human Rights Watch, *Broken People – Caste Violence Against India's "Untouchables"*. UK: Human Rights Watch, 1999.

Jayshree, P. M. *Dalit Human Rights Violation*. New Delhi: Rajat, 2000

JOURNALS

Journal of Human Rights Practice - <http://jhrp.oxfordjournals.org/>

WEB RESOURCES

<http://www.ohchr.org>

(United Nations Human Rights: Office of the High Commissioner for Human Rights)

<https://www.amnesty.org>

(Amnesty International)

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 4 x 3 = 12 marks (All questions to be answered)

Section B – 3 x 6 = 18 marks (3 out of 5 questions to be answered)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered)

Third Component:

List of evaluation modes:

Seminars

Assignments

Problem Solving Case Studies

Quiz

Open book tests

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
General Elective Course Offered by Department of Social Work to
B.Sc./B.Com./B.C.A Degree

SYLLABUS
(Effective from the academic year 2015 – 2016)

UN SYSTEMS FOR DEVELOPMENT AND SOCIAL CHANGE

CODE: 15SW/GE/UN23

CREDITS: 3

LECTURE: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To enable students familiarise with UN systems and frameworks for development
- To familiarise students with current UN documents, treaties and policies for development
- To critically analyse the functioning and achievements of the UN Systems

Unit 1

The United Nations System (8 hrs.)

- 1.1 Main aim of the United Nations; Historical Evolution
- 1.2 UN Principal Organs
- 1.3 UN Charter
- 1.4 Membership in the UN and International Development

Unit 2

Global Issues on the UN Agenda: Brief Overview (7 hrs.)

- 2.1 Peace and Security, Women, Youth, Children, Refugees, Human Rights, Disaster relief, Disability, Food, Family, Education, Indigenous people, Water, Terrorism, Ageing, AIDS, Agriculture
- 2.2 Millennium Development Goals

Unit 3

Organisations of Economic and Social Council (8 hrs.)

- 3.1 Introduction to ECOSOC
- 3.2 The aims of the Functional Commissions: Social Development, Sustainable development, Women and Development, Population and Development
- 3.3 The aims of the five Regional Commissions: Economic Commission for Africa (ECA), Economic Commission for Europe (ECE), Economic Commission for Latin America and the Caribbean (ECLAC), Economic and Social Commission for Asia and the Pacific (ESCAP), and Economic and Social Commission for Western Asia (ESCWA)
- 3.4 United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) – role and functions.

Unit 4

Programmes of the UN – Aims and Programmes (8 hrs.)

- 4.1 United Nations Development Programme (UNDP), UN-Women, United Nations Environment Programme (UNEP) - aims and programmes
- 4.2 United Nations Fund For Population Activities (UNFPA), Office of the United Nations High Commissioner for Refugees (UNHCR), United Nations Human Settlements Programme (UN – HABITAT) - aims and programmes
- 4.3 United Nations Children's Fund (UNICEF), World Food Programme (WFP) - aims and programmes

Unit 5

UN Entities and other related agencies – Aims and Programmes (8 hrs.)

- 5.1 Office of the United Nations High Commissioner for Human Rights (OHCHR), Joint United Nations Programme on HIV/AIDS (UNAIDS); Other related agencies: International Labour Organisation (ILO)
- 5.2 Food and Agriculture Organisation (FAO), United Nations Educational, Scientific and Cultural Organisations (UNESCO), World Health Organisation (WHO)
- 5.3 World Bank (WB), International Monetary Fund (IMF), International Fund for Agricultural Development (IFAD), and United Nations Research Institute for Social Development (UNRISD)

TEXT BOOKS

Durch William. J, ed., *The Evolution of UN Peace Keeping: Case Studies and Comparative Analysis*. New York: St Martin's, 1993.

Narasimhan, C.V., *The United Nations – An Inside View*, New Delhi: Vikas 1988.

BOOKS FOR REFERENCE

- Basu, Rumki. *UN Structure and Function: An International Organisation*. New Delhi: Sterling, 1993.
- Black, K. J. *Development in Theory and Practice- Paradigms and Paradoxes*. Jaipur: Rawat, 2007.
- Boulder, Colo. *The United Nations and the Changing World Politics*. New York: West View, United Nations, 1997.
- Pant, S. K. *Human Development- Concept and Issues in the Context of Globalisation*. Jaipur: Rawat, 2006.
- Pawar, S. N. Ambekar, J., B., and Shrikant, D. *NGOs and Development - The Indian Scenario*. Jaipur: Rawat, 2004.
- Verma, K. Manish. *Development, Displacement and Resettlement*. Jaipur: Rawat 2004.
- Willets, Peter. *The Conscience of the World: The Influence of Non-Governmental Organisations in the UN Systems*. Washington DC: Brookings Institutions, 1996.

JOURNALS

UN Chronicle (2007, 2008)

WEB RESOURCES

Academic Council on the United Nations System: www.brown.edu/departments/ACUNS/

United Nations: <http://www.unitednations.org>

World Bank: <http://www.worldbank.org>

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 4 x 3 = 12 marks (All questions to be answered)

Section B – 3 x 6 = 18 marks (3 out of 5 questions to be answered)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered)

Third Component:

List of evaluation modes:

Seminars

Assignments

Problem Solving Case Studies

Quiz

Open book tests

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
BSW DEGREE: BACHELOR OF SOCIAL WORK

SYLLABUS

(Effective from the academic year 2015 -2016)

LEADERSHIP, TRAINING AND DEVELOPMENT

CODE: 15SW/UI/LT23

CREDITS : 3

OBJECTIVES OF THE COURSE

- To understand the meaning and concept of leadership, skills and management
- Gain knowledge about the basics of training and development
- Develop a training programme for target groups

Unit 1

Introduction to Leadership

- 1.1 Leadership: Meaning and Definition
- 1.2 Types of leaders and Styles of Leadership
- 1.3 Characteristics and Functions of Leadership, Values and Ethics of Leadership
- 1.4 Theories of Leadership: Leader Member Exchange Theory; Contingency Theory; Path- Goal Leadership Theory; Transformational Leadership Theory, and Charismatic Theory

Unit 2

Leadership

- 2.1 Team building: Definition, Steps to Team Problem Solving - Brain Storming
- 2.2 Skills in Leadership: Basic and Advanced Skills in Leadership
- 2.3 Strategic Leadership: Importance and the Nature of Strategic Leadership - Components of Strategic Leadership Practicum - Biographical Study of Leaders

Unit 3

Understanding Training

- 3.1 Understanding of Training - Meaning and Scope, Concept of Training, Training and Education, Training and Teaching, Key Facets of Training, Participatory Training, Facilitative Training
- 3.2 Levels of Training, Modes of Training - Face-to-Face Training, Distance Training, E-training, Key Roles and Responsibilities of the Trainers
- 3.3 Training Styles: Training Style, Personal Needs of Trainers, Power and Influence Factors, Increasing Effectiveness, Learner-Centered Versus Information-Centered, Key Elements of a Trainer's Style

Unit 4

Training and Development Methods

- 4.1 Importance and Functions of Training and Development Methods
- 4.2 Training and Development Methods: Lecture, Case study, Role-play
- 4.3 Management Games, Assignments, Group Discussions, Panel Discussions

4.4 Brainstorming, Preparing and using Training Support Materials, Training through Placements

Unit 5

Evaluation of Training and Development Programmes

5.1 Need and Purpose of Evaluation of Training Programmes

5.2 Monitoring and Improving Training during the Programme

5.3 Stages of Evaluation in Training Programmes - Pre-training, Ongoing, End Programme and Post-training Evaluation.

TEXT BOOKS

Du Brin. *Leadership Research Findings & Skills*. Chennai: All India Publishers and Distributors, 1998.

Peter. G. *Leadership: Theory and Practice*. Sage Publication, New Delhi (2005).

Rolf P Lynton, Udai Pareek. *Training for Development*. 2nd Edition, Vistaar Publications, New Delhi (1990).

BOOKS FOR REFERENCE

Anthony. *Training and Development*. Infinity Books, 2004.

Agochiya Devendra. *Ellesy Trainer's Hand Book*. California: Sage, 2007.

Dugan Laird. *Approaches to Training and Development*. Jaipur: Rawat, 2007.

Foshay, R Wellesley, Silber, H Kenneth, Stelnicki, B Michael. *Writing Training Materials that Work*. USA Landale: Jossey-Bass, 2003.

Patel, Ashraf, et.al. *The Ocean in a drop: Inside – out Youth Leadership*. New Delhi: Sage, 2013.

Posner,K. *Leadership Challenges (3rd Edn.)* New Delhi: Wiley India Pvt Ltd., 2006.

Rao P L. *Enriching Human Capital through Training and Development*. New Delhi: Excel Books, 2008.

Robert Mai, and Allen Kakerson. *The Leader as a Communicator*. New Delhi: Prentice Hall, 2007.

Robert F Mager HRD. *Training and Development – Vol 5 (Goal Analysis)*. Jaico, 1999.

Sudarshan Kumar Bhatia. *Training and Development Concepts and Practices*. New Delhi: Elegant, 2009.

William J Rothwell. *Beyond Training and Development*. Mumbai: Jaico, 2007.

JOURNAL

The Leadership Quarterly, Elsevier

WEB RESOURCES

http://changingminds.org/disciplines/leadership/theories/leadership_theories.htm

<http://www.leadersdirect.com/mind.html>

http://www.nwlink.com/~donclark/leaderrship/development/leadership_development_model.html

<http://www.see.ed.ac.uk/~gerard/MENG/ME96/index.html>

www.businessballs.com

PATTERN OF EVALUATION

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 3 = 30 marks (All questions to be answered)

Section B – 5 x 6 = 30 marks (5 out of 8 questions to be answered)

Section C – 2 x 20 = 40 marks (2 out of 4 questions to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.A. DEGREE: BRANCH III – SOCIOLOGY

SYLLABUS

(Effective from the academic year 2015 - 2016)

PRINCIPLES OF SOCIOLOGY - I

CODE: 15SC/MC/PS14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To introduce students to the basic concepts in Sociology
- To acquaint students with the discipline as a Social Science

Unit I

Introduction

(12 hrs.)

- 1.1 Nature and Scope of Sociology
- 1.2 Definition, Subject Matter
- 1.3 Sociology as Science, Importance
- 1.4 Relationship to other Social Sciences
 - 1.4.1 History
 - 1.4.2 Political Science
 - 1.4.3 Economics
 - 1.4.4 Anthropology
 - 1.4.5 Philosophy
 - 1.4.5 Psychology

Unit 2

Primary Concepts

(10 hrs.)

- 2.1 Society
- 2.2 Community
- 2.3 Institutions
- 2.4 Association
- 2.5 Status
- 2.6 Role
- 2.7 Norms
- 2.8 Values

Unit 3

Socialisation

(10 hrs.)

- 3.1 Definition, Process
- 3.2 Theories of Socialisation
- 3.3 Agencies of Socialisation: Family, Peer Group, School, Neighbourhood, Mass Media, Religion and State

Unit 4
Social Groups (10 hrs.)
4.1 Definition, Classification
4.2 Characteristics
4.3 Functions of Primary and Secondary Groups

Unit 5
Culture (10 hrs.)
5.1 Definition, Elements
5.2 Characteristics, Significance
5.3 Cultural Processes
 5.3.1 Assimilation
 5.3.2 Diffusion
 5.3.3 Acculturation
 5.3.4 Cultural Lag
 5.3.5 Culture Shock

BOOKS FOR STUDY

Applebaum, Richard P. William J. Chambliss. *Sociology*. Addison - New York Wesley Educational, 1997.

Rao Shankar C N. *Sociology: Primary Principles*. New Delhi: S. Chand, 1990.

BOOKS FOR REFERENCE

Caplow, Theodore. *Elementary Sociology*. New Jersey: Prentice Hall, 1971.

Duncan, O.D., & Mitchell, R., *A New Dictionary of Sociology*, London: Routledge, Kegan Paul 1978.

Harlambos, M, *Sociology : Themes and Perspectives*. New Delhi: Oxford University Press, 1980.

Inkeles, Alex, *Foundations of Modern Sociology*. New Jersey: Prentice Hall, 1982.

MacIver, R.M. & Page, C. H., *Society : An Introductory Analysis*. London: Macmillan, 1974.

Ogburn, W.F. & Nimkoff, M. F., *Handbook of Sociology*. New Delhi: Eurasia, 1966.

Robertson, Ian, *Sociology*. New York: Worth, 1977.

WEB RESOURCES

<http://ocw.mit.edu/courses/anthropology/21a-219-law-and-society-spring-2003/study-materials/hobasicconcepts.pdf>

http://www.sagepub.com/upm-data/45619_4.pdf

JOURNALS

<http://www.asanet.org/>

<http://www.britsoc.co.uk/>

<http://www.sociology.org/>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 2 = 6 marks (All three questions to be answered in 50 words each)

Section B – 3 x 8 = 24 marks (3 out of 5 questions to be answered in 250 words each)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words each)

Third Components

Seminar

Quiz

Assignments

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 marks (All 10 questions to be answered in 50 words each)

Section B – 5 x 8 = 40 marks (5 out of 8 questions to be answered in 250 words each)

Section C – 2 x 20 = 40 marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.A. DEGREE: BRANCH III – SOCIOLOGY

SYLLABUS

(Effective from the academic year 2015 - 2016)

SOCIOLOGY OF INDIAN SOCIETY

CODE: 15SC/MC/IS14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To familiarise students with the basis of Indian Social Organisation
- To orient students to the changes occurring in the Indian Society

Unit 1	Overview of Indian Society	(10 hrs.)
	1.1 Historical Moorings of Indian Society	
	1.2 Linguistic Groups	
	1.3 Religious Groups	
	1.4 Racial Groups in India	
Unit 2	Basis of Hindu Social Organisation	(10 hrs.)
	2.1 Purusharthas	
	2.2 Concept of Karma	
	2.3 Varnashrama Dharma	
Unit 3	Caste in India	(10 hrs.)
	3.1 Meaning, Features of the Caste System	
	3.2 Varna and Jati	
	3.3 Concept of the Dominant Caste	
	3.4 Functions and Dysfunctions of Caste	
	3.5 Changes in the Caste System	
	3.6 Castes among the Hindus, Muslims and Christians	
Unit 4	Marriage and Family	(11 hrs.)
	4.1 Hindu Marriage	
	4.2 Muslim and Christian Marriage	
	4.3 Family: Definition, Structure and Functions of Family	
	4.4 Types of Family	
	4.5 Changes in the Family System and Factors of Changes in the Family	

Unit 5

Social Change in India

(11 hrs.)

- 5.1 Islamisation
- 5.2 Westernisation
- 5.3 Sanskritisation
- 5.4 Secularisation

BOOKS FOR STUDY

Ahuja, Ram. *Society in India: Concepts, Theories and Changing Trends*. Jaipur: Rawat, 1999.

Kapadia, K.M., *Marriage and Family in India*. New Delhi: Oxford University Press, 1966.

BOOKS FOR REFERENCE

Hutton, J. K., *Caste in India: Its Nature, Function, and Origin*. New Delhi: Oxford University Press, 1977.

Prabhu, P.H., *Hindu Social Organization*. Madras: Popular Prakasham, 1970.

Singh, Yogendra, *Modernization of Indian Tradition*. New Delhi: Thompson Press, 1973.

Srinivas, M.N., *Social Change in Modern India*. Madras: Allied Publishers, 1970.

Shah A.M., *The structure of Indian Society: Then and Now*. New Delhi, Routledge, 2010.

Venugopal, *Religion and Indian Society: A Sociological Perspective*. New Delhi, Gyan, 1999.

Rao Shankar, *Sociology of Indian Society*. New Delhi: S Chand, 2006.

Jayabalan N., *Indian Society and Social Institutions*, New Delhi, Atlantic, 2001.

WEB RESOURCES

<http://www.hinduwedding.info/marriage-ceremony.html>

http://dev.epw.in/system/files/pdf/1961_13/25/sanskritization_and_westernizationa_dynamic_vie w.pdf

<http://voiceofdharma.org/books/imwat/ch6.htm>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $3 \times 2 = 6$ marks (All three questions to be answered in 50 words each)

Section B – $3 \times 8 = 24$ marks (3 out of 5 questions to be answered in 250 words each)

Section C – $1 \times 20 = 20$ marks (1 out of 2 questions to be answered in 1200 words each)

Third Components

Seminar

Quiz

Assignments

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ marks (All 10 questions to be answered in 50 words each)

Section B – $5 \times 8 = 40$ marks (5 out of 8 questions to be answered in 250 words each)

Section C – $2 \times 20 = 40$ marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.A. DEGREE: BRANCH III – SOCIOLOGY

SYLLABUS

(Effective from the Academic Year 2015 – 2016)

ENVIRONMENTAL STUDIES

CODE :15SC/GC/ES12

CREDIT : 2

L T P: 2 0 0

TOTAL TEACHING HOUR: 26

OBJECTIVES OF THE COURSE

- To create an awareness on current environmental issues
- To educate the students about conservation and management of natural resources
- To train the students to be eco sensitive

Unit 1

Introduction

(6 hrs.)

- 1.1 Components of The Environment – Classification and Characteristics of Resources – Renewable and Non – Renewable Resources
- 1.2 Need for Public Awareness in Conservation of Natural Resources
- 1.3 Energy Flow in Ecosystems – Aquatic and Terrestrial – Food Chain and Food Web

Unit 2

Pollution and Socio Economic Aspects of the Environment

(10 hrs.)

- 2.1 Types of Pollution – Air, Water, Solid Waste, Noise
- 2.2 Problems - Greenhouse Effect – Depletion of the Ozone Layer – Climate Change
- 2.3 Bio Diversity - Definition - Loss of Bio Diversity – Threats to Biodiversity and Conservation of Biodiversity.
- 2.4 Human Behaviour: - Population – Urbanisation – Poverty (as cause and result of pollution and degradation)
- 2.5 Technology: - Agriculture and Industry – Deforestation. Use, Misuse and Abuse of the Resources
- 2.6 Effects and Consequences Of Environmental Problems

Unit 3

Sustainable Development, Remedies and Policy Implications

(10 hrs.)

- 3.1 Environmental Disasters Natural and Human Made – Bhopal Gas Tragedy – Chernobyl Accident – Fukushima Nuclear Crisis - Gulf War – Love Canal Episode – Tsunami – Volcanic Eruptions
- 3.2 Methods Evolved to Measure and Check Environmental Degradation and Pollution – Carbon Footprint, Carbon Credit, Ecological Footprint and Ecological Shadow
- 3.3 Environmental Movements in India – Chipko Movement, Narmada Bachao Andolan, Sethu Samudram Project

- 3.4 Environmental Acts – Policy Measures with Respect to India
3.5 International Environmental Agreement – Stockholm Conference – Montreal Protocol – RIO Meet – Kyoto Conference – UN Conference on Climate Change (Copenhagen)

Field visit

Eco initiatives at the campus : Garbage segregation and Vermicomposting – Graywater recycling – Rainwater harvesting – Solar powered lights – Bio diversity

BOOKS FOR STUDY

Bharucha, E., *Textbook of Environmental Studies*. (1st edition), Hyderabad: Universities Press, 2005.

BOOKS FOR REFERENCE

Ignacimuthu, S. *Environmental Awareness and Protection*. New Delhi: Phoenix, 1997.

Jadhav, H and. Bhosale V. M., *Environmental Protection and Laws*. New Delhi: Himalaya, 1995.

Mies, M. and Shiva V., *Ecofeminism*. London: Zed Books, 1989.

Odum, E.P., *Fundamentals of Ecology*. U.S.A: W.B. Saunders Co. 1971.

Singh, H.R., *Environmental Biology*. (1st edition), New Delhi: S.Chand, 2005.

PATTERN OF EVALUATION (Totally Internal)

CONTINUOUS ASSESSMENT (CA): One Hour Test – 25 Marks
Objective Quiz – 25 Marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.A. DEGREE: BRANCH III – SOCIOLOGY

SYLLABUS

(Effective from the academic year 2015 - 2016)

PRINCIPLES OF SOCIOLOGY-II

CODE: 15SC/MC/PS25

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To familiarise students with static and dynamic aspects of the basic concepts in Sociology
- To enable students to develop ‘sociological imagination’

Unit 1

Social Stratification

(14 hrs.)

1.1 Theories

1.1.1 Marxists

1.1.2 Functionalists

1.2 Systems of Stratification

1.2.1 Slavery

1.2.2 Estate

1.2.3 Caste

1.2.4 Class

1.2.5 Gender

Unit 2

Social Mobility

(13 hrs.)

2.1 Definition

2.2 Types:

2.2.1 Individual Mobility

2.2.2 Structural Mobility

2.2.3 Vertical Mobility

2.2.4 Horizontal Mobility

2.2.5 Inter-generational Mobility

2.2.6 Intra generational Mobility

2.2.7 Exchange Mobility

2.3 Factors affecting Social Mobility

2.4 Theory of Social Mobility: Pitrim Sorokin

Unit 3
Social Process (12 hrs.)
3.1 Cooperation
3.2 Accommodation
3.3 Assimilation
3.4 Competition
3.5 Conflict

Unit 4
Social Control (12 hrs.)
4.1 Definition
4.2 Mechanisms of Social Control
 4.2.1 Folkways
 4.2.2 Mores
 4.2.3 Religion
 4.2.4 Morality
 4.2.5 Convention
 4.2.6 Fashion
 4.2.7 Public Opinion
 4.2.8 Laws

Unit 5
Social Change (14 hrs.)
5.1 Concepts of Social Change
5.2 Evolution, Development and Progress
5.3 Factors of Social Change
5.4 Theories of Social Change
 5.4.1 Marxist
 5.4.2 Evolutionary
 5.4.3 Cyclical
 5.4.4 Functional

BOOKS FOR STUDY

Applebaum, Richard P., William J., Chambliss. *Sociology*. Addison - New York: Wesley ,1997.

Caplow, Theodore. *Elementary Sociology*. New Jersey: Prentice Hall Inc. 1971.

Inkeles, Alex. *Social Change, Reading in Modern Society*. NY : Prentice Hall, 1982.

International Encyclopaedia of Sociology Vol.. I and II.

Johnson, Harry, M., *Sociology - A Systems Introduction*. New Delhi: Allied, 1966.

MacIver, R.M. & Page, C.H., *Society: An Introductory Analysis*. London: Macmillan, 1974.

Thio, Alex. *Sociology – A Brief Introduction*. New York, Addison-Wesley Education, 1997.

Tumin, Melvin. *Social Stratification – The forms and functions of Inequality*. New Jersey: Prentice Hall, 1978.

BOOKS FOR REFERENCE

Abraham Francis, John Henry Morgan, *Sociological Thought*. Cambridge, Macmillan, 1985.

Duncan, O.D & Mitchell, R., *A New Dictionary of Sociology*. London: Routledge Kegan Paul, 1979.

Haralambos, M., *Sociology - Themes and Perspectives*. New Delhi: Oxford University Press. 1980.

Ogburn, W.F. & Nimkoff, M. F., *A Handbook of Sociology*. New Delhi: Eurasia, 1966.

Robertson, Ian. *Sociology*. New York, Worth, 1977.

Schaefer Richard, T., Robert P Lamm. *Sociology*. New Delhi:McGraw Hill Company, 1998.

Rao Shankar, C N., *Sociology: Primary Principles*. New Delhi, S. Chand, 1990.

WEB RESOURCES

http://faculty.upj.pitt.edu/dsantoro/davis_moore.htm

http://www.sagepub.com/ritzerintro/study/materials/reference/77708_8.1r.pdf

JOURNALS

<http://www.inoso.org/>

<http://www.jsswnet.com/>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 2 = 6 marks (All three questions to be answered in 50 words each)

Section B – 3 x 8 = 24 marks (3 out of 5 questions to be answered in 250 words each)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words each)

Third Components

Seminar

Quiz

Assignments

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ marks (All 10 questions to be answered in 50 words each)

Section B – $5 \times 8 = 40$ marks (5 out of 8 questions to be answered in 250 words each)

Section C – $2 \times 20 = 40$ marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.A. DEGREE: BRANCH III – SOCIOLOGY

SYLLABUS

(Effective from the academic year 2015 - 2016)

SOCIAL ANTHROPOLOGY

CODE: 15SC/MC/SA24

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To introduce the students to the basic concepts in Social Anthropology
- To familiarise students to the ways of primitive society

Unit 1

Introduction

(13 hrs.)

- 1.1 Definition and Scope
- 1.2 Social and Cultural Anthropology
- 1.3 Archaeological Anthropology
- 1.4 Anthropological Linguistics
- 1.5 Applied Anthropology
- 1.6 Social Anthropology and Other Social Sciences
- 1.7 Culture Traits - Culture Area - Processes of Cultural Change – Civilisation

Unit 2

Marriage and Family

(11hrs.)

- 2.1 Monogamy, Polygamy, Polygyny, Polyandry
- 2.2 Kinship Terms, Classificatory and Descriptive System of Kinship
 - 2.2.1 Kinship Usages
- 2.3 Family - Types, Functions and Changing Patterns of Family
- 2.4 Patterns of Residence, Patterns of Descent and Authority
- 2.5 Patterns of Inheritance

Unit 3

Economic Anthropology

(10 hrs.)

- 3.1 Modes of Production
- 3.2 Exchange- Barter, Ceremonial Exchange, Reciprocity and Redistribution
- 3.3 Market, Money and Trade

Unit 4

Anthropology of Religion

(9 hrs.)

- 4.1 Definition of Primitive Religion
- 4.2 Difference between Magic, Religion and Science
- 4.3 Totem and Taboo

- 4.4 Theories: Animism, Naturalism and Manatism
- 4.5 Functional Theory of Religion - Concepts of Sacred and Profane

Unit 5

Political Anthropology (9 hrs.)

- 5.1 Meaning and Concept – Nature and Forms of Political Organisation
- 5.2 Primitive Law – Distinction between Custom and Law – Social Sanction in Primitive Law
 - 5.2.1 Primitive law – Structure of Primitive Government in Tribal Societies
- 5.3 Justice and Punishment in Primitive Societies

BOOK FOR STUDY

Beals, R. and Hoijer, H., *Introduction to Anthropology*. New Delhi: Macmillan, 1960.

Carol R. Ember, Melvin Ember. *Anthropology – A Brief Introduction*. New Jersey: Prentice Hall, 1992.

BOOKS FOR REFERENCE

Basu Indrani. *Anthropology the study of man*. New Delhi: S.Chand, 2005.

Herskovits F Melville. *Cultural Anthropology*. Calcutta: Oxford & IBH, 1995.

Jha, Makhan. *An Introduction to Anthropology*, New Delhi: Sage, 1994.

Lowie R.H., *Primitive Society*, London: Routledge Publishers, 1960.

Majumdar D. N, and Madan T. N. *An Introduction to Social Anthropology*. Bombay: Asia, 1970.

Nigel Rapport and Joanna Overing, *Social and Cultural Anthropology: The Key Concepts*. London: Routledge, 2000.

Singh K.S. *The History of the Anthropological Survey in India: Anthropological Survey of India*, Calcutta: 1991

Scupin Raymond. *Cultural Anthropology A Global Perspective*. New Jersey: Prentice Hall, 1998.

Sahay K.N. *Social Anthropology in India*. New Delhi: Common Wealth Publication, 1999.

WEB RESOURCES

www.youtube.com/watch?v=-The Most Primitive Tribe of the Planet.

https://vimeo.com/channels/The_koyas_Part-I_and_II_and_Tribal_Displacement-A_Visual_Anthropology by Sathya Mohan,

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 2 = 6 marks (All three questions to be answered in 50 words each)

Section B – 3 x 8 = 24 marks (3 out of 5 questions to be answered in 250 words each)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words each)

Third Components

Seminar

Quiz

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 marks (All 10 questions to be answered in 50 words each)

Section B – 5 x 8 = 40 marks (5 out of 8 questions to be answered in 250 words each)

Section C – 2 x 20 = 40 marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.A. DEGREE: BRANCH III – SOCIOLOGY

SYLLABUS

(Effective from the academic year 2015 - 2016)

TRIBAL DEVELOPMENT

CODE: 15SC/AC/TD25

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To help students gain an understanding of the concept of tribe and their place in Sociology
- To sensitise students to the needs and problems of tribal communities

Unit 1

Introduction (13 hrs.)

- 1.1 Definition of Tribe, Primitive Tribe, Scheduled Tribe
- 1.2 Racial Characteristics of Tribes in India
- 1.3 Linguistic Characteristics of Tribes in India
- 1.4 Ecological Characteristics of Tribes in India
- 1.5 Economic Characteristics of Tribes in India

Unit 2

Tribal Practices (13 hrs.)

- 2.1 Tribal Medicinal and Knowledge Practices
- 2.2 Bride Price and Dowry
- 2.3 Forms of Marriage in Tribal Societies
- 2.4 Diet Patterns – Case Studies

Unit 3

Tribal Problems and Mobilisation (13 hrs.)

- 3.1 Bonded Labour and Indebtedness
- 3.2 Land Alienation
- 3.3 Threat to Forests
- 3.4 Tribal Rebellions as a Response to their Problems
- 3.5 The Naxalite Movement

Unit 4

Tribal Development

(13 hrs.)

- 4.1 History of Tribal Development
- 4.2 Indices of Development
- 4.3 National Tribal Policy
- 4.4 Forest Policy
- 4.5 Tribal Policy in the Plans
- 4.6 Preservation of Tribal Languages

Unit 5

Changes in Tribal Society

(13 hrs.)

- 5.1 Demographic Changes in Tribal Populations
- 5.2 Changes in the Status of Tribal Women
- 5.3 Increased Opportunities for Tribal Communities
- 5.4 Platforms of Representation for Tribal Communities

BOOKS FOR STUDY

Kumar, A. *Tribal Development in India*. New Delhi: Sarup and Sons, 2002.

Sarkar, Amitabha and Samira Dasgupta. *Ethno-Ecology of Indian Tribes: Diversity in Cultural Adaptation*. New Delhi: Rawat, 2000.

Sharma, A N., *Tribal Welfare and Development*. New Delhi: Sarup and Sons, 2002.

BOOKS FOR REFERENCE

Chandra, Bipan. *India's Struggle for Independence*. Penguin, 2012

Deogaonkar, S G., *Tribal Administration and Development*. New Delhi: Concept, 1994.

Mathur, L P., *Tribal Revolts in India Under British Raj*. Jaipur: Pointer, 2004

Raza, Monis and Ahmed A., *An Atlas of Tribal India*. New Delhi: Concept, 1990.

Thakur, Devendra and D N Thakur. *Tribal life and Forests*. New Delhi: Deep and Deep, 2009.

Vidyarthi, L P and Binay Kumar Rai. *Tribal Culture of India*. New Delhi: Concept, 1997.

WEB RESOURCES

Status of Tribal Women in India

<http://www.mainstreamweekly.net/article3314.html>

Indices of Development

(Dimensions of Tribal Health in India)

<http://medind.nic.in/hab/t00/i2/habt00i2p61.pdf>

Latest Census of India Documents

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 2 = 6 marks (Answer all questions in 50 words)

Section B – 3 x 8 = 24 marks (Answer 3 out of 5 questions in 250 words)

Section C – 1 x 20 = 20 marks (Answer 1 out of 2 questions in 1200 words)

Third Components:

Seminar

Assignments

Case studies

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 hours

Section A: 10 x 2 = 20 Marks (Answer all 10 questions in 50 words each)

Section B: 5 x 8 = 40 Marks (Answer 5 out of 8 questions in 250 words each)

Section C: 2 x 20 = 40 Marks (Answer 2 out of 4 questions in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.A. DEGREE: BRANCH III – SOCIOLOGY

SYLLABUS

(Effective from the academic year 2015 - 2016)

DEVELOPMENT OF SOCIAL THOUGHT

CODE: 15SC/MC/DS34

CREDITS: 4

L T S: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To familiarise students with the historical background of Sociology
- To introduce students to the key ideas propounded by key thinkers in the discipline

Unit 1

History of Social Thought (12hrs.)

- 1.1 Pre-Comteian thought - Emergence of Sociology as a Distinct Discipline
- 1.2 Auguste Comte
- 1.3 Positivism
- 1.4 Theory of Evolution and Progress
- 1.5 Social Statics and Social Dynamics
- 1.6 Hierarchy of Sciences

Unit 2

Herbert Spencer (10 hrs.)

- 2.1 Social Darwinism
- 2.2 The Evolutionary Theory
- 2.3 The Organismic Analogy

Unit 3

Emile Durkheim (10hrs.)

- 3.1 Sociology as the Study of Social Facts
- 3.2 Mechanical and Organic Solidarities
- 3.3 Division of Labour
- 3.4 Theory of Suicide

Unit 4

Karl Marx (10hrs.)

- 4.1 Historical and Dialectical Materialism
- 4.2 Theory of Class Struggle
- 4.3 Alienation

Unit 5

Max Weber

(10 hrs.)

- 5.1 Ideal Type
- 5.2 Verstehen - Understanding and Meaning
- 5.3 Study of Social Action
- 5.4 Types of Authority
- 5.5 Religion - Protestant Ethic and Spirit of Capitalism
- 5.6 Bureaucracy

BOOKS FOR STUDY

Abraham Francis, John Henry Morgan. *Sociological Thought*. Cambridge: Macmillan, 1985.

Haralambos, Michael (with Robin Heald). *Sociology: Themes and Perspectives*.
Bombay, Delhi: Oxford University Press, 1980.

BOOKS FOR REFERENCE

Aron, Raymond, *Main Currents in Sociological Thought*. Part 1 and 2. London: Penguin, 1967.

Coser, Lewis, A., *Masters of Sociological Thought: Ideas in Historical and social context*. New
York : Harcourt Brace Jovanovidi, 1971.

Craib Ian. *Classical Social Theory*. Great Britain: Oxford University Press, 1997.

Hearn, Frank, *Reason and Freedom in Sociological Thought*. U.S.A: Allen and Unwin, 1985.

Timasheff, *Sociological Theory: its nature and growth*. New York: Random House, 1976.

WEB RESOURCES

http://www.sagepub.in/upm-data/44172_1.pdf

<http://theory.routledgesoc.com/category/profile-tags/ideal-types>

<http://faculty.frostburg.edu/phil/forum/Marx.htm>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 2 = 6 marks (All three questions to be answered in 50 words each)

Section B – 3 x 8 = 24 marks (3 out of 5 questions to be answered in 250 words each)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words each)

Third Components

Quiz

Assignments

Presentations

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ marks (All 10 questions to be answered in 50 words each)

Section B – $5 \times 8 = 40$ marks (5 out of 8 questions to be answered in 250 words each)

Section C – $2 \times 20 = 40$ marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.A. DEGREE: BRANCH III – SOCIOLOGY

SYLLABUS

(Effective from the academic year 2015 - 2016)

FUNDAMENTALS OF SOCIAL RESEARCH AND STATISTICS

CODE: 15SC/MC/SR34

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To introduce students to scientific research and methods of conducting scientific enquiry
- To train students in the use of statistical tools of data analysis

Unit 1

Social Research

(8 hrs.)

- 1.1 Definition and Meaning of Social Research
- 1.2 Characteristics of Social Research
- 1.3 Uses of Social Research
- 1.4 Types of Social Research

Unit 2

Steps in Social Research and Basic Terms

(10 hrs.)

- 2.1 Formulating the Research Problem
- 2.2 Research Design-Qualitative and Quantitative
- 2.3 Review of Literature
- 2.4 Data Collection and Analysis
- 2.5 Concepts and Construct
- 2.6 Variables
- 2.7 Hypothesis

Unit 3

Sampling and Tools of Data Collection

(12 hrs.)

- 3.1 Population Definition
- 3.2 Sampling –Definition
- 3.3 Probability Sampling
 - 3.3.1 Simple Random Sampling
 - 3.3.2 Stratified Sampling
 - 3.3.3 Quota Sampling
 - 3.3.4 Cluster Sampling.
- 3.4 Non-Probability Sampling
 - 3.4.1 Convenient Sampling
 - 3.4.2 Judgmental Sampling

3.5 Tools of Data collection

3.5.1 Questionnaire

3.5.2 Interview

3.5.3 Observation

Unit 4

Report Writing and Introduction to Statistics

(12 hrs.)

4.1 Report Writing and Characteristics of a Good Report

4.2 Meaning, Definition and Relevance of Statistics

4.3 Introduction to levels of Measurement, Statistical Tools

4.4 Classification of Data: Discrete and Continuous Series

4.5 Class Limits, Class Intervals, Class Frequency, Mid-points, Simple Frequency,

Cumulative Frequency

Unit 5

Tabulation and Diagrammatic Representation of Data

(10 hrs.)

5.1 Types of tables, Parts of a table, Functions of Tables

5.2 Diagrams: Bar diagram, Pie-diagrams

5.3 (Pre-requisites) Measures of Central Tendency: Mean, Median & Mode and Mean Deviation and Standard Deviation

5.4 Measures of Dispersion: Range, Quartile, Deciles and Percentiles

BOOKS FOR STUDY

Gupta, S.P., *Statistical Methods*. New Delhi: Sultan Chand, 2004.

Ellis, Lee. *Research Methodology, A Step-by-Step Guide for Beginners*. London: Sage, 1994.

O'Leary, Zina. *The Essential Guide to Doing Research*. London: Sage, 2004.

Tripathi, P.C. , *A Text Book of Research Methodology in Social Sciences*. New Delhi: Sultan Chand, 2005.

BOOKS FOR REFERENCE

Bryman Alan. *Social Research Methods*. New Delhi: Oxford University Press, 2014.

Arora, P.N, Sumeet Arora and Arora S.,. *Comprehensive Statistical Methods*. New Delhi: S. Chand, 2007

Babbie, E.R.,. *Practising Social Research*. California: Wadsworth, 2001.

Ethance, D.N., *Practical Problems in Statistics*. New Delhi: Kitab Mahal, 2004.

Kothari C.R., *Research Methodology - Methods and Techniques*. New Delhi: Wiley Eastern, 1985.

Singleton Royce, Bruce C. Straits and Margaret M. Straits and Ronald J. McAllister.
Approach to Social Research. New York: Oxford University Press, 1988.

WEB RESOURCES

<http://www.mheducation.co.uk/openup/chapters/0335206123.pdf>

<https://www.nyu.edu/classes/bkg/methods/005847ch1.pdf>

http://onlinestatbook.com/2/summarizing_distributions/measures.html

<https://www.youtube.com/watch?v=pwgxI-JjKDQ>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 2 = 6 marks (All three questions to be answered in 50 words each)

Section B – 3 x 8 = 24 marks (3 out of 5 questions to be answered in 250 words each)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words each)

Third Components

Quiz

Project

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 marks (All 10 questions to be answered in 50 words each)

Section B – 5 x 8 = 40 marks (5 out of 8 questions to be answered in 250 words each)

Section C – 2 x 20 = 40 marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.A. DEGREE: BRANCH III – SOCIOLOGY

SYLLABUS

(Effective from the academic year 2015 - 2016)

WOMEN AND DEVELOPMENT

CODE: 15SC/AC/WD35

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To orient students towards an understanding of the interrelationship between women and development
- To enable students to understand and analyse development initiatives with specific reference to India

Unit 1

Approaches to Women and Development:

(13 hrs.)

- 1.1 Women In Development (WID)
- 1.2 Women And Development (WAD)
- 1.3 Gender And Development (GAD)
- 1.4 Women Empowerment (WE)
- 1.5 Issues concerning women:
 - 1.5.1 Sex ratio
 - 1.5.2 Literacy
- 1.6 Human Development Index (HDI)
 - 1.6.1 Gender Development Index (GDI)
 - 1.6.2 Gender Equality Index (GEI)
- 1.7 Contribution of Women to Development

Unit 2

Theoretical Perspectives on Women and Development

(13 hrs.)

- 2.1 Development Theories
- 2.2 Dependency Theories
- 2.3 Post Modernism
- 2.4 Post-Colonial Theories
- 2.5 Feminist Approaches
 - 2.5.1 Liberal
 - 2.5.2 Marxist
 - 2.5.3 Socialist
- 2.6 Third World Women's Voices

- Unit 3**
Women in the Process of Development (13 hrs.)
- 3.1 Social Development:
 - 3.1.1 Capacity Building
 - 3.1.2 Decision Making for Women's Empowerment
 - 3.2 Economic development:
 - 3.2.1 SHG
 - 3.2.2 Micro credit
 - 3.2.3 Entrepreneurship and NGOs for Women
 - 3.3 Political Development:
 - 3.3.1 Community Participation
 - 3.3.2 Women in Local Governance
 - 3.3.3 Women in Politics
- Unit 4**
Women's Struggle and Negotiation for Development (13 hrs.)
- 4.1 Domestic Violence:
 - 4.1.1 Girl Child Survival
 - 4.1.2 Missing Girl Child and Abuse of Women in the Family
 - 4.2 Women in Communal Conflict
 - 4.3 Surviving Violence:
 - 4.3.1 Confrontation
 - 4.3.2 Negotiation
- Unit 5**
Consequences of Development (13 hrs.)
- 5.1 Invisibility of Women in Development Planning
 - 5.2 Digital Divide –
 - 5.2.1 Economic Inequality
 - 5.2.2 Social Inequality
 - 5.3 Impact of Development on Women
 - 5.3.1 Feminisation of Poverty
 - 5.3.2 Peripheralisation of Women

BOOKS FOR STUDY

Kapadia, Karin, (ed.) *The Violence of Development : the politics of identity gender and social inequalities in India*. New Delhi: Kali For Women, 2002.

Viswanathan, Nalini, *The Woman Gender and Development Reader*. Zed Publishers, 1997.

BOOKS FOR REFERENCE

Abraham, Taisha. *Women and Politics of Violence*. New Delhi: Har Anand, 2002.

Banerji, Anita and Kumar Sen. *Women and Economic Development*. New Delhi: Deep and Deep, 2000.

Basu, Amrita. *Challenge of Local Feminism*. New Delhi: Kali For Women, 1999.

Devi, Lakshmi. *Crime, Atrocities and Violence Against Women*. New Delhi: Anmol, 1998.

Devi, Lakshmi, *Encyclopaedia of Women Development & Family Welfare*. New Delhi: Anmol, 1998.

Kaber, Naila. *Reversed Realities : Gender Hierarchies in Development*. New Delhi: Kali for Women, 1994.

Nicholson, Linda J., *Feminism / Post Modernism*. New York: Routledge, 1990.

Pujari, Premlata Kaushik. *Women Power in India*. New Delhi: Kanishka Publications, 1994.

Rajput, Ram & Hemlatha Swarup. *Women – Globalisation*. New Delhi: Ashish Publications, 1994.

Scott, Catherin, V. *Gender and Development*. Boulder Lynne Reiner Publications. 1995.

ADDITIONAL READING

Beijing Report (1995)

The Paradox of Gender Responsive Budgeting- Bhumika Jhamb, Yamini Mishra, Navanita Sinha

Violence Against Dalit Women in India-Submitted by
All India Dalit Mahila Adhikar Manch (AIDMAM), New
Delhi, India

http://www.ncdhr.org.in/aidmam/key-activities-1/Submission_on_Violence_Against_Dalit_Women.pdf

JOURNALS

Mainstreaming Gender in Global Governance-Emilie Hafner-Burton, Stanford University, USA;

Pollack, European University Institute, Italy

Sage Journals-

Quota Laws for Women in Politics: Implications for Feminist Practice Social Politics:
International Studies in Gender, State & Society

Taylor & Francis Online-

Working towards a world free from violence against women: Unifem's contribution

Gender & Development; Volume 6, Issue 3, 1998 ;Special Issue: Violence Against Women

Taylor & Francis Online-

From Health to Human Rights: Female Genital Cutting and the Politics of Intervention-Bettina
Shell-Duncan

American Anthropologist

Volume 110, Issue 2, pages 225–236, June 2008

Wiley Online Library-

Constructing a Global Law-Violence against Women and the Human Rights System-Sally Engle
Merry

WEB RESOURCES

Domestic Violence Documentary Film Excerpt (DV in America)

https://www.youtube.com/watch?v=7v2LmM_FO-U

Gender-Responsive Budgeting: Mysore, Morocco, Bolivia

<https://www.youtube.com/watch?v=afehucAL2Q0&list=PLF0CC17981BF49F30&index=1>

Malnutrition and Gender Equality in India

<https://www.youtube.com/watch?v=r4m7FwTNmao>

Missing MDG Target: Violence Against Women

<https://www.youtube.com/watch?v=DRb1PP1blfQ>

Women in Cities International - India, Argentina, Russia and Tanzania (UN Trust Fund grantee)

https://www.youtube.com/watch?v=ec3f1Ph1F_8

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $3 \times 2 = 6$ marks (All three questions to be answered in 50 words each)

Section B – $3 \times 8 = 24$ marks (3 out of 5 questions to be answered in 250 words each)

Section C – $1 \times 20 = 20$ marks (1 out of 2 questions to be answered in 1200 words each)

Third Components:

Case Studies

Assignments

Seminar

Quiz

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ marks (All 10 questions to be answered in 50 words each)

Section B – $5 \times 8 = 40$ marks (5 out of 8 questions to be answered in 250 words each)

Section C – $2 \times 20 = 40$ marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.A. DEGREE: BRANCH III – SOCIOLOGY

SYLLABUS

(Effective from the academic year 2015 - 2016)

SOCIOLOGICAL THEORY

CODE: 15SC/MC/ST45

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce students to the place of theory in Sociology
- To help students understand the significance of diverse theories in Sociology

Unit 1

Introduction

(11 hrs.)

- 1.1 Meaning of Sociological Theory
- 1.2 Types of Theories
- 1.3 Functions of Theories
- 1.4 Elements of Theories

Unit 2

Functionalism

(15 hrs.)

- 2.1 Assumptions of Functionalism
- 2.2 Talcott Parsons
 - 2.2.1 The Structure of Social Action
 - 2.2.2 Theory of Social System
 - 2.2.3 Pattern Variables.
- 2.3 R.K. Merton: Merton's Functional Analysis
 - 2.3.1 Theory of Deviance
 - 2.3.2 Role Theory

Unit 3

Conflict Theory

(15 hrs.)

- 3.1 Assumptions of Conflict Theory
- 3.2 Karl Marx
 - 3.2.1 Dialectics
 - 3.2.2 Theory of Class, Alienation and Social Change
- 3.3 Ralf Dahrendorf
 - 3.3.1 Power and Authority
 - 3.3.2 Social Stratification

Unit 4**Symbolic Interactionism****(14hrs.)**

- 4.1 Assumptions of Symbolic Interactionism
- 4.2 Charles H. Cooley
 - 4.2.1 The Organic view of society
 - 4.2.2 Looking Glass Self
 - 4.2.3 Primary Groups
- 4.3 G.H. Mead
 - 4.3.1 Society
 - 4.3.2 The Act
 - 4.3.3 Gestures
 - 4.3.4 Significant Symbols
 - 4.3.5 Self

Unit 5**Exchange Theory****(10hrs.)**

- 5.1 Assumptions of Exchange Theory
- 5.2 George Homans
 - 5.2.1 The Principles of Human Behaviour
- 5.3 Peter Blau
 - 5.3.1 Social Exchange and Power

BOOKS FOR STUDY

Abraham Francis M. *Modern Sociological Theory - An Introduction*. Chennai: Oxford University Press, 1982.

Haralambos M, Martin Holborn. *Sociology: Themes and Perspectives*. UK: Harper Collins, 2013.

Turner, Jonathan J. *The Structure of Sociological Theory*, Seventh Edition, California: Wadsworth, 2002.

Wallece A Raith, Alison Wolf. *Contemporary Sociological Theory - Continuing the Classical tradition*. New Jersey: Prentice Hall, 2005.

WEB RESOURCES

<http://www.suu.edu/faculty/ping/pdf/KARLMARXANDMARXISM.pdf>

<http://www.csun.edu/~hbsoc126/soc1/The%20Looking%20Glass%20Self.pdf>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 2= 6 marks (Answer all questions in 50 words)

Section B – 3 x 8= 24 marks (Answer 3 out of 5 questions in 250 words)

Section C – 1x20=20 marks (Answer 1 out of 2 questions in 1200words)

Third Components

Quiz

Assignments

Presentation

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 hours

Section A: 10 x 2 = 20 Marks (Answer all 10 questions in 50 words each)

Section B: 5 x 8 = 40 Marks (Answer 5 out of 8 questions in 250 words each)

Section C: 2 x 20 = 40 Marks (Answer 2 out of 4 questions in 1200words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.A. DEGREE: BRANCH III – SOCIOLOGY

SYLLABUS

(Effective from the academic year 2015 - 2016)

SOCIAL GERONTOLOGY

CODE: 15SC/AC/SG45

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce to the students the concept of Social Gerontology
- To help students understand the Sociological aspects of aging

Unit 1

Introduction to Social Gerontology

(12 hrs.)

- 1.1 Definition
- 1.2 Evolution of Social Gerontology
- 1.3 Scope and Importance
- 1.4 Gerontology
- 1.5 Social Gerontology
- 1.6 Gerontology & Geriatrics

Unit 2

Theories of Aging

(15 hrs.)

- 2.1 Biological Theories
- 2.2 Psychological Theories
- 2.3 Sociological Theories
 - 2.3.1 Disengagement Theory
 - 2.3.2 Activity Theory
 - 2.3.3 Subculture Theory
 - 2.3.4 Social Exchange Theory
 - 2.3.5 Conflict Theory
 - 2.3.6 Age Stratification Theory

Unit 3

Understanding the Aged

(12 hrs.)

- 3.1 Dimensions of Ageing
 - 3.1.1 Demographic Aspects
 - 3.1.2 Physical Aspects
 - 3.1.3 Social Aspects
- 3.2 Support Systems for the Aged
 - 3.2.1 Family
 - 3.2.2 Relatives / Kin
 - 3.2.3 Friends
 - 3.2.4 Religion
- 3.3 Institutional Care

Unit 4
Problems of the Aged (13 hrs.)

- 4.1 Health
- 4.2 Housing
- 4.3 Employment
- 4.4 Retirement
- 4.5 Exploitation
- 4.6 Problems of the Aged Women
- 4.7 Institutionalisation of the Care of the Aged

Unit 5
Re-examining the concept of the aged (13 hrs.)

- 5.1 Old age Programmes
- 5.2 Policies and Social Legislations in India
- 5.3 Impact of Globalisation
- 5.4 Re-evaluation and Utilisation of the Senior Citizens Skills and Time
- 5.5 Volunteering and the Future of Ageing
- 5.6 Field Visit

BOOKS FOR STUDY

Bali, P. Arun. *Understanding Greying People of India*. New Delhi: Inter India, 1999.

Bai, Thara. L., *Ageing Indian Perspectives*. New Delhi: Decent Books, 2002.

Natarajan V.S., *Ageing Beautifully*. Madras: Sakthi Pathipagam, 1995.

BOOKS FOR REFERENCE

Arthur. N. Schwartz and Anne Fonner. *Introduction to Gerontology*. New York Holt: Rinehart and Winston, 1979.

Kunkel, Suzanne, Leslie Morgan, *Ageing: The Social Context*. California: Sage, 1998.

Loethur, Herman. J., *Problems of Ageing, Sociological & Social Psychological Perspectives*. California: Dickenson, 1967.

Mc Clymont, Mary. Silvea Thomas Michael J. Denham, *Health Visiting and the Elderly*. U.K: Longman, 1986.

Rajan, S. Irudaya, Mishra, Sarkara Sharma P., *India's Elderly: Burden or Challenge*. New Delhi: Sage, 1999.

Russel A. Ward, *The Ageing Experience: An Introduction to Social Gerontology*. New Delhi: JB Lippincott, 1979.

Sharma M.L. and. Dale T.M., *Ageing in India, Challenge for Society*. New Delhi:

Ajantha Publications, 1987

Tournier, Paul, *Learning to Grow Old*. London: SCM Press Ltd. 1973

JOURNALS, ADDITIONAL READING & WEB RESOURCES

Considering Life Course Concepts- John Hendricks

<http://psychsocgerontology.oxfordjournals.org/content/67B/2/226.short>

Introduction: Critical Perspectives in Social Gerontology-Jan Baars, Dale Dannefer,Chris Phillipson and Alan Walker

<https://www.baywood.com/intro/358-5.pdf>

Study of the Life Course: Implications of Social Gerontology-Dale Dannefer and Richard.A.Settersten

<http://health.oregonstate.edu/sites/default/files/hallie-ford/pdf/biblio/the-sage-handbook-of-social-gerontology-chapter-1.pdf>

Understanding the Ageing Population of the World

<https://www.youtube.com/watch?v=x4r0S5qoIXc>

UN report into Ageing in developing countries. BBC News night report-2008

<https://www.youtube.com/watch?v=EY0AvDhqeN8>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 2 = 6 marks (All three questions to be answered in 50 words each)

Section B – 3 x 8 = 24 marks (3 out of 5 questions to be answered in 250 words each)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words each)

Third Components

Field Visit

Report Submission

Presentation

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 marks (All 10 questions to be answered in 50 words each)

Section B – 5 x 8 = 40 marks (5 out of 8 questions to be answered in 250 words each)

Section C – 2 x 20 = 40 marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
Allied Elective Course Offered by Department of Sociology for
B.A. (History, Economics, English)/B.Com/B.V.A. Degree Programmes

SYLLABUS

(Effective from the academic year 2015 - 2016)

SOCIAL ENTREPRENEURSHIP

CODE: 15SC/AE/SE45

CREDITS: 5

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To understand the role of social entrepreneurship in building a sustainable society
- To create awareness on how to build a social enterprise that can make a difference

Unit 1

Introduction to Social Entrepreneurship (11 hrs.)

- 1.1 Meaning of Social Entrepreneurship
- 1.2 Corporate Philanthropism and Social Enterprise
- 1.3 Social Change and Innovation
- 1.4 Early Forms and Current Trends in Social Entrepreneurship
- 1.5 Types of Social Entrepreneurship:
 - 1.5.1 Social Bricoleur
 - 1.5.2 Social Constructionist
 - 1.5.3 Social Engineers

Unit 2

Social Entrepreneurship and Social Enterprise (14 hrs.)

- 2.1 Difference between Enterprise and Social Enterprise
- 2.2 Importance of Social Entrepreneurship
- 2.3 Factors Leading to Entrepreneurial Success
- 2.4 Recognizing and Assessing New Opportunities
- 2.5 Fundraising for Social Ventures

Unit 3

Social Entrepreneurship Motivation (13 hrs.)

- 3.1 Altruism
- 3.2 Non-Profit Intentions
- 3.3 Corporate Social Responsibility
- 3.4 Non-Profit Partnerships
- 3.5 Social Enterprise Business Plan Interventions

Unit 4

Women's Social Entrepreneurship and Innovation (12 hrs.)

- 4.1 Innovation by Women Initiated Social Enterprises
- 4.2 Social Ventures:
 - 4.2.1 Innovation
 - 4.2.2 Barriers to Innovation
- 4.3 Analysis of Five Cases of Female Entrepreneurs in India

Unit 5

Social Enterprise in Practice

(15 hrs.)

Case Analysis

5.1 Aravind Eye Hospital, Madurai

5.2 Jaipur Foot

5.3 Kellogg Social Enterprise

5.4 Grameen Bank

5.5 Ford Foundation

5.6 Childline India

5.7 Maharishi Institute

BOOKS FOR STUDY

Amutha, D., *Empowerment, Self Help Groups and Women Entrepreneurship*. Delhi: Mangalam, 2013.

Cynthia, L. Greene. *Entrepreneurship Ideas in Action*. Singapore: Thomson, 2004.

Bornstein David, Susan Davis. *Social Entrepreneurship: What Everyone Needs To Know*. USA: OUP, 2010.

Desai, Vasan. *Small-Scale Industries and Entrepreneurship*. Delhi: Himalaya, 2002.

Kaulgud, Aruna. *Entrepreneurship Management*. Delhi: Vikas, 2003.

Muhammad Yunus. *Banker to the Poor*. India: Penguin, 2007.

BOOKS FOR REFERENCE

Balaraju, Theduri. *Entrepreneurship Development: An Analytical Study*. New Delhi: Akansha, 2004

Chandra, Ravi. *Entrepreneurial Success: A Psychological Study*. New Delhi: Sterling, 2003

David, Otes. *A Guide to Entrepreneurship*. Delhi: Jaico, 2004

Frank Martin, Marcus Thompson. *Social Enterprise: Developing Sustainable Businesses*.

Palgrave Macmillan, 2010

Paul Burns, *New Venture Creation: A Framework for Entrepreneurial Start-ups*. Palgrave

Macmillan, 2014

Taneja, *Entrepreneurship*. New Delhi: Galgotia, 2004

Excerpts from Books and Reading Materials:

Alan Khazei. *Big Citizenship*

Bill Milliken. *From the Rear View Mirror: Reflecting on Connecting the Dots*

David Bornstein. *How to Change the World: Social Entrepreneurs and the Power of New Ideas*

David Bornstein and Susan Davis, *Social Entrepreneurship: What Everyone Needs to Know*

J. Gregory Dees, *The Meaning of Social Entrepreneurship*

Jim Collins, *Good to Great for the Social Sector*

John Elkington and Pamela Hartigan, *The Power of Unreasonable People*

Leslie Crutchfield and Heather McCleod, *Forces for Good*

Muhammed Yunus, *Banker to the Poor: Micro-Lending and the Battle Against World Poverty*
Bill Strickland, *Make the Impossible, Possible*

Peter Drucker, *Innovation and Entrepreneurship*

WEB RESOURCES:

Harvard Business Review, Key Traits of Entrepreneurs-An interview with John Elkington, Founder and Chief Entrepreneur, Sustainability. Social entrepreneurs

<https://www.youtube.com/watch?v=FV7wn77QLMc>

"Social Entrepreneurship" - Ashoka's Bill

Drayton Speaks <https://www.youtube.com/watch?v=eEc61DnLQ30>

Solving problems using social innovation and entrepreneurship: Jeffrey Robinson at TEDxBroadStreet

<https://www.youtube.com/watch?v=6xh9H5XuO40>

The Power of Social Entrepreneurship: P R Ganapathy at TEDxGolfLinksPark

<https://www.youtube.com/watch?v=VZQvhsa6LN0>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $3 \times 2 = 6$ marks (All three questions to be answered in 50 words each)

Section B – $3 \times 8 = 24$ marks (3 out of 5 questions to be answered in 250 words each)

Section C – $1 \times 20 = 20$ marks (1 out of 2 questions to be answered in 1200 words each)

Third Components:

Paper Presentation

Case Studies

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ marks (All 10 questions to be answered in 50 words each)

Section B – $5 \times 8 = 40$ marks (5 out of 8 questions to be answered in 250 words each)

Section C – $2 \times 20 = 40$ marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.A. DEGREE: BRANCH III – SOCIOLOGY

SYLLABUS

(Effective from the academic year 2015 - 2016)

SOCIOLOGY OF MEDIA

CODE: 15SC/MC/SM55

CREDITS : 5

L T S: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To train students to critically analyse media content
- To investigate issues of representation in the media

Unit 1

Introduction

(13 hrs.)

- 1.1 Media – Concept and Types
- 1.2 Functions of Mass Media
- 1.3 Effects of Mass Media on Individual, Society and Culture
- 1.4 Active vs Passive Audience
- 1.5 The Uses-effects Theory, Citizen Journalism

Unit 2

Media and Consumption

(13 hrs.)

- 2.1 The Power of Advertising – Taste Cultures and Niche Markets
- 2.2 Advertising and Popular Culture – Fashions, Fads
- 2.3 Subcultures and the Media
- 2.4 The Uses-Gratification Approach
- 2.5 Celebrity Industry – Personality as Brand, Hero Worship

Unit 3

Media and Mobilisation

(13 hrs.)

- 3.1 Role of Media during the Freedom Struggle – The Underground Radio Movement
- 3.2 Media during the French Revolution
- 3.3 Social Media and Mobilisation –Online Forms of Protest
- 3.4 Media Activism

Unit 4

Alternative Media

(13 hrs.)

- 4.1 Marxist Approaches to Media
- 4.2 Various Forms of Alternative Media -Village Puppetry
- 4.3 Street Theatre
- 4.4 Little Magazines
- 4.5 Community Radio and the Indian Farmer

Unit 5

Issues of Representation

(13 hrs.)

- 5.1 Changing Representation of Women in the Media
- 5.2 Alternative Sexualities in the Media
- 5.3 Concerns of Under-representation of the North East in the Media

BOOKS FOR STUDY

Grossberg, Lawrence et al. *Media Making: Mass Media in popular culture*. New Delhi: Sage, 1998.

Mc Quail, Dennis and Windhal. *Communication Models for the study of Mass communication*. Longman. 1993.

BOOKS FOR REFERENCE

Berger, Arthur Asa. *Ads, fads and consumer culture – Advertising's Impact on American Character and Society*. Lanham: Rowman and Littlefield, 2000.

Dines, Gail and Jean M Humez (ed). *Gender, Race and Class in Media: A text-Reader*. California: Sage, 2003.

Potter, James W. *Media Literacy*. New Delhi: Sage, 1998.

Ross, Karen, (ed). *The Handbook of Gender, Sex and Media*. Sussex: Wiley Blackwell, 2012.

Turner, Graeme. *Understanding Celebrity*. UK: Sage, 2013.

Article - Biocca, Frank. *Opposing conceptions of the audience: The Active and Passive Hemispheres of Mass Communication Theory*, 1988

WEB RESOURCES

Alternative media

<http://fuchs.uti.at/wp-content/uploads/altmedia.pdf>

Street theatre

<http://www.bbc.co.uk/mediaaction/where-we-work/asia/india/sdp-community-mobilisation>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $3 \times 2 = 6$ marks (All three questions to be answered in 50 words each)

Section B – $3 \times 8 = 24$ marks (3 out of 5 questions to be answered in 250 words each)

Section C – $1 \times 20 = 20$ marks (1 out of 2 questions to be answered in 1200 words each)

Third Components:

Seminar

Quiz

Assignments

Case studies

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ marks (All 10 questions to be answered in 50 words each)

Section B – $5 \times 8 = 40$ marks (5 out of 8 questions to be answered in 250 words each)

Section C – $2 \times 20 = 40$ marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.A. DEGREE: BRANCH III – SOCIOLOGY

SYLLABUS

(Effective from the academic year 2015 - 2016)

CRIME AND VICTIMOLOGY

CODE: 15SC/MC/CV55

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To familiarise students with the concept of Criminology and Victimology
- To orient students to the significance of locating the victim within the centre of socio-cultural justice system

Unit 1

Crime and Criminology

(15 hrs.)

Introduction

1.1 Definition

1.2 Nature and Meaning of Crime

1.3 Classification of Crimes and Criminals

1.4 Criminology –Nature and Scope

1.5 Theories of Causation of Crime

1.5.1 Labeling

1.5.2 Psychoanalytic

1.5.3 Differential Association theory (Individual and Environmental Approach)

1.6 Contemporary Forms of Crime

1.6.1 White Collar Crime

1.6.2 Organised Crimes

1.6.3 Terrorism

1.6.4 Cyber-crime

1.6.5 Pornography

Unit 2

Victimology: Concept and Concerns

(15 hrs.)

2.1 Victimology:

2.1.1 Definition

2.1.2 Meaning

2.2 Nature and Scope- Rediscovery of Crime Victims

2.3 Versions of Victimology

2.3.1 Special Victimology

2.3.2 General Victimology

2.3.3 Victimology of Human Rights Violations

- Unit 3** **(12 hrs.)**
Key Concepts in Victimology
3.1 Victim
3.2 Victimisation
3.3 Victim Reactions
3.4 Victim Precipitation
3.5 Victim Proneness
3.6 Primary Victimisation
3.7 Secondary Victimisation
3.8 Victim Blaming
3.9 Victim Vulnerability
3.10 Fear of Crime
3.11 Victimless Crimes
3.12 Recidivism

- Unit 4** **(10 hrs.)**
Patterns of Victimisation and Corrective Measures
Victims of traditional crimes in India
4.1 Sati
4.2 Dowry
4.3 Battered Women
4.4 Rape and Victims of Abuse of Power
4.5 Other kind of Sexual Harassment
4.6 Child Victims
4.7 Hate Crimes

- Unit 5** **(13 hrs.)**
Victim Rights and Assistance
Rehabilitation and Restitution
5.1 Crime Prevention
5.2 Modern Methods of Correction-
 5.2.1 Rehabilitation
 5.2.2 Restitution and Retribution
5.3 Victim Assistance:
 5.3.1 Needs of Victims
 5.3.2 Victim Assistance – Role of Judiciary
 5.3.3 Government (Observation homes, vigilance homes)
 5.3.4 Citizens and Voluntary Organisations

BOOKS FOR STUDY

Ahuja, Ram. *Criminology*. Meerut: Minakshi Publications 1984.

Jones, David A., *History of criminology: A philosophical perspective*. Westport, Conn.:

Greenwood Press 1986.

Karmen, Andrew (6th Edition): *Crime Victims: An Introduction to Victimology*. CA: Thomson Wadsworth, 2007.

Paranjape, N.V., *Criminology and Penology*. Allahabad: Central Law Publications, 1994.

UnnathanPrabha, N., *Crime and Justice in India*, New Delhi: Sage, 2013.

BOOKS FOR REFERENCE

Gottfredson, Michael R., and Travis Hirschi. *A General Theory of Crime* Stanford, CA: Stanford University Press 1990.

Hagan, Frank E., *Introduction to criminology: Theories, methods, and criminal behavior*. Chicago: Nelson-Hall 1990.

Kirchhoff, G. F., *What is Victimology?* Tokiwa International Victimology Institute. Tokyo: Seibundo, 2005.

Putwain, David and Aidan Sammons *Psychology and crime*, 2002.

United Nations United Nations Declaration of Basic Principles of Justice for Victims of Crime and Abuse of Power.
A/RES/40/34., 1985 .<http://www.un.org/documents/ga/res/40/a40r034.htm>

United Nations Office for Drug Control and Crime Prevention, Guide for Policy Makers: On the Implementation of the United Nations Declaration of Basic Principles of Justice for Victims of Crime and Abuse of Power. Centre for International Crime Prevention. New York, (1999).
<http://www.uncjin.org/Standards/policy.pdf>

United States Department of Justice – Office of Justice Programs – Office for Victims of Crime, *New Directions from the Field: Victims' Rights and Services for the 21st Century*. (1998).

Victim Support India - <http://victimsupportindia.org/>
Irv.sagepub.com

World Society of Victimology - <http://www.worldsocietyofvictimology.org/>

JOURNAL

International Journal Of Criminal Justice Sciences- ISSN 0973-5089

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $3 \times 2 = 6$ marks (All three questions to be answered in 50 words each)

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Section C – $1 \times 20 = 20$ marks (1 out of 2 questions to be answered in 1200 words each)

Third Component:

Case Studies

Report writing

Presentation

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ marks (All 10 questions to be answered in 50 words each)

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Section C – $2 \times 20 = 40$ marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.A. DEGREE: BRANCH III – SOCIOLOGY

SYLLABUS

(Effective from the academic year 2015 - 2016)

SOCIOLOGY OF ETHNIC RELATIONS

CODE: 15SC/MC/ER55

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To help students understand the concept of ethnicity and its expressions
- To help students understand patterns of inclusion and exclusion through case studies

Unit 1	Introduction	(13 hrs.)
	1.1 Meaning of Ethnicity	
	1.2 Ethnicity as a Basis of Identity	
	1.3 The Social Construction of Ethnic Identities	
	1.4 Ethnic and Racial Classifications	
Unit 2	Dimensions of Ethnic Identity	(13 hrs.)
	2.1 Migration as an Ethnic Phenomenon – Push and Pull Factors	
	2.2 Forms of Diaspora (Cohen)	
	2.3 Ethnic Enclaves	
	2.4 Immigration Policies and their Implications	
	2.5 Racial Profiling and Xenophobia	
Unit 3	Patterns of Social Exclusion	(13 hrs.)
	3.1 Discrimination- Ethnic Penalty	
	3.2 Segregation	
	3.3 Ghettoization	
	3.4 Ethnic Cleansing	
	3.5 Genocide	
Unit 4	Patterns of Social Inclusion	(13 hrs.)
	4.1 Politics of Multiculturalism	
	4.2 Integration and Barriers to Integration	
	4.3 Ethnicity and Citizenship	
	4.4 Assimilation – Institutional and Psychological	
	4.5 Minority Rights	

Unit 5

Case Studies on Ethnic Relations

(13 hrs.)

- 5.1 North America
- 5.2 Latin America
- 5.3 South East Asia
- 5.4 The Middle East
- 5.5 India

BOOKS FOR STUDY

Cohen, Robert. *Global Diasporas: An Introduction*. (Second Revised Edition) London and New York: Routledge, 2008.

Giddens, Anthony and Phillip Sutton. *Sociology*. 7th Edition Polity Press, 2013.

BOOKS FOR REFERENCE

Oommen, T K. *Citizenship, Nationality and Ethnicity*. Cambridge: Polity Press, 1997.

Phadnis, Urmila and Rajat Ganguly, *Ethnicity and Nation Building in South Asia*. Sage, 2001.

Telles, Edward, *Pigmentocracies: Ethnicity, Race and Colour in Mexico*. University of North Carolina Press, 2014.

Wolff, Stefan, *Ethnic Conflict*. Oxford University Press, 2006.

Yinger, J M., *Ethnicity Source of Strength? Source of Conflict*. Jaipur: Rawat, 1997.

JOURNALS

Ethnicity in South East Asia

Third World Quarterly, Vol. 22, No. 3 (June 2001), pp. 413-436

WEB RESOURCES

Ethnicity/Multiculturalism/Migration

http://www.ijesar.org/docs/volume2_issue2/multiculturalism.pdf

Ethnic Enclaves

<http://www.vancouversun.com/life/Immigrants+choose+Metro+Vancouver+ethnic+enclaves+support+network/8180613/story.html>

PATTERN OF EVALUATION

Continuous Assessment:

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Duration: 90 mins.

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Section C – $1 \times 20 = 20$ marks (1 out of 2 questions to be answered in 1200 words each)

Third Components:

Quiz

Assignments

Case studies

Seminar

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ marks (All 10 questions to be answered in 50 words each)

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STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.A. DEGREE: BRANCH III – SOCIOLOGY

SYLLABUS

(Effective from the academic year 2015 - 2016)

NON - GOVERNMENTAL ORGANISATIONS

CODE: 15SC/ME/NG55

CREDITS: 5

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To help students understand the impact of the work of the NGOs at the grass –roots level
- To understand the functioning of NGOs in India with special emphasis on NGO governance

Unit 1

Introduction to Non-Governmental Organisations (11 hrs.)

- 1.1 Definition
- 1.2 Concept
- 1.3 Objectives
- 1.4 Types
- 1.5 History of NGOs in India
- 1.6 Role of NGOs in Social Change
- 1.7 The Present Status of NGOs in India

Unit 2

Background of Non-Governmental Organisations (13 hrs.)

- 2.1 Philosophies of Non-Governmental Organisations:
 - 2.1.2 Religious
 - 2.1.3 Humanitarian
 - 2.1.4 Marxist
- 2.2 Goals of Non-Governmental Organisations: Demand and Supply
- 2.3 NNGOs & INGOs- Roles and Issues

Unit 3

NGO Partnerships and Legislations (13 hrs.)

Partnerships-

- 3.1 Linkages of Non-Governmental Organisations with Government
- 3.2 Linkage with International Organisations
- 3.3 Linkage with Civil Society
- 3.4 Social Legislations in India-
 - 3.4.1 Societies Registration Act, 1860
 - 3.4.2 Indian Trust Act, 1882
 - 3.4.3 FCRA: Foreign Contribution Regulatory Act
 - 3.4.4 Income Tax Act 1961: Nature and Scope of Section 10, 11, 12 (Rebate and Exemption)

Unit 4
Management of Non-Governmental Organisations (13 hrs.)

- 4.1 Functions and Principles of NGO Management
- 4.2 NGO Organisational Design
- 4.3 Human Resource, Financial and Performance Management in NGOs
- 4.4 External and Internal Stakeholders in NGO Management

Unit 5
NGO Governance and Issues (15 hrs.)

- 5.1 Problems of NGO Accountability and Transparency
- 5.2 Efficiency and Sustainable Measures
- 5.3 Strategies for NGO Growth in India
- 5.4 Implementation, Monitoring and Evaluation of Interventions.
- 5.5 NGOs in Health, Women & Children, Micro-Finance, Advocacy
- 5.6 Field Visits

BOOKS FOR STUDY

Abraham, Anita (Third Edition). *Formation and Making of NGOs*, New Delhi: Universal Law, 2011

Berman, E.M., *Productivity in Public and Non-Profit Organizations: Strategies and Techniques*. New Delhi: Sage, 1998.

Chandra, P. *NGOs in India: Role, guidelines & performance appraisal*. New Delhi: Akansha, 2005

Lall Robin, *The Dynamics of NGOs*, New Delhi: Dominant, 2004.

Nanavatty, Meher and P.D. Kulkarni, *NGOs in the Changing Scenario*, New Delhi: Uppal, 1998

Pawar, S.N. and J.B. Ambedkar and D. Shrikant, *NGOs and Development: The Indian Scenario*. 2004.

BOOKS FOR REFERENCE

Drucker, P. *Managing the Non-Profit Organizations: Principles and Practices*. New York: Harper Business, 1992

Dharmarajan, Shivani, *NGO Development Initiative and Public Policy*, New Delhi: Kanishka, 1998.

Green, Andrew and Ann Mathias, *Non-Governmental Organisations and Health in Developing Countries*. New York: St. Martin's Press, 1997.

Pawar, S.N. and J.B. Ambedkar and D. Shrikant, *NGOs and Development: The Indian Scenario*, 2004

Tandon, R., *Invisible Yet Widespread: The Non-Profit Sector in India*. New Delhi: PRIA, 2003

Verma, Sawali Bihari., *Rural Prosperity Oriented Programmes, NGOs and People's Participation*. Jaipur: Avishkar Publishers Distributors, 2003

Journals, Articles and Web Resources

David Lewis (LSE –Centre for Civil Society, Department of Social Policy):
Management of Non-Governmental Developmental Organizations

Dr.R.P.Raya and Dr.K.Rajendran
(Professor and Head; Formerly Research Scholar-Management Studies, Pondicherry University):
Role of Non-Governmental Organizations in Micro Finance through SHGs-A Study of Vellore District in Tamil Nadu

Julia Berger (Harvard University-September 2003):
Religious NGOs: An Exploratory Analysis

http://fingodap.in/pdf/registration_of_ngo.pdf

<http://www.fcraforngos.org>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 2 = 6 marks (All three questions to be answered in 50 words each)

Section B – 3 x 8 = 24 marks (3 out of 5 questions to be answered in 250 words each)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words each)

Third Components

NGO Visit

Report Submission

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 marks (All 10 questions to be answered in 50 words each)

Section B – 5 x 8 = 40 marks (5 out of 8 questions to be answered in 250 words each)

Section C – 2 x 20 = 40 marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.A. DEGREE: BRANCH III – SOCIOLOGY

SYLLABUS

(Effective from the academic year 2015 - 2016)

PROJECT

CODE: 15SC/ME/PR55

CREDITS: 5

OBJECTIVES OF THE COURSE

- To enable students to develop research capabilities
- To encourage students to develop analytical skills

Project Guidelines

- A small scale research which can be completed in the amount of time one would spend in and out of class for a regular 5-credit module
- Organised into chapters and with a contents page, references and bibliography
- Preferable link made between theory and practise
- There should be empirical research, though may be modest in scale but first hand research is essential to enhance the overall quality of the project

Unit 1

Introduction

- 1.1 Introduction : a general introduction to the topical area
- 1.2 Statement of the Problem: very specific statement of the problem to be studied.
- 1.3 Purpose of the Project: in this section a description about the overall purpose of the project should be made known.
- 1.4 Definition of Terms: important terms and concepts used in the project should be adequately analyzed and defined.
- 1.5 Significance of the Project: this section should provide answers as to what the project will contribute.

Unit 2

Review of Literature

- 2.1 The review is a careful examination of a body of literature pointing toward the answer to the need for the study or project

Unit 3

Methodology

- 3.1 Explain the methods used for collecting data
- 3.2 Descriptive writing approach must be utilised
- 3.3 Collection of Data - Analyse and Interpret data

Unit 4

Summary, Conclusions and Recommendations

4.1 Introduction - an overview of the project should be provided in this section

Conclusions - describe the results

4.2 Recommendations -these should be based on the conclusions

4.3 References

4.4 Appendices

Contents of the Project Report

- Cover page
- Title page
- Acknowledgements
- Contents page
- List of figures or illustrations
- Main body - introduction
- Main body – Review of literature
- Main body - methodology
- Main body- analyses
- Main body – summary & results
- Main body - recommendations
- Main body - conclusion
- Reference List/Bibliography
- Appendices

Avoid Plagiarism

PATTERN OF EVALUATION

Project 75 marks.

Viva-voce 25 marks.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.A. DEGREE: BRANCH III – SOCIOLOGY

SYLLABUS

(Effective from the academic year 2015 - 2016)

SOCIOLOGY OF RELIGION

CODE: 15SC/MC/SR65

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce students to the sociological interpretations of religious phenomena
- To facilitate understanding of the social significance of religion

Unit I

Introduction

(11 hrs.)

- 1.1 Definition and Meaning of Religion
- 1.2 Sociological Perspective of Religion
- 1.3 Sociological Functions of Religion
- 1.4 Pre-historic and Primitive Religion

Unit 2

Sociological Perspectives

(13 hrs.)

- 2.1 Structural Functional Theory
- 2.2 Social Conflict Theory
- 2.3 Social Constructionist Theory

Unit 3

Religion and Society

(13 hrs.)

- 3.1 Social Stratification
- 3.2 Religion and Politics
- 3.3 Religion and Socio-Economic Development
- 3.4 Religion and Socio-Cultural Changes

Unit 4

Religions in India

(15 hrs.)

- 4.1 Socio-Historical Perspective and Contemporary Trends:
 - 4.1.1 Hinduism
 - 4.1.2 Islam
 - 4.1.3 Christianity
 - 4.1.4 Sikhism
 - 4.1.5 Jainism and Buddhism

4.2 Religious Values and Issues:

4.2.1 Secularism

4.2.2 Conversion

4.2.3 Communalism

4.2.4 Fundamentalism

Unit 5

Religious Movements

(13 hrs.)

5.1 Types of Movements:

5.1.1 Church-Ecclesia-Sect-Denominations

5.1.2 New Religious Movements

BOOKS FOR STUDY

Hamilton Malcom B., *The Sociology of Religion: An Introduction to Theoretical and Comparative Perspectives* (2nd edition), USA: Routledge, 2006.

Johnstone, Ronald L., *Religion in Society: A Sociology of Religion* (8th edition), New Jersey: Pearson, 2006.

Madanmohan and Khalsa Singh, *Religious Minorities and Constitutional Law*, New Delhi: CyberTech, 2013

BOOKS FOR REFERENCE

Cousineau Madeleine. *Religion in a Changing World: Comparative Studies in Sociology (Religion in the Age of Transformation)*, USA: Praeger Publishers Inc,1998.

Durkheim Emile. *The Elementary Forms of Religious Life*, New York: Collier Book, 1961.

Kivisto Peter, Swatos. William.H., JR and Christiano Kevin J. *Sociology of Religion: Contemporary Developments* (2nd edition),USA, Rowman & Littlefield, 2008.

McGuire Meredith. *Sociology of Religion*, New Delhi: Rawat, 2012.

Madan T.N., *Religion*, UK: Oxford University Press, 1997.

O'Dea, Thomas F., *The Sociology of Religion*, New Delhi: Prentice Hall,1966.

Repstad Pal and Furseth Inger. *An Introduction to the Sociology of Religion: Classical and Contemporary Perspectives*, USA: Ashagate, 2006.

Wach, Joachim. *Sociology of Religion*, Chicago: University of Chicago Press, 1971.

Weber, Max. *Sociology of Religion*, Boston: Beacon Press, 1964.

WEB RESOURCES

www.oxfordjournals.org

www.researchgate.net

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 2 = 6 marks (All three questions to be answered in 50 words each)

Section B – 3 x 8 = 24 marks (3 out of 5 questions to be answered in 250 words each)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words each)

Third Components:

Seminar

Quiz

Assignments

Case studies

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 marks (All 10 questions to be answered in 50 words each)

Section B – 5 x 8 = 40 marks (5 out of 8 questions to be answered in 250 words each)

Section C – 2 x 20 = 40 marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.A. DEGREE: BRANCH III – SOCIOLOGY

SYLLABUS

(Effective from the academic year 2015 - 2016)

ENVIRONMENTAL SOCIOLOGY

CODE: 15SC/MC/ES65

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce students to a sociological perspective on environmental issues
- To understand the relationship between society and the natural environment

Unit 1	Definition and Concept of Environment	(10 hrs.)
	1.1 Definition of Environment	
	1.2 Nature of Environmental Sociology	
	1.3 Scope of Environmental Sociology	
	1.4 Dimensions of Environment	
	1.5 The Relationship between Society and Natural Resources	
Unit 2	Perspectives of Environmental Sociology	(10 hrs.)
	2.1 Sociological Perspective	
	2.2 Religious Perspective	
	2.3 Development Perspective	
	2.4 Eco-feminism	
Unit 3	Problems and Concern of Environment	(15 hrs.)
	3.1 Issues, Causes, Consequences of Environment	
	3.2 Role of Human Behavior	
	3.3 Social Dimensions of Environmental Disasters	
	3.4 Technological Change and Environment	
	3.5 Effects of Consumption and Consumerism on Environment	
	3.6 Sustainable Development	
Unit 4	Environmentalism	(15 hrs.)
	4.1 History and Development	
	4.2 The Environmental Movements in India	
	4.2.1 Chipko Movement	
	4.2.2 Narmada Bachao Andolan Movement	
	4.3 Eco-tourism	

Unit 5

Environmental Disaster Management

(15 hrs.)

5.1 Definition of Disaster

5.2 Natural Disaster and Manmade Disaster

5.3 Disaster Management Cycle

5.4 Race, Class, Ethnicity and Disaster Vulnerability

5.5 Environmental and Social Impact Assessment (ESIA)

5.6 Change agents – Community, NGOs, INGOs and Government Sector
International Initiatives on Environment Protection

BOOKS FOR STUDY

Gardner Gerald T., *Environmental Problems and Human Behavior*. Second edition. USA: Pearson Learning Solutions, 2002.

Guha, Ramachandra. *Environmentalism: A Global History*. New Delhi: OUP, 2000.

BOOKS FOR REFERENCE

Ghauta Ramesh and Others, *Environmental Education – Problems and Prospects*, New Delhi: Discovery, 2000.

Hannigan John. *Environmental Sociology*. Third edition. New York: Routledge, Taylor & Francis Group, 2014.

Ignacimuthu, S. *Environmental Awareness and Protection*. New Delhi: Phoenix, 2000.

Katiyar, V.S. *Environmental Concerns, Developing Resources*. New Delhi: Pointer, 2000

Micheael Mayerfeld Bell, *An invitation to Environmental Sociology*. C.A: 2004.

Mukerjee Radhakamal. *Social Ecology*. New Delhi: D.K. Printworld, 2014.

Satsangi Alok, Sharma Anhuman. *Environmental Impact Assessment and Disaster Management..* New Delhi: Rajat, 2015

Sinha, Prabhas, *Disaster Management Process: Law, process and Strategy*. New Delhi: SBS, 2006

Singh Jagbir, *Disaster Management; Future Challenges and Opportunities* .New Delhi: I.K, 2007.

Vaidyanathan, A., *Water Resource Management – Institutions and Irrigation*. New Delhi: OUP, 2000.

JOURNAL

Sociological Practice. A journal of clinical and applied sociology Vol 4. NO 4. Dec 2002

WEB RESOURCES

Global issues .org

Consumption and Consumerism on the environment

<http://ramachandraguha.in/archives/the-rise-and-fall-of-indian-environmentalism.html>

<http://www.thehindu.com/opinion/lead/the-past-present-of-indian-environmentalism/article4551665.ece>

<http://nceg.upesh.edu.pk/bgworkshop08/lectureslides/Day11/social%20dimension%20of%20disaster.pdf>

The sociology of disaster: the classics, social vulnerability, resilience, environmental migration, and risk perception

<http://disaster.colostate.edu/Data/Sites/1/cdra-research/cdra-readinglists/michelle-readinglist2010-1.pdf>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 2 = 6 marks (All three questions to be answered in 50 words each)

Section B – 3 x 8 = 24 marks (3 out of 5 questions to be answered in 250 words each)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words each)

Third Components:

Seminar

Quiz

Assignments

Case studies

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 marks (All 10 questions to be answered in 50 words each)

Section B – 5 x 8 = 40 marks (5 out of 8 questions to be answered in 250 words each)

Section C – 2 x 20 = 40 marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.A. DEGREE: BRANCH III – SOCIOLOGY

SYLLABUS
(Effective from the academic year 2015 - 2016)

SOCIOLOGY OF GLOBALISATION

CODE: 15SC/MC/SG65

CREDITS: 5

L T P: 5 0 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce students to the various dimensions of globalisation
- To help students identify the mechanisms of globalisation and the impact of the process

Unit 1

Introduction

(13 hrs.)

- 1.1 Globalisation – Definition
- 1.2 The Concept of Flows – Heavy And Light (Ritzer)
- 1.3 The Sociology of Globalisation
- 1.4 Approaches to Globalisation
 - 1.4.1 Robertson
 - 1.4.2 Meyer
 - 1.4.3 Wallerstein

Unit 2

Globalisation and Society

(13 hrs.)

- 2.1 Globalisation and Human rights
- 2.2 Globalisation and Religion
- 2.3 Globalisation and Gender
- 2.4 Globalisation and Sustainable Environment
- 2.5 Globalisation and ICTS and Development

Unit 3

Globalisation and the Economy

(13hrs.)

- 3.1 An Introduction to the WTO
- 3.2 SAP and Implications for Developing Countries
- 3.3 TRIPS and the Rights of Indigenous Communities
- 3.4 Globalisation and its Impact on the Indian Farmer
- 3.5 BPOs and their Impact on the Indian Economy

- Unit 4**
Globalisation and Politics (13 hrs.)
4.1 Globalisation and the State
4.2 Civil Society, Anti-globalisation and Alter-globalisation Movements
4.3 Globalisation and Terrorism
4.4 Globalisation and Ethnicity

- Unit 5**
Globalisation and Culture (13 hrs.)
5.1 Globalisation of Indigenous Culture
5.2 Globalisation and Social Media
5.3 Homogenisation, Polarisation, Hybridisation
5.4 Knowledge Globalisation

BOOKS FOR STUDY

Held David and Anthony Mc Grew (ed). *The Global Transformations Reader – An Introduction to the Globalization Debate*. Cambridge: Polity, 2003.

Ritzer George. *Globalization: The Essentials*. UK: Wiley Blackwell, 2011.

BOOKS FOR REFERENCE

Berger Peter. *Religion and Globalization*. New Delhi: Sage, 1994.

Croucher Sheila. *Globalizing and Belonging: The Politics of Identity in a changing world*. Lanham: Rowman and Littlefield, 2004.

Moghadam Valentine. *Globalization and Social Movements*, Lanham, Rowman and Littlefield, 2012.

Steger Manfred. *Globalization - The New Market Ideology*. New Delhi: Rawat, 2002.

Tomlinson John. *Globalization and Culture*. Cambridge: Polity Press, 2011.

WEB RESOURCES

Globalisation and Cultural Diversity

<http://yaleglobal.yale.edu/content/globalization-and-cultural-diversity>

Globalisation and the Indian farmer

http://www.global-labour-university.org/fileadmin/GLU_conference_2010/papers/51._Globalisation__Liberalisation_and_Agrarian_Distress..pdf

Globalisation and the State

http://www.un.org/disarmament/HomePage/HR/docs/2001/2001Apr07_Colorado.pdf

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 2= 6 marks (Answer all questions in 50 words)

Section B – 3 x 8= 24 marks (Answer 3 out of 5 questions in 250 words)

Section C – 1x20=20 marks (Answer 1 out of 2 questions in 1200words)

Third Components:

Seminar

Group discussion

Assignments

Case studies

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 hours

Section A: 10 x 2 = 20 Marks (Answer all 10 questions in 50 words each)

Section B: 5 x 8 = 40 Marks (Answer 5 out of 8 questions in 250 words each)

Section C: 2 x 20 = 40 Marks (Answer 2 out of 4 questions in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.A. DEGREE: BRANCH III – SOCIOLOGY

SYLLABUS

(Effective from the academic year 2015 - 2016)

ORGANISATIONAL BEHAVIOUR

CODE: 15SC/ME/OB55

CREDITS: 5

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To create awareness of human behaviour in organisations
- To understand the functioning of organisations in modern society

Unit 1

Introduction

(13 hrs.)

- 1.1 Definition of Organisation
- 1.2 Typology of Organisation
- 1.3 Definition and Scope of Organisational Behaviour
- 1.4 Importance of Organisations in Modern Interdependent Society
- 1.5 Scientific Management
- 1.6 Classical Organisational Theory-
 - 1.6.1 Theories of Bureaucracy
 - 1.6.2 Principles of Administration
- 1.7 Neo-classical Approach – Human Relations Theory (Hawthorne studies)
- 1.8 Modern Organisational Theory – Open Systems Approach

Unit 2

Models of Organisational Behaviour

(13 hrs.)

- 2.1 Elements of the System of Organisational Behaviour
- 2.2 Models of Organisational Behaviour:
 - 2.2.1 Autocratic
 - 2.2.2 Custodial
 - 2.2.3 Supportive
 - 2.2.4 Collegial
- 2.3 Case studies of Organisations

Unit 3

Motivations in Organisations

(13 hrs.)

- 3.1 Meaning of Motivation

- 3.2 Primary, General and Secondary Motives
- 3.3 The Content Theories of Work Motivation
- 3.4 Process Theory of Work Motivation

Unit 4
Group Behaviour in Organisation (13 hrs.)

- 4.1 Nature of Work Groups
- 4.2 Group Cohesiveness
- 4.3 Group Performance and Group Norms
- 4.4 Formal Groups and Informal Groups in Organization

Unit 5
Leadership in Organisation (13 hrs.)

- 5.1 Nature of Leadership
- 5.2 Leadership Behaviour
- 5.3 Leadership Skills
- 5.4 Leadership Style –
 - 5.4.1 Theory X
 - 5.4.2 Theory Y
- 5.5 Situational Leadership Style
- 5.6 Contingency Theories-Fiedler's Model
- 5.7 Hersey Bernard's Situational Model

BOOKS FOR STUDY

Davis, Keith, John Newstorm. *Human Behaviour at Work: Organizational Behaviour*. New York: McGraw Hill Book-Irwin: 11th Edition, 2002.

Luthans, Fred. *Organizational Behaviour*. McGraw Hill-Irwin: International Editions, 2010.

Nelson L. Debra, James Campbell Quick. *Organizational Behaviour*. New Delhi: Thomson South Western Publishers, 2008.

Mamta, Pandey, Yogendra Singh. *Organizational Behaviour*. New Delhi: A.I.T.B.S Publishers, 2004.

BOOKS FOR REFERENCE

French, Ray. *Organizational Behavior*. John Wiley and Sons, Illustrated Edition, 2011

Mullins, J. Laurie. *Management and Organizational Behaviour*. Pearson Higher Education, 10th

Edition, 2013

Northouse G.Peter. *Leadership: Theory and Practice*. Sage Publications Inc, 6th Edition, 2012

JOURNAL

Journal of Organisational Behaviour- Online ISSN: 1099-1379

WEB RESOURCES

Application of Fiedler's Leadership Model through a Self-Test:

<http://www.practical-management.com/Analytics/Fiedler-LPC.html>

On Increasing Results through Team Work:

https://www.youtube.com/watch?v=72_YKsKbYQs

Six Keys to leading Positive Change: Rosabeth Moss Kanter, Harvard Business School:

<https://www.youtube.com/watch?v=owU5aTNPJbs>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 2 = 6 marks (All three questions to be answered in 50 words each)

Section B – 3 x 8 = 24 marks (3 out of 5 questions to be answered in 250 words each)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words each)

Third Components:

Organizational Visit

Report Submission

Presentation

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 marks (All 10 questions to be answered in 50 words each)

Section B – 5 x 8 = 40 marks (5 out of 8 questions to be answered in 250 words each)

Section C – 2 x 20 = 40 marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.A. DEGREE: BRANCH III – SOCIOLOGY

SYLLABUS

(Effective from the academic year 2015 - 2016)

LOGIC AND SCIENTIFIC METHODS

CODE: 15SC/ME/LS55

CREDIT: 5

LTP: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To help students understand the rationale and empirical basis of scientific methods
- To enable them to apply these concepts in the social science

Unit 1

Introduction

(12 hrs.)

- 1.1 The Subject Matter of Logic
- 1.2 Terms and Distribution of Terms
- 1.3 Logical Form of Sentences
- 1.4 Principle of Division and Definition
- 1.5 Fallacies of Language and Arguments

Unit 2

Propositions

(13 hrs.)

- 2.1 Traditional and Modern Classification of Logic
- 2.2 Immediate Inference:
 - 2.2.1 Opposition of Proposition
 - 2.2.2 Educutions
- 2.3 Rules and Fallacies of Categorical Syllogism: Figures and Moods-Validity
- 2.4 Mixed syllogism:
 - 2.4.1 Hypothetical
 - 2.4.2 Disjunctive
- 2.5 Dilemma: Types

Unit 3

Symbolic Logic and Logic Gates

(15 hrs.)

- 3.1 Symbolic Logic and Logical Basis of Automatic Computation
- 3.2 Value of Special Symbols
- 3.3 Truth Tables for Conjunction, Alternation and Implication
- 3.4 Statement, Statement Forms, Argument, Argument Forms
- 3.5 Truth Tables for Determining Validity /Invalidity of Arguments
- 3.6 Logical Basis of Automatic Computation
 - 3.6.1 (Prerequisite) The Definition of AND, OR, NOT NAND, NOR, XOR & XNOR Operations
 - 3.6.2 Formulation of Truth Tables and their Use

Unit 4
Inductive Reasoning (13 hrs.)

- 4.1 The Methods of Scientific Enquiry: Mill's Methods:-
 - 4.1.1 The Experimental Method
 - 4.1.2 The Method of Agreement
 - 4.1.3 The Method of Difference
 - 4.1.4 The Joint Method of Agreement and Difference
 - 4.1.5 The Method of Concomitant Variation
 - 4.1.6 The Method of Residues

Unit 5
Tests of Reasoning (12 hrs.)

- 5.1 Analogy Test
- 5.2 Series Test
- 5.3 Same Class and Other Class Tests
- 5.4 Visual Test
- 5.5 Relationship Test
- 5.6 Coding and Decoding Test
- 5.7 Synonym Test and Antonym Test
- 5.8 Direction Test
- 5.9 Sentence Formation Test
- 5.10 Time Sequence Test
- 5.11 Blood Relationship Test
- 5.12 Word Building Test
- 5.13 Natural Sequence Test

BOOKS FOR STUDY

Copi, Irving. *An Introduction to Logic Chapters*. London: Macmillan & Collier Pub, 1972.

Nandan M.R., *Text Book of Logic*, New Delhi: S. Chand & Co., 1981.

Sharma, J.K., *Logic*. New Delhi: S. Chand & Co., 1981.

BOOKS FOR REFERENCE

Balasubramanian.P. *Symbolic Logic and its Decision Procedure*. Madras: Madras University, 1986.

Rajaraman, V., *Computer Primer*. New Delhi: Prentice Hall, 1986.

Wolf A., *Text Book of Logic*. Bombay: Surjeet, 1976.

WEB RESOURCES

<http://www.friesian.com/aristotl.htm>

<http://www.iep.utm.edu/fallacy/#H6>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $3 \times 2 = 6$ marks (All three questions to be answered in 50 words each)

Section B – $3 \times 8 = 24$ marks (3 out of 5 questions to be answered in 250 words each)

Section C – $1 \times 20 = 20$ marks (1 out of 2 questions to be answered in 1200 words each)

Third Component:

Quiz

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ marks (All 10 questions to be answered in 50 words each)

Section B – $5 \times 8 = 40$ marks (5 out of 8 questions to be answered in 250 words each)

Section C – $2 \times 20 = 40$ marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
General Elective Course Offered by Department of Sociology for
B.A. / B.Sc. / B.Com / B.V.A. /B.C.A.Degree Programmes

SYLLABUS

(Effective from Academic year 2015-2016)

SOCIOLOGY OF SPORTS

CODE: 15SC/GE/SS22

CREDITS: 2

LTP: 2 0 0

TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE

- To enable students to understand the relationship between sports and society
- To examine the socio-cultural dimension of sports

Unit 1

Introduction of Sports Sociology

(8hrs.)

- 1.1 Meaning and Historical Origin of Sports
- 1.2 Definition and Scope of Sports Sociology
- 1.3 Meaning of Games
- 1.4 Cultural Values and Sports

Unit 2

Social Institutions and Spirit of Sportsmanship

(10 hrs.)

- 2.1 Family
- 2.2 Education
- 2.3 Media
- 2.4 Politics
- 2.5 Religion
- 2.6 Economy

Unit 3

Deviance and Violence in Sports

(8hrs.)

- 3.1 Concept of Violence in Sports
- 3.2 Violent Behaviour in Sports
- 3.3 Causes of Violence

BOOKS FOR STUDY

Delaney Tim and Madigan Tim. *The Sociology of Sports: An Introduction*, McFarland and Company, 2008.

Frey James.H., *Sociology of Sport*, Boston, Cengage Learning, 2008.

Majumdar Boria and Mangan J.A., *Sport in South Asian Society Past and Present*: London, Routledge, 2005

BOOKS FOR REFERENCE

- Albonico, R. and PfisterBinz, K., *Sociology of Sport: Theoretical Foundations and Research Methods*, Basle: Magglinger Symposium, 1972.
- Beedie Paul and Craig Peter (ed).*Sport Sociology*, UK: Learning Matters Ltd, 2010.
- Coackley Jay.*Sports in Society: Issue & controversies*, New York: McGraw Hill, 2007.
- Dunning, E. (ed.) *The Sociology of Sport: A Selection of Readings*, London: Cass. 1971.
- Goodger, J. M. and Goodger, B. C., 'Excitement and Representation: Toward a Sociological Explanation of the Significance of Sport in Modern Society', *Quest* 41(3): 257–72, 1989.
- Jain Rachna*Sports Sociology*, New Delhi:KehlSahitya Kendra, 2002.
- Jackson Steven.J and Hallinan Chris *Social and Cultural Diversity in a Sporting World (Research in the Sociology of Sport)*, London: JAI Press Inc, 2008.
- Malcolm Dominic, *Sport and Sociology*, New York: Routledge, 2012.
- Srinivasasraju. B.J., *Sports Sociology*, New Delhi: Sports Publication, 2011.
- Woods Ron, *Social Issues in Sport* (2nd edition), USA: Human Kinetics, 2011.

WEB RESOURCES

fitnessforlife.org

humankinetics.com

<http://www.nasss.org/journal/>

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment -25 Marks.

Third Components-25 Marks

A case study on sports personality analysing the following factors:

Sports as an integral part of personal lives

Sports influence on perception of one's body, gender and class

Sports as a change agent.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
General Elective Course Offered by Department of Sociology for
B.A. / B.Sc. / B.Com / B.V.A. / B.S.W. Degree Programmes

SYLLABUS

(Effective from Academic year 2015-2016)

ORGANISATIONAL DEVELOPMENT AND CHANGE

CODE: 15SC/GE/OD22

CREDITS: 2

LTP: 2 0 0

TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE

- To familiarise students with an awareness of the principles of Organisational Development
- To acquaint students with the Developmental and Change processes in an Organisation

Unit 1

Introduction & Nature of Organisational Development(10 hrs.)

- 1.1 Definition of Organisational Development
- 1.2 Organisation as a System and its Links with Society
- 1.3A Brief Description on Operational Components of an Organisation

Unit 2

Organisational Change

(10 hrs.)

- 2.1 Meaning of Change
- 2.2 Kinds of Change
- 2.3 Change Process
- 2.4 Interpersonal interventions and Group Interventions
- 2.5 Sensitivity Training Laboratories
- 2.6 Life and Career - Planning Interventions

Unit 3

Organisational Development and People

(6 hrs.)

- 3.1 Issues and Problems in Organisational Development like Power and Politics
- 3.2 Strengths of Organisational Development

BOOKS FOR REFERENCE

Davis, Keith, John Newstorm. *Human Behaviour at Work: Organizational Behaviour*.
New York: McGraw Hill Book-Irwin, 2002.

Donald L. Anderson. *Organizational Development: The Process of Leading Organizational Change*. Sage, 2013.

French, Ray. *Organizational Behavior*. John Wiley, Illustrated Edition, 2011.

French. L. Wendell, Zawacki. A. Robert, Bell. H. Cecil. *Organization Development and Transformation: Managing Effective Change*, Mc-Graw Hill-Irwin, 1994.

Mullins. J. Laurie. *Management and Organizational Behaviour*. Pearson, 2013

Nelson L. Debra, James Campbell Quick. *Organizational Behaviour*. New Delhi: Thomson South Western, 2008.

Wendell L. French. *Organizational Development: Behavioural Science Interventions for Organizational Improvement*. Prentice Hall, 1998

WEB RESOURCES

Social Intelligence and Leadership: An Interview with Daniel Goleman, Psychologist
<https://www.youtube.com/watch?v=7Qv0o1oh9f4&list=PL1E41DF92429A2381>

Teamwork and Collaboration: An Interview with John. T. Chambers, CEO & Chairman, CISCO Systems
<https://www.youtube.com/watch?v=7Qv0o1oh9f4&list=PL1E41DF92429A2381>

PATTERN OF EVALUATION

Continuous Assessment -25 Marks.

No End Semester Examination

Third Component-25 Marks.

Case studies
Presentations
Assignment

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SYLLABUS

(Effective from Academic year 2015-2016)

SOCIOLOGY OF POPULAR CULTURE

CODE: 15SC/GE/SP23

CREDIT: 3

LTP: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE:

- To enable students to understand the concept of popular culture
- To understand how diverse culture forms emerge from popular culture

Unit 1

Popular Culture-Introduction

(6 hrs.)

- 1.1 Definition of Popular Culture
- 1.2 The Origin of Popular Culture
- 1.3 Emergence in Modern Mass Societies
- 1.4 Stereotypes and Social Norms
- 1.5 Cultural Construction of Race, Ethnicity and Gender

Unit 2

Popular Culture-Dimensions

(5 hrs.)

- 2.1 Taste Culture
- 2.2 Commercial Culture
- 2.3 Celebrity Culture
- 2.4 Youth Culture
- 2.5 Rock n' Roll Sub Culture

Unit 3

Popular Culture-Public Spaces and Conformity

(9 hrs.)

- 3.1 Sexualization of Pop Culture
- 3.2 Hip-Hop Culture and Music
- 3.3 Video Games and Internet Popular Culture

Unit 4

Popular Culture-Approaches

(9 hrs.)

- 4.1 Cultural Consumption and Social Class
- 4.2 Understanding the Audience Segmentation
- 4.3 Understanding the Convergence Culture in Digital Age

Unit 5

Critical Analysis of Popular Culture-Music (10 hrs.)

- 5.1 Indian Pop Music
- 5.2 Korean Pop Music
- 5.3 American Pop Music
- 5.4 Afro-American Pop Music
- 5.5 Analysis of any one Element of Popular Culture

BOOKS FOR STUDY

Bryman, J. Robert. *Sociology: Pop Culture to Social Structure*. USA: Cengage Learning, 2013.

Gans, J. Herbert. *Popular Culture & High Culture: An Analysis and Evaluation of Taste*. Basic Books, 2012.

Sternheimer, Karen. *Connecting Social Problems and Popular Culture: Why Media is Not the Answer*. Colorado: Westview Press, 2013.

BOOKS FOR REFERENCES

Cashmore, Ellis, *Celebrity Culture (Key Ideas)* London: Routledge, 2014.

Kidd, Dustin, *Pop Culture Freaks: Identity, Mass Media and Society*, Colorado: West View, 2014.

Ousborne Jeff, *Reading Pop Culture: A Portable Anthology*. Bedford St. Martin's, 2014

Smith, D. Allison et al, *Pop Culture Zone: Writing Critically about Pop Culture*. Cengage Learning. 2008

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 3 x 2 = 6 marks (All three questions to be answered in 50 words each)

Section B – 3 x 8 = 24 marks (3 out of 5 questions to be answered in 250 words each)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words each)

Third Component- 50 Marks

Case Studies

Assignment

Presentation

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

**General Elective Course Offered by Department of Sociology for
B.A. / B.Sc. / B.Com / B.V.A. / B.S.W. Degree Programmes**

SYLLABUS

(Effective from the academic year 2015-2016)

GENDER STUDIES

CODE: 15SC/GE/GS23

CREDITS: 3

L T P: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To help students understand the basics of gender relations
- To help students understand how gender operates in society

Unit 1

Introduction

(7 hrs.)

- 1.1 Meaning of Gender
- 1.2 Difference between Sex and Gender
- 1.3 Gender Typing
- 1.4 Agencies of Socialisation

Unit 2

Theories of Gender Socialisation

(7 hrs.)

- 2.1 Cognitive Development Theory
- 2.2 Gender Schema Theory
- 2.3 Social Learning theory

Unit 3

Gender-related Social Movements

(9 hrs.)

- 3.1 Role of Women in the Freedom Struggle
- 3.2 Contemporary Issues in the Women's Movement
- 3.3 The Men's Movement
- 3.4 The Movement for Transgender Rights

Unit 4

Issues Concerning Women

(9 hrs.)

- 4.1 Various Forms of Discrimination Against Women
- 4.2 Domestic Violence and Dowry Deaths

4.3 Sexual Harassment at the Workplace

4.4 Rape and its Social Construction

Unit 5

Issues Relating to Transgenders

(7 hrs.)

5.1 Transgenders- Concept

5.2 Problems Faced by Transgenders in India

5.3 Legal Provisions for Transgenders

5.4 Representation of Transgenders in the Media

BOOKS FOR STUDY

John Mary L., *Women's studies in India: A Reader*. New Delhi: Penguin, 2008.

Lindsey Linda. *Gender Roles: A Sociological Perspective*. New Jersey: Prentice Hall, 1994.

BOOKS FOR REFERENCE

Ahuja Ram. *Social Problems in India*. Jaipur: Rawat, 2011.

Chafetz Jane. , *Handbook of the Sociology of Gender*. New York: Springer, 1999.

Crompton R and M. Mann. (ed). *Gender And Stratification*. Cambridge: Polity Press, 1986.

Forbes Geraldine. *Women in Modern India (The New Cambridge History of India)*. Cambridge: Cambridge University Press, 1999.

Jackson S and S. Scott (ed). *Gender: A Sociological Reader*. London: Routledge, 2002.

WEB RSOURCES

The Indian Women's movement

<http://siteresources.worldbank.org/INTGENDER/Resources/wp9.pdf>

Transgender issues

<http://socialjustice.nic.in/pdf/introduction.pdf>

Supreme Court document on transgenders

<http://www.supremecourtofindia.nic.in/outtoday/wc40012.pdf>

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 3 x 2 = 6 marks (All three questions to be answered in 50 words each)

Section B – 3 x 8 = 24 marks (3 out of 5 questions to be answered in 250 words each)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words each)

Third Component-50 Marks

A small scale study on the process of socialisation and social construction of gender.

Presentation

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SYLLABUS

(Effective from the academic year 2015-2016)

SOCIETY AND MEDIA

CODE: 15SC/GE/SM23

CREDITS: 3

L T P: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To enable students critically analyse media content
- To investigate issues of representation in the media

Unit 1

Introduction

(9 hrs.)

- 1.1 Media – Concept and Types
- 1.2 Functions of Mass Media
- 1.3 Effects of Mass Media on Individual and Society
- 1.4 Active Vs. Passive Audience
- 1.5 The Uses-Effects Theory
- 1.6 Citizen Journalism

Unit 2

Media and Consumption

(8 hrs.)

- 2.1 The Power of Advertising – Taste Cultures and Niche Markets
- 2.2 Advertising and Popular Culture – Fashions, Fads
- 2.3 Subcultures and the Media
- 2.4 The Uses-Gratification Approach
- 2.5 Celebrity Industry – Personality as brand, Hero Worship

Unit 3

Media and Mobilisation

(7 hrs.)

- 3.1 Role of Media during the Freedom Struggle
- 3.2 Online Forms of Protest – the Arab Spring
- 3.3 Media and Political Climate-Freedom of the Press
- 3.4 Media Activism

Unit 4

Alternative Media

(8 hrs.)

- 4.1 Various Forms of Alternative Media
- 4.2 Village Puppetry
- 4.3 Street Theatre
- 4.4 Little Magazines
- 4.5 Flash Mobs

Unit 5

Issues of Representation

(7 hrs.)

- 5.1 Changing Representation of Women in the Media
- 5.2 Alternative Sexualities in the Media
- 5.3 Practical Component- Film Review

BOOKS FOR STUDY

Grossberg, Lawrence et al. *Media Making: Mass Media in popular culture*. New Delhi: Sage, 1998.

Mc Quail, Dennis and Windhal. *Communication Models for the study of Mass communication*. Longman, 1993.

BOOKS FOR REFERENCE

Berger, Arthur Asa. *Ads, fads and consumer culture – Advertising’s Impact on American Character and Society*. Lanham: Rowman and Littlefield, 2000.

Dines, Gail and Jean M Humez (ed). *Gender, Race and Class in Media: A text-Reader*. California: Sage, 2003.

Potter, James W., *Media Literacy*. New Delhi: Sage, 1998.

Ross, Karen, (ed). *The Handbook of Gender, Sex and Media*. Sussex: Wiley Blackwell, 2012.

Turner, Graeme, *Understanding Celebrity*. UK: Sage, 2013.

Article - Biocca, Frank, *Opposing conceptions of the audience: The Active and Passive Hemispheres of Mass Communication Theory*, 1988

WEB RESOURCES

Street theatre

<http://www.bbc.co.uk/mediaaction/where-we-work/asia/india/sdp-community-mobilisation>

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 3 x 2 = 6 marks (All three questions to be answered in 50 words each)

Section B – 3 x 8 = 24 marks (3 out of 5 questions to be answered in 250 words each)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words each)

Third Component - 50 marks

A Film Review that will test the skills of students in analysing and critiquing media content

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General Elective Course Offered by Department of Sociology for
B.A. / B.Sc. / B.Com / B.V.A. / B.S.W. Degree Programmes

SYLLABUS

(Effective from the academic year 2015-2016)

SOCIETY AND LAW

CODE: 15SC/GE/SL23

CREDITS: 3

LTP: 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE:

- To help students gain knowledge of the Indian Legal System
- To enable students to understand contemporary legal issues of relevance

Unit 1

Legal Literacy(4 hrs.)

- 1.1 Customs Law and Legal Literacy- A Tool for Social Justice
- 1.2 Legal Services in India

Unit 2

An Introduction to Indian Legal System

(10 hrs.)

- 2.1 Fundamental Rights
- 2.2 Writs and its Types
- 2.3 The Indian Penal Code
- 2.4 The Code of Criminal Procedure, 1973
- 2.5 The Code of Civil Procedure, 1908

Unit 3

Indian Marriage Laws

(9 hrs.)

- 3.1 Hindu Marriage Act, 1955
- 3.2 Special Marriage Act 1954
- 3.3 Indian Christian Marriage Act 1872
- 3.4 Indian Muslim Marriage Personal laws

Unit 4

Women, Children and Law (10 hrs.)

- 4.1 Dowry Prohibition Act, 1961
- 4.2 Domestic Violence Act 2006
- 4.3 The Protection against Sexual Harassment of Women Act 2013
- 4.4 Protection of Children from Sexual Offences Act 2012
- 4.5 Juvenile Justice Act 2000 (Care and Protection of Children's Act)

Unit 5

Legal Procedures and Case Laws (6 hrs.)

5.2 Public Interest Litigation- Procedure

5.3 Right to Information Act 2005-Procedure

5.4 Case Laws

5.1 FIR- The requisites and Process

BOOKS FOR STUDY

Gangrade, K.D. *Social Legislation in India. Volumes 1 & 2*, New Delhi: Concept, 1978

Jain M.A. *Indian Constitutional Law (with Constitutional Documents) (in 2 Vols.)*. New Delhi: Jain, 2013.

Ratanlal, Dhirajlal. *Indian Penal Code*. Lexis Nexis Publishers, 2012

Ratanlal, Dhirajlal. *Code of Criminal Procedure*. Lexis Nexis Publishers, 2012

Ratanlal, Dhirajlal. *The Law of Evidence*. Lexis Nexis India, 2013

Seervai H.M. *Doyen of Indian Constitutional Law*. Universal law publishers, New Delhi, 2012.

BOOKS FOR REFERENCE

Gaur, K.D., *Criminal Law: Cases and Materials*. Lexis Nexis, 2013

Pillai, P.S.A., *Criminal Law*. Lexis Nexis Butterworths Wadhwa Nagpur, 2010

WEB RESOURCES

www.legalservicesindia.com/SupremeCourtJudgements

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 2 = 6 marks (All three questions to be answered in 50 words each)

Section B – 3 x 8 = 24 marks (3 out of 5 questions to be answered in 250 words each)

Section C – 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words each)

Third Component: 50 marks

Analysis of legal cases and presentations

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.A. DEGREE : BRANCH III – SOCIOLOGY

SYLLABUS

(Effective from the academic year 2015 - 2016)

CORPORATE SOCIAL RESPONSIBILITY

CODE: 15SC/UI/CS23

CREDITS: 3

OBJECTIVES OF THE COURSE

- To enable students to understand the contemporary sustainable development model adopted by corporate organisations
- To help the students understand the nature of Corporate Governance

Unit 1

Introduction

- 1.1 Concept of Corporate Social Responsibility- Meaning, Nature
- 1.2 Operationalising CSR for Sustainable Development
- 1.3 History of Corporate Social Responsibility
- 1.4 Global Scenario
- 1.5 Social Auditing

Unit 2

Compliance checklist for Corporate Social Responsibility

- 2.1 Management
- 2.2 Market & Work place
- 2.3 Regulatory Framework
- 2.4 Welfare, Safety & Social Initiatives
- 2.5 Community Initiatives
- 2.6 Workplace Initiatives
- 2.7 Environmental Initiatives
- 2.8 Market Initiatives

Unit 3

Emerging Areas and Trends in Corporate Social Responsibility

- 3.1 Business
- 3.2 Social
- 3.3 Environmental

Unit 4

CSR in India

- 4.1 CSR in India
- 4.2 Government Initiatives for promoting CSR in India
- 4.3 CSR Initiatives of Association of Corporates

Unit 5

Case Studies

5.1 Infosys

5.2 Satyam Computer Service Limited

5.3 TATA

5.4 Polaris

5.5 L&T

BOOKS FOR REFERENCE

Mallin, Chris A. *Corporate Social Responsibility: A case study approach*, Massachusetts: Edward Elgar Publishing Ltd., 2009.

May, S., George Cheney, Juliet Roper (Ed.). *The debate over corporate social responsibility*. New Delhi: Oxford University Press, 2007.

Panda, S. K., *Corporate Social Responsibility in India Past Present and Future*, The ICFAI University Press, 2008.

Agarwal, S K., *Corporate Social Responsibility in India*. New Delhi: Response Books, 2008.

Mathur, U.C. , *Corporate Governance & Business Ethics*, Chennai: Macmillan, 2005.

Baxi, C. V *Corporate Governance*, CA: Excel books 2007.

Weston, Fred, J., *Takeovers. Restructuring & Corporate Governance*, New Delhi: Pearson Education, 2007.

Singh, S *Corporate Governance*, New York: Excel books, 2005.

Donald, H., *Corporate Governance at the cross roads*, TMH, 2007.

Prasad, K., *Corporate Governance*. New Delhi: PHI, 2006.

Mallin, Christine .A. *Handbook of International Corporate Governance* , Massachusetts: Edward Elgar, 2011.

WEB RESOURCES

CSR - What is corporate social responsibility?

<https://www.youtube.com/watch?v=yzvy5IggTvw>

IBM: CSR

<https://www.youtube.com/watch?v=PdkYieDuVvY>

CSR Video - Business Benefits of Corporate Social Responsibility

<http://beta.tutor2u.net/business/blog/csr-video-business-benefits-of-corporate-social-responsibility>

PATTERN OF EVALUATION

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ marks (All 10 questions to be answered in 50 words each)

Section B – $5 \times 8 = 40$ marks (5 out of 8 questions to be answered in 250 words each)

Section C – $2 \times 20 = 40$ marks (2 out of 4 questions to be answered in 1200 words)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.A. DEGREE: BRANCH III – SOCIOLOGY

SYLLABUS
(Effective from the academic year 2015 - 2016)

SOCIAL NETWORKING

CODE: 15SC/UI/SN23

CREDITS: 3

OBJECTIVES OF THE COURSE

- To introduce the students to the concept of social networking and its development
- To help students understand its impact on contemporary society

Unit 1

Meaning of Social Networking

- 1.1 Perspectives on community - Tonnies, Wellman, Berman, and Oldenberg
- 1.2 Concept of Social Networking
- 1.3 History of Social Network Analysis
- 1.4 Mark Granovetter's concept of 'Strength of weak ties'

Unit 2

Social Capital

- 2.1 Concept of Social Capital – Putnam, Coleman, Portes
- 2.2 Social Networking and Social Relationships – Social Networking and Interpersonal Communication
- 2.3 Networks of Reciprocity; Putnam's Norms of trust

Unit 3

Social Networking and Cyberspace

- 3.1 Roots and visions of social cyberspace – Social Cyberspace in the past
- 3.2 Origin and development of social media as a lens for viewing the evolution of the institutional, social, and technological aspects of today's cyberfied world
- 3.3 Manuel Castell's Network Society

Unit 4

Imagining community and discussing it virtually

- 4.1 Network society - Online social networks - Community-centered online media (and offline life) and Networked individualism
- 4.2 Virtual Community and Real Life -Ways online social activities change our lives
- 4.3 Relationships, Communities - Control over our communication practices, design of technologies, values

Unit 5

Collective action and Public opinion – Social Networking Perspective

- 5.1 Power of social cyberspaces to organize collective action in the physical world
- 5.2 Public opinion in internet era – Online discourses and the health of democracy

BOOKS FOR REFERENCE

Barabási, A. *Linked: The New Science of Networks*. Cambridge: Perseus Books Group.2002.

Berman, M. *All That is Solid Melts Into Air: The Experience of Modernity*. New York: Penguin, 1988.

Oldenburg, R. *The Great Good Place*.New York: Marlowe, 1991.

Ostrom, E. *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge: University Press, 1990, pp 1-28

Resnick P. *Beyond Bowling Together: Sociotechnical Capital. Human-Computer Interaction in the New Millenium*. edited by John Carroll. New Delhi: Dorling Kindersly,,2007.

JOURNALS:

Granovetter M., *The Strength of Weak Ties, A Network Theory Revisited, Sociological Theory*. 1983

Turner, F., *Where the counterculture met the new economy: the WELL and the origins of virtual community, Technology and Culture*. Volume 46, Number 3, July 2005, pp. 485-512 available online as PDF.

WEB RESOURCES

http://cyber.eserver.org/vr_comun.txt.

<http://www.fantrust.com/2007/10/trebor-scholzs-history-of-the-social-web/>

Rheingold H., *A Slice of Life in My Virtual Community*. 1992.-

http://www.cs.indiana.edu/docproject/bdgtti/bdgtti_18.html

Rheingold, H., *The Heart of The Well*. from *The Virtual Community*, available online, 1993.-<http://www.rheingold.com/vc/book/>

PATTERN OF EVALUATION

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 10 x 2 = 20 marks (All 10 questions to be answered in 50 words each)

Section B – 5 x 8 = 40 marks (5 out of 8 questions to be answered in 250 words each)

Section C – 2 x 20 = 40 marks (2 out of 4 questions to be answered in 1200 words)

STELLA MARIS COLLEGE, (Autonomous), CHENNAI-600 086

B.A./B.Sc./B.Com./B.C.A./B.S.W. DEGREE

SYLLABUS

(Effective from the academic year 2015-2016)

FOUNDATION COURSE – TAMIL

THARKKALA TAMIL

செய்யுள், இலக்கிய வரலாறு, சிறுகதை, படைப்பிலக்கியம்

CODE: 15TM/FC/TT13

CREDITS: 3

LTP: 310

TOTAL TEACHING HOURS:52

தாளின் நோக்கம்:

- தற்காலக் கவிதைகள் மூலம் மாணவர்களின் படைப்புத்திறனை வளர்த்தல்

அலகு 1 செய்யுள் (13 மணிநேரம்)

1.1. மகாகவி பாரதியார்

1.1.1 மனதில் உறுதி வேண்டும்

1.1.2 பெண்கள் விடுதலைக் கும்மி

1.2. பாவேந்தர் பாரதிதாசன்

1.2.1 தமிழ் இனிமை

1.2.2 இயற்கை – சிரித்த முல்லை, உதயசூரியன்

1.3. கவிஞர் வாலி - பாண்டவர் பூமி

1.3.1 பாஞ்சாலி சபதம்

1.4. கவியரசு நா. காமராசன் - சூரிய காந்தி

1.4.1 மாலை

1.4.2 காட்டாறு

(1.4.3) சூரியகாந்தி

1.5. கவிஞர் மு.மேத்தா - கண்ணீர்ப் பூக்கள்

1.5.1 தேசப்பிதாவுக்கு ஒரு தெருப்பாடகனின் அஞ்சலி

1.5.2 செருப்புடன் ஒரு பேட்டி

அலகு

2

(13 மணிநேரம்)

2.1. கவிஞர் சிற்பி – ஒரு கிராமத்து நதி

2.1.1 ஓடு, ஓடு சங்கிலி

2.1.2 பெல்ஜியம் கண்ணாடி

2.2. கவிஞர் வைரமுத்து – தண்ணீர் தேசம்

2.2.1 பாடல் 2 – (வரிகள் 218 – 287)

2.3. கவிஞர் தமிழ்ச்சி தங்கபாண்டியன் - எஞ்சோட்டுப்பெண்

2.3.1 எஞ்சோட்டுப்பெண்

2.4. பா.விஜய் - வானவில் பூங்கா

2.4.1 புன்னகை என்ன விலை?

2.4.2 நா

2.4.3 தவம்

2.5. கவிஞர் தாமரை – ஒரு கதவும் கொஞ்சம் கள்ளிபாலும்

2.5.1 தீர்ப்பு

2.5.2 ஒரு கதவும் கொஞ்சம் கள்ளிபாலும்

அலகு

3

இலக்கிய வரலாறு பாடம் தழுவியது.

(8 மணிநேரம்)

அலகு

4

(10 மணிநேரம்)

சிறுகதை

‘ஒற்றைச் சிறகு’ – 2012-ஆம் ஆண்டின் இலக்கியச் சிந்தனை விருது பெற்ற 12 சிறுகதைகள்

அலகு

5

5.1 படைப்பிலக்கியம் படைத்தல்

(8 மணிநேரம்)

5.1.1 புதுக்கவிதை படைத்தல்

5.1.2 ஒருபக்கக் கதைகள் படைத்தல்

பாடநூல்:

தற்காலத் தமிழ் - தமிழ்த் துறை வெளியீடு

பார்வை நூல்கள்:

அண்ணாமலை. அழ (பதி.), பாவேந்தர் பாரதிதாசன் கவிதைகள், அபிராமி பதிப்பகம், சென்னை, 2003.

இராமநாதன். விகரு (பதி.), மகாகவி பாரதியார் கவிதைகள், இந்து பதிப்பகம், சென்னை, 2007.

கவிஞர் வாலி, பாண்டவர் பூமி, வானதி பதிப்பகம், சென்னை, 2014.

கவியரசு நா.காமராசன், சூரிய காந்தி, குமரன் பதிப்பகம், சென்னை, 2005.

கவிஞர் சிற்பி, ஒரு கிராமத்து நதி, கவிதா பதிப்பகம், சென்னை, 2012.

கவிஞர் வைரமுத்து, தண்ணீர் தேசம், திருமகள் பதிப்பகம், சென்னை, 2014.

கவிஞர் தமிழ்ச்சி தங்கபாண்டியன், எஞ்சோட்டுப்பெண், மித்ர பதிப்பகம், சென்னை. 2004

கவிஞர் பா.விஜய், வானவில் பூங்கா, குமரன் பதிப்பகம், சென்னை, 2015.

கவிஞர் தாமரை, ஒரு கதவும் கொஞ்சம் கள்ளிப்பாலும், குமரன் பதிப்பகம், சென்னை, 2014.

மு.மேத்தா, கண்ணீர்ப் பூக்கள், கவிதா பதிப்பகம், சென்னை, 2014.

இதழ்கள்:

பாடம் தழுவிய சிற்றிதழ்கள் தரும் நெறிமுறைகள்

கவிதா மண்டலம்

இளந்தமிழன்

கவிதை உறவு

கவி ஒவியா

பருவத்தேர்வு வினா அமைப்பு முறை

மதிப்பெண்:100

நேரம்: 3 மணிநேரம்

பகுதி-அ

- 10x1=10 (அ) அனைத்துக் கேள்விகளுக்கும் விடை தருக
5x1=5 (ஆ) விடுபட்ட இடங்களை நிரப்புக
5x1=5 (இ) பொருத்துக

பகுதி-ஆ

- 4x3=12 (அ) இடம்சுட்டிப் பொருள் விளக்கம் தருக.
(எவையேனும் நான்கனுக்கு)
- 4x9=36 (ஆ) பின்வரும் வினாக்களுக்குச் செய்யுட்பகுதிகளிலிருந்து விடையளிக்க.
(எவையேனும் நான்கனுக்கு)
- 1x10=10 (இ) இலக்கிய வரலாறு-பாடம் தழுவியது

பகுதி-இ

- 1x12=12 (அ) சிறுகதைத் திறனாய்வு -“ஒற்றைச் சிறகு”
1x10=10 (ஆ) படைப்பிலக்கியம் படைத்தல்

தொடர்மதிப்பீட்டுத் தேர்வு வினா அமைப்பு முறை

மதிப்பெண்: 50

நேரம்: 90 நிமிடங்கள்

பகுதி-அ

- 10x1=10 (அ) அனைத்துக் கேள்விகளுக்கும் விடை தருக
5x1=5 (ஆ) விடுபட்ட இடங்களை நிரப்புக
5x1=5 (இ) பொருத்துக

பகுதி-ஆ

- 2x3=6 (அ) இடம்சுட்டிப் பொருள் விளக்கம் தருக.
(எவையேனும் இரண்டனுக்கு)
- 2x7=14 (ஆ) பின்வரும் வினாக்களுக்குச் செய்யுட்பகுதிகளிலிருந்து விடையளிக்க.
(எவையேனும் இரண்டனுக்கு)
- 1x10=10 (இ) இலக்கிய வரலாறு-பாடம் தழுவியது

துணைப்பாடத் தேர்வு வினா அமைப்பு முறை

மதிப்பெண்: 50

- (அ) சிறுகதைத் திறனாய்வு -“ஒற்றைச் சிறகு”
(ஆ) படைப்பிலக்கியம் படைத்தல்
(இ) இலக்கியப் பாடல்களைத் திரைப்படப் பாடல்களோடு ஒப்பிட்டு நோக்குதல்

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B.A./B.Sc./B.com./B.C.A./B.S.W. DEGREE

SYLLABUS

(Effective from the academic year 2015-2016)

FOUNDATION COURSE – TAMIL

ARRANERRI TAMIL

செய்யுள், இலக்கிய வரலாறு, நாவல், மொழிபெயர்ப்பு

CODE: 15TM/FC/AT23

CREDITS: 3

LTP: 310

TOTAL TEACHING HOURS:52

தாளின் நோக்கம்:

➤ அற இலக்கியங்களின் வழி நன்னெறிகளைக் கற்றுக் கொடுத்தல்

அலகு 1

(16 மணிநேரம்)

1.1. திருக்குறள்

1.1.1 கூடாநட்பு (அதிகாரம்-83)

1.1.2 மருந்து (அதிகாரம்-95)

1.1.3 பிரிவாற்றாமை (அதிகாரம்-116)

1.2. திரிகடுகம்

1.2.1 நன்மை அளிப்பவை - பாடல் 12

1.2.2 நிலைத்த புகழுடையவர் - பாடல் 30

1.2.3 தலைசிறந்தவை – பாடல் 31

1.2.4 உள்ளவை போல் கெடுபவை – பாடல் 59

1.2.5 வைரம் பாய்ந்த மரம்போல்வர் - பாடல் 75

1.2.6 பெய்யெனப் பெய்யும் மழை – பாடல் 96

1.3. சிறுபஞ்சமூலம்

- 1.3.1 'நாண் இலான்' – பாடல் 10
- 1.3.2 'வான்குரீஇக்' – பாடல் 25
- 1.3.3 'வருவாய்க்குத் தக்க' – பாடல் 41
- 1.3.4 'வார்சான்ற கூந்தல்' – பாடல் 44
- 1.3.5 'பொன்பெறும்' – பாடல் 54
- 1.3.6 'நல்ல வெளிப்படுத்து' – பாடல் 55

1.4. ஏலாதி

- 1.4.1 'இடர்தீர்த்தல்' – பாடல் 4
- 1.4.2 'துறந்தார்கண்' – பாடல் 16
- 1.4.3 'மைஏர் தடங்கண்' – பாடல் 28
- 1.4.4 'சாவது எளிது' – பாடல் 39
- 1.4.5 'மனை வாழ்க்கை' – பாடல் 73
- 1.4.6 'இடைவனப்பும்' – பாடல் 74

அலகு 2

(14 மணிநேரம்)

2.1. இன்னா நாற்பது

- 2.1.1 'சிறை இல்' – பாடல் 5
- 2.1.2 'ஆற்றல் இலாதான்' – பாடல் 7
- 2.1.3 'உரன் உடையான்' – பாடல் 18
- 2.1.4 'பெருமை உடையாரை' – பாடல் 27
- 2.1.5 'நறிய மலர்' – பாடல் 37

2.2. முதுமொழிக்காஞ்சி – 'சிறந்த பத்து'

2.3. நல்வழி

2.3.1 'ஈகையால் வரும் சாதி' - பாடல் 2

2.3.2 'இடும்பை கூர் வயிறு' - பாடல் 11

2.3.3 'வாழ்க்கைக்கு இன்றியமையாதவை' - பாடல் 24

2.3.4 'பசினோயின் கொடுமை' - பாடல் 26

2.3.5 'வறுமையால் வரும் இன்னல்' - பாடல் 34

2.4. உலகநீதி

2.4.1 'ஓதாமல் ஒருநாளும்' - பாடல் 1

2.4.2 'நெஞ்சாரப் பொய்தன்னை' - பாடல் 2

2.4.3 'மனம்போன' - பாடல் 3

2.4.4 'சேராத இடந்தனிலே' - பாடல் 8

அலகு 3

இலக்கிய வரலாறு பாடம் தழுவியது. (6 மணிநேரம்)

அலகு 4

நாவல் (11 மணிநேரம்)

'உயிரே ஓடிவா' - எழுத்தாளர் லட்சுமி

அலகு 5

மொழிபெயர்ப்பு (5 மணிநேரம்)

பாடநூல்:

அறநெறித் தமிழ் - தமிழ்த் துறை வெளியீடு

பார்வை நூல்கள்:

சுப்பிரமணியன் ச.வே. (பதி.), பதினென்கீழ்க்கணக்கு நூல்கள், மூலமும் தெளிவுரையும், மணிவாசகர் பதிப்பகம், சென்னை. 2012

பாலசுப்ரமணியன் சி., இலக்கிய வரலாறு, நறுமலர் பதிப்பகம், 1988.

இதழ்கள்:

பாடம் தழுவிய சிற்றிதழ்கள் தரும் நெறிமுறைகள்

நன்னெறி

நலவாழ்வு

பருவத்தேர்வு வினா அமைப்பு முறை

மதிப்பெண்:100

நேரம்: 3 மணிநேரம்

பகுதி-அ

- 10x1=10 (அ) அனைத்துக் கேள்விகளுக்கும் விடை தருக
5x1=5 (ஆ) விடுபட்ட இடங்களை நிரப்புக
5x1=5 (இ) பொருத்துக

பகுதி-ஆ

- 4x3=12 (அ) இடம்சுட்டிப் பொருள் விளக்கம் தருக.
(எவையேனும் நான்கனுக்கு)
4x9=36 (ஆ) பின்வரும் வினாக்களுக்குச் செய்யுட் பகுதிகளிலிருந்து
விடையளிக்க. (எவையேனும் நான்கனுக்கு)

- 1x10=10 (இ) இலக்கிய வரலாறு-பாடம் தழுவியது

பகுதி-இ

- 1x12=12 (அ) நாவல் திறனாய்வு - 'உயிரே ஓடிவா'
1x10=10 (ஆ) மொழிபெயர்ப்பு (ஆங்கிலத்திலிருந்து தமிழுக்கு
மொழிபெயர்த்தல்)

தொடர்மதிப்பீட்டுத் தேர்வு வினா அமைப்பு முறை

மதிப்பெண்:50

நேரம்: 90 நிமிடங்கள்

பகுதி-அ

- 10x1=10 (அ) அனைத்துக் கேள்விகளுக்கும் விடை தருக
5x1=5 (ஆ) விடுபட்ட இடங்களை நிரப்புக
5x1=5 (இ) பொருத்துக

பகுதி-ஆ

- 2x3=6 (அ) இடம்சுட்டிப் பொருள் விளக்கம் தருக.
(எவையேனும் இரண்டனுக்கு)

$2 \times 7 = 14$

(ஆ) பின்வரும் வினாக்களுக்குச் செய்யுட் பகுதிகளிலிருந்து விடையளிக்க. (எவையேனும் இரண்டனுக்கு)

$1 \times 10 = 10$

(இ) இலக்கிய வரலாறு-பாடம் தழுவியது

துணைப்பாடத் தேர்வு வினா அமைப்பு முறை

மதிப்பெண்:50

(அ) நாவல் திறனாய்வு - 'உயிரே ஓடிவா'

(ஆ) மொழிபெயர்ப்பு (ஆங்கிலத்திலிருந்து தமிழுக்கு மொழிபெயர்த்தல்)

STELLA MARIS COLLEGE, (Autonomous), CHENNAI-600 086

B.A./B.Sc./B.S.W./B.V.A. DEGREE

SYLLABUS

(Effective from the academic year 2015 – 2016)

FOUNDATION COURSE – TAMIL

KAPPIYA TAMIL

செய்யுள், இலக்கிய வரலாறு, உரைநடை, செய்யுள் நயம் பாராட்டல்

CODE: 15TM/FC/KT33

CREDITS: 3

LTP: 310

TOTAL TEACHING HOURS: 52

தாளின் நோக்கம்:

➤ காப்பிய இலக்கியங்களின் வழி பாத்திரங்களின் பண்பு உரைத்தல்

அலகு 1

(12 மணிநேரம்)

- 1.1. சிலப்பதிகாரம்-அடைக்கலகாதை (45-வது அடி முதல் 90 முடிய)
- 1.2. மணிமேகலை-சிறைக்கோட்டம் அறக்கோட்டமாக்கிய காதை (131-வது அடி முதல் 171 முடிய)
- 1.3. கம்பராமாயணம்-மந்தரை சூழ்ச்சிப் படலம் (68-வது பாடல் முதல் 88 முடிய)

அலகு 2

(14 மணிநேரம்)

- 2.1. பெரியபுராணம்-இளையான்குடி மாறநாயனார் (26 பாடல்கள்)
- 2.2. மானுடயாத்திரை-(45 பாடல்கள் - சிறு வெண்பா யாப்பில்)
 - 2.2.1 இயற்கை வணக்கம்
 - 2.2.2 வாழ்வொரு மாயம்
 - 2.2.3 இசை இறைவனின் மொழி
 - 2.2.4 அணையாதீபம் கல்வி
- 2.3. இயேசுகாவியம்
 - 2.3.1 இரசம் தீர்ந்து விட்டது (62 முதல் 65 முடிய)
 - 2.3.2 மலைப்பொழிவு (92 முதல் 97 முடிய)

அலகு 3

இலக்கிய வரலாறு பாடம் தழுவியது.

(6 மணிநேரம்)

அலகு 4

உரைநடை

(15மணிநேரம்)

“நேரம் நல்ல நேரம்”-லேனா தமிழ்வாணன்

அலகு 5

செய்யுள் நயம் பாராட்டல்

(5 மணிநேரம்)

பாடநூல்:

காப்பியத் தமிழ் - தமிழ்த் துறை வெளியீடு

பார்வை நூல்கள்:

பாலசுப்ரமணியன் சி., இலக்கிய வரலாறு, நறுமலர் பதிப்பகம், 1988.

மணிமேகலை, கழக வெளியீடு, சென்னை.

திரு.வி.க. உரை, பெரிய புராணம், சேக்கிழார் ஆராய்ச்சி மையம், சென்னை, 1993.

வேங்கடசாமி நாட்டார் ந.மு. உரை, சிலப்பதிகாரம், கழக வெளியீடு, சென்னை.

வை.மு.கோ. உரை., கம்பராமாயணம்

இதழ்கள்:

பாடம் தழுவிய சிற்றிதழ்கள் தரும் நெறிமுறைகள்

காவியமும் ஓவியமும்

கலைமகள்

அமுதசுரபி

நித்திலக்குவியல்

பருவத்தேர்வு வினா அமைப்பு முறை

மதிப்பெண்: 100

நேரம்: 3 மணிநேரம்

பகுதி-அ

$10 \times 1 = 10$

(அ) அனைத்துக் கேள்விகளுக்கும் விடை தருக

$5 \times 1 = 5$

(ஆ) விடுபட்ட இடங்களை நிரப்புக

$5 \times 1 = 5$

(இ) பொருத்துக

பகுதி-ஆ

$4 \times 3 = 12$

(அ) இடம்சுட்டிப் பொருள் விளக்கம் தருக.

(எவையேனும் நான்கனுக்கு)

$4 \times 9 = 36$

(ஆ) பின்வரும் வினாக்களுக்குச் செய்யுட்பகுதிகளிலிருந்து

விடையளிக்க. (எவையேனும் நான்கனுக்கு)

$1 \times 10 = 10$

(இ) இலக்கிய வரலாறு-பாடம் தழுவியது

பகுதி-இ

$1 \times 12 = 12$

(அ) உரைநடை-“நேரம் நல்ல நேரம்”-ஆய்வுக் கட்டுரை

$1 \times 10 = 10$

(ஆ) செய்யுள் நயம் பாராட்டல்

தொடர்மதிப்பீட்டுத் தேர்வு வினா அமைப்பு முறை

மதிப்பெண்: 50

நேரம்: 90 நிமிடங்கள்

பகுதி-அ

$10 \times 1 = 10$

(அ) அனைத்துக் கேள்விகளுக்கும் விடை தருக

$5 \times 1 = 5$

(ஆ) விடுபட்ட இடங்களை நிரப்புக

$5 \times 1 = 5$

(இ) பொருத்துக

பகுதி-ஆ

$2 \times 3 = 6$

(அ) இடம்சுட்டிப் பொருள் விளக்கம் தருக.

(எவையேனும் இரண்டனுக்கு)

$2 \times 7 = 14$

(ஆ) பின்வரும் வினாக்களுக்குச் செய்யுட்பகுதிகளிலிருந்து

விடையளிக்க. (எவையேனும் இரண்டனுக்கு)

$1 \times 10 = 10$

(இ) இலக்கிய வரலாறு-பாடம் தழுவியது

துணைப்பாடத் தேர்வு வினா அமைப்பு முறை

மதிப்பெண்: 50

- (அ) உரைநடை-“நேரம் நல்ல நேரம்”-ஆய்வுக் கட்டுரை
- (ஆ) செய்யுள் நயம் பாராட்டல்

STELLA MARIS COLLEGE, (Autonomous), CHENNAI-600 086

B.A./B.Sc./B.S.W. DEGREE

SYLLABUS

(Effective from the academic year 2015-2016)

FOUNDATION COURSE – TAMIL

SANGA TAMIL

செய்யுள், இலக்கிய வரலாறு, நாடகம், கடிதம்

CODE: 15TM/FC/ST43

CREDITS: 3

LTP: 310

TOTAL TEACHING HOURS:52

தாளின் நோக்கம்:

- சங்க இலக்கியங்களின் சிறப்பு – அகம், புறத்திணைகளின் நயம் அறியச் செய்தல்.

அலகு 1 செய்யுள்

(16 மணிநேரம்)

1.1. குறுந்தொகை (6 பாடல்கள்)

1.1.1 குறிஞ்சி - பாடல் 26

1.1.2 குறிஞ்சி - பாடல் 69

1.1.3 மருதம் - பாடல் 127

1.1.4 முல்லை - பாடல் 167

1.1.5 நெய்தல் - பாடல் 92

1.1.6 பாலை – பாடல் 130

1.2. கலித்தொகை

1.2.1 பாலைக்கலி - பாடல் 9

1.2.2 முல்லைக்கலி – பாடல் 102

1.3. அகநானூறு

1.3.1 பாலை – பாடல் 159

1.3.2 மருதம் - பாடல் 196

1.4. புறநானூறு

1.4.1 பாடல் - 67

1.4.2 பாடல் - 182

1.4.3 பாடல் - 191

1.4.4 பாடல் - 206

1.4.5 பாடல் - 278

அலகு 2

(16 மணிநேரம்)

2.1. சிறுபாணாற்றுப்படை

2.1.1 பாடல் அடி 83 முதல் 113 வரை

2.2. மதுரைக்காஞ்சி

2.2.1 பாடல் அடி 453 முதல் 493 வரை

2.3. நெடுநல்வாடை

2.3.1 பாடல் அடி 1 முதல் 12 வரை

2.3.2 பாடல் அடி 45 முதல் 72 வரை

2.4. குறிஞ்சிப்பாட்டு

2.4.1 பாடல் அடி 153 முதல் 183 வரை

அலகு 3

(5 மணிநேரம்)

இலக்கிய வரலாறு - பாடம் தழுவியது.

அலகு 4

(10 மணிநேரம்)

நாடகம் - பொம்மக்காவின் மூன்று பெண்கள்
முனைவர் காந்தி மேரி

அலகு 5

5.1 கடிதம் எழுதுதல்

(5 மணிநேரம்)

5.1.1 அலுவலகக் கடிதம் - விண்ணப்பக் கடிதம்

பாடநூல்:

சங்கத் தமிழ் - தமிழ்த் துறை வெளியீடு

பார்வை நூல்கள்:

அகநானூறு, மூலமும் உரையும், நியூசெஞ்சுரி புக் ஹவுஸ் வெளியீடு, சென்னை, 2011.

கலித்தொகை, மூலமும் உரையும், நியூசெஞ்சுரி புக் ஹவுஸ் வெளியீடு, சென்னை, 2011.

குறிஞ்சிப்பாட்டு, மூலமும் உரையும், நியூசெஞ்சுரி புக் ஹவுஸ் வெளியீடு, சென்னை, 2011.

குறுந்தொகை, மூலமும் உரையும், நியூசெஞ்சுரி புக் ஹவுஸ் வெளியீடு, சென்னை, 2011.

சங்க இலக்கிய வரலாறு, காவ்யா வெளியீடு, 2010.

சிறுபாணாற்றுப்படை, மூலமும் உரையும், நியூசெஞ்சுரி புக் ஹவுஸ் வெளியீடு, சென்னை, 2011.

நெடுநல்வாடை, மூலமும் உரையும், நியூசெஞ்சுரி புக் ஹவுஸ் வெளியீடு, சென்னை, 2011.

புறநானூறு, மூலமும் உரையும், நியூசெஞ்சுரி புக் ஹவுஸ் வெளியீடு, சென்னை, 2011.

மதுரைக்காஞ்சி, மூலமும் உரையும், நியூசெஞ்சுரி புக் ஹவுஸ் வெளியீடு, சென்னை, 2011.

இதழ்கள்

காலச்சுவடு

உயிர்மை

உங்கள் நூலகம்

மதிப்பெண்:100

பருவத்தேர்வு வினா அமைப்பு முறை

நேரம்: 3 மணிநேரம்

பகுதி-அ

$10 \times 1 = 10$

(அ) அனைத்துக் கேள்விகளுக்கும் விடை தருக

$5 \times 1 = 5$

(ஆ) விடுபட்ட இடங்களை நிரப்புக

$5 \times 1 = 5$

(இ) பொருத்துக

பகுதி-ஆ

$4 \times 3 = 12$

(அ) இடம்சுட்டிப் பொருள் விளக்கம் தருக.

(எவையேனும் நான்கனுக்கு)

$4 \times 9 = 36$

(ஆ) பின்வரும் வினாக்களுக்குச் செய்யுட் பகுதிகளிலிருந்து விடையளிக்க. (எவையேனும் நான்கனுக்கு)

$1 \times 10 = 10$

(இ) இலக்கிய வரலாறு-பாடம் தழுவியது

பகுதி-இ

$1 \times 12 = 12$

(அ) நாடகத் திறனாய்வு

$1 \times 10 = 10$

(ஆ) கடிதம்

தொடர்மதிப்பீட்டுத் தேர்வு வினா அமைப்பு முறை

மதிப்பெண்:50

நேரம்: 90 நிமிடங்கள்

பகுதி-அ

$10 \times 1 = 10$

(அ) அனைத்துக் கேள்விகளுக்கும் விடை தருக

$5 \times 1 = 5$

(ஆ) விடுபட்ட இடங்களை நிரப்புக

$5 \times 1 = 5$

(இ) பொருத்துக

பகுதி-ஆ

$2 \times 3 = 6$

(அ) இடம்சுட்டிப் பொருள் விளக்கம் தருக.

(எவையேனும் இரண்டனுக்கு)

$2 \times 7 = 14$

(ஆ) பின்வரும் வினாக்களுக்குச் செய்யுட் பகுதிகளிலிருந்து விடையளிக்க. (எவையேனும் இரண்டனுக்கு)

$1 \times 10 = 10$

(இ) இலக்கிய வரலாறு-பாடம் தழுவியது

துணைப்பாடத் தேர்வு வினா அமைப்பு முறை

மதிப்பெண்:50

- (அ) நாடகம் (கொடுக்கப்பட்ட தலைப்பில் நாடகத்தை
உருவாக்கி நடித்துக் காட்டுதல்)
(ஆ) கடிதம் (வேலைவாய்ப்பு தொடர்புடையது)

STELLA MARIS COLLEGE, (Autonomous), CHENNAI-600 086

General Elective Course offered by the Department of Tamil to

B.A./B.Sc./B.com./B.C.A./B.S.W. DEGREE

SYLLABUS

(Effective from the academic year 2015-2016)

MEDAI PECHCHU

CODE: 15TM/GE/MP23

CREDITS: 3

LTP: 300

TOTAL TEACHING HOURS:39

தாளின் நோக்கம்:

➤ பேசும் கலை வளர்த்தல்

அலகு 1 பேச்சுக்கலை (8 மணிநேரம்)

1.1 பேச்சுக்கலை – ஓர் அறிமுகம்

1.2 பேச்சு தயாரிக்கும் முறை

1.3 பேச்சு தொடங்கும் முறை

1.4 மேடைப்பேச்சும் விழிப்புணர்வும்

அலகு 2 நடைமுறையில் பேச்சுக்கலை (7 மணிநேரம்)

2.1 பேச்சுக்கலை – சிக்கல்கள்

2.2 பேச்சுக்கலை – வடிவங்கள்

2.3 பேச்சுக்கலை – மெய்ப்பாடுகள்

2.4 பேச்சுக்கலை – வளர்க்கும் மேடைகள்

அலகு 3 மேடைப் பேச்சாளர்கள் (7 மணிநேரம்)

3.1 உலகளாவிய மேடைப் பேச்சாளர்கள்

3.2 தமிழகத்தின் தலை சிறந்த பேச்சாளர்கள்

3.3 மேடைப்பேச்சும் புத்தக வாசிப்பும்

3.4 மேடைப்பேச்சும் சொல் வளமும்

அலகு 4 மேடைப் பேச்சுக் கலையில் ஊடகங்களின் பங்கு (7 மணிநேரம்)

4.1 வானொலி

4.2 தொலைக்காட்சி

4.3 செய்தித்தாள்

4.4 இதழ்கள், சிற்றிதழ்கள்

அலகு 5 பேச்சுக் கலைக்குப் பயிற்சி வழங்குதல் (10 மணிநேரம்)

5.1 இனிய குரல், தெளிவான உச்சரிப்பு

5.2 நடப்பியல் பேச்சு

5.3 தன்னம்பிக்கையுடன் பேசுதல்

5.4 பேச்சின் எடுப்பு, தொடுப்பு, முடிப்பு

பார்வை நூல்கள்

அறிஞர் அண்ணா, வாழ்வியல் கலை பேசும் கலை, அறிஞர் அண்ணா கலை இலக்கிய வெளியீடு, அண்ணா அறிவாலயம், சென்னை, 1962

உலகநாயகி பழனி, வாங்கள் பேச்சாளராகலாம், நியூ செஞ்சுரி புக் ஹவுஸ், சென்னை, 2006

ஞானசம்பந்தன்.கு, பேசும் கலை, நியூ செஞ்சுரி புக் ஹவுஸ், சென்னை, 2004

ரசிகமணி டி.கே.சி., நானும் மேடைப்பேச்சும், பாரி நிலையம், சென்னை, 1983

தொடர்மதிப்பீட்டுத் தேர்வு வினா அமைப்பு முறை

மதிப்பெண்: 50

மதிப்பெண்: 25 (அ) எழுத்துத் தேர்வு

மதிப்பெண்: 25 (ஆ) வாய்மொழித் தேர்வு

STELLA MARIS COLLEGE, (Autonomous), CHENNAI -86

General Elective Course Offered by Department of Tamil to

B.A/B.Sc/B.Com/B.C.A./B.V.A. Degree

SYLLABUS

(Effective from the academic year 2015-2016)

NATTUPPURA IYAL

CODE: 15TM/GE/NI43

CREDITS: 3

LTP : 300

TOTAL TEACHING HOURS : 39

தாளின் நோக்கம்

நாட்டுப்புறவியல் வழி பண்பாடு அறிதல்

அலகு 1 நாட்டுப்புறவியல், நாட்டுப்புற இலக்கியம் 8 மணிநேரம்

1.1 நாட்டுப்புறவியல்

1.2 நாட்டுப்புற இலக்கியம்

1.3 நாட்டுப்புறப் பாடல்கள்

1.4 (தாலாட்டு – தொழில் - காதல் - கேலி – விளையாட்டு – வழிபாடு – ஒப்பாரிப் பாடல்கள்)

அலகு 2 நாட்டுப்புற இலக்கியம் 7 மணிநேரம்

2.1. நாட்டுப்புறக் கதைகள்

2.2. நாட்டுப்புறக் கதைப்பாடல்கள்

2.3. பழமொழிகள்

2.4. விடுகதைகள்

அலகு 3 கைவினைத்திறன்கள் விழாக்கள் 7 மணிநேரம்

3.1. பாய் பின்னுதல், கூடை முடைதல், பொம்மைகள் செய்தல் போன்ற பலவற்றைக் கற்றுத்தரல்

3.2. தீபாவளி – கார்த்திகை தீபம் - பொங்கல் போன்ற பலவற்றைக் கூறுதல்

அலகு 4 ஆட்டங்கள் - கூத்துகள்

7 மணிநேரம்

- 4.1. ஆட்டங்கள் (காவடி, கரகம், ஓயில், மயில் போன்ற பல)
- 4.2. கூத்துகள் (தெருக்கூத்து பாவைக்கூத்து போன்ற பல)

அலகு 5 பழக்கவழக்கங்கள் - நம்பிக்கைகள்

10 மணிநேரம்

- 5.1. பழக்கம் - வழக்கம் - பழக்கவழக்கம்
- 5.2. நம்பிக்கைகள்
- 5.3. மூடநம்பிக்கைகள்
- 5.4. நாட்டுப்புற மருத்துவமுறைகள்

பார்வை நூல்கள்

ஆறு.அழகப்பன், நாட்டுப்புறப்பாடல்கள் திறனாய்வு, அண்ணாமலைப் பல்கலைக்கழக வெளியீடு, 1983, சிதம்பரம்.

சக்திவேல்.ச., நாட்டுப்புறவியல், மணிவாசகர் பதிப்பகம், 1983, சென்னை.

சண்முகசுந்தரம்.ச., நாட்டுப்புறவியல் சிந்தனைகள், மணிவாசகர் பதிப்பகம், 1981, சென்னை.

விஜயலட்சுமி இராமசாமி, தமிழக நாட்டுப்புறவியல், மாருதி பதிப்பகம், 2009, சென்னை.

தொடர்மதிப்பீட்டுத் தேர்வு வினா அமைப்பு முறை

மதிப்பெண்: 50

மதிப்பெண்: 25 (அ) எழுத்துத் தேர்வு

மதிப்பெண்: 25 (ஆ) திட்ட ஆய்வு அறிக்கை

STELLA MARIS COLLEGE, (Autonomous), CHENNAI -86

General Elective Course Offered by Department of Tamil to

B.A/B.Sc/B.Com/B.C.A./B.V.A. Degree

SYLLABUS

(Effective from the academic year 2015-2016)

SUTTRULA

CODE: 15TM/GE/SL23

CREDITS: 3

LTP : 300

TOTAL TEACHING HOURS : 39

தாளின் நோக்கம்

சுற்றுலாக் கல்வியின் வழி, வேலை வாய்ப்பு

அலகு 1 சுற்றுலா – ஓர் அறிமுகம்

8 மணிநேரம்

- 1.1. சுற்றுலா – வரையறை
- 1.2. சுற்றுலாக் கோட்பாடுகள்
- 1.3. சுற்றுலாவும் அதன் பரிமாணங்களும்
- 1.4. காலந்தோறும் சுற்றுலா

அலகு 2 சுற்றுலா – வளர்ச்சியும், வகைப்பாடும்

7 மணிநேரம்

- 2.1. சுற்றுலாத் தூண்டு காரணிகள்
- 2.2. சுற்றுலா வளர்ச்சிக்கான காரணங்கள்
- 2.3. சுற்றுலாவின் வகைகள்
- 2.4. சுற்றுலாவின் பிரிவுகள்

அலகு 3 - சுற்றுலா சார்ந்த நிறுவனங்கள்

7 மணிநேரம்

- 3.1. சுற்றுலாக் கழகங்கள்
- 3.2. சுற்றுலாப் பயணிகள் தங்குமிடங்கள்
- 3.3. பயண ஆவணங்கள் வழங்கும் சேவை மையங்கள்
- 3.4. பயண முகவர்கள்

அலகு 4 - சுற்றுலாத் தலங்களும் வழிகாட்டியின் தகுதிகளும் 7 மணிநேரம்

- 4.1. இந்தியாவில் சுற்றுலா
- 4.2. தமிழ்நாட்டில் சுற்றுலா
- 4.3. கலாச்சாரச் சுற்றுலா
- 4.4. சுற்றுலா வழிகாட்டியின் தகுதிகள்

அலகு 5 - சுற்றுலாவும் பிற துறைகளும் 10 மணிநேரம்

- 5.1. சுற்றுலாவும் சுற்றுச்சூழலும்
- 5.2. சுற்றுலாவும் பொருளாதாரமும்
- 5.3. சுற்றுலாவும் கல்வித்துறையும்
- 5.4 சுற்றுலாவும் கலாச்சாரமும்

பார்வை நூல்கள்

வெ.கிருட்டிணசாமி, சுற்றுலா வளர்ச்சி, மணிவாசகர் பதிப்பகம், 2001.

ஆர்.சாந்த குமாரி, சுற்றுலா, சாந்தா பப்ளிஷர்ஸ், சென்னை, 2002

அ.ராம்கோபால், இந்திய சுற்றுலா இடங்கள் , நர்மதா பதிப்பகம், சென்னை, 2007

தொடர்மதிப்பீட்டுத் தேர்வு வினா அமைப்பு முறை

மதிப்பெண்: 50

மதிப்பெண்: 25 (அ) எழுத்துத் தேர்வு

மதிப்பெண்: 25 (ஆ) திட்ட ஆய்வு அறிக்கை

STELLA MARIS COLLEGE, (Autonomous), CHENNAI -86

General Elective Course Offered by Department of Tamil to

B.A/B.Sc/B.Com/B.C.A./B.V.A. Degree

SYLLABUS

(Effective from the academic year 2015-2016)

PATAIPU ILLAKIYAM

CODE: 15TM/GE/PI43

CREDITS:3

LTP :300

TOTAL TEACHING HOURS :39

தாளின் நோக்கம்

➤ மாணவியரின் படைப்புத் திறனை வளர்த்தல்

அலகு 1 புதுக்கவிதை

8 மணிநேரம்

- 1.1. கவிதை – அறிமுகம்
- 1.2. கற்பனை
- 1.3. கருத்து
- 1.4. வடிவம்
- 1.5. உணர்ச்சி

அலகு 2 சிறுகதை

7 மணிநேரம்

- 2.1. சிறுகதை - இலக்கணம்
- 2.2. சிறுகதை – விளக்கம்
- 2.3. சிறுகதை வளர்ச்சி
- 2.4. சிறந்த சிறுகதைகள்

அலகு 3 குட்டிக்கதை (ஒரு பக்கக் கதை)

7 மணிநேரம்

- 3.1. குட்டிக்கதை – வரையறை
- 3.2. ஆசிரியர்கள் - சசி, விந்தன் குட்டிக்கதைகளைச் சான்று காட்டுதல்

அலகு 4 ஹைக்கூக் கவிதைகள்

7 மணிநேரம்

- 4.1. ஜப்பான் நாட்டில் தோன்றிய புது வடிவக் கவிதை
- 4.2. மூன்று வரிகளை உடைய கவிதைகள்
- 4.3. ஜப்பானியக் கவிதைகளைத் தமிழில் மொழி பெயர்த்த அப்துல் ரகுமான், தமிழ்நாட்டின் சி.மணி போன்றோர் கவிதைகளை எடுத்துக் கூறுதல்

- 5.1. புதுக்கவிதை எழுதப் பயிற்சி
- 5.2. சிறுகதை எழுதப் பயிற்சி
- 5.3. குட்டிக்கதை எழுதப் பயிற்சி
- 5.4. ஹைக்கூக் கவிதை எழுதப் பயிற்சி

பார்வை நூல்கள்

சாமி சிதம்பரனார், இலக்கியம் என்றால் என்ன? மணிவாசகர் பதிப்பகம், 2000.

சுப்பு ரெட்டியார், பாட்டுத்திறன்,ஸ்டார் பிரசுரம், 1998.

மேத்தா.மு. கண்ணீர்ப்பூக்கள், புதுக்கவிதை, திருமகள் நிலையம், 2003.

தொடர்மதிப்பீட்டுத் தேர்வு வினா அமைப்பு முறை

மதிப்பெண்: 50

மதிப்பெண்: 25 (அ) எழுத்துத் தேர்வு

மதிப்பெண்: 25 (ஆ) திட்ட ஆய்வு அறிக்கை

STELLA MARIS COLLEGE, (Autonomous), CHENNAI -86

General Elective Course Offered by Department of Tamil to

B.A/B.Sc/B.Com/B.C.A./B.V.A. Degree

SYLLABUS

(Effective from the academic year 2015-2016)

BASIC TAMIL - I

CODE: 15TM/GE/BT22

CREDITS:2

LTP :200

TOTAL TEACHING HOURS :26

தாளின் நோக்கம்

- பிறமொழி பேசுகின்ற தமிழறியாத மாணவர்களுக்குத் தமிழ் மொழியைப் பேச, எழுதக் கற்றுக் கொடுத்தல்

அலகு 1

8 மணிநேரம்

- 1.1. பேச்சுத் தமிழ், எழுத்துத் தமிழ் அறிதல்
- 1.2. அன்றாட வாழ்வில் பயன்படுத்தும் சொற்களை எளிய முறையில் அறிமுகம் செய்தல்

அலகு 2

10 மணிநேரம்

- 2.1. தமிழ் மொழியில் உயிர் எழுத்துக்கள் கற்றுக் கொடுத்தல்
- 2.2. மெய் எழுத்துக்கள் கற்றுக் கொடுத்தல்
- 2.3. உயிர் மெய் எழுத்துக்கள் கற்றுக் கொடுத்தல்

அலகு 3

8 மணிநேரம்

- 3.1. ஓரெழுத்துச் சொற்களைக் கற்றுக்கொடுத்தல்
- 3.2. ஈரெழுத்துச் சொற்களைக் கற்றுக் கொடுத்தல்

தொடர்மதிப்பீட்டுத் தேர்வு வினா அமைப்பு முறை

மதிப்பெண்: 50

மதிப்பெண்: 25 (அ) எழுத்துத் தேர்வு

மதிப்பெண்: 25 (ஆ) திட்ட ஆய்வு அறிக்கை

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General Elective Course Offered by Department of Tamil to

B.A/B.Sc/B.Com/B.C.A./B.V.A. Degree

SYLLABUS

(Effective from the academic year 2015-2016)

BASIC TAMIL - II

CODE: 15TM/GE/B32

CREDITS:2

LTP :200

TOTAL TEACHING HOURS :26

தாளின் நோக்கம்

- உரையாடல், எளிய சொற்களின் பொருளைக் கற்பித்தல். பொது இடங்களில் உரையாடல் கற்றுக்கொடுத்தல்.

அலகு 1

8 மணிநேரம்

- 1.1 உயிர்க் குறில், உயிர் நெடில் - எழுதக் கற்றுக்கொடுத்தல்
1.2 மெய், வல்லினம், இடையினம் - அறியச் செய்தல்

அலகு 2

10 மணிநேரம்

- 2.1. பயன்தரக்கூடிய பொதுவான உரையாடல் - எளிய வார்த்தைகளை எழுதச் செய்தல்
2.2. பேச்சு வழக்குச் சொற்களுக்கு நல்ல தமிழ்ச் சொற்களைக் கற்றுக் கொடுத்தல்

அலகு 3

8 மணிநேரம்

- 3.1. வாசித்தல் - பொருள் கூறல் - ஆங்கிலத்திலுள்ள சிறுவார்த்தைகளை மொழிபெயர்த்தல்
3.2. பாரதியாரின் பாப்பாபாட்டு, ஆத்திகுடி கற்றுக் கொடுத்தல்

தொடர்மதிப்பீட்டுத் தேர்வு வினா அமைப்பு முறை

மதிப்பெண்: 50

மதிப்பெண்: 25 (அ) எழுத்துத் தேர்வு

மதிப்பெண்: 25 (ஆ) திட்ட ஆய்வு அறிக்கை

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH VI. A. - ADVANCED ZOOLOGY AND
BIOTECHNOLOGY
SYLLABUS
(Effective from the academic year 2015 -2016)

INVERTEBRATA

CODE: 15ZL/MC/IV14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To highlight the characteristic features of various phyla, with one type under each phylum
- To study the classification of each phylum up to class level with underlying principles and local examples wherever possible
- To learn the economic, medicinal and phylogenetic significance of invertebrates

Unit 1 (9 hrs.)

- 1.1 Introduction and Outline Classification of Animal Kingdom
- 1.2 Phylum Protozoa: Characteristic Features - Type: *Paramecium caudatum*
- 1.3 Locomotion in Protozoa
- 1.4 Parasitic Protozoans: *Entamoeba histolytica*, *Trichomonas spp.* and *Plasmodium sp.*

Unit 2 (10 hrs.)

- 2.1 Phylum Porifera: Characteristic Features - Type : *Sycon*
- 2.2 Canal System in Sponges – Economic Importance of Porifera – Sponge Industry – Sponge Fishing – Sponge Cultivation
- 2.3 Phylum Coelenterata: Characteristic Features - Type : *Obelia geniculata*
- 2.4 Polymorphism in Coelenterates - Corals and Coral Reefs – Environmental Impact - Conservation

Unit 3 (11 hrs.)

- 3.1 Phylum Platyhelminthes: Characteristic Features - Type : *Taenia solium*
- 3.2 Helminth Parasites in Relation to Human Welfare: *Schistosoma haematobium*, *Taenia solium* *Echinococcus*, *granulosus*, *Ancylostoma duodenale*, *Wuchereria bancrofti* and *Enterobius vermicularis*
- 3.3 Phylum Annelida: Characteristics Features - Type: *Hirudinaria granulosa* - Medicinal Significance
- 3.4 Diversity of Annelids

Unit 4 (12 hrs.)

- 4.1 Phylum Arthropoda: Characteristic Features - Type : *Penaeus indicus*
- 4.2 Structure and Phylogenetic Significance of *Peripatus*
- 4.3 Mouthparts and their Modification in Insects
- 4.4 Social Life in Insects: Termites, Ants and Honey Bees

Unit 5 (10 hrs.)

- 5.1 Phylum Mollusca: Characteristic Features -Type : *Pila globosa*
- 5.2 Economic Importance of Molluscs
- 5.3 Phylum Echinodermata: Characteristic Features -Type : *Asterias sp*
- 5.4 Larval Forms of Echinoderms and their Significance

TEXT BOOKS

Ayyar, Ekambaranatha M. and T.N. Ananthkrishnan. *Manual of Zoology. Vol.I, Part. I & II.* Madras: S.Viswanathan, 2003

Jordan, E. L. and P.S. Verma, *Invertebrate Zoology. Vol.I.* New Delhi: S.Chand, 2012.

BOOKS FOR REFERENCE

Barnes, R. D. *Invertebrate Zoology.* Japan: Holt Saunders, 1982.

Bhamrah, H. S. and Kavita Juneja. *Recent Trends in Invertebrates. Vol.I – VIII.* New Delhi: Anmol, 1991.

Dhami, P. S. and J.K. Dhami. *Invertebrate Zoology.* NewDelhi: S.Chand, 1983.

Kotpal, R L., *Modern Textbook of Zoology Invertebrates.* New Delhi: Rastogi, 2011.

Majupuria, T.C. *Invertebrate Zoology.* New Delhi: S.Nagin, 1985.

Pechenik, Jan.A. *Biology of Invertebrates.* New York: McGraw-Hill, 2005.

Siebold, C. Th.u. *Anatomy of Invertebrate.* U.S.A: Hard Press, 2007.

JOURNALS

Journal of Animal Science

Animal Science Journal

International Journal of Zoological Research

Invertebrate Survival Journal

WEB RESOURCES

<http://www.sanctuaryasia.com>

www.iaszoology.com

<http://www.insects.org/>

<http://www.earthlife.net/begin.html>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 6 x 2 = 12 Marks (All questions to be answered)

Section B – 3 x 6 = 18 Marks (3 out of 5 to be answered)

Section C – 1 x 20 = 20 Marks (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Quiz

Assignment

Drawing test/Assignment

Scrap book

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 10 x 3 = 30 Marks (All questions to be answered)

Section B – 5 x 6 = 30 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH V.I.A. - ADVANCED ZOOLOGY AND BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 -2016)

ECONOMIC ZOOLOGY

CODE: 15ZL/MC/EZ14

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To acquire a knowledge of the economic value of animals
- To encourage entrepreneurship among students

Unit 1

Beneficial Insects and their Culture (10 hrs.)

- 1.1 Apiculture: Different Species - Social Organisation - Equipment Connected with Bee-Keeping - Bee Products (Honey, Beeswax, and their Uses) - Diseases and Enemies of Bees - Apiculture in India – Impact of Pesticides on Dwindling Bee Population
- 1.2 Sericulture: Different Types of Silkworms used in Sericulture – Life-History of *Bombyx mori* - Rearing and Diseases of Silkworms - Economic Importance

Unit 2

Insect Pests (8 hrs.)

- 2.1 Outline Study - Salient Features, Nature of Destruction Caused and Control Measures of Pests of Paddy, Cotton and Sugar Cane (Any Three Major Pests of each Crop) - Stored Food Grains (Rice and Pulses)
- 2.2 Identification of Common Pests of Fruits and Vegetables (Any Three Pests)
- 2.3 Integrated Pest Management

Unit 3

Soil Enrichment (10 hrs.)

- 3.1 Economically Important Soil Animals: Millipedes and Centipedes – Snails and Slugs – Their Importance in Soil Ecosystem
- 3.2 Vermitechnology: Vermiculture – Vermicomposting and Vermiwash – Setting up of Vermipit
- 3.3 Termites: Characteristics of Mound Soils – Decomposition of Organic Matter – Termitophiles – Termite Damage to Crops and Buildings – Control Measures
- 3.4 Soil Microarthropods: Extracting and Sampling Methods

Unit 4

Aquaculture (13 hrs.)

- 4.1 Kinds of Aquaculture: Mono, Poly, Extensive, Semi-Intensive, Intensive, Super Intensive and Monosex - Sewage and Integrated Fish Farming (A Brief Account)
- 4.2 Culture of Selected Species: Major Carps, Prawns and Oysters
- 4.3 Culturable Species of Feed Animals: *Artemia sp.*, *Daphnia sp.*, and Rotifers

- 4.4 Recent Trends in Aquaculture: Hypophysation – Eye Stalk Ablation– Use of Genetic Engineering Techniques
- 4.5 Preservation and Processing of Fish and Prawns: Chilling, Freezing, Freeze-Drying, Smoking, Salting and Canning – By products of Fishing Industry

Unit 5

Economic Importance of Poultry and Mammals (11 hrs.)

- 5.1 Poultry Science: Different Breeds of Fowls - Selective Breeding, Housing and Rearing - Role of Nutrition in Egg Laying - Common Diseases - Economic Importance
- 5.2 Economic Importance of Mammals: Indirect and Direct Value of Mammals - Dairy and Piggery Farming

TEXT BOOKS

Shukla, G.S. and V.B. Upadhyay. *Economic Zoology*. Meerut: Rastogi, 2010.

BOOKS FOR REFERENCE

Ahsan, J. and S.P. Sinha. *Handbook of Economic Zoology*. New Delhi: S. Chand, 2009.

Ayyar, T.V. R. *Handbook of Economic Entomology*. Madras: Govt, 1985.

Banerjee, G.C. *Poultry*. New Delhi: Oxford and IBH, 1992.

Daugherty, Lewis Sylvester. *Principles of Economic Zoology*. General Books, 2012.

David, Vasantharaj. B. *Pest Management and Pesticides*. Madras: Namrutha Publications, 1992.

Ismail, S.A., *The Earthworm Book*. Goa: India, 2005.

Jhingran, V.G. *Fish and Fisheries of India*. New Delhi: Hindustan Publishing Corporation, 1982.

Mishra R.C. *Perspectives in Indian Apiculture*. Jodhpur: Agrobios, 2002.

Mohan Rao Madan. *Comprehensive Sericulture Manual*. Jodhpur: B.S. Publications, 1999.

Rajesh, K. *Applied Zoology*. Varanasi: Green Leaf, 2013

Vasanthraj, B. and T.N. Ananthakrishnan. *General and Applied Entomology*. Tata McGraw Hill, 2004.

JOURNALS

The Journal of Basic and Applied Zoology

Zootecnia Tropical

Fishery Technology

International Journal of Zoological Research

WEB RESOURCES

<http://www.beeculture.com/>
<https://www.karnataka.gov.in/sericulture/>
<http://www.appropedia.org/>
<http://www.epa.gov/>
<http://www.enaca.org/>
<http://www.vegetableipmasia.org/index>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 6 x 2 = 12 Marks (All questions to be answered)

Section B – 3 x 6 = 18 Marks (3 out of 5 to be answered)

Section C – 1 x 20 = 20 Marks (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Scrap book

Poster/model making

Quiz

Assignment

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 10 x 3 = 30 Marks (All questions to be answered)

Section B – 5 x 6 = 30 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH VI.A. - ADVANCED ZOOLOGY AND
BIOTECHNOLOGY

SYLLABUS

(Effective from the academic year 2015 - 2016)

INVERTEBRATA AND ECONOMIC ZOOLOGY PRACTICAL

CODE: 15ZL/MC/P112

CREDITS: 2

L T P: 0 0 3

TOTAL HOURS: 39

DISSECTIONS: *Periplaneta americana*

Digestive System

Nervous System

Male and Female Reproductive Systems

COMPUTER SIMULATED DISSECTIONS

Digital Earthworm

MOUNTS

Body setae of *Lampito mauritii*

Appendages of prawn - Demonstration

Mouth parts of mosquito, house fly and cockroach

VERMICULTURE

Study of life history stages of *Lampito mauritii* and *Perionyx excavatus*

Workshop on Vermitechnology

SPOTTER

Invertebrata

Identification and description of specimens of all groups of invertebrates studied under the syllabus

Apiculture

Structure and identification of different castes of *Apis indica*

Equipment needed for Apiculture

Slides –Mouthparts, Legs and Sting Apparatus of Honey Bee

Economic importance of honey -Testing the purity of honey

Sericulture

Structure, identification and life history stages of *Bombyx mori*

Tools and Equipment of Sericulture

Economic importance of silk worms

Insect pests –Any three pests

Soil microarthropods – Extraction using Berlese funnel

Study of any ten Invertebrate fauna in the Stella Maris College Campus (Observation of habit, habitat and adaptive features)

Visit to Zoological Survey of India/Farm

RECORD WORK

Maintenance of a record of practical work done is essential for continuous assessment and is an integral part of the syllabus.

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT

Total Marks: 50

Duration: 3 hours

Question – I	Dissection	20 marks
Question – II	Mount and Diagram	8+2 marks
Question – III	Spotters (Seven)	7x2 marks
Question –IV	Identification of fauna in SMC (Three)	3x2 marks

END SEMESTER EXAMINATION:

Total Marks: 50

Duration: 3 hours

Question – I	Dissection	20 marks
Question – II	Mount and Diagram	8+2 marks
Question – III	Spotters (Seven)	7x2 marks
Question –IV	Identification of fauna in SMC (Three)	3x2 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
Allied Core Offered by the Department of Zoology to Students of Plant Biology and
Plant Biotechnology

SYLLABUS
(Effective from the academic year 2015 -2016)

GENERAL ZOOLOGY - I

CODE: 15ZL/AC/GZ14

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To enable students to understand the structure and organisation of Invertebrates and Chordates
- To study their economic importance and aspects of conservation

Unit 1 (10 hrs.)

- 1.1 Introduction: Outline Classification of Animal Kingdom
- 1.2 Protozoa – Characteristic Features: Type- *Paramecium caudatum*
- 1.3 Coelenterata - Characteristic Features: Corals and Coral Reefs – Conservation and Economic Importance
- 1.4 Aschelminthes – Characteristic Features: Type- *Ascaris lumbricoides*

Unit 2 (11 hrs.)

- 2.1 Annelida: Characteristic Features: Type - *Lampito mauritii* – Vermitechnology
- 2.2 Arthropoda: Characteristic Features: Type- *Panurgus indicus* - Social Life in Insects
- 2.3 Mollusc: Characteristic Features – Economic Importance of Molluscs
- 2.4 Echinodermata: Characteristic Features: Type-*Asterias spp.*

Unit 3 (9 hrs.)

- 3.1 Prochordata - Salient Features - Characteristic Features of Different Classes of the Phylum Chordata
- 3.2 Pisces: Characteristic Features – Parental Care and Migration in Fishes

Unit 4 (10 hrs.)

- 4.1 Amphibia and Reptilia – Characteristic Features
- 4.2 Snakes of South India – Turtle Conservation
- 4.3 Aves: Characteristic Features – Types of Feathers - Flight Adaptations

Unit 5 (12 hrs.)

- 5.1 Mammalia: Characteristic Features
- 5.2 Type: *Oryctolagus cuniculus*
- 5.3 Aquatic Mammals

TEXT BOOKS

Ayyar, Ekambaranath, M. and T.N. Ananthakrishnan. *Manual of Zoology*. Vols. I & II Madras: S. Viswanathan, 2003.

BOOKS FOR REFERENCE

Dhami, P. S. and Dhami J.K., *Invertebrate Zoology*. New Delhi: S. Chand, 2009.

Jordan, E.L. *Invertebrate Zoology*. New Delhi: S. Chand, 2012.

Jordan, E.L. and P.S. Verma. *Chordate Zoology*. New Delhi: S. Chand, 2013.

Kotpal, R L. *Modern Textbook of Invertebrate*. New Delhi: Rastogi, 2011.

Majupuria, T. C. *Invertebrate Zoology*. New Delhi: S. Nagin, 1985.

Prasad, S. *Textbook of Vertebrate Zoology*. New Age International, 2012.

Thangamani, A, S. Prasanna Kumar, N. Arumugam and L.M. Narayanan. *A Textbook of Chordates*. Saras, 2013.

JOURNALS

Journal of Animal Science

Open Journal of Animal Sciences

Animal Science Journal

WEB RESOURCES

<http://www.sanctuaryasia.com>

www.iaszoology.com

<http://www.earthlife.net/begin.html>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 6 x 2 = 12 Marks (All questions to be answered)

Section B – 3 x 6 = 18 Marks (3 out of 5 to be answered)

Section C – 1 x 20 = 20 Marks (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Quiz

Assignments

Scrap book

Drawing Test/Assignment

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 10 x 3 = 30 Marks (All questions to be answered)

Section B – 5 x 6 = 30 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
Allied Core Offered by the Department of Zoology to Students of Plant Biology
and Plant Biotechnology
SYLLABUS

(Effective from the academic year 2015 - 2016)

GENERAL ZOOLOGY I - PRACTICAL

CODE: 15ZL/AC/P111

CREDITS : 1

L T P : 0 0 2

TOTAL TEACHING HOURS: 26

- 1. Dissections:**
Periplaneta americana –
Digestive system
Nervous system
- 2. Mounts:** Mouth parts of cockroach and housefly
Ctenoid Scale -Mullet
Placoid Scales - Shark
Cycloid Scale – Koi carp
- 3. Computer Simulated Dissections**
Invertebrata: Earthworm
Chordata: Frog
- 4. Identification and description of the following Invertebrates and Chordates**
Protozoa : *Paramecium caudatum*
Sponge : *Euplectella, Sycon*
Coelenterata : *Hydra sp., Gorgonia sp., Meandrina sp., Metridium sp.*
Aschelminthes: *Ascaris lumbricoides*
Arthropoda : *Palamnaeus sp., Penaeus indicus*
Mollusca : *Sepia, Ostrea sp., Pinctada sp.*
Echinodermata: *Asterias sp., Holothuria sp.*
Prochordata : *Amphioxus sp., Ascidia sp.*
Pisces : *Scoliodon sp., Exocoetus sp.*
Amphibia : *Bufo melanostictus, Ambystoma sp.*
Reptilia : *Draco, Vipera russelli, Naja naja, Eryx sp.*
Aves : Wood pecker, *Psitacula sp.*
Mammalia : *Manis sp., Vesperugo sp.*

Identification of any five invertebrate and five chordate fauna in the SMC Campus

Record Work

Maintenance of a record of practical work done is essential for continuous assessment and is an integral part of the syllabus.

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT

Total Marks: 50

Duration: 3 Hours

Question – I	Major Question (Dissection)	20 marks
Question – II	Minor Question (Mount and Diagram)	15 marks
Question – III	Spotters (Five)	10 marks
Question – IV	Identification of fauna in Stella Maris College	5 marks

END SEMESTER EXAMINATION:

Total Marks: 50

Duration: 3 Hours

Question – I	Major Question (Dissection)	20 marks
Question – II	Minor Question (Mount and Diagram)	15 marks
Question – III	Spotters (Five)	10 marks
Question – IV	Identification of fauna in Stella Maris College	5 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH VI.A. - ADVANCED ZOOLOGY AND BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 -2016)

CHORDATA

CODE: 15ZL/MC/CH24

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To enable students to understand the organization of different groups of chordates
- To study the classification up to order level with suitable examples
- To appreciate the diversity and adaptability of chordates

- Unit 1** (11 hrs.)
- 1.1 Introduction –Outline Classification - Characteristic Features of the Phylum Chordata (Study of Endoskeleton to be restricted to Pigeon and Rabbit)
 - 1.2 Prochordates: Characteristic Features - Type: *Amphioxus* – Affinities – Retrogressive Metamorphosis In Urochordata
 - 1.3 Agnatha: Cyclostomata - Characteristic Features – Type: *Petromyzon*- Affinities
- Unit 2** (10 hrs.)
- 2.1 Pisces: Characteristic Features
 - 2.2 Type: *Scoliodon sorrakowah*
 - 2.3 Accessory Respiratory Organs - Parental Care - Electric Organs
- Unit 3** (9 hrs.)
- 3.1 Amphibia: Characteristic Features- Neoteny in Urodela - Parental Care in Amphibia
 - 3.2 Reptilia: Characteristic Features – Type: *Calotes versicolor* - Skull in Reptiles as Basis of Classification
 - 3.3 Snakes of South India – Poison Apparatus and Biting Mechanism
- Unit 4** (10 hrs.)
- 4.1 Aves: Characteristic Features – Type: *Columba livia*.
 - 4.2 Ratitae
 - 4.3 Flight Adaptations and Migration
- Unit 5** (12 hrs.)
- 5.1 Mammalia: Characteristic Features – Type: *Oryctolagus cuniculus*.
 - 5.2 Dentition in Mammals
 - 5.3 Aquatic Mammals

TEXT BOOKS

Ayyar, Ekambaranatha, M. *A Manual of Zoology. Vol. II* Chetpet: S. Viswanathan, 2003

Jordan, E.L. and Verma P.S., *Chordate Zoology*, New Delhi: S. Chand. 2013.

BOOKS FOR REFERENCE

- Kotpal, R.L. *Modern Text Book of Zoology- Vertebrates*. Meerut: Rastogi Publications, 2014.
- Prasad,S. *Textbook of Vertebrate Zoology*. New Age International Ltd., 2012.
- McFarland, W.N., F. Harvey Pough, T.J.Code, and J.B. Heiser. *Vertebrate Life*. New York: Macmillan, 1979.
- Newman N.H. *The Phylum Chordata*. Agra: Satish Book Depot, 1981.
- Romer, A.S. and T.S. Parson. *The Vertebrate Body*. Philadelphia: Saunders College, 1986.
- Sedgewick A. *A Text Book of Zoology - Vol II & III*. Allahabad: Central Book Depot, 1960
- Thangamani,A, S.Prasanna Kumar, N.Arumugam and L.M.Narayanan. *A Textbook of Chordates*. Saras, 2013.
- Young. J.Z. *The Life of Vertebrates*. New York: Oxford University Press, 1978.

JOURNALS

Journal of Animal Science
Open Journal of Animal Sciences
Animal Science Journal

WEB RESOURCES

<http://www.sanctuaryasia.com>
<http://www.mcwn.org/Animals/Animals.html>
animaldiversity.org
www.iaszoology.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 6 x 2 = 12 Marks (All questions to be answered)

Section B – 3 x 6 = 18 Marks (3 out of 5 to be answered)

Section C – 1 x 20 = 20 Marks (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Seminars

Quiz

Assignments

Exhibition/Model Making

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Section A – 10 x 3 = 30 Marks (All questions to be answered)

Section B – 5 x 6 = 30 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH VIA. – ADVANCED ZOOLOGY AND
BIOTECHNOLOGY

SYLLABUS

(Effective from the academic year 2015 - 2016)

CHORDATA - PRACTICAL

CODE: 15ZL/MC/P221

CREDITS: 1

L T P: 0 0 2

TOTAL TEACHING HOURS: 26

1. DISSECTIONS

Fish: Viscera and Digestive system

2. MOUNTS

Scales of fishes – Placoid-Shark
Ctenoid- Mullet
Cycloid –Koi Carp

3. COMPUTER SIMULATED DISSECTION

Frog – All systems

4. SPOTTER

Identification and description of specimens of all groups of chordates studied in the syllabus

5. Study of any ten Chordate fauna in the Stella Maris College Campus

6. Field trip (Zoological park / Sanctuary/ Museum) – observation of chordates and compilation of a report

Record Work

Maintenance of a record of practical work done and the observation of campus chordate fauna is essential for continuous assessment

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT

Total Marks: 50

Duration: 3 hours

Question – I	Major Question (Dissection)	20 marks
Question – II	Minor Question (Mount + Diagram)	15 marks
Question – III	Spotters (Five)	10 marks
Question – IV	Identification & description of any two fauna in Stella Maris College	5 marks

END SEMESTER EXAMINATION:

Total Marks: 50

Duration: 3 hours

Question – I	Major Question (Dissection)	20 marks
Question – II	Minor Question (Mount + Diagram)	15 marks
Question – III	Spotters (Five)	10 marks
Question – IV	Identification & description of any two fauna in Stella Maris College	5 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
B.Sc. DEGREE: BRANCH VI.A. - ADVANCED ZOOLOGY AND BIOTECHNOLOGY

SYLLABUS

(Effective from the Academic Year 2015 – 2016)

ENVIRONMENTAL STUDIES

CODE: 15ZL/GC/ES22

CREDITS : 2

L T P : 2 0 0

TOTAL TEACHING HOURS : 26

OBJECTIVES OF THE COURSE

- To create an awareness about current environmental issues
- To educate students on conservation and management of natural resources
- To encourage students to beecosensitive and ecofriendly

Unit 1

Introduction

(6 hrs.)

- 1.1 Components ofthe Environment – Classification and Characteristics of Resources – Renewable and Non – Renewable Resources
- 1.2 Need forPublic Awareness in Conservation of Natural Resources
- 1.3 Energy Flow in Ecosystems – Aquatic andTerrestirial – Food Chain and Food Web

Unit 2

Pollution and Socio Economic Aspects of the Environment

(10 hrs.)

- 2.1 Types of Pollution – Air, Water, Solid Waste, Noise
- 2.2 Problems - Green House Effect – Depletion ofthe Ozone Layer – Climate Change
- 2.3 Bio Diversity - Definition - Loss of Bio Diversity – Threats to Biodiversity andConservation of Biodiversity
- 2.4 Human Behaviour: - Population – Urbanization – Poverty (As Cause and Result of Pollution and Degradation)
- 2.5 Technology: Agriculture and Industry – Deforestation. Misuse andAbuse of the Resources
- 2.6 Effects and Consequences of Environmental Problems

Unit 3

Sustainable Development, Remedies and Policy Implications

(10 hrs.)

- 3.1 Environmental Disasters Natural and Human Made – Bhopal Gas Tragedy – Chernobyl Accident – Fukushima Nuclear Crisis - Gulf War – Love Canal Episode – Tsunami – Volcanic Eruptions
- 3.2 Methods Evolved to Measure and Check Environmental Degradation and Pollution – Carbon Footprint, Carbon Credit, Ecological Footprint, and Ecological Shadow
- 3.3 Environmental Movements in India – Chipko Movement, Narmada BachaoAndolan, SethuSamudram Project
- 3.4 Environmental Acts – Policy Measures withrespect to India
- 3.5 International Environmental Agreement – Stockholm Conference – Montreal Protocol – Rio Meet – Kyoto Conference – UN Conference on Climate Change (Copenhagen)

Field visit

Eco initiatives at the campus: Garbage Segregation and Vermicomposting – Greywater Recycling – Rainwater Harvesting – Solar Powered Lights – Biodiversity

TEXT BOOK

Bharucha, E. *Textbook of Environmental Studies*. Hyderabad: Universities Press, 2005.

REFERENCE BOOKS

Ignacimuthu, S. *Environmental Awareness and Protection*. New Delhi: Phoenic House, 1997.

Jadhav, H and V. M. Bhosale. *Environmental Protection and Law*. New Delhi: Himalaya, 1995.

Odum, E.P. *Fundamentals of Ecology*. U.S.A: W.B. Saunders, 1971.

Mies, M and V. Shiva. *Ecofeminism*, London: Zed Books, 1989.

Singh, H.R. *Environmental Biology*. New Delhi: S.Chand, 2005.

PATTERN OF EVALUATION (Internal assessment)**Continuous Assessment:**

One Hour Test – 25 Marks

One Component – 25 Marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
Allied Core Offered by the Department of Zoology to Students of Plant Biology and Plant Biotechnology

SYLLABUS
(Effective from the academic year 2015 -2016)

GENERAL ZOOLOGY – II

CODE: 15ZL/AC/GZ24

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To learn basic concepts and current trends in Human Genetics and Developmental Biology
- To acquire a knowledge of economically important species and enable an understanding of the behaviour of animals

Unit 1

Culture of Economically Important Species (10 hrs.)

1.1 Introduction and Scope

1.2 Apiculture: Economically Important Species – Morphology and Social Organisation of *Apis indica* – Equipment and Tools needed to set up Apiary

1.3 Pisciculture : Culture of Indian Major Carp (*Catla catla*) – By-products of Fishing Industry

Unit 2

Human Pathogens (10 hrs.)

2.1 Introduction - Disease Cycle - Causative Organism, Mode of Transmission, Symptoms, Diagnosis and Control of the following diseases:

2.2 Viral: AIDS, Hepatitis

2.3 Bacterial: Tuberculosis, Cholera

2.4 Protozoan: Amoebiasis, Malaria

2.5 Helminth: Filariasis, Enterobiasis

Unit 3

Developmental Biology (10 hrs.)

3.1 Introduction - Gametogenesis - Types of Vertebrate Eggs

3.2 Cleavage - Blastulation and Gastrulation in Frog

3.3 Placentation in Mammals

3.4 Assisted Reproductive Technology – *In Vitro* Fertilization – Bioethical Issues

Unit 4

Human Genetics (11 hrs.)

4.1 Introduction – Human Chromosomes — Sex Determination in Human – Aneuploidy in Human

4.2 Multiple Allelic Inheritance: Eg. Human Blood Groups (A, B, AB and O), Rh factor, Inheritance and Significance – Polygenic Inheritance: Eg. Skin Colour in Man – Lethal Genes: Eg. Tay – Sach's Disease

4.3 Hereditary Diseases: Albinism, Huntington Disease, Haemophilia, Kearns, Sayre Syndrome and Lactose Intolerance – Genetic Counselling

Unit 5

Animal Behaviour

(11 hrs.)

5.1 Introduction- Shelter Seeking and Construction

5.2 Animal Associations: Symbiosis, Commensalism, Mutualism, Parasitism and Predation

5.3 Behaviour and Reproduction: Courtship Behaviour – Parental Care

5.4 Learning Behaviour: Forms of Learning

5.5 Abnormal Behaviour in Domestic and Zoo Animals

BOOKS FOR REFERENCE

Agarwal, V.K. *Animal Behaviour*. New Delhi: S.Chand, 2009.

Ahsan, J and S.R. Sinha, *A Hand book on Economic Zoology*. New Delhi: S.Chand, 2009.

Cummings, R Michael. *Human Heredity – Principles and issues*. Canada: Thomson Brooks/Cole, 2003.

Dubey, R.C. and Maheshwari, D.K. *A Text Book of Microbiology*. New Delhi: S.Chand, 2013.

Mathur, Reena. *Animal Behaviour*. Meerut: Rastogi, 2014.

Rastogi, V. B. and M.S. Jayaraj, *Development Biology*. Meerut: Kedarnath Ramnath, 2011.

Shukla, G. S. and V.B. Upadhyay, *Economic Zoology*, Meerut: Rastogi, 2013.

Subramanian, T. *Molecular Developmental Biology*, New Delhi: Narosa, 2011.

William, S. Klug, Michael R. Cummings and Charlotte Spencer. *Concepts of Genetics*. New Jersey: Pearson Education, 2012.

JOURNALS

The Journal of Basic and Applied Zoology

Journal of Infectious Diseases and Therapy

BMC Medical Genomics

Genomics & Quantitative Genetics

International Journal of Zoological Research

WEB RESOURCES

www.omim.org

<http://www.globalhealth.gov>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 6 x 2 = 12 Marks (All questions to be answered)

Section B – 3 x 6 = 18 Marks (3 out of 5 to be answered)

Section C – 1 x 20 = 20 Marks (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Quiz

Pedigree Construction

Assignments

Problem solving/Case studies

End Semester Examination**Total Marks: 100****Duration: 3 hours**

Section A – 10 x 3 = 30 Marks (All questions to be answered)

Section B – 5 x 6 = 30 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
Allied Core Offered by the Department of Zoology to Students of Plant Biology and
Plant Biotechnology

SYLLABUS

(Effective from the academic year 2015 - 2016)

GENERAL ZOOLOGY II - PRACTICAL

CODE: 15ZL/AC/P221

CREDITS: 1

L T P: 0 0 2

TOTAL TEACHING HOURS: 26

1. APICULTURE

Structure and Identification of Different Castes of *Apis indica*
Equipments Needed for Apiculture
Slides –Mouthparts and Legs of Honey Bee
Economic Importance of Honey – Testing the Quality of Honey

2. FOOD FISHES

Catla catla - *Mugil cephalus* - *Sardinella longiceps* – *Rastralliger kanagurta* –
Notopteruss sp.

3. GENETICS

ABO - Blood Grouping
Rh – Typing

4. DEVELOPMENTAL BIOLOGY

Observation of Different Kinds of Vertebrate Eggs: Frog and Chick .
Study of Prepared Slides: Cleavage, Blastulation and Gastrulation Stages of Frog.
Placenta: Sheep and Pig

5. ANIMAL ASSOCIATIONS

Parasitism: Identification of *Entamoeba histolytica*, *Taenia solium*, *Ancylostoma duodenale*, *Wuchereria bancrofti*, *Hirudinaria granulosa*, *Sacculina* on Crab
Mutualism: Sea Anemone on Hermit Crab
Commensalism: *Echeneis*

RECORD WORK

Maintenance of a record of practical work done is essential for continuous assessment and is an integral part of the syllabus.

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT

Total Marks: 50

Duration: 3 Hours

Question – I ABO/Rh Typing

15 marks

Question – II Spotters (Seven)

35 marks

END SEMESTER EXAMINATION:

Total Marks: 50

Duration: 3 Hours

Question – I ABO/Rh Typing

15 marks

Question – II Spotters (Seven)

35 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH V.I.A. - ADVANCED ZOOLOGY AND BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 -2016)

VERTEBRATE PHYSIOLOGY

CODE: 15ZL/MC/VP34

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To study the functioning of organs and organ systems
- To acquire a scientific foundation relevant to the field of medicine and other related professions

Unit 1 (9 hrs.)

- 1.1 Introduction - Digestive System: Physiology of Digestion and Absorption in Human
- 1.2 Respiratory System: Physiology of Respiration in Human - Oxygen Transport - Dissociation Curve - CO₂ Transport - Chloride Shift
- 1.3 Adaptations to Diving and High Altitudes

Unit 2 (10 hrs.)

- 2.1 Circulatory System: Physiology of Circulation in Human - Regulation of Heart Beat and Blood Pressure – Electrocardiogram(Principle and Application)
- 2.2 Lymph: Composition, Circulation and Functions
- 2.3 Thermoregulatory Mechanisms in Vertebrates

Unit 3 (10 hrs.)

- 3.1 Osmoregulatory Mechanisms in Vertebrates
- 3.2 Formation of Nitrogenous Wastes: Ammonotelism, Uricotelism and Ureotelism
- 3.3 Excretory System: Physiology and Regulation of Excretion in Human.

Unit 4 (12 hrs.)

- 4.1 Types of Muscles - Ultrastructure of the Striated Muscle - Properties of Muscles - Muscle Contraction - Theories
- 4.2 Neurons: Structure and Types - Conduction of Nerve Impulse
- 4.3 Reflex Action
- 4.4 Autonomic Nervous System - E.E.G. (Principle and Application)

Unit 5 (11 hrs.)

- 5.1 Structure and Physiology of Male and Female Reproductive System of Mammal
- 5.2 Endocrine Glands of Human – Mechanism of action of Steroid and Peptide Hormones Action.
- 5.3 Structure, Function and Regulation of Pituitary, Thyroid, Parathyroid, Pancreas and Adrenal glands
- 5.4 Physiology of Ageing – Causes and Theories

TEXT BOOK

Verma P.S., V.K. Agarwal, & B.S. Tyagi. *Animal Physiology*. New Delhi: S. Chand, 1980.

BOOKS FOR REFERENCE

Clark, Robert K. *Anatomy and Physiology – Understanding the human body*. New Delhi: Jones and Bartlett India, 2010.

Guyton, A.C. *Text Book of Medical Physiology*. Philadelphia: W.B. 1991.

Hole J. W. *Essentials of Human Anatomy & Physiology*. Wim. C. Brown, 1992.

Johnson, Leonard, R. *Essential Medical Physiology*. U.S.A: Academic Press, 2006.

Lauralee Sherwood. *Human Physiology – From cells to Systems*. USA: Wadsworth, 1997.

Lauralee Sherwood, Hillar Klandorf and Paul Yancey. *Textbook of Animal Physiology*. New Delhi: Cengage Learning India, 2011.

Solomon, Eldra, P. Diana, W. Martin and Linda Berg. *Biology*. U.S.A: Thomson Books, 2005.

Stuart Ira Fox. *Human Physiology*. New York: McGraw Hill, 2011.

JOURNALS

Journal of Physiology

Indian Journal of Physiology

Extreme Physiology and Medicine

WEB RESOURCES

www.physiologyweb.com

www.getbodysmart.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 6 x 2 = 12 Marks (All questions to be answered)

Section B – 3 x 6 = 18 Marks (3 out of 5 to be answered)

Section C – 1 x 20 = 20 Marks (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Exhibits / Models

Seminars

Quiz

Assignments

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 10 x 3 = 30 Marks (All questions to be answered)

Section B – 5 x 6 = 30 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH VI.A. - ADVANCED ZOOLOGY AND BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 -2016)

DEVELOPMENTAL BIOLOGY

CODE: 15ZL/MC/DB34

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To enable students to understand the fundamental aspects and phases of animal development
- To acquaint students with recent advances in the field of Developmental Biology and Bioethical issues

Unit 1 (10 hrs.)

- 1.1 Introduction - Brief History - Theories of Preformation, Epigenesis, Pangenesis, Recapitulation, Germplasm, Mosaic and Regulative, Gradient and Organisers
- 1.2 Metamorphosis in Insects and Amphibians
- 1.3 Regeneration - Mechanism and Types – Medical Applications

Unit 2 (11 hrs.)

- 2.1 Gametogenesis: Spermatogenesis - Morphology and Types of sperms Oogenesis - Eggs – Morphology, Types and Membranes
- 2.2 Fertilization: Physicochemical Aspects – Theories - Parthenogenesis
- 2.3 Embryonic Adaptations: Extra - Embryonic and Foetal Membranes - Types and Functions of Placenta

Unit 3 (10 hrs.)

- 3.1 Cleavage: Patterns –Blastulation in Frog and Chick
- 3.2 Gastrulation: General Morphogenetic Movements in Chordate Embryos – Comparative Study of Gastrulation in Frog and Chick
- 3.3 Cell-Lineage, Fate Maps and their Significance

Unit 4 (10 hrs.)

- 4.1 Organogenesis: Ectodermal Derivatives – Brain and Sense Organs (Eye and Ear)
- 4.2 Mesodermal Derivatives: Heart and Blood
- 4.3 Endodermal Derivatives: Digestive Tract and its Derivatives

Unit 5 (11 hrs.)

- 5.1 Assisted Reproductive Technology: Induced Ovulation and its Applications – *In vitro* Fertilisation - Surrogate Motherhood - Freezing Human Embryos - Grafts and Transplants – Cloned Babies
- 5.2 Ethical Issues Relating to Assisted Reproductive Technology

TEXT BOOKS

Rastogi, V.B. and M.S. Jayaraj. *Developmental Biology*. Meerut: Kedarnath Ramnath, 2014.

Verma, P.S. and V.K Agarwal. *Chordate Embryology*. New Delhi: S. Chand, 2014.

BOOKS FOR REFERENCE

Balinsky, B.I. *An Introduction to Embryology*. Japan: Holt-Saunders, 2012.

Biroc, Sandra Lyn. *Developmental Biology*. New York: Macmillan, 1986.

Browder, L.W. *Developmental Biology*. New York: Holt-Rinehart and Winston, 1980.

Gilbert, Scott F. *Developmental Biology*. Massachusetts: Sinauer Associates, Inc. 2013.

Kiessling, A and C. Anderson. *Human Embryonic Stem Cells – An Introduction to the Science and Therapeutic Potential*. New York: Jones and Barlett Saunders, 1982.

Starr, Cecie and Ralph Taggart. *Biology: The Unity and diversity of life*. New York: Wadsworth, 1992.

Warren, John. *Developmental Biology*. New York and Canada: Macmillan, 2003.

Wolpert, L. *Principles of Development*. London: University Press, 2006.

JOURNALS

International Journal of Developmental Biology

Journal of Developmental Biology

Frontiers in Cell and Developmental Biology

Stem Cell Research

WEB RESOURCES

<http://www.visembryo.com/baby/index.html>

<http://www.sdbonline.org/>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 6 x 2 = 12 Marks (All questions to be answered)

Section B – 3 x 6 = 18 Marks (3 out of 5 to be answered)

Section C – 1 x 20 = 20 Marks (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Seminars/Presentation

Quiz

Assignments

Mini Project

Scrap Book

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Section A – 10 x 3 = 30 Marks (All questions to be answered)

Section B – 5 x 6 = 30 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH VIA. - ADVANCED ZOOLOGY AND
BIOTECHNOLOGY
SYLLABUS

(Effective from the academic year 2015 - 2016)

PHYSIOLOGY AND DEVELOPMENTAL BIOLOGY - PRACTICAL

CODE: 15ZL/MC/P332

CREDITS: 2

L T P: 0 0 3

TOTAL HOURS: 39

PHYSIOLOGY

1. Oxygen consumption in an aquatic animal with reference to body weight.
2. Detection of nitrogenous waste products, qualitative estimation of Ammonia, (fish) Uric acid (bird excreta) and Urea (mammalian kidney)
3. Determination of amylase activity in relation to high temperature, low temperature and room temperature
4. Assessing digestion of proteins, carbohydrates and fats using Physio Ex 8.0
5. Study of frog cardiovascular physiology using Physio Ex 8.0.

Demonstration:

Estimation of Na and K content in food samples – Flame Photometer

DEVELOPMENTAL BIOLOGY

1. Examination of prepared slides of testis and ovary of a mammal.
2. Examination of different kinds of vertebrate eggs (frog, reptile and bird).
3. Examination of prepared slides of mammalian sperm and graffiaan follicle.
4. Study of prepared slides of blastulation and gastrulation stages of Frog.
5. Observation and examination of prepared slides (whole mounts) of 18, 24, 33, 48, 72 and 96 hours chick.
6. Study of organogenesis using prepared slides with reference to the development of brain, heart, eye and ear of frog.
7. Identification of placenta of shark, sheep and pig.
8. Observation: - Life cycle of frog

RECORD WORK

Maintenance of a record of practical work done is essential for continuous assessment and is an integral part of the syllabus.

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT

Total Marks: 50

Duration: 3 hours

Question – I Major Question 25 marks

Question – II Minor Question 15 marks

Question – III Spotters (Four) 10 marks

END SEMESTER EXAMINATION:

Total Marks: 50

Duration: 3 hours

Question – I Major Question 25 marks

Question – II Minor Question 15 marks

Question – III Spotters (Four) 10 marks

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B.Sc. DEGREE: BRANCH VI.A. - ADVANCED ZOOLOGY AND BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 -2016)

MICROBIOLOGY

CODE: 15ZL/MC/MB44

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To have an overview of microbial techniques and study the functional morphology, growth and reproduction of bacteria and viruses
- To acquire a fundamental knowledge of microbial diseases and their control.
- To understand the role of microbes in everyday life

Unit 1 (10 hrs.)

- 1.1 Introduction: History and Scope of Microbiology
- 1.2 Outline Classification of Microorganisms with Special Reference to Bacteria and Viruses - Characteristic Features of Prokaryotes and Eukaryotes
- 1.3 Microbiological Techniques: Microscopy, Specimen Preparation and Staining Techniques - Media Preparation and Types of Culture Media – Preservation of Culture – Pure Culture Techniques

Unit 2 (10 hrs.)

- 2.1 Viruses: General Properties – Isolation and Cultivation of Viruses - Structure and Reproduction of T₄ Phage – Structure and Multiplication of an Animal Virus – Subviral Particles (Viroids and Prions)
- 2.2 Archaea – Characteristics (Brief Outline)
- 2.3 Bacteria: Gross Morphology of Bacterial Cells - Size, Shape and Arrangement- Structure of a Bacterium - Cell Wall, Chemical Composition and Characteristics of Gram Positive and Gram Negative Bacteria – Molecular Structure of Nucleoid – Types and Functions of Plasmids
- 2.4 Bacterial Growth: Reproduction and Growth of Bacterial Population - Growth Curve – Measurement of Microbial Growth

Unit 3 (10 hrs.)

- 3.1 Physical Conditions Required for Growth of Bacteria : Temperature, Oxygen and pH Requirements - Nutritional Requirements - General Nutritional Classification of Bacteria
- 3.2 Recombination in Bacteria: Transformation, Conjugation and Transduction
- 3.3 Microbial Control: Importance of Microbial Control - Control of Micro-Organisms by Physical and Chemical Agents – Antibiotics and Their Mechanisms of Action

Unit 4 (11 hrs.)

- 4.1 The Normal Micro-Biota of the Human Body: Skin, Mouth and Oropharynx, Stomach, Small Intestine, Large Intestine, Vagina and Urethra (Brief Study)

- 4.2 Disease Cycle of a Communicable Disease- The Epidemiology of Infectious Diseases: Airborne (Influenza, Pneumonia and Measles)- Food and Water Borne (Typhoid, Cholera and Polio) – Nosocomial and Fomite Borne – Infection Through Body Fluids (Hepatitis B and Ebola) - Sexually Transmitted Diseases (Genital Herpes, Gonorrhoea and Syphilis)
- 4.3 Zoonotic (Swine Flu, Dengue Fever and Leptospirosis)

Unit 5 (11 hrs.)

- 5.1 Food: Sources and Types of Microorganisms In Milk – Pasteurization of Milk - Dairy Products (Fermented Milk and Cheese) - Spoilage of Food and its Control – Fermented Food – Food Poisoning - Probiotics
- 5.2 Microbial Damage of Materials: Natural Fabrics, Paper and Cosmetics
- 5.3 Soil Microbiology: Role of Micro-organisms in Soil Fertility – Nitrogen Cycle - Sulfur Cycle

TEXT BOOK

Dubey, R.C. and Maheshwari. D.K. *A Text Book of Microbiology*. New Delhi: S.Chand, 2013.

BOOKS FOR REFERENCE

- Berguist L.M., and P. Barbara. *Microbiology – Principles and Health Science Applications*. Philadelphia:W.B. Saunders Company, 2002.
- Baumam, Robert.W. *Microbiology*. San Francisco: Pearson Benjamin Cummings, 2006.
- Harvey, Richard, A. Pamela. C. Champe and Bruce D. Fisher, *Microbiology*. U.S.A: Lippincott William and Wilkins, 2007.
- Madigan T. Michael and John M Martinko. *Brook Biology of Microorganisms*. U.S.A: Pearson Prentice Hall, 2005.
- Nester, Eugene, W., Denise G Anderson, Roberts C. Evans and Martha T Nester. *Microbiology – A Human Perspective*. New York: Mc Graw Hill, 2005.
- Pelczar, Michael J. and E.C.S. Chan. *Elements of Microbiology*. New Delhi: McGraw Hill International Book Company, 1981.
- Pommerville, Jeffrey C. *Alcamo’s Fundamentals of Microbiology*. U.S.A: Jones and Bartlett, 2004.
- Prescott, L.M., J.P. Harley, and D.A. Klein. *Microbiology*. New York: McGraw Hill, 2005.
- Tortora, Gerard, J., Berdelle R. Funk and Christine L Case. *Microbiology – An Introduction*. San Francisco: Pearson - Benjamin Cummings, 2007.

JOURNALS

- Journal of Bacteriology
International Journal of Microbiology
Journal of Applied Microbiology
Journal of Microbiology, Biotechnology and Food Sciences

WEB SOURCES

<http://archives.microbeworld.org/microbes/>

<http://www.textbookofbacteriology.net/index.html>

<http://www.bioedonline.org/>

www.asm.org

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 6 x 2 = 12 Marks (All questions to be answered)

Section B – 3 x 6 = 18 Marks (3 out of 5 to be answered)

Section C – 1 x 20 = 20 Marks (1 out of 2 to be answered)

Third Component:

List of Evaluation Modes:

Seminars

Quiz

Assignments

Case studies

Exhibition

Poster making

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 10 x 3 = 30 Marks (All questions to be answered)

Section B – 5 x 6 = 30 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

B.Sc. DEGREE: BRANCH VIA. - ADVANCED ZOOLOGY AND BIOTECHNOLOGY

SYLLABUS

(Effective from the academic year 2015 - 2016)

MICROBIOLOGY - PRACTICAL

CODE: 15ZL/MC/P442

CREDITS: 2

L T P: 0 0 3

TOTAL TEACHING HOURS: 39

1. Identification of Microbes – Prepared Specimens
2. Instruments Used in Microbiology Laboratory – Microscope, Incubator, Hot Air Oven, Autoclave and Laminar Flow
3. Observation of Bacterial Motility – Hanging Drop Preparation
4. Preparation of Nutrient Agar and MacConkey Agar
5. Isolation of Bacteria by Pure Culture - Streak Plate
6. Examination of Soil Bacteria using Pour Plate Method
7. Coliform Count in Drinking Water Samples by Membrane Filter Technique
8. Gram Staining and Examination of Bacteria
9. Spoilage of Food Items viz., Milk - Bread - Fruits and Vegetables – (Observation)
10. Examination of Milk - Methylene Blue Reduction Test
11. Winogradsky Column – Observation of Bacterial Diversity
12. Antibiotic Sensitivity Test - Kirby Bauer Diffusion Method – (Observation)
13. Collection and Classification of Antibiotics Based on their Biological Origin, Mode of Action and their Applications

RECORD WORK

Maintenance of a record of practical work done is essential for continuous assessment and is an integral part of the syllabus

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT

Total Marks: 50

Duration: 3 hours

Question – I	Major Question	25 marks
Question – II	Minor Question	15 marks
Question – III	Spotters (Four)	10 marks

END SEMESTER EXAMINATION:

Total Marks: 50

Duration: 3 hours

Question – I	Major Question	25 marks
Question – II	Minor Question	15 marks
Question – III	Spotters (Four)	10 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH V.I.A. - ADVANCED ZOOLOGY AND BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 -2016)

CELL AND MOLECULAR BIOLOGY

CODE: 15ZL/MC/CM54

CREDITS: 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVE OF THE COURSE

- To understand the structure and function of various cellular organelles and macromolecules at biochemical and molecular level

Unit 1 (9 hrs.)

- 1.1 Introduction – Prokaryotic and Eukaryotic Cells
- 1.2 Origin of Eukaryotic Cells – Endosymbiont Theory
- 1.3 Cell Membrane: Structural Organization, Asymmetry and Fluidity, Specializations in Structure; Transport Across Membranes
- 1.4 Cytoplasmic Vacuolar System: Endoplasmic Reticulum and Golgi Apparatus

Unit 2 (10 hrs.)

- 2.1 Lysosomes: Structure, Polymorphism, Functions and Diseases
- 2.2 Mitochondria: Structure and Functions
- 2.3 Ribosomes: Structure, Types, Functions
- 2.4 Nuclear Organization

Unit 3 (10 hrs.)

- 3.1 Chromosomes – Structure, Types and Functions
- 3.2 Cell Cycle: Regulation of Cell Cycle - Cell Death
- 3.3 Cancer Biology: Characteristics of a Cancer Cell – Altered Cell Cycle in Cancer Cell- Genetic Basis

Unit 4 (10 hrs.)

- 4.1 Nucleic Acids : DNA - Molecular Structure, Replication and Repair Mechanisms - RNA: Types and Functions
- 4.2 DNA Sequencing: Sanger Method and Applications
- 4.3 The Human Genome Project and its Significance

Unit 5 (13 hrs.)

- 5.1 Structural Organization of Prokaryotic and Eukaryotic Genes
- 5.2 Regulation of Gene Expression in Bacteria – Lac Operon Model
- 5.3 Transcription: Biosynthesis of Various RNAs – Transcription Factors – Post Transcriptional Modifications
- 5.4 Mechanism of Translation: Genetic Code - Post Translational Modifications in Collagen and Insulin

TEXT BOOK

Rastogi, S.C. *Cell and Molecular Biology*. New Age International, 2006.

BOOKS FOR REFERENCE

Alberts, Bruce, Alexander Johnson, Julian Lewis, Martin Raff, Keith Roberts and Peter Walter. *Molecular Biology of the Cell*. New York: Garland, 2008.

Cooper, Geoffrey.M and Robert. E. Hausman. *Cell – A Molecular Approach*. Sinauer Associates, 2004.

Karp, Gerald. *Cell Biology*. USA: John Wiley, 2010.

Karp, Gerald. *Cell and Molecular Biology: Concepts and Experiments*. New Jersey: John Wiley, 2010.

Lodish, Harvey, David Baltimore and Arnold Bert. *Molecular Cell Biology*. New York: W.H. Freeman, 2007.

.Rastogi, V B. *Introductory Cytology*. Meerut: Kedarnath Ramnath,2015.

Watson, J.D., Tania A Baker, Stephen P. Bell, Alexander Gann, Michael Levin and Richard Losick. *Molecular Biology of the Gene*. California: The Benjamin Cummings, 2007.

Wolfe, Stephen I. *An Introduction to Cell and Molecular Biology*. California: Wadsworth, 1995.

JOURNALS

Journal of Cell and Molecular Biology

Journal of Molecular Cell Biology

WEB RESOURCES

www.cellbio.com

<http://www.ibiblio.org/virtualcell/index.htm>

<http://www.biozone.co.nz/>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 6 x 2 = 12 (All questions to be answered)

Section B – 3 x 6 = 18 (3 out of 5 to be answered)

Section C – 1 x 20 = 20 (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Quiz

Assignments

Models / Posters

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Section A – 10 x 3 = 30 Marks (All questions to be answered)

Section B – 5 x 6 = 30 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH V.I.A. - ADVANCED ZOOLOGY AND BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 -2016)

GENETICS

CODE: 15ZL/MC/GN54

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To study the rules of inheritance in cells, individuals and population
- To understand the genetic mechanism of growth and development of an organism

Unit 1 (11 hrs.)

- 1.1 Introduction: Mendel and his Experiments - Law of Dominance, Law of Segregation and Law of Independent Assortment - Back Cross / Test Cross
- 1.2 Interaction of Genes : Incomplete Dominance – Co dominance - Lethal Genes - Epistasis – (Dominant and Recessive) - Penetrance and Expressivity
- 1.3 Extra Chromosomal Inheritance : Cytoplasmic Inheritance (Plastid Inheritance in *Mirabilis jalapa*) - Maternal Influence (Shell Coiling in *Limnaea*) – Mitochondrial Inheritance (Kearns - Sayre Syndrome)

Unit 2 (10 hrs.)

- 2.1 Multiple Gene Inheritance: Characteristics – Eg. Skin Colour in Man - Transgressive Variation (Weight in Chicken)
- 2.2 Multiple Alleles: Characteristics – Eg. Human Blood Groups (A, B, AB, O,) - Rh Factor - Inheritance and Significance
- 2.3 Linkage and Crossing Over: Complete and Incomplete Linkage in *Drosophila* - Cytological Proof of Crossing Over, Eg. *Drosophila* – Linkage Mapping

Unit 3 (10 hrs.)

- 3.1 Sex Determination: Chromosomal Mechanisms of Sex Determination - Sex Determination in *Drosophila* - Sex Determination in Human - Barr Body - Importance of Y Chromosome - Male Haploidy - Environmental Factors Affecting Sex Determination
- 3.2 Sex Linkage: *Drosophila*, Eye Colour – Man, Haemophilia - Incomplete Sex Linkage - Y- Linked Genes - Sex Influenced and Sex Limited Genes in Man

Unit 4 (11 hrs.)

- 4.1 Mutations: Different Types. Point Mutations, Molecular Basis - Mutagens
- 4.2 Chromosomal Aberrations - Numerical Variations
- 4.3 Animal Breeding: Inbreeding, Outbreeding and Hybrid Vigour

Unit 5**(10 hrs.)**

- 5.1 Inborn Errors of Metabolism - Genetic Counselling
- 5.2 Population Genetics: Gene Pool and Gene Frequency, Hardy - Weinberg Law and Factors Influencing Allele Frequency
- 5.3 Genetic Regulation of Development in *Drosophila*: Developmental Stages – Three Major Classes of Developmental Genes (Maternal Effect Genes, Segmentation Genes and Homeotic Genes)

TEXT BOOKS

Verma P.S. & V.K. Agarwal. *Genetics*. New Delhi: S. Chand, 2009.

BOOKS FOR REFERENCE

Benjamin A. Pierce. *Genetics – A conceptual approach*. New York: W. H. Freeman, 2008.

Goldsby, R.A., Thomas J. Kindt, Barbara Osborne. *Kuby's Immunology*. New York: W.H. Freeman, 2006.

Harti, Daniel L. *Essential Genetics*. USA: Jones & Bartlett Learning, 2013.

Klug, William, S., Michael Cummings and Charlotte Spencer. *Concepts of Genetics*. New Jersey: Pearson Education, 2012.

Michael R. Cummings. *Human Heredity – Principles and issues*. Canada: Thomson Brooks/Cole, 2003.

Russel, Peter J.I. *Genetics – A molecular approach*. San Francisco: Benjamin Cummings, 2011.

Snustand, Peter D. and Michael J. Simmons. *Principles of Genetics*. New York: John Wiley, 2012.

Winchester, A.M. *Genetics*. Calcutta: Oxford & IBH, 1974.

JOURNALS

Journal of Genetics

Journal of Human Genetics

BMC Medical Genomics

Genomics & Quantitative Genetics

WEB RESOURCES

ghr.nlm.nih.gov

www.ncbs.res.in

www.omim.org

learn.genetics.utah.edu

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $6 \times 2 = 12$ Marks (All questions to be answered)

Section B – $3 \times 6 = 18$ Marks (3 out of 5 to be answered)

Section C – $1 \times 20 = 20$ Marks (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Quiz

Problem solving

Group projects

Pedigree construction and analysis

Data collection and interpretation

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 3 = 30$ Marks (All questions to be answered)

Section B – $5 \times 6 = 30$ Marks (5 out of 7 to be answered)

Section C – $2 \times 20 = 40$ Marks (2 out of 4 to be answered)

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SYLLABUS
(Effective from the academic year 2015 -2016)

FUNDAMENTALS OF BIOTECHNOLOGY

CODE: 15ZL/MC/FB54

CREDITS : 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To understand the basic concepts of Biotechnology in general and Genetic engineering in particular
- To learn the principles, tools of Biotechnology

Unit 1 (10 hrs.)

- 1.1 Definition and Areas of Biotechnology
- 1.2 Tools of Genetic Engineering: Enzymes, Recombinant DNA Technology, Passenger DNA, Cloning Vectors - cDNA Library - Gene Bank
- 1.3 Electrophoresis, Northern, Southern and Western Blots - PCR Technique

Unit 2 (12 hrs.)

- 2.1 Cloning in Prokaryotes and Eukaryotes
- 2.2 Methods of Transfer of Foreign DNA into Cells: Electroporation, Particle Bombardment Gun, Ultrasonication, Liposome-Mediated Transfer and Microinjection
- 2.3 Site - Directed Mutagenesis

Unit 3 (10 hrs.)

- 3.1 Gene Cloning in Medicine: Insulin and Somatotropin
- 3.2 Diagnosis and Treatment: DNA Probe, ELISA Technique, Hybridoma Technology, Vaccines, DNA Finger Printing and Gene Therapy
- 3.3 Genetically Modified Organisms (Microorganisms, Plants and Animals)
- 3.4 Benefits and Hazards of Genetic Engineering

Unit 4 (10 hrs.)

- 4.1 Animal Cell and Tissue Culture Techniques – Culture Media – Natural and Artificial – Primary and Secondary Cell Lines – Culture Methods – Merits and Demerits
- 4.2 Stem Cell Culture: Applications and Ethical Issues

Unit 5 (10 hrs.)

- 5.1 Basic Concept of Bioinformatics: Proteomics and Genomics
- 5.2 Enzyme Technology: Production, Immobilisation and Application

TEXT BOOK

Dubey, R.C. *A Text Book of Biotechnology*. New Delhi: S.Chand, 2005.

BOOKS FOR REFERENCE

Lohar, Prakash S. *Biotechnology*. India: MJP, 2005.

McCabe, L.L. and E.R.B. McCabe. *DNA: Promise & Peril*. USA: University of California Press, 2010.

McGiffen, Steven P. *Biotechnology*. USA: Pluto Press, 2005.

Mahesh, S. *Biotechnology IV*. India: New Age International, 2006.

Nicholl, Desmond, S.T. *An Introduction to Genetic Engineering*. UK: Cambridge University Press, 2002.

Sathyanarayana, U. *Biotechnology*. Books and Allied, 2008.

Ying, S. *Generation of cDNA libraries – Methods & Protocols*. Humana Press, 2003.

Young, Lisa. *Biotechnology and Genetic Engineering*. Facts on Files, 2004.

JOURNAL

Journal of Biotechnology

The Scitech Journal

Indian Journal of Biotechnology

BMC Medical Genomics

WEB RESOURCES

<http://www.ncbi.nlm.nih.gov/>

<http://www.hhmi.org/biointeractive>

www.genengnews.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $6 \times 2 = 12$ Marks (All questions to be answered)

Section B – $3 \times 6 = 18$ Marks (3 out of 5 to be answered)

Section C – $1 \times 20 = 20$ Marks (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Seminars

Quiz

Assignments

Scrap book

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 3 = 30$ Marks (All questions to be answered)

Section B – $5 \times 6 = 30$ Marks (5 out of 7 to be answered)

Section C – $2 \times 20 = 40$ Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

B.Sc. DEGREE: BRANCH VIA. - ADVANCED ZOOLOGY AND BIOTECHNOLOGY

SYLLABUS

(Effective from the academic year 2015 - 2016)

CELL AND MOLECULAR BIOLOGY, GENETICS AND BIOTECHNOLOGY - PRACTICAL

CODE: 15ZL/MC/P553

CREDITS: 3

L T P: 0 0 6

TOTAL TEACHING HOURS: 78

CELL AND MOLECULAR BIOLOGY

Camera lucida
Micrometry
RBC Count
WBC Count
Mitosis - in onion root tip
Meiosis - in grasshopper testis
Chironomus - Salivary gland chromosome - squash preparation
Genomic DNA extraction
Total RNA extraction

GENETICS

Drosophila culture techniques
Drosophila mutants
Squamous epithelium squash preparation – Barr body
ABO Blood Grouping - Pedigree Analysis
Rh Typing
Slides / Plates of normal, Turner, Klinefelter and Down's Syndrome, Karyotypes-
Observation
Study of any five Mendelian Traits
Hardy -Weinberg Equilibrium – Calculating Gene Frequency and Genotypic
Frequency using bead experiments

BIOTECHNOLOGY

Isolation of Plasmid DNA – Demonstration and Group practical
Agarose Gel Electrophoresis
SDS-PAGE - Demonstration
Polymerase Chain Reaction – Demonstration and group practical
Observation of Adherent and Suspension Culture

Visit to a Molecular Biology/Biotechnology Laboratory

RECORD WORK

Maintenance of a record of practical work done is essential for continuous assessment and is an integral part of the syllabus.

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT:

Total Marks: 50

Duration: 3 hours

Question – I	Major Question	20 marks
Question – II	Minor Question –Mount (10) Diagram (5)	15 marks
Question – III	Spotters (Six)	15 marks

END SEMESTER EXAMINATION:

Total Marks: 50

Duration: 3 hours

Question – I	Major Question	20 marks
Question – II	Minor Question -Mount (10) Diagram (5)	15 marks
Question – III	Spotters (Six)	15 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH V.I.A. - ADVANCED ZOOLOGY AND BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 -2016)

ANIMAL BEHAVIOUR

CODE: 15ZL/MC/AB64

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To acquaint student with different aspects of animal behaviour
- To encourage students to make observations and carry out projects on behaviour using concepts and methods taught

- Unit 1 (10 hrs.)**
- 1.1 Introduction: Behaviour - Causes and Significance - Ethology – History
 - 1.2 Concepts and Terms - Motivation - Fixed Action Pattern (FAP) - Sign Stimulus - Innate Releasing Mechanism (IRM) - Action Specific Energy (ASE) - Concept of Behavioural Genetics
 - 1.3 Methods of Studying Behaviour: Studies in Laboratories - Studies in the Wild - Observation – Identification and Location of Individuals - Describing - Recording and Cataloguing - Interpreting and Presenting Data
- Unit 2 (11 hrs.)**
- 2.1 Basic and Maintenance Behaviour: Rhythms - Sleep - Maintenance and Related Behaviour - Foraging and Caching - Shelter Seeking and Construction
 - 2.2 Finding a Place to Live: Habitat Selection and Territory – Homing - Chronobiology
- Unit 3 (10 hrs.)**
- 3.1 Sociobiology: Communication - Methods of Study - Modes and Mechanisms: Chemical, Auditory, Tactile, Visual and Electrical - Social Organisation in Primates.
 - 3.2 Behaviour and Reproduction: Breeding Patterns - Courtship
- Unit 4 (10 hrs.)**
- 4.1 Interspecific Behaviour: Aggregations, Commensalism, Mutualism, Parasitism and Predation
 - 4.2 Play: General Attributes of Play - Examples / Descriptions of Play Behaviour - Theories
- Unit 5 (11 hrs.)**
- 5.1 Internal Control of Behaviour: Brain, Neurochemicals & Neurotransmitters and Behaviour, Hormones and Behaviour, Psychoactive Drugs and Human Behaviour
 - 5.2 Sensory Worlds and Animal Learning - Different Forms of Learning
 - 5.3 Abnormal Behaviour in Human Beings - Neurotic Disorder, (Anxiety Disorder). Eg. Phobic Disorder and Obsessive - Compulsive Disorder - Psychotic Disorder Eg. Schizophrenia

TEXT BOOK

Mathur, Reena. *Animal Behaviour*. Meerut: Rastogi, 2014.

BOOKS FOR REFERENCE

Alcock, John. *Animal Behaviour - An Evolutionary Approach*. Massachusetts: Sinauer Associates, 2013.

Grier, James, W. *Biology of Animal Behaviour*. Missouri: Times Mirror / Mosby College Publishing, 1992.

Kalat, James W. *Introduction to Psychology*. U.S.A: Brooks / Cole Publishing Company, 1996.

Mandal, Fatik Baran. *A Text Book of Animal Behaviour*. PHI Learning, 2010.

Manning, Aubrey and Marian Stamp Dawkins. *An Introduction to Animal Behaviour*. Cambridge University, 2012.

Raven, Peter H. and George B. Johnson. *Understanding Biology*. St. Louis: Mosby Year Book, 1995.

Scott, G. *Essential Animal Behaviour*. USA: Blackwell, 2005.

Slater, P.J.B. *An Introduction to Ethology*. Cambridge University Press, 1989.

JOURNALS

The British Journal of Animal Behaviour

Journal of Ethology

WEB RESOURCES

www.animalbehaviorsociety.org

<http://www.sanctuaryasia.com>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins

Section A – 6 x 2 = 12 (All questions to be answered)

Section B – 3 x 6 = 18 (3 out of 5 to be answered)

Section C – 1 x 20 = 20 (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Quiz

Project

Poster/Presentation

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Section A – 10 x 3 = 30 Marks (All questions to be answered)

Section B – 5 x 6 = 30 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH VI.A. - ADVANCED ZOOLOGY AND BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 -2016)

ECOLOGY AND EVOLUTION

CODE: 15ZL/MC/EE64

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To provide an overview of the limiting factors governing the ecosystem
- To study the working of biological systems and physical systems
- To acquire an understanding of the evolutionary process, evidences and theories

Unit 1 (9 hrs.)

- 1.1 Introduction to Ecology-Autecology and Synecology - Soil Formation – Texture – Profile – Classifications - Properties
- 1.2 Abiotic Factors: Temperature - Thermal Stratification, Range of Temperature Tolerance, Light - Composition, Light on Land and Water- Biological Effects of Light on Aquatic and Terrestrial Organisms- Role of pH
- 1.3 Attributes of Population – Density – Natality – Mortality - Age Distribution

Unit 2 (12 hrs.)

- 2.1 Habitat Ecology: Terrestrial Habitat: Biomes, Tundra, Grassland, Forest (Coniferous, Tropical, Temperate and Deciduous) - Ecotones
- 2.2 Deserts: Fauna, Adaptations of Animals Inhabiting Deserts and Caves
- 2.3 Fresh Water Ecology: Physico-Chemical Nature of Freshwater - Biotic Communities – Lotic-Lentic Lakes (Oligotrophic and Eutropic) - Ponds and Rivers - Pulicat Lake
- 2.4 Marine Ecology: Physico-Chemical Characteristics - Biotic Communities of Pelagic and Benthic Zone
- 2.5 Estuarine Systems : Physico-Chemical Characteristics - Biotic Communities

Unit 3 (11 hrs.)

- 3.1 Introduction - Origin of Life
- 3.2 Geological Time Scale - Fossilisation - Dating of Fossils - Indian Fossils - Living Fossils
- 3.3 Theories of Evolution: Lamarckism, Neo-Lamarckism, Darwinism, Neo-Darwinism, Modern Synthetic Theory of Natural Selection, Mutation Theory of De Vries
- 3.4 Convergent and Divergent Evolution – Adaptive Radiations

Unit 4 (10 hrs.)

- 4.1 Genetic Variation in Populations: Gene Frequency, Genetic Drift, Genetic Polymorphism and Selection - Hapmap Project
- 4.2 Species Concept – Speciation: Allopatric and Sympatric - Subspecies - Sibling Species - Isolation in Speciation

4.3 Molecular Evolution: Advantages of Molecular Data over Morphological Data – C Value Paradox - Reconstruction of Evolutionary Trees

Unit 5 **(10 hrs.)**

5.1 Mimicry and Colouration - Co-Evolution

5.2 Distribution of Animals: Types, Barriers and Methods of Dispersal of Animals - Zoogeographical Realms of the World

5.3 Evolution of Horse and Significance - Evolution of Man – Biological, Racial and Cultural History

5.4 Human Influence over Human Evolution and Other Species

TEXT BOOKS

Gopalakrishnan, T.S., Itta Sambasiviah, and A.P. Kamalakara Rao. *Principles of Organic Evolution*. Madras: Pearl Publications, 1995.

Rastogi, Veer Bala and M.S.Jayaraj. *Animal Ecology and distribution of animals*. Meerut: Kedar Nath Ram Nath, 1998.

BOOKS FOR REFERENCE

Cain, Michael et al. *Ecology*. U.S.A: Sinauer Associates Inc., 2011.

Colbert, E.H. *Evolution of the Vertebrates*. New Delhi: Wiley Eastern, 1961.

Darwin, Charles. *The Origin of Species*. London: John Murray, 1909.

Dodson, E.O. *Evolution Process and Product*. New York: Reinhold, 1960.

Dobzhansky, T. *Evolution, Genetics and Man*. New York: John Wiley, 1964.

Futuyma, D. J. *Evolution*. U.S.A: Sinauer Associates, 2005.

Graur, Dan and Wen Hsiung Li. *Fundamentals of Molecular Evolution*. U.S.A: Sinauer Associates, 2000.

Hall B. K. and Hallgrimsson. *Strickberger's Evolution*. New Delhi: Jones and Bartlett, 2014.

Li, W.H. *Molecular Evolution*. U.S.A: Sinauer Associates, 1997.

Mayr, E. *Animal Species and Evolution*. Harvard University, 1963.

McKinney, Michael. L. et al. *Environmental Science - Systems and solutions*. Jones and Bartlett Learning, 2006.

Moody, P.A. *Introduction to Evolution*. New York: Harper, 1978.

Pilbeam, D.R. *The Evolution of Man*. London: Thames and Hudson, 1970.

JOURNALS

International Journal for Ecology and Development

Journal of Evolutionary Biology

WEB RESOURCES

www.ecology.com

<http://ncse.com/evolution>

<http://www.nhptv.org/natureworks/nw4.htm>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 6 x 2 = 12 Marks (All questions to be answered)

Section B – 3 x 6 = 18 Marks (3 out of 5 to be answered)

Section C – 1 x 20 = 20 Marks (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Seminars

Quiz

Assignments

Problem solving

Presentation

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 10 x 3 = 30 Marks (All questions to be answered)

Section B – 5 x 6 = 30 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH V.I.A. - ADVANCED ZOOLOGY AND BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 -2016)

IMMUNOLOGY

CODE: 15ZL/MC/IM64

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To study the basic concepts and organisation of the immune system
- To acquire an understanding of the mammalian immune response

Unit 1

Organisation of Immune System and Basic Concepts of Immunity (10 hrs.)

- 1.1 Introduction - History and Basics of Immunology
- 1.2 Cells and Molecules of the Immune System: Types, Source and Salient Functions
- 1.3 Primary and Secondary Lymphoid Tissues / Organs
- 1.4 Types of Immunity: Cellular and Humoral Immunity - Natural and Acquired Immunity - Active and Passive Immunity with Examples

Unit 2

Antigens and Antibodies (11 hrs.)

- 2.1 Antigens: Definition, Classification, Functional Characteristics (Immunogen, Hapten, Antigenic Determinants and Epitopes)
- 2.2 Antibody: Primary Structure, Classification and Functions
- 2.3 Antigen - Antibody Reaction: Nature and Consequences

Unit 3

Immune Response (12 hrs.)

- 3.1 Characteristics of Immune Responses: Primary and Secondary Immune Responses
- 3.2 Complement System in Innate and Acquired Immunity
- 3.3 Hypersensitivity Reactions: Types and Immune Reactivity
- 3.4 Transplant Rejection: Types of Transplant/Graft, Causes For Rejection and Immuno-Suppression

Unit 4

Mediators of Immune System and Immune-Regulation (10 hrs.)

- 4.1 Cytokines: Definition, Properties, Signal Transduction
- 4.2 Immune Reactions in Viral, Bacterial and Parasitic Infections

Unit 5

Diseases and Vaccines (9 hrs.)

- 5.1 Autoimmune Disorder: Systemic Lupus Erythematosus and Rheumatoid Arthritis
- 5.2 Infectious Diseases and Vaccines
- 5.3 Vaccines: Principles and Types

TEXT BOOK

Ashim K. Chakravarty. *Immunology*. New Delhi: Tata McGraw Hill, 1997.

BOOKS FOR REFERENCE

Brostoff, Jonathan, David Male, and Ivan M Roitt. *Immunology*. Karger Barel, 1994.

Coico, R., G. Sunshine, and E. Benjamini. *Immunology*. John Wiley & Sons, 2013.

Fatima, D. and N. Arumugam. *Immunology*. Saras, 2013.

Gangal, S. and S. Sontakke. *Textbook of Basic and Clinical Immunology*. Orient Blackswan, 2013.

Goldsby, R.A., Thomas J. Kindt, Barbara A. Osborne. *Kuby Immunology*. New York: W.H. Freeman and Company, 2013.

Parslow, T.G., D.P. Stites, A.I. Terr, and J.B. Imboden. *Medical Immunology*. Lange Medical Books / McGraw Hill, 2001.

Reeves, G. and I. Todd. *Immunology*. Blackwell Science, 2010.

Roitt, I.M. *Essential Immunology*. Oxford: Blackwell Scientific, 1994.

Wise, D.J and G.R. Carter. *Immunology – A Comprehensive Review*. Blackwell Science, 2012.

JOURNALS

The Journal of Immunology

Open Journal of Immunology

WEB RESOURCES

www.immunologylink.com

<http://www.proimmune.com>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 6 x 2 = 12 Marks (All questions to be answered)

Section B – 3 x 6 = 18 Marks (3 out of 5 to be answered)

Section C – 1 x 20 = 20 Marks (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Seminars

Quiz

Assignments

Case studies

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 10 x 3 = 30 Marks (All questions to be answered)

Section B – 5 x 6 = 30 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

B.Sc. DEGREE: BRANCH VI.A. - ADVANCED ZOOLOGY AND BIOTECHNOLOGY

SYLLABUS

(Effective from the academic year 2015 - 2016)

ANIMAL BEHAVIOUR, ECOLOGY AND IMMUNOLOGY - PRACTICAL

CODE: 15ZL/MC/P662

CREDITS: 2

L T P: 0 0 4

TOTAL HOURS: 52

ANIMAL BEHAVIOUR

Animal Associations – One example for each type
Identification of Bird Nests
Observation of Learning Behaviour
Methods of Studying Animal Behaviour – Sampling Methods

ECOLOGY

Estimation of the following parameters in different water samples:
Dissolved Oxygen
pH
Salinity
Calcium
Total alkalinity - Free CO₂, CO₃ and HCO₃
Qualitative Field tests for Soil Nitrates and Carbonates.
Spotters - Rocky Shore and Sandy Shore Fauna

IMMUNOLOGY

VDRL Slide Flocculation Test for Syphilis
ELISA – Qualitative Test for Pregnancy
Radial Immunodiffusion Test (Demonstration)
Ouchterlony Double Immunodiffusion Test (Demonstration)
Observation of Plates – Immune Cells
Demonstration – Anatomical Location of Various Immune Tissues and Organs in Fish

RECORD WORK

Maintenance of a record of practical work done is essential for continuous Assessment.

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT:

Total Marks: 50	Duration: 3 hours
Question – I Major Question	20 marks
Question – II Minor Question	15 marks
Question – III Spotters (Five)	15 marks

END SEMESTER EXAMINATION:

Total Marks: 50	Duration: 3 hours
Question – I Major Question	20 marks
Question – II Minor Question	15 marks
Question – III Spotters (Five)	15 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH VI.A. - ADVANCED ZOOLOGY AND
BIOTECHNOLOGY

SYLLABUS

(Effective from the academic year 2015 -2016)

INTRODUCTION TO HUMAN PHYSIOLOGY & IMMUNOLOGY

CODE: 15ZL/AE/HI45

CREDITS : 5

L T P : 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To understand the functioning of various systems in the human body
- To acquaint students with some common diseases and diagnostic tests
- To learn the basic concepts of Immunology

Unit 1 (13 hrs.)

Introduction – Outline of Human Anatomy (Integumentary, Skeletal, Muscles, Digestive, Respiratory, Circulatory, Excretory, Nervous, Endocrine and Reproductive Systems – A brief study)

Unit 2 (13 hrs.)

- 2.1 Respiratory System: Respiratory Pigment - Oxygen Transport - CO₂ Transport – Asthma and Chronic Obstructive Pulmonary Disease (COPD)
- 2.2 Circulatory System: Heart - Structure and Function, Regulation of Heart Beat and Blood Pressure – Heart Attack and Hypertension – Electro Cardio Gram and Angiogram
- 2.3 Excretory System: Structure of Nephron – Physiology and Regulation of Excretion – Kidney Stones, Kidney Failure and Dialysis

Unit 3 (13 hrs.)

- 3.1 Endocrine System : Endocrine Organs in human
- 3.2 Structure, Function and Regulation of Pituitary, Thyroid, Parathyroid, Pancreas, Adrenal Glands and Gonads
- 3.3 Physiology of Ageing

Unit 4 (13 hrs.)

- 4.1 Introduction to Immune System – Cells and Tissues of Immune System
- 4.2 Primary and Secondary Lymphoid Organs
- 4.3 Types of Immunity: Natural, Acquired, Humoral and Cell Mediated Immunity

Unit 5 (13 hrs.)

- 5.1 Immunoglobulins – Structure, Types and Characteristics
- 5.2 Antigen – Antibody Reactions
- 5.3 Hypersensitive Reactions – Allergy and Anaphylactic Shock – Grave's Disease
- 5.4 Principles and Types of Vaccines – Vaccination Schedule

BOOKS FOR REFERENCE

Coico, R., G. Sunshine and E. Benjamin. *Immunology*. John Wiley, 2013.

Fatima, D and N. Arumugam. *Immunology*. Saras, 2013.

Gangal, S. and S. Sontakke. *Textbook of Basic and Clinical Immunology*. Orient Blackswan, 2013.

Goldsby, R.A., Thomas J. Kindt and Barbara A. Osborne. *Kuby Immunology*. New York: W.H. Freeman and Company, 2006.

Guyton, A.C. *Text Book of Medical Physiology*. London: W.B. Saunders & Co., Philadelphia, 1991.

Hole, J. W. *Essentials of Human Anatomy and Physiology*. Wim C. Brown, 1992.

Sherwood, Lauralee. *Human Physiology – From cells to Systems*. USA: Wadsworth, 1997.

Solomon, Eldra P., Diana W. Martin and Linda Berg. *Biology*. U.S.A: Thomson Books, 2005.

Stuart Ira Fox. *Human Physiology*. New York: McGraw Hill Companies, 2011.

JOURNALS

Journal of Physiology

Indian Journal of Physiology

The Journal of Immunology

Open Journal of Immunology

WEB SOURCES

www.innerbody.com

www.getbodysmart.com

www.immunologylink.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $6 \times 2 = 12$ Marks (All questions to be answered)

Section B – $3 \times 6 = 18$ Marks (3 out of 5 to be answered)

Section C – $1 \times 20 = 20$ Marks (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Quiz

Assignment

Poster Making

Data collection and interpretation

End Semester Examination

Total Marks: 100

Duration: 3 hours.

Section A – $10 \times 3 = 30$ Marks (All questions to be answered)

Section B – $5 \times 6 = 30$ Marks (5 out of 7 to be answered)

Section C – $2 \times 20 = 40$ Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH V.I.A. - ADVANCED ZOOLOGY AND BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 -2016)
CONSERVATION BIOLOGY

CODE: 15ZL/ME/CB55

CREDITS : 5

L T P : 4 1 0

TOTAL TEACHING HRS. : 65

OBJECTIVES OF THE COURSE

- To create an awareness regarding threats to existing Biodiversity
- To emphasize a need for conservation of Biodiversity

Unit 1

Biological Diversity (12 hrs.)

- 1.1 Introduction – Concept of Species – Species Richness, Evenness and Diversity
- 1.2 Geographical and Ecological Factors Affecting Distribution of Biodiversity-
Latitudinal Gradient – Theories; Measurement of Species Number – Species Area
Relationship - Endemism
- 1.3 Biodiversity and Community – Metapopulations – Source and Sink Concept
- 1.4 Valuing Biological Diversity

Unit 2

Threats to Biodiversity (14 hrs.)

- 2.1 Loss of Biodiversity: Causes – Natural and Anthropogenic; Habitat Loss,
Degradation and Fragmentation, Pollution, Disease, Overexploitation, Wildlife
Trade, Overabundance, Invasive Species, Global Climate Change
- 2.2 Extinction – Extinction over Geological Time and Anthropogenic Extinctions –
Extinction Rate
- 2.3 Monitoring Biodiversity
- 2.4 Human-Wildlife Conflicts – Causes – Mitigation – Case Studies

Unit 3

Conservation (14 hrs.)

- 3.1 A Historical Perspective
- 3.2 Conservation – Characteristics; Approaches – Community Based – Fortress
Approach; Socio-Economic Aspects - Community Based Conservation – Case
Studies; Conservation Movements
- 3.3 Island Biogeographic Theory and Conservation Practice – Designing Biosphere
Reserves – Single Large or Several Small (SLOSS)
- 3.4 Conservation Strategies - *In Situ*: National Parks, Marine Parks, Wildlife Sanctuaries,
Biosphere Reserves, Sacred Groves, Community Reserves and Wildlife Corridors -
Global Hotspots – Ecoregions – Urban Wildlife Conservation
- 3.5 Conservation Strategies – *Ex Situ*: Zoos, Gene Banks - Captive Breeding and
Reintroductions - Molecular Approach To Conservation - Single Species
Conservation: Pros and Cons – Keystone Species, Umbrella Species, Indicator
Species and Flagship Species

Unit 4

Conservation Laws, Organizations and Ecotourism (13 hrs.)

- 4.1 Forest Conservation Act (1980), Wildlife Protection Act, (1972) and its Amendments, Earth Summit at Rio De Janeiro, Convention On Biological Diversity (CBD), Biodiversity Act (2002), CITES, Intellectual Property Rights (IPRS) and Protection (IPP)
- 4.2 Role of IUCN - Red Data Book – MAB - Role of Institutions in Conservation- Ramsar Convention for Wetland Conservation
- 4.3 Government Agencies and Conservation - NGOs and Conservation – Case Studies – Indian Conservation Biologists – Forging a National Strategy
- 4.4 Ecotourism

Unit 5

(12 hrs.)

Ecosystem Management and Restoration Ecology

- 5.1 Ecosystem Stress
- 5.2 Ecosystem Management – Managing Forests – Managing Aquatic Ecosystems
- 5.3 Case Studies in Conservation Management
- 5.4 Restoring Damaged Ecosystems – Monitoring Restoration Programs
- 5.5 Traditional Ecological Management Practices - Preservation of Indigenous Knowledge
- 5.6 Sustainable Development – Challenges in the Future

TEXT BOOK

Maiti, Prabodh K. and Paulami Maiti. *Biodiversity: Perception, Peril and Preservation*. PHI Learning, 2011.

BOOKS FOR REFERENCE

Greipse, Sigurdur. *Restoration Ecology*. Jones and Bartlett Learning, 2011.

Groom, Martha.J., Gary.K. Meffe and Ronald. C. Carroll. *Principles of Conservation Biology*. Sinauer Associates, 2006.

Honey Martha. *Ecotourism and Sustainable Development*. Island Press, 1999.

MacDonald, David and Katrina Service. *Key Topics in Conservation Biology*. Blackwell, 2007.

MacZulak, Anne. *Biodiversity: Conserving Endangered Species*. Infobase, 2010.

Rosenzweig, Michel.L. *Win-Win Ecology – How the earth's species can survive in the midst of human enterprise*. Oxford University, 2003.

Swanson, Timothy.M. *Intellectual Property Rights and Biodiversity Conservation*. Cambridge University, 1995.

Wearing, Stephen and Neil, John. *Ecotourism: Impacts, Potentials and Possibilities*. Elsevier, 2009.

JOURNALS

Conservation Biology
Asian Journal of Conservation Biology
Animal Biodiversity and Conservation

WEB RESOURCES

www.conbio.org
www.conservationindia.org
<http://www.sanctuaryasia.com>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 6 x 2 = 12 Marks (All questions to be answered)

Section B – 3 x 6 = 18 Marks (3 out of 5 to be answered)

Section C – 1 x 20 = 20 Marks (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Presentations

Open book test

Exhibits

Conservation Activity

End Semester Examination

Total Marks: 100

Duration: 3 hours.

Section A – 10 x 3 = 30 Marks (All questions to be answered)

Section B – 5 x 6 = 30 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH VI.A. - ADVANCED ZOOLOGY AND
BIOTECHNOLOGY

SYLLABUS

(Effective from the academic year 2015 - 2016)

ENVIRONMENTAL BIOTECHNOLOGY

CODE: 15ZL/ME/EB55

CREDITS: 5

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To apply principles of biotechnology to environmental problems and issues
- To create an awareness of current technologies employed in environmental sustainability

Unit 1

Environmental Monitoring (13 hrs.)

- 1.1 Introduction – Need for Monitoring
- 1.2 Sampling and Analysis – Air, Soil and Water
- 1.3 Determination of Biodegradable Organic Material - Monitoring Pollution
- 1.4 Toxicity Testing Using Biological Material - Bio indicators, Biomarkers and Biosensors

Unit 2

Bioremediation (14 hrs.)

- 2.1 Introduction : Synthetic Compounds – Petrochemical Compounds and Inorganic Wastes in The Environment (A Brief Outline)
- 2.2 Bioremediation Strategies: Phytoremediation, Metal and Gaseous Bioremediation – Bioaugmentation – Genetically Modified Organisms
- 2.3 Bioremediation Techniques (*In-Situ* and *Ex-Situ*)
- 2.4 Case Studies : Exxon Valdez Oil Spill, Acidic Mine Drainage in Yellowstone National Park

Unit 3

Waste Treatment (15 hrs.)

- 3.1 Sewage Treatment Methods : STP - Sludge Treatment and Disposal; Anaerobic Digestion
- 3.2 Treatment of Agricultural Wastes - Removal of Nitrogen and Phosphorus
- 3.3 Treatment of Industrial Effluents: ETP - Distillery, Dairy, Tannery, Textile and Sugar Industries

Unit 4

Towards Sustainable Development (12 hrs.)

- 4.1 Biofertilizers in an Agro Ecosystem
- 4.2 Biopesticides: Types and Mode of Action
- 4.3 Production and Applications of Biofuels: Biogas, Biodiesel, Ethanol, Hydrogen

Unit 5

Resource Recovery (11 hrs.)

- 5.1 Introduction – Need for Recovery of Resources
- 5.2 Oil Recovery: Enhanced Oil Recovery and Microbially Enhanced Oil Recovery
- 5.3 Bioleaching: Extraction of Copper, Uranium and Gold

BOOKS FOR REFERENCE

- Evans, Gareth, M. and Judith C. Furlong. *Environmental Biotechnology: Theory and Applications*. Wiley – VCH, 2002.
- Hans – Joachim Jordening and Joseph Winter. *Environmental Biotechnology: Concepts and Applications*. Wiley – VCH, 2005.
- Maier Raina. M., Ian L Pepper and Charles.P.Gerba. *Environmental Microbiology*. Elsevier, 2009.
- Mishra, C. S. K and Asha A. Juarkar, *Environmental Biotechnology*. P. H. Corporation, 2007.
- Mohapatra, Pradipta Kumar. *Textbook of Environmental Biotechnology*. I.K.International, 2006.
- Nester, Eugene. W., Anderson, Denise. J., Roberts, Evans. C. Jr., Nancy.N Pearsall and Martha T. Nester. *Microbiology*. Mc Graw Hill Higher Education, 2008.
- Rastogi, S.C. and Shivani Rastogi. *Introduction to Biotechnology*. CBS, 2006.
- Scragg, Alan. *Environmental Biotechnology*. New York: Oxford University Press, 2007.
- Thakur Indu Shekhar. *Environmental Biotechnology – Basic Concepts and Applications*. I.K International, 2006.
- Thieman, Bill and Michael Palladino. *Introduction to Biotechnology*. Pearson Benjamin Cummings, 2010.

JOURNALS

Journal of Environmental Biotechnology
International Journal of Environmental Biotechnology
Microbial Ecology and Environmental Biotechnology

WEB RESOURCES

<http://www.environmentalbiotechnology.org/>
<http://www.biodesing.asu.edu>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 6 x 2 = 12 Marks (All questions to be answered)

Section B – 3 x 6 = 18 Marks (3 out of 5 to be answered)

Section C – 1 x 20 = 20 Marks (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Seminars

Quiz

Assignments

Case studies

Project

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 10 x 3 = 30 Marks (All questions to be answered)

Section B – 5 x 6 = 30 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH V.I.A. - ADVANCED ZOOLOGY AND BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 -2016)

MEDICAL LABORATORY TECHNOLOGY
(Skill development course)

CODE: 15ZL/ME/LT55

CREDITS : 5

L T P : 4 0 1

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To learn the foundations of clinical theory and practice
- To develop specific skills in Laboratory Techniques

Unit 1

Introduction (11 hrs.)

- 1.1 Good Lab Practices (GLP)
- 1.2 Sterilisation of Laboratory Items - Preparation of Reagents - Preparation of R.B.C & W.B.C. Fluids, Normal Saline and Leishman's Stain
- 1.3 Venous and Capillary Blood Collection Techniques - Anticoagulants - Modes of Action and Uses
- 1.4 Biomedical Wastes: Classification, Characteristics and Potential Health Hazards, Biomedical Waste Management: Rules and Regulations

Unit 2

Haematology (14 hrs.)

- 2.1 Red Blood Corpuscle: Structure (Normal & Abnormal) - Erythropoiesis - Total Count - Packed Cell Volume - Wintrobe's and Microhaematocrit Techniques - Total Reticulocyte Count - Erythrocyte Sedimentation Rate: Westergren's Method - Haemoglobin Estimation: Sahli's and Drabkin's Methods - Estimation of Haemoglobin By Drabkin's Method (Practicals) - Different Types of Anaemia - Polycythemia
- 2.2 White Blood Corpuscle: Leucopoiesis - Total W.B.C Count - Preparation of Blood Smear For Differential Count - Different Types of W.B.C - Leucocytosis - Leucopenia, Leukemia
- 2.3 Blood Platelets - Platelet Counting

Unit 3

Transfusion and Coagulation (13 hrs.)

- 3.1 Immunohaematological Studies - Blood Groups and Rh-Types
- 3.2 Transfusion of Blood and Blood Components - Tests For Compatibility
- 3.3 Blood Coagulation: Process and Theory - Bleeding Time - Clotting Time - Prothrombin Time

Unit 4

Pathology (14 hrs.)

- 4.1 Urine: Macroscopic, Microscopic and Chemical Analysis

- 4.2 Examination of Blood Smear for Malarial Parasites and Microfilariae – Motion Analysis for Common Protozoan and Helminthic Intestinal Parasites
- 4.3 Analysis of Cerebrospinal Fluid - Seminal Fluid
- 4.4 Mode of Infection, Pathological Changes and Symptoms of Acquired Immuno Deficiency Syndrome (AIDS), Hepatitis and Tuberculosis (TB)

Unit 5

Clinical Tests

(13 hrs.)

- 5.1 Blood Glucose and Blood Urea – Ranges in Health and Disease and Interpretation Estimation of Glucose (Practical)
- 5.2 Total Serum Cholesterol Estimation - Ranges in Health and Disease and Interpretation - Estimation of Serum Cholesterol (Practical)
- 5.3 Physiology and Biochemistry of the Serum Enzymes – Aspartate Transaminase (AST) and Alanine Transaminase (ALT)
- 5.4 Laboratory Pregnancy Tests

BOOKS FOR REFERENCE

- Baker, F.J., R.E. Silvertown, and C.J. Pallister. *Baker and Silvertown's Introduction to Medical Laboratory Technology*. Hodder Arnold, 2001.
- Bauer, J.D. *Clinical Laboratory Methods*. New Delhi: B.I. 1990.
- Estridge, B.H., A.P. Reynolds, and N.J. Walters. *Basic Medical Laboratory Techniques*. Africa and Australia: Delmar Thomas Learning, 2002.
- Guyton, A.C. and Hall. *A Text Book of Medical Physiology*. USA: Saunders Elsevier, 2010.
- McPherson R.A and M. R Pincus. *Henry's Clinical Diagnosis and Management by Laboratory Methods*. Philadelphia: W.B. Saunders, 2011.
- Ramakrishnan, S and K.N Sulochana. *Manual of Medical Laboratory Techniques*. Jaypee Brothers Medical, 2012.
- Raphael, S.S. *Lynch's Medical Laboratory Technology*. Philadelphia: W.B. Saunders Co., 1983.
- Sood, R. *Textbook of Medical Laboratory Technology*. New Delhi: Jaypee Brothers Medical, 2006.

JOURNALS

- Journal of Clinical Laboratory Analysis
- American Journal of Medical Technology
- Journal of Medical Science and Technology

WEB RESOURCES

- www.csmls.org
- <http://www.nlm.nih.gov/medlineplus>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $6 \times 2 = 12$ (All questions to be answered)

Section B – $3 \times 6 = 18$ (3 out of 5 to be answered)

Section C – $1 \times 20 = 20$ (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Seminars

Quiz

Case studies

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 3 = 30$ Marks (All questions to be answered)

Section B – $5 \times 6 = 30$ Marks (5 out of 7 to be answered)

Section C – $2 \times 20 = 40$ Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH VI.A. - ADVANCED ZOOLOGY AND BIOTECHNOLOGY
(Effective from the academic year 2015 -2016)

PROJECT

CODE: 15ZL/ME/PR55

CREDITS : 5

L T P : 0 0 5

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To enable students to carry out an independent study on a topic of their choice
- To create a spirit of scientific inquiry among students

Criteria for Selection of Candidates

- The student should have research aptitude
- The student should possess good analytical skills, computer skills, good writing skills and the ability to interpret and discuss scientific data
- An eligibility test will be conducted

Guidelines

- Each student will present a list of topics in the area of her interest
- One of the topics will be approved by the Supervisor
- The project work will require
 - Practical work
 - Submission of project report
 - Viva-voce
- Project report should be submitted at the end of the semester on the stipulated date.

Evaluation

Continuous Assessment – 50 marks

End semester evaluation of project work and viva-voce-50 marks

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SYLLABUS
(Effective from the academic year 2015 - 2016)

CONCEPTS IN ANIMAL WELFARE

CODE:15ZL/GE/AW22

CREDITS: 2

L TP : 2 0 0

TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE

- To inculcate a humane and caring attitude towards animals
- To create an awareness about the use of non-animal alternatives in Testing and Research

Unit 1

Animal Welfare – Introduction and Behavioural Indicators (8hrs.)

- 1.1 Science, Ethics, Law and Welfare Assessment
- 1.2 Mental, Physical and Natural Assessment -Five Freedoms
- 1.3 Factors That Contribute to Animal Behaviour and Welfare
- 1.4 Recognition of Normal Behaviour -Possible Causes of Abnormal Behaviour of Animals in Wild, Zoo , Domestic and Pets
- 1.5 Contribution of Animals to Human Society - Cultural and Historical Influences
- 1.6 Wildlife – Companion Animals – Pet Animals – Farm or Food Animals
- 1.7 Relationship Between Animal Abuse and Human Violence

Unit 2

Ethical Concerns (10hrs.)

- 2.1 Exploitation of Animals - Wildlife Trade: Turtle Trade, Fur, Mink, Bear Farms, Whaling, Leather and Snake Skins -Exotic Pet Trade
- 2.2 Animals in Sport / Entertainment – Jallikattu, Hunting, Angling, Horse Races, Circuses, Horse and Elephant Polo – Cock Fight – Insect Fight – Spider Fight
- 2.3 Animal Testing - Animals Used for Education and Research – Regulatory Tests Using Animals – Drug Testing – Toxicology Testing – LD₅₀–Cosmetic Product Testing – Eye Irritation – Skin Irritation – Skin Corrosion – Cruelty Free Products – Animal Care Careers – Case Studies
- 2.4 Animal Suffering-Behavioural Assessment of Animal Pain – Dairy Cows and Veal Calves – Egg – Laying Hens and Broiler for Meat – Transport towards Death – Slaughter and Death

Unit 3

Animal Welfare – National and International Legislations. (8hrs.)

- 3.1 Introduction – CITES (Convention on International Trade in Endangered Species), AATA and IATA
- 3.2 Animal Protection Laws – Animal Welfare Act – The Prevention of Cruelty to Animals Act
- 3.3 Wildlife Act – The Wild Life (Protection) Amendment Act
- 3.4 Animal Welfare Organizations – Blue Cross – SPCA – WSPA – PETA – ANIMAL WELFARE BOARD OF INDIA – PFA – The International Fund for Animal Welfare (IFAW) -CPCSEA

3.5 Humane Approach to Animals - Alternatives to Animal Testing – 3Rs (Reduction, Refinement, Replacement)– Use of Alternative Methods - First Aid for Animals – ABC Drill

BOOKS FOR REFERENCE

Council of Europe, European Convention for the Protection of Vertebrate Animals Used for Experimental and Other Scientific Purposes, pp.51. 1986.

Russel, W.M.S. and R.L. Burch, R.L. *The Principle of Humane Experimental Technique*, London. 1959.

Smyth, D. *Alternatives to Animal Experiments*, London: Scholar Press, 1978.

WSPA– World Society for the protection of the Animals, *Concepts in Animal Welfare Contents, Introduction, Explanatory notes and further resources*, University of Bristol. 2010.

JOURNAL

Animal Welfare

Journal of Applied Animal Welfare Science

Open Journal of Animal Sciences

WEB RESOURCES

ALTWEB: *Alternatives to animal testing*, The Johns Hopkins Center for Alternatives to Animal Testing (CAAT)

Animal Suffering in the Broiler Industry: A COK Report, Compassion in World Farming Trust.

www.peta.org

worldanimal.net

PATTERN OF EVALUATION

No End Semester Examination

CONTINUOUS ASSESSMENT

Continuous Assessment Test – 25 marks

Question Paper Pattern

Section A – $3 \times 2 = 6$ Marks (All questions to be answered)

Section B – $3 \times 3 = 9$ Marks (3 out of 5 to be answered)

Section C – $2 \times 5 = 10$ Marks (2 out of 3 to be answered)

Third Component- 25 marks

List of Evaluation Modes:

Scrap Book

Presentation

Assignment

Case study

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Degree Programmes

SYLLABUS
(Effective from the academic year 2015 -2016)

DISEASES AND MANAGEMENT

CODE: 15ZL/GE/DM22

CREDITS : 2

L T P : 2 0 0

TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE

- To study the causation, symptoms and diagnosis of important communicable and non-communicable diseases
- To learn the prevention and management of important communicable and lifestyle diseases

Unit 1

Diseases

(8 hrs.)

- 1.1 Introduction - Classification
- 1.2 Principles of Epidemiology - Disease Cycle – Disease Progression
- 1.3 Normal Microbiota of The Human Body
- 1.4 Vaccines: Types – Immunization Schedule

Unit 2

Communicable Diseases and Management

(10 hrs.)

- 2.1 Nosocomial and Fomite-Borne Infections
- 2.2 Air Borne Diseases: Tuberculosis, Swine Flu and Measles
- 2.3 Food and Water Borne Diseases: Hepatitis A, Typhoid and Cholera
- 2.4 Sexually Transmitted Diseases: Syphilis, Gonorrhoea and AIDS
- 2.5 Zoonotic: Leptospirosis, Dengue Fever and Chikangunya

Unit 3

Non-Communicable Diseases and Management

(8 hrs.)

- 3.1 Breast Cancer – Cervical Cancer
- 3.2 Thyroid Disorders
- 3.3 Myocardial Infarction (MI) – Chronic Obstructive Pulmonary Disorder (COPD)
- 3.4 Diabetes - Gastrointestinal Ulcers (Peptic and Duodenal)
- 3.5 Parkinson's Disease

BOOKS FOR REFERENCE

- Goel, S.L. *Education of Communicable and Non-Communicable Diseases*. Mayur, 2009.
- Merrill Ray. *Introduction to Epidemiology*. Jones and Bartlett, 2010.
- Park, J.E. *Textbook of Preventive and Social Medicine*. Banarsidas Bhanot, 1991.
- Shier David, Butler Jackie and Lewis, Ricki. *Hole's Essentials of Human Anatomy and Physiology*. McGraw Hill, 2011.
- Tortora, G.J, Funke B.R. and Case, C.L. *Microbiology: An Introduction*. Pearson Education, 2014.

JOURNALS

- The Journal of Infectious Diseases
The Journal of Communicable Diseases
Population Health Management

WEB RESOURCES

- <http://ismocd.org/>
http://www.photius.com/countries/india/society/india_society_communicable_and_non~76.html
<http://www.healthissuesindia.com/noncommunicable-diseases/>

PATTERN OF EVALUATION

No End Semester Examination

CONTINUOUS ASSESSMENT

Continuous Assessment Test – 25 marks

Question Paper Pattern

- Section A – 3 x 2 = 6 Marks (All questions to be answered)
Section B – 3 x 3 = 9 Marks (3 out of 5 to be answered)
Section C – 2 x 5 = 10 Marks (2 out of 3 to be answered)

Third Component- 25 marks

List of Evaluation Modes:

- Scrap Book
- Presentation
- Assignment
- Case study

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
General Elective Course Offered by Department of Zoology to Students of
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(except B.Sc. Advanced Zoology and Biotechnology) Degree Programmes

SYLLABUS
(Effective from the academic year 2015 -2016)

APPLIED ZOOLOGY

CODE: 15ZL/GE/AZ23

CREDITS : 3

L T P : 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To understand the applied aspects of Zoology
- To encourage entrepreneurship among students to take up small scale industries as a career

- Unit 1 (10 hrs.)**
- 1.1 Apiculture: Different Species - Social Organisation – Equipment and Tools Required for Setting up Apiary- Bee Products: Honey, Beeswax and Bee Venom – Testing of Purity of Honey
 - 1.2 Sericulture: Different Types of Silk - Life-History of *Bombyx mori* – Rearing and Post Cocoon Treatment - Economic Importance
 - 1.3 Lac Culture: Processing of Lac - Economic Importance
- Unit 2 (9 hrs.)**
- 2.1 Economic Importance of Crab, Prawn, Lobster, Edible and Pearl Oyster
 - 2.2 Fish Culture: Management of Fish Farm
 - 2.3 Ornamental Fish - Setting up and Maintenance of Aquarium / Fish Tank
- Unit 3 (7 hrs.)**
- 3.1 Medicinal Significance of Animal and Animal Products: Sponges, Corals, Leech Therapy, Scorpion Venom, Bee Venom, Shells, Fish Liver Oil and Snake Venom
 - 3.2 Leather – Economic Importance
- Unit 4 (7 hrs.)**
- 4.1 Poultry Farming: Different Breeds of Fowls in India - Housing and Rearing - Economic Importance
 - 4.2 Dairy Farming: Milk and Milk Products - Testing of Milk – Biogas (Gobar Gas)
 - 4.3 Visit to Poultry Farm/Dairy Farm/Fish Farm
- Unit 5 (6 hrs.)**
- 5.1 Vermitechnology: Vermiculture – Vermicomposting and Vermiwash – Applications in Organic Farming
 - 5.2 Setting up of a Vermipit - Workshop

BOOKS FOR REFERENCE

- Ahsan, J. and S.P. Sinha. *Handbook of Economic Zoology*. New Delhi: S. Chand, 2008.
- Ayyar, T.V. R. *Handbook of Economic Entomology*. Madras: For South India, 1963.
- Banerjee, G.C. *Poultry*. New Delhi: Oxford and IBH Publishing, 1992.
- Daugherty, Lewis Sylvester. *Principles of Economic Zoology*. General Books, 2012.
- Ismail, S.A., *The Earthworm Book*. Goa: India Press, 2005.
- Jhingran, V.G. *Fish and Fisheries of India*. New Delhi: Hindustan, 1982.
- Kurien, C.V. and V.C. Sebastian. *Prawn Fisheries of India*. New Delhi: Hindustan, 1986.
- Mishra R.C. *Perspectives in Indian Apiculture*. Jodhpur: Agrobios, 2002.
- Nayar, K.K., T.N. Anantha Krishnan, and B.V. David. *General and Applied Entomology*. New Delhi: Tata McGraw Hill, 1990.
- Rao, Mohan Madan. *Comprehensive Sericulture Manual*. Hyderabad, 1999.
- Shukla, G.S. and V.B. Upadhyay. *Economic Zoology*. Meerut: Rastogi, 2010.
- Vasantharaj, B. David. *Pest Management and Pesticides*. Madras: Namrutha, 1992.
- Vasanthraj, B. and T.N. Ananthakrishnan. *General and Applied Entomology*. Tata McGraw Hill, 2004.

JOURNALS

- The Journal of Basic and Applied Zoology
Zootecnia Tropical
Fishery Technology
International Journal of Zoological Research

WEB RESOURCES

- <http://www.beeculture.com/>
<https://www.karnataka.gov.in/sericulture/>
<http://www.enaca.org/>

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment

Total Marks : 50

Duration:90 mins.

Question Paper Pattern

Section A – 10 x 2 = 20 Marks (All questions to be answered)

Section B – 3 x 5 = 15 Marks (3 out of 5 to be answered)

Section C – 1 x 15 = 15 Marks (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Quiz

Scrap Book / Assignment / Poster Presentation

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
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B A. / B.Sc. / B.Com. / B.S.W / B.V.A/ B.C.A. (except B.Sc. Advanced Zoology and
Biotechnology & B.Sc. Plant Biology and Biotechnology) Degree Programmes

SYLLABUS
(Effective from the academic year 2015 -2016)

GENES, DISEASES AND SOCIETY

CODE: 15ZL/GE/GD23

CREDITS : 3

L T P : 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To understand the basic principles of Human Heredity
- To familiarise students with the recent advances in the field of Genetics and their ethical and social implications

Unit 1 (7 hrs.)

- 1.1 Introduction - Human Gametes and their Role in Heredity – DNA the Genetic Material - Human Chromosomes – Sex Determination in Human
- 1.2 Mendelian Inheritance: Monohybrid and Dihybrid Cross Experiments - Laws of Inheritance – Identification of Mendelian Traits in Human - Pedigree Analysis and its Applications

Unit 2 (9 Hrs.)

- 2.1 Incomplete Dominance (Hair, Straight / Curled) – Codominance (Sickle Cell Anemia)
- 2.2 Lethal Genes, Types and Inheritance
- 2.3 Multiple Allelic Inheritance (ABO and Rh Blood Types in Human) – ABO Blood Grouping and Rh Typing Practical – Case Study/Problem Solving
- 2.4 Polygenic Inheritance (Skin Colour in Man)

Unit 3 (8 hrs.)

- 3.1 Autosomal Recessive Inheritance (Albinism) - Autosomal Dominant Inheritance (Familial Hypercholesterolemia)
- 3.2 X-Linked Dominant Inheritance (Hypophosphatemia) – X-Linked Recessive Inheritance (Haemophilia) – Y-Linked Inheritance (Hypertrichosis) – Mitochondrial Inheritance (Kearns Sayre Syndrome)
- 3.3 Sex Influenced and Sex Limited Genes and their Inheritance

Unit 4 (8 hrs.)

- 4.1 Disorders with Genetic Predisposition: Diabetes, Breast Cancer, Autism and Alzheimer's Disease
- 4.2 Chromosomal Disorders: Down's Syndrome, Turner's Syndrome, Klinefelter's Syndrome - Observation of Karyotypes
- 4.3 Metabolic Disorders: Phenylketonuria, Huntington Disease and Lactose Intolerance
- 4.4 Genetic Counselling – Eugenics – Consanguineous Marriage and its Impact in the Society

Unit 5 **(7 hrs.)**

- 5.1 A Fundamental Understanding of Recent Advances in the Field of Genetics – Application of Genetic Engineering - Genetically Modified Organisms, Gene Therapy and Gene Cloning
- 5.2 Predictive Genetic Testing: DNA Finger Printing (Case Study)
- 5.3 The Human Genome Project: Objectives and Applications
- 5.4 Ethical, Legal and Societal Issues (ELSI) Related to Techniques in Genetics

BOOKS FOR REFERENCE

- Benjamin A. Pierce. *Genetics – A conceptual approach*. New York: W. H. Freeman, 2008.
- Cummings, Michael R. *Human Heredity – Principles and issues*. Thomson Brooks/Cole, 2003.
- Klug, William, S, Michael R. Cummings and Charlotte Spencer. *Concepts of Genetics*. Pearson Education, 2012.
- Russel, Peter. J. *Genetics – A molecular approach*. Benjamin Cummings, 2011.
- Snustand, Peter D. and Michael J. Simmons. *Principles of Genetics*. New York: John Wiley, 2012.

JOURNAL

Journal of Human Genetics

WEB RESOURCES

www.learn.genetics.utah.edu
www.omim.org

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment

Total Marks: 50

Duration: 90 mins.

Question Paper pattern

Section A – 10 x 2 = 20 Marks (All questions to be answered)

Section B – 3 x 5 = 15 Marks (3 out of 5 to be answered)

Section C – 1 x 15 = 15 Marks (1 out of 2 to be answered)

Third component

Quiz	- 30 marks
Pedigree chart construction/Problem solving/Assignment	- 20 marks

Third Component:

List of evaluation modes:

Quiz

Pedigree Chart Construction

Assignment

Poster Presentation

Problem Solving

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
General Elective Course Offered by the Department of Zoology for
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Degree Programmes

SYLLABUS
(Effective from the academic year 2015 -2016)

BIOLOGY OF HUMAN REPRODUCTION

CODE: 15ZL/GE/HR23

CREDITS : 3

L T P : 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To understand the human reproductive system and its functions
- To study the biological aspects of sexuality from a structural and functional standpoint

Unit 1

Human Reproductive System (8 hrs.)

- 1.1 Male Reproductive System – Testis – Testicular Functions
- 1.2 Female Reproductive System – The Ovary – Ovulation – Menstrual Cycle
- 1.3 Hormonal Control of Reproduction: H-P-G Axis
- 1.4 Puberty - Menopause - Andropause

Unit 2

The Course of Human Development (8 hrs.)

- 2.1 Procreation – Fertilization – Implantation – Placentation- Embryonic and Fetal Development
- 2.2 Prenatal Diagnosis – Sex Determination
- 2.3 Pregnancy – Care of The Pregnant Woman –The importance of Diet and Exercise
- 2.4 Parturition and Lactation- Postnatal Care of Mother and Newborn
- 2.5 Consanguinity – Fetal Loss and Birth Defects

Unit 3

Infertility and Sexually Transmitted Diseases (8 hrs.)

- 3.1 Male and Female Infertility – Physiological Causes
- 3.2 Smoking and Infertility – Obesity and Infertility – Stress and Infertility
- 3.3 Alcoholism and Reproduction – Psychoactive Drugs and Reproduction
- 3.4 Artificial Control of Fertility – Abstinence – Contraception
- 3.5 Sexually Transmitted Diseases: AIDS, Gonorrhoea, Syphilis, Genital Herpes and Genital Warts

Unit 4

Assisted Reproductive Technology (8 hrs.)

- 4.1 Artificial Insemination – Induced Ovulation
- 4.2 In Vitro Fertilization (IVF) and Embryo Transfer (ET) –GIFT- ZIFT – TET
- 4.3 Surrogate Motherhood
- 4.4 Cryopreservation of Gametes and Embryos
- 4.5 Stem Cell Banking – Cloning

Unit 5

Ethical, Societal and Legal Issues

(7 hrs.)

- 5.1 Ethical and Policy Issues Involving Sperm Banks and Egg Donors
- 5.2 Ethical, Societal and Policy Issues in Surrogate Parenting
- 5.3 Adoption – Organizations – Laws
- 5.4 Ethical and Policy Issues in Stem Cell Banking and Human Cloning
- 5.5 Human Embryo Research

BOOKS FOR REFERENCE

Bhargava, Vinita. *Adoption in India. Policies and Experiences*. Sage Publications, 2005.

Cassan, A. *Human reproduction and Development (Inside the Human Body)*. Chelsea Clubhouse, 2005.

Field, Martha. A. *Surrogate Motherhood*. Harvard University, 1990.

Gardner, David K., *Textbook of Assisted Reproductive Techniques: Laboratory and Clinical Perspectives*. Martin Dunitz, 2001.

Johnson, Martin H. *Essential Reproduction*. Wiley-Blackwell, 2007.

Jones, Richard E. *Human Reproductive Biology*. Elsevier, 2006.

Pinon, Ramon. *Biology of Human Reproduction*. University Science Books, 2002.

JOURNALS

Journal of Human Reproductive Science

Human Reproduction

WEB RESOURCES

www.physiologyweb.com

<http://www.visembryo.com/baby/index.html>

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment

Total Marks: 50

Duration : 90 mins

Question Paper Pattern

Section A – 10 x 2 = 20 Marks (All questions to be answered)

Section B – 3 x 5 = 15 Marks (3 out of 5 to be answered)

Section C – 1 x 15 = 15 Marks (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Quiz

Scrap Book/ Assignment / Poster making

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
General Elective Course Offered by Department of Zoology to Students of
B A. / B.Sc. / B.Com. / B.S.W / B.V.A (except B.Sc. Advanced Zoology and Biotechnology
& B.Sc. Plant Biology and Biotechnology) Degree Programmes

SYLLABUS
(Effective from the academic year 2015 -2016)

NUTRITION AND DIET THERAPY

CODE: 15ZL/GE/ND23

CREDITS : 3

L T P : 3 0 0

TOTAL TEACHING HOURS: 39

OBJECTIVES OF THE COURSE

- To familiarise students with nutrition, health, food safety and nutritional disorders
- To understand the principles and practices involved in Diet Therapy

Unit 1 (7 hrs.)

- 1.2 Sources and Functions of Macro nutrients and Micro nutrients, Antioxidants and Fiber
- 1.3 Balanced Diet-Food Groups and Food Guide
- 1.3 Malnutrition: Protein Energy Malnutrition (PEM), Iodine Deficiency, Vitamin A Deficiency and Iron Deficiency
- 1.4 Nutrigenomics

Unit 2 (10 hrs.)

- 2.1 Eating Disorder Continuum: Anorexia nervosa, Bulimia nervosa, Binge Eating Disorder and Night Eating Syndrome
- 2.2 Overweight and Obesity, Hypertension and Osteoporosis
- 2.3 Nutritional –Related Concerns of Adolescents

Unit 3 (10 hrs.)

- 3.1 Diet Therapy: Purpose and Principles - Food Acceptance in Illness - Therapeutic Diets –Tube Feeding – Parenteral Feeding
- 3.2 Diet for-Diabetes Mellitus and Cardiovascular Diseases
- 3.3 Diet Therapy for Addictive Behaviors - Anorexia nervosa, Bulimia nervosa and Alcoholism

Unit 4 (7 hrs.)

- 4.1 Food Allergies - Classification and Dietary Management
- 4.2 Adulteration in Food (Simple Tests)
- 4.3 Quality Control and its Importance - Food Laws and Food Administration- Code Numbers in Marketing

Unit 5 (5 hrs.)

- 5.1 Meal Planning – Nutritious Food (Breakfast, Lunch and Dinner) – Calculation of Calories
- 5.2 Preparation of Low Cost Nutritious Food - Practicals
- 5.3 Nutritious Food for Anaemic Individuals, Adolescents, Pregnant Women and Elderly Persons

BOOKS FOR REFERENCE

- Insel, Paul.R. Elaine Turner and Don Ross. *Discovering Nutrition*. Jones and Bartlett, 2007.
- Mudambi, S.R. and M.V. Rajagopal. *Fundamentals of foods. Nutrition and Diet therapy*. New Age International, 2009.
- Srilakshmi, B. *Nutrition Science*. New Age International, 2009.
- Wardlaw, Gordon M. and Jeffrey S. Hampl. *Perspectives in Nutrition*. New York: McGraw Hill, 2007.
- Brown, Judith E. *Nutrition Now*. Canada: Wadsworth Thomson Learning, 2003.

JOURNALS

- Journal of Nutritional Disorders and Therapy
Journal of Food Science and Nutrition Therapy

WEB RESOURCES

- <http://www.eatright.org/>
<http://www.who.int/nutrition/en/>

PATTERN OF EVALUATION

No End Semester Examination

Continuous Assessment

Total Marks: 50

Duration : 90 mins.

Question Paper pattern

Section A – 10 x 2 = 20 Marks (All questions to be answered)

Section B – 3 x 5 = 15 Marks (3 out of 5 to be answered)

Section C – 1 x 15 = 15 Marks (1 out of 2 to be answered)

Third Component:

List of Evaluation modes:

- Assignment
- Preparation of low cost nutritious food
- Preparation of specific diet
- Scrap book

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
B.Sc. DEGREE: BRANCH VI.A. - ADVANCED ZOOLOGY AND BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 – 2016)

FUNDAMENTALS OF FOOD SCIENCE

CODE: 15ZL/UI/FS23

CREDITS: 3

OBJECTIVES OF THE COURSE

- To understand the fundamentals of Food Science
- To encourage Entrepreneurship

Unit 1

Food Chemistry and Nutrition

- 1.1 Introduction to Food Chemistry
- 1.2 Food Guide and Usage - Basic Five Food Groups - Malnutrition - Fortification
- 1.3 Diet Therapy: Purpose and Principles - Diet in Diabetes mellitus and Cardiovascular Diseases
- 1.4 Dietary Management

Unit 2

Food Microbiology and Sanitation and Hygiene

- 2.1 Microbial Growth-Growth Curve of Bacteria
- 2.2 Food Contamination and Spoilage –Vegetables and Fruits
- 2.3 Fish and Other Sea Food
- 2.4 Importance of Personal Hygiene of Food Handler - Safety in Food Storage - Handling and Preparation
- 2.5 Methods of Sterilization - Use of Detergents - Heat and Chemicals

Unit 3

Post Harvest Technology and Food packaging

- 3.1 Cereals and Legumes - Oil Seeds - Fruits and Vegetables - Meat Fish and Poultry
- 3.2 Fermentation Technology
- 3.3 Fortification Technology - High Protein Technology - Extruded Foods
- 3.4 Packaging Functions and Packaging Materials
- 3.5 Types of Packaging - Shrink-Strip – CFB – Glass – Tetrapak - Rigid Containers – Plastic- Shelf-Life- Plastic numbers-Bio Polymer
- 3.6 Quality Testing of Packaging

Unit 4

Food Adulteration and Food Toxicology

- 4.1 Detection of Food Adulteration in Food Grains, Dhal, Oil, Spices and Ghee
- 4.2 Estimation of Benzoic Acid and BOAA Test
- 4.3 Food Toxicology - Naturally Occurring Food Toxicants
- 4.4 Hazards of Pesticides and Heavy Metals in Food
- 4.5 Food Labeling

Unit 5

Sensory Evaluation & Quality Control

- 5.1 Factors affecting Food Acceptance - Sensory, Psychological
- 5.2 Objective Methods of Sensory Evaluation
- 5.3 Quality Control and its Importance - Food Laws

BOOKS FOR REFERENCE

- Banwart, George J. *Basic Food Microbiology*. New Delhi: CBS, 1987.
- Brown, Judith E. *Nutrition Now*. Wadsworth Thomson Learning, 2003.
- Frazier. *Food Microbiology*. New York: Mc Graw Hill, 1988.
- Insel, Paul.R. Elaine Turner and Don Ross. *Discovering Nutrition*. Jones and Bartlett, 2007.
- Jay, James.M. *Modern Food Microbiology*. McGraw Hill, 1996.
- Marriot, Norman G. *Principles of Food Sanitation*. AVI Publishing, 1989.
- Maynard A., Amerine, Rose Marie P. & Edward B. Rossler. *Principles of Sensory Evaluation of Food*. New York, 1965.
- Swaminathan, Geetha and Mary George. *Laboratory Chemical Methods in Food Analysis*. Chennai: Margham, 2002.

JOURNALS

- Food Science and Nutrition
Journal of Nutrition and Food Sciences
International Journal of Nutrition and Food Sciences

WEB RESOURCES

- <http://www.foodnavigator-asia.com/>
<http://www.foodandnutrition.org/>
<https://www.ift.org/>

PATTERN OF EVALUATION

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 hours

QUESTION PAPER PATTERN

- Section A – 10 x 3 = 30 Marks (All questions to be answered)
Section B – 5 x 6 = 30 Marks (5 out of 7 to be answered)
Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
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SYLLABUS
(Effective from the academic year 2015 -2016)

INTRODUCTION TO WILDLIFE BIOLOGY

CODE: 15ZL/UI/WB23

CREDITS : 3

OBJECTIVES OF THE COURSE

- To acquaint students with various aspects of wildlife biology and habitat ecology
- To sensitize the students to the need for conservation of wildlife

Unit 1

- 1.1 Introduction to Ecology: Habitats and Niches – Resource Partitioning
- 1.2 Landscape Ecology– High Altitude Ecology - Wetland Ecology
- 1.3 Natural Resource Management

Unit 2

- 2.1 Population Dynamics - Concepts - Animal Dispersions and Animal Populations
- 2.2 Population Growth and Its Regulation –Growth without Regulation - Regulation of Population Densities, Demographic Data
- 2.3 Factors Affecting Population Size – Space, Food and Water, Territories, Herbivores and Predators, Weather and Climate, Parasites and Diseases, Natural Disasters, Self Regulation and Stress.
- 2.4 Wildlife Population Estimation Methods – Direct – Indirect – Making Observations – Field Notes and Photographic Records; Use of Field Equipment: Binocular, Telescope, Camera, Tally Counter, GPS and Radio Telemetry

Unit 3

- 3.1 Biogeography and Wildlife Habitat: Species Distribution, Patterns, Continental Drift, Factors Affecting Animal Distribution, Biogeographic Zones of India-Endemism
- 3.2 Wildlife – Definition – Values- Biology of Indian Wildlife; Salient Features of Important Wild Animals – Insects and Other Arthropods – Fishes – Amphibians - Reptiles - Birds – Mammals
- 3.3 Man – Wildlife Interactions and Conflicts– Ecological Impacts – Concepts, Principles and Human Dimensions in Wildlife Management

Unit 4

- 4.1 Wildlife Tourism – Viewing Animals in the Wild–Wildlife Damage Management - Wildlife Crimes and Forensics
- 4.2 Wildlife Trade - Wildlife Protection -Legislations and Acts – Role of NGOs – Role of Institutions and Organizations
- 4.3 Planning and Execution of Field Surveys – Sampling Methods - Capture and Handling of Wild Animals
- 4.4 Principles of Wildlife Health – Wildlife Diseases

Unit 5

- 5.1 Need for Conservation – Strategies – *In Situ* – *Ex Situ*
- 5.2 Planning and Implementing Conservation Programmes: Wildlife Projects, Conservation Genetics and Conservation Management — Nutrition of Captive and Free Ranging Wild Fauna
- 5.3 Zoo Designing - Management and Husbandry of Zoo Animals

BOOKS FOR REFERENCE

- Anderson S.H. *Managing our wildlife resources*. Prentice Hall, 2002.
- Caughley, G. and A. R. E. Sinclair. *Wildlife Ecology and Management*. Boston: Blackwell Scientific, 1994.
- Fulbright, Timothy E. and David G. Hewitt. *Wildlife Science: Linking Ecological Theory and Management Applications*. CRC, 2007.
- Gilberts, Frederick F. and Donald G Dodds. *The Philosophy and Practice of Wildlife Management*. Krieger, 2001.
- Krausman, P.R. *Introduction to Wildlife Management - the Basics*. USA: Prentice Hall, 2002.
- Krausmann, P. R. *Wildlife Ecology and Management*. U.S.A: Prentice Hall, 2002.
- Newsome, David, Ross Dowling and Susan Moore. *Wildlife Tourism*. Cromwell, 2005.
- Silva, N.J. *The Wildlife Techniques Manual: Research & Management*. The Johns Hopkins University Press, 2012.
- Wobeser, Gary A. *Disease in Wild Animals: Investigation and Management*. Springer Verlag, 2007.

JOURNALS

- Conservation Biology
- Asian Journal of Conservation Biology
- Wildlife Biology

WEB RESOURCES

- <http://www.worldwildlife.org/>
- <http://www.wwfindia.org/>
- <http://www.natureaustralia.org.au/>

PATTERN OF EVALUATION

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 hours

Section A – 10 x 3 = 30 Marks (All questions to be answered)

Section B – 5 x 6 = 30 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)