

ST. XAVIER'S COLLEGE
(AUTONOMOUS)
Under University of Calcutta

B. Com (Honours)

SYLLABUS
(With effect from July, 2017)



**30, Mother Teresa Sarani
Kolkata - 700 016**

B.COM HONOURS CURRICULUM

BASIC STRUCTURE : DISTRIBUTION OF COURSE

1	Ability Enhancement Compulsory Course (AECC)	3 papers of 2 Credit hours each (Total Credits: 2×3 hours)	6
2	Skill Enhancement Elective Course (SEC)	2 papers of 4 Credit hours each (Total Credits : 2×4 hours)	8
3	Core Course (CC)	14 papers of 6 Credit hours each (Total Credits 6×14 hours)	84
4	Discipline Specific Elective (DSE)	4 papers of 6 Credit hours each (Total Credits 4×6 hours)	24
5	Generic Elective (GE)	4 papers of 6 Credit hours each (Total Credits 4×6 hours)	24
6	Additional Compulsory papers	2 papers of 1 Credit hours each (Total Credit 2×1 hours)	2
	Co-curricular & extra-curricular activities (NCC, NSS, Sports, Human Rights Activities etc.)		2
	TOTAL CREDITS		150

B.COM (HONOURS) CURRICULUM

SEMESTER - I

Paper Code	Papers	Marks	Category	Credits
BCHCR110	Financial Accounting	100	C C	6
BCHCR120	Business Law	100	C C	6
BCHGE130	Micro Economics	100	GE	6
BCHAE141	Business Communication - 1	50	AECC	1
BCHAE150	Modern Indian Language - 1	50	AECC	1
BCHAE160	Environmental Studies - 1	50	AECC	1
BCFND170	Foundation Course - 1	50	Additional Compulsory Paper	1
TOTAL		500		22

SEMESTER - II

Paper Code	Papers	Marks	Category	Credits
BCHCR210	Cost Accounting	100	C C	6
BCHCR220	Corporate Law	100	C C	6
BCHGE230	Macro Economics	100	GE	6
BCHAE240	Business Communication - 2	50	AECC	1
BCHAE250	Modern Indian Language - 2	50	AECC	1
BCHAE260	Environmental Studies - 2	50	AECC	1
BCFND270	Foundation Course - 2	50	Additional Compulsory Paper	1
TOTAL		500		22

SEMESTER - III

Paper Code	Papers	Marks	Category	Credits
BCHCR310	Management Principles and Applications	100	C C	6
BCHCR320	Income Tax Law and Practice	100	C C	6
BCHCR330	Human Resource Management	100	C C	6
BCHGE340	Business Mathematics and Statistics - 1	50	GE	6
BCFND270	E-Commerce	50	SEC	4
TOTAL		500		28

SEMESTER - IV

Paper Code	Papers	Marks	Category	Credits
BCHCR410	Management Accounting	100	C C	6
BCHCR420	Computer Application in Business	100	C C	6
BCHCR430	Indian Economy	100	C C	6
BCHGE440	Business Mathematics and Statistics - II	100	GE	6
BCHSE450	Entrepreneurship	100	SEC	4
TOTAL		500		28

SEMESTER - V

Papers	Marks	Category	Remarks	Credits
Principles of Marketing	100	C C		6
Fundamentals of Financial Management	100	C C		6
DSE-1 (Any one from Group-A or B)	100	DSE	Any one - either from Gr. A or B	6
DSE-2 (Any one from Group-A or B)	100	DSE	Any one - either from Gr. A or B	6
TOTAL	400			24

SEMESTER - VI

Papers	Marks	Category	Remarks	Credits
Auditing and Corporate Governance	100	C C		6
Indirect Tax Law	100	C C		6
Business Research Methods and Project Work	100	DSE		6
DSE-3 (Any one from Group-A or B)	100	DSE	Any one - either from Gr. A or B	6
TOTAL	400			24

PAPERS	
GROUP-A	GROUP-B
SEMESTER - V	
a. Corporate Accounting (For V)	a. Consumer Affairs and Consumer Care (For V)
b. Banking and Insurance (For V)	b. Advertising (For V)
SEMESTER - VI	
a. Financial Markets Institutions and Financial Services (For VI)	a. International Business (For VI)
b. Computerized Accounting System (For VI)	b. Rural Marketing and International Marketing (For VI)

AECC : Ability Enhancement Compulsory Course	CC : Core Course
SEC : Skill - Enhancement Elective Course	GE : Generic Elective
DSE : Discipline Specific Elective	

SYLLABUS**SEMESTER I****1.1. Financial Accounting****Marks : 100 Total****Lectures: 92****CONTENTS****Unit 1:****(a) Theoretical Framework 5 Lectures**

- Accounting as an information system, the users of financial accounting information and their needs. Qualitative characteristics of accounting information. Functions, advantages and limitations of accounting. Branches of accounting. Bases of accounting: cash basis and accrual basis.
- The nature of financial accounting principles – Basic concepts and conventions: entity, money measurement, going concern, cost, realization, accruals, periodicity, consistency, prudence (conservatism), materiality and full disclosures.
- Financial accounting standards: Concept, benefits, procedure for issuing accounting standards in India. Salient features of First-Time Adoption of Indian Accounting Standard (Ind-AS 101). International Financial Reporting Standards (IFRS): - Need and procedures.

(b) Accounting Process 5 Lectures

From recording of a business transaction to preparation of trial balance including adjustments and rectification of errors

Unit 2 :**(a) Business Income 14 Lectures**

- Revenue recognition: Recognition of Expenses.**
[Relevant Accounting Standard]

ii. Accounting for Property, Plant and Equipment

The nature of depreciation. The accounting concept of depreciation. Factors in the measurement of depreciation. Methods of computing depreciation: straight line method and diminishing balance method; Disposal of depreciable assets-change of method.

[Relevant Accounting Standard]

iii. Inventories : Meaning. Significance of inventory valuation. Inventory Record Systems: periodic and perpetual. Methods: FIFO and Weighted Average.

[Relevant Accounting Standard]

(b) Final Accounts **14 Lectures**

Capital and revenue expenditures and receipts: general introduction only. Preparation of financial statements of non-corporate business entities. (Sole proprietorship and Partnership)

Unit 3:

Accounting for Hire Purchase and Instalment Systems **14 Lectures**

Calculation of interest, partial and full repossession, Hire purchase trading (total cash price basis), stock and debtors system; Concepts of operating and financial lease (theory only)

Unit 4:

Accounting for Inland Branches **14 Lectures**

Concept of dependent branches; Accounting aspects: debtors system, stock and debtors system, branch final accounts system and whole-sale system. Independent branches: concept-accounting treatment: important adjustment entries and preparation of consolidated profit and loss account and balance sheet.

Unit 5: Departmental Accounting **5 Lectures**

Unit 5: Accounting For Dissolution of the Partnership Firm **14 Lectures**

Accounting of Dissolution of the Partnership Firm Including

Insolvency of partners, sale to a limited company and piecemeal distribution.

Unit 6 :

Financial Statements of Non Profit Organisation

7 Lectures

Suggested readings :

1. Hanifand Mukherjee-Financial Accounting-McGraw - Hill Education India Pvt. Ltd
2. M.C. Shukla and T.S.Grewal- Advanced Accountancy, S.Chand, New Delhi.
3. Maheswari and Maheswari-Financial Accounting , Himalaya Publishing Co.
4. R.L.Gupta and M.Radhaswamy- Advanced Accountancy, Sultan Chand, NewDelhi.
5. A.Basu - Financial Accounting, TEE DEE Publication, Kolkata.
6. D.S.Rawat - Student's Guide to Accounting Standard, Taxmann, New Delhi.
7. Accounting standard - issued by ICAI / www.icai.org.

1.2. Business Law

Marks: 100

Lectures: 65

Objective: *The objective of the course is to impart basic knowledge of the important business legislation along with relevant case law.*

Contents:

Module 1: The Indian Contract Act, 1872: General Principle of Law of Contract **15 Lectures**

- a) Contract – meaning, characteristics and kinds of contract – void, voidable, quasi and contingent contracts; Essentials of a valid contract

- b) Offer and acceptance
- c) Contractual capacity
- d) Free consent
- e) Consideration
- f) Discharge of a contract – modes of discharge
- g) Breach and remedies against breach of contract.

Module2: The Sale of Goods Act, 1930 15 Lectures

- a) Contract of sale, meaning and difference between sale and agreement to sell; Doctrine of Caveat Emptor .
- b) Conditions and warranties
- c) Transfer of ownership in goods including sale by a non-owner
- d) Performance of contract of sale
- e) Unpaid seller – meaning, rights of an unpaid seller against the goods and the buyer.

Module 3: Partnership Laws 20 Lectures

A. The Partnership Act, 1932

- a. Nature and Characteristics of Partnership
- b. Registration of a Partnership Firms
- c. Types of Partners
- d. Rights and Duties of Partners
- e. Implied Authority of a Partner
- f. Incoming and outgoing Partners
- g. Mode of Dissolution of Partnership

B. The Limited Liability Partnership Act, 2008

- a. Salient Features of LLP
- b. Differences between - LLP and Partnership, LLP and Company
- c. LLP Agreement
- d. Partners and Designated Partners
- e. Incorporation Document

- f. Incorporation by Registration
- g. Partners and their Relationship

Module 4: The Negotiable Instruments Act 1881

15 Lectures

- a) Meaning, Characteristics, and Types of Negotiable Instruments : Promissory Note, Bill of Exchange, Cheque
- b) Holder and Holder in Due Course, Privileges of Holder in Due Course.
- c) Negotiation: Types of Endorsements
- d) Crossing of Cheque
- e) Bouncing of Cheque

Suggested Readings :

1. M.C. Kuchhal, and Vivek Kuchhal, Business Law, Vikas Publishing House, New Delhi.
2. Avtar Singh, Business Law, Eastern Book Company, Lucknow.
3. Ravinder Kumar, Legal Aspects of Business, Cengage Learning
4. SN Maheshwari and SK Maheshwari, Business Law, National Publishing House, New Delhi.
5. Aggarwal S K, Business Law, Galgotia Publishers Company, New Delhi.
6. Bhushan Kumar Goyal and Jain Kinneri, Business Laws, International Book House
7. Sushma Arora, Business Laws, Taxmann Publications.
8. Akhileshwar Pathak, Legal Aspects of Business, McGraw Hill Education, 6th ed.
9. P C Tulsian and Bharat Tulsian, Business Law, McGraw Hill Education
10. Sharma, J.P. and Sunaina Kanojia, Business Laws, Ane Books Pvt. Ltd., New Delhi

Note: Latest edition of text books must be used.

1.3. Micro Economics

Marks: 100

Total Lectures: 65

CONTENTS

Unit 1:

Demand and Consumer Behaviour 13 lectures

- Concept of scarcity and choice, Opportunity cost, Three basic economic questions. Market and prices.
- Indifference curve analysis of consumer behavior; Consumer's equilibrium (necessary and sufficient conditions). Price elasticity and price consumption curve, income consumption curve and Engel curve, price effect in terms of income and substitution effects. Indifference curves as an analytical tool (cash subsidy v/s. kind subsidy and food stamp program).
- Concepts of revenue: marginal and Average: Revenue under conditions of Perfect and imperfect competition. Elasticity of demand: price, income and cross.

Unit 2:

Production and Cost 13 lectures

- Production function.
- Law of variable proportions.
- Production isoquants.
- Production optimization.
- Expansion path.
- Returns to scale.
- Different concepts of short run and long run cost, private vs. social cost (with examples),
- The Learning Curve.
- Economies of scope.
- Economies of scale in purchasing, in advertising and in R&D.

Unit 3:

Perfect Competition 13 lectures

- Profit and cost concepts,
- Goals of the firm.
- Structural characteristics of Perfect Competition
- Output decision in the short run and long run
- Short run supply curve.
- Industry Equilibrium.
- Demand-Supply Analysis including impact of Price Control, Price Support, taxes and subsidy.

Unit 4:

Monopoly 10 lectures

- Sources of monopoly power
- Short-run equilibrium
- Long-run equilibrium in monopoly market
- Determinants of market power
- Inefficiency under Monopoly
- Degrees of Price Discrimination
- Pricing Strategies - Peak load Pricing and Multi Product Pricing.

Unit 5:

Imperfect Competition 12 lectures

(i) Monopolistic Competition

- Assumptions Of The Model
- Short-Run Equilibrium
- Long Run Equilibrium
- Excess Capacity

(ii) Oligopoly

- Oligopolistic Interdependence
- **Different Oligoplistic Models :**
 - A) Cournot Model

B) Collusive Equilibrium

C) 1st Mover Advantage

- Comparison of Cournot Equilibrium With Collusive Equilibrium
- Game Theory and Prisoner's Dilemma

Unit 6:

Externalities, Public Goods And Common Resources

4 lectures

- Features of Public Goods
- Free – Rider Problem With Examples
- Concept of Externalities with examples
- Common Resources - Tragedy of Commons

References :

1. Pindyck, R.S., D. L. Rubinfeld and P. L. Mehta : 'Microeconomics', Pearson Education.
2. N. Gregory Mankiw : 'Principles of Micro Economics', Thompson.
3. Maddala G. S. and E. Miller : 'Microeconomics: Theory and Applications', McGraw-Hill Education.
4. Salvatore, D : 'Schaum's Outline: Microeconomic Theory', McGraw-Hill, Education.
5. Thomas and Maurice : 'Managerial Economics', TMH
6. Keat & Young : 'Managerial Economics', PHI.
7. Damodaran, Suma : 'Managerial Economics', OUP.
8. Dominic Salvatore: 'Managerial Economics in a Global Economy', OUP.
9. Craig H. Petersen and W. Chris Lewis : 'Managerial Economics', 4th Edition.
10. Hal R. Varian : 'Intermediate Microeconomics: A Modern Approach', Ninth Edition.

1.4. Business Communication

Full Marks: 50

1. The following pieces to be studied as seen comprehension (only textual objective question will be set). 4×2=8 lectures
 - A) Knowledge and wisdom – Bertrand Russell
 - B) A Talk on Advertising – Herman Wouk
 - C) Dynamic life – Jawaharlal Nehru
 - D) Civilization of today – C.E.M. Joad15 Marks
2. Unseen Precis writing with a suitable title (prose passage only).
1 Lecture 5 marks
3. Substance writing with a critical note. (Unseen Prose passages only).
1 Lecture 10 Marks
4. Report Writing (Journalistic and commercial).
2 Lectures 10 Marks
5. Types of business letters (Complaint, Adjustment, Application, Appointment, Order, Cancellation, Order, Insurance, Banking).

Books Recommended :

1. Wren and Martin
2. Learning Objective English – R.S . Agarwal/ Vikas Agarwal
3. Plastering Business English – Publication Orient Longman
4. University English Selections
5. Commercial English – K.K. Sinha

1.5 (a) Hindi (MIL)

Full Marks: 50

1. हिन्दी साहित्य का इतिहास : (संक्षिप्त परिचय) 5
क) काल विभाजन और नामकरण 5
ख) निम्नलिखित कवियों का संक्षिप्त परिचय :-
(विद्यापति, कबीरदास, तुलसीदास, सूरदास, जायसी, आरतेन्दु, महावीर प्रसाद द्विवेदी, मैथिली शरण गुप्त, जयशंकर प्रसाद, सूर्यकांत त्रिपाठी 'निराला', महादेवी वर्मा, सुमित्रानंदन पंत, रामधारी सिंह दिनकर, सच्चिदानंद हीरानंद वात्स्यायन 'अज्ञेय')
(इस भाग से केवल वस्तुनिष्ठ प्रश्न पूछे जाएंगे)
2. कहानी (विवेचनात्मक एवं व्याख्यामूलक प्रश्न पूछे जाएंगे) 10+5=15
क) मंत्र - प्रेमचंद
ख) त्रिशंकु - मन्मू भंडारी
ग) भोलाराम का जीव - हरिशंकर परसाई
3. कविता (विवेचनात्मक एवं व्याख्यामूलक प्रश्न पूछे जाएंगे) 10+5=15
क) उनको प्रणाम - नागार्जुन
ख) पैतृकसंपत्ति - केदारनाथ अग्रवाल
ग) हो गयी है पीर पर्वत सी - दुष्यंत कुमार
घ) धार्मिक दंगों की राजनीति - शमशेर बहादुर सिंह
4. निबंध (व्याख्यामूलक प्रश्न पूछे जाएंगे) 10
क) क्या निराश हुआ जाए - हजारी प्रसाद द्विवेदी
ख) संस्कृति है क्या - रामधारी सिंह दिनकर

सहायक ग्रन्थ :

हिंदी साहित्य की भूमिका - हजारी प्रसाद द्विवेदी।

हिंदी साहित्य का इतिहास - डॉ. नगेन्द्र।

हिंदी साहित्य और सवेदना का विकास - रामस्वरूप चतुर्वेदी।

1.5 (b) Bengali (Compulsory)

Full Marks: 50

- ১। ভাষা : ৩০
(ক) প্রবন্ধ — নিচের প্রবন্ধগুলি থেকে বোধ পরী(৭) ভিত্তিক প্র(৭) হবে। ১৫
১। জমিদার — বঙ্গদেশের কৃষক — বঙ্কিমচন্দ্র চট্টোপাধ্যায়
২। শি(১)র বাহন — রবীন্দ্রনাথ ঠাকুর
৩। বাঙ্গালা ভাষা — স্বামী বিবেকানন্দ
(খ) প্রতিবেদন রচনা — সংবাদপত্রে প্রকাশের উপযোগী সাম্প্রতিক কোনও ঘটনার প্রতিবেদনের খসড়া রচনা করতে হবে। কম-বেশি ১৫০ শব্দে।
অথবা
পুনর্নির্মাণ — গল্পাংশ অথবা উপন্যাসের অংশ থেকে সংলাপ ভিত্তিক পুনর্নির্মাণ করতে হবে। কম-বেশি ১৫০-২০০ শব্দে।
অথবা
বাংলা ভাষাকেন্দ্রিক কম্পিউটারের সাধারণ জ্ঞান : (বিভিন্ন বাংলা সফটওয়্যার ও তার প্রয়োগ বৈচিত্র্য সংগ্রহ(১) সম্যক ধারণা। বাংলা ডি.টি.পি., ফন্ট (স্ক্রিন ভিত্তিক ও কি-বোর্ড ভিত্তিক বর্ণ-সংস্থাপন, বাংলা হরফ প্রয়োগ ও সম্পাদনা), ওয়ার্ড, পেজমেকার, পাওয়ার পয়েন্ট উপস্থাপনা প্রভৃতি।
(গ) পরিভাষা — পাঁচটি ইংরেজী শব্দের বাংলা পরিভাষা লিখতে হবে। ৫
(কলিকাতা বিশ্ববিদ্যালয় প্রকাশিত 'ভাষা পাঠ সংগ্ৰহ' গ্রন্থে সংকলিত পরিভাষাগুলি।)
- ২। সাহিত্য : ২০
(ক) কবিতা : কাব্যসৌন্দর্য বি(৫)ষণধর্মী প্র(৭) হবে। ১০
(দুটি প্র(৭)ের, যে কোনও একটির উত্তর লিখতে হবে কম-বেশি ৩০০ শব্দে)
রবীন্দ্রনাথ ঠাকুরের 'গীতাঞ্জলি' কাব্যগ্রন্থের নিম্নলিখিত কবিতাগুলি —
(অ) আত্মত্যাগ (৪ সংখ্যক) 'বিপদে মোরে র(১) করো...'
(আ) 'বিশ্বসাথে যোগে যেথায় বিহারো'(৯৪ সংখ্যক)
(ই) ভারততীর্থ (১০৬ সংখ্যক) 'হে মোর চিত্ত, পুণ্য তীর্থে...'
(ঈ) ধূলামন্দির (১১৯ সংখ্যক) 'ভজন পূজন সাধন আরাধনা...'

(খ) ছোটগল্প : বিবেচনামূলক প্রশ্ন হবে।

১০

(দুটি প্রশ্নের, যে কোনও একটির উত্তর লিখতে হবে কম-বেশি ৩০০ শব্দে)

রবীন্দ্রনাথ ঠাকুরের 'গল্পগুচ্ছ'র নিম্নলিখিত গল্পগুলি :

(অ) ছুটি

(আ) বলাই

পাঠ্যগ্রন্থ : ১। ভাষা পাঠ সংকলন — কলিকাতা বিশ্ববিদ্যালয় প্রকাশিত।

২। গীতাঞ্জলি — রবীন্দ্রনাথ ঠাকুর — বিদ্যোতরী প্রকাশিত।

1.5 (c) Alternative English (MIL)

Full Marks: 50

1. THE following pieces to be studied as seen comprehensions :

5 Lectures 10 Marks

- a) Dream Children – Charles Lamb
- b) Personal Style – J.A. Symonds
- c) Freedom – George Bernard Shaw

2. Precis Writing (Unseen) with a title. **2 Lectures 10 Marks**

3. Unseen Passage (Prose Only) Substance writing on a critical note. **2 Lectures 10 Marks**

4. a) Ode to a Nightingale – John Keats

4 Lectures 10 Marks

b) Strange Meeting – Wilfred Owen **(5×2=10)**

5. a) Identical words commonly mistaken **5 Marks**

b) Idioms, Synonyms and Antonyms **3 Lectures 5 Marks**

Books Recommended :

- 1. University Alternative English selections.
- 2. Wren and Martin
- 3. Commercial Business English – K. K. Sinha
- 4. Communication Skills for Technical Students – T. M. Farhatullah

1.6 Environmental Studies

Full Marks: 50

Unit 1 : Introduction to environmental studies (2 lectures)

Multidisciplinary nature of environmental studies; Scope and importance; the need for environmental education. Concept of sustainability and sustainable development.

Unit 2 : Ecosystems (3 Lectures)

What is an ecosystem? Structure: food chains, food webs and function of ecosystem: Energy flow in an ecosystem, nutrient cycle and ecological succession. Ecological Interactions.

Case studies of the following ecosystems :

a) Forest ecosystem b) Grassland ecosystem c) Desert ecosystem d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)

Unit 3 : Biodiversity and Conservation (4 lectures)

- a. Levels of biological diversity: genetic, species and ecosystem diversity; Biogeographic zones of India; Biodiversity patterns and global biodiversity hot spots
- b. India as a mega-biodiversity nation; Endangered and endemic species of India
- c. Threats to biodiversity: Habitat loss, poaching of wildlife, man-wildlife conflicts, biological invasions; Conservation of biodiversity: *In-situ and Ex-situ* conservation of biodiversity.
- d. Nature reserves, tribal populations and rights (Niyamgiri-Vedanta, POSCO), and human wildlife conflicts in Indian context (Sundarban-Human-Tiger encounters).
- e. Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and Informational value.

Unit 4 : Environmental Pollution and Global Environmental Issues (6 lectures)

- a. Environmental pollution: types, causes, effects and controls; Air, water, soil and noise pollution.

- b. Climate change, global warming, ozone layer depletion, acid rain photo-chemical smog and impacts on human communities and agriculture
- c. Nuclear hazards and human health risks (Chernobyl, 3 mile Island, Daiichi- Fukushima)
- d. Solid waste management : Control measures of urban and industrial waste, special reference to e-waste, Biomedical waste.
- e. Pollution Tragedies : Love canal, Bhopal Gas, Endosulfan, Minamata and Flint water.

Text Books :

1. **Basu, M. and Xavier, S.,** Fundamentals of Environmental Studies, Cambridge University Press, 2016.
2. **Mitra, A. K and Chakraborty, R.,** Introduction to Environmental Studies, Book Syndicate, 2016.
3. **Enger, E. and Smith, B.,** Environmental Science: A Study of Interrelationships, Publisher: McGraw-Hill Higher Education; 12th edition, 2010.
4. **Basu, R.N,** Environment, University of Calcutta, 2000.

Suggested readings :

1. Carson, R. 2002. *Silent Spring*. Houghton Mifflin Harcourt.
2. Gadgil, M., & Guha, R. 1993. *This Fissured Land: An Ecological History of India* Univ.of California Press.
3. Odum, E.P., Odum, H.T. & Andrews, J. 1971. *Fundamentals of Ecology*. Philadelphia: Saunders.
4. Pepper, I.L., Gerba, C.P. & Brusseau, M.L. 2011. Environmental and Pollution Science. Academic Press.
5. Agrawal, K M, Sikdar, PK and Deb, SC, A Text book of Environment, Macmillan Publication, 2002.
6. Richard T Wright, Environmental Science: Towards a Sustainable Future, Prentice-Hall Inc., 2008.

SEMESTER II

2.1. Cost Accounting

Marks : 100

Total Lectures : 65

Objective: To acquaint the students with basic concepts used in cost accounting, various methods involved in cost ascertainment and cost accounting book keeping systems.

CONTENTS :

Unit 1 : Introduction (6 Lectures)

- i. Meaning, objectives and advantages of cost accounting; Difference between cost accounting and financial accounting; Cost concepts and classifications; Elements of cost; Installation of a costing system; Role of a cost accountant in an organisation.
- ii. Cost Accounting Standards issued by the Institute of Cost and Management Accountants of India till date.

Unit 2 : Elements of Cost: Material and Labour (14 Lectures)

- i. *Materials*: Material/ Inventory control techniques. Accounting and control of purchases, storage and issue of materials. Calculation of EOQ and Different levels of Stocks. Determination of 'Cost' as per CAS. Methods of pricing of materials issues. Treatment of Material Losses.
- ii. *Labour*: Accounting and Control of labour cost. Time keeping and time booking. Concept and treatment of idle time, over time, labour turnover and fringe benefits. Methods of wage payment and the Incentive schemes- Halsey, Rowan, Taylor's Differential piece wage.

Unit 3 : Elements of Cost : Overheads (15 Lectures)

- i. Classification, allocation, apportionment and absorption of overheads; Under-absorption and over-absorption; Capacity

Levels and Costs; Treatments of certain items in costing like interest on capital, packing expenses, bad debts, research and development expenses.

- ii. Activity based cost allocation- cost pool, cost driver etc.

Unit 4 : Reconciliation of Profit (4 Lectures)

Concept of Cost Ledger Control Accounts, Reconciliation of Profit as per Cost Accounting and as per Financial Accounting.

Unit 5 : Methods of Costing (26 Lectures)

Unit costing, Job costing, Contract costing, Process costing (Process losses, Valuation of Work in Progress, Equivalent production, Inter-process Profit, Joint and by-products), Service costing (only transport).

Note: All topics should be covered as per the requirements of Relevant Cost Accounting Standards.

Suggested Readings :

1. Dr. M. Hanif – “Modern Cost and Management Accounting”, McGraw-Hill Education Pvt. Ltd.
2. Saxena and Vashist - “Cost and Management Accounting (Text)”, Sultan Chand and Sons.
3. Ashis Bhattacharya – “Cost Accounting”, Prentice Hall, India.
4. Basu and Das – “Cost and Management Accounting”, Rabindra Library, Kolkata.

2.2. Corporate Laws

Marks : 100

Total Lectures : 65

Objective: *The objective of the course is to impart basic knowledge of the provisions of the Companies Act 2013 and the Depositories Act, 1996. Case studies involving issues in corporate laws are required to be discussed.*

UNIT 1: Introduction

20 Lectures

Meaning of Company and Registrar of Companies; Characteristics of a company; lifting of corporate veil; types of companies including one person company, small company, associate company, and dormant company; association not for profit; illegal association; formation of company, on-line filing of documents, promoters and their legal position, pre-incorporation contract; on-line registration of a company; Administration of Company Law [including National Company Law Tribunal (NCLT), National Company Law Appellate Tribunal (NCLAT), Special Courts].

UNIT 2: Documents

15 Lectures

Memorandum of association; Articles of association; Doctrine of ultra-vires; Doctrine of constructive notice and Doctrine of indoor management; Prospectus-shelf and red herring prospectus, misstatement in prospectus, Liabilities for such misstatement; Annual Returns; Register of Members; Other Statutory Books and Reports to be maintained under the Act.

UNIT 3: Management

15 Lectures

Directors : Classification of directors, women directors, independent director, small shareholders' director; Directors' qualifications and disqualifications, director identity number (DIN); Appointment, legal positions, powers and duties of directors; Removal of directors; Key managerial personnel, managing director, manager.

Meetings : Meetings of shareholders and board of directors; Types of meetings; Convening and conduct of meetings; Requisites of a valid meeting; Postal ballot, meeting through video conferencing, e-voting.

Committees of Board of Directors : Audit Committee, Nomination and Remuneration Committee, Stakeholders Relationship Committee, Corporate Social Responsibility Committee

UNIT 4 : 10 Lectures

● **Winding Up** : Concept and modes of Winding Up. ● **Insider Trading** : meaning & legal provisions; ● **Whistleblowing**: Concept and Mechanism. ● **CSR- Sec 135**

UNIT 5: Prevention of Oppression and mismanagement – meaning, power of the Tribunal, application to the Tribunal, public interest, limitation, relief

UNIT 6 : Depositories Law 5 Lectures

The Depositories Act 1996 – Definitions; rights and obligations of depositories; participants issuers and beneficial owners; inquiry and inspections, penalty.

Suggested Readings :

1. MC Kuchhal, Modern Indian Company Law, ShriMahavir Book Depot (Publishers), Delhi.
2. GK Kapoor and Sanjay Dhamija, Company Law, Bharat Law House, Delhi.
3. Anil Kumar, Corporate Laws, Indian Book House, Delhi B.Com (Hons.) CBCS 14
4. ReenaChadha and Sumant Chadha, Corporate Laws, Scholar Tech Press, Delhi.
5. Avtar Singh, Introduction to Company Law, Eastern Book Company
6. Ramaiya, A Guide to Companies Act, LexisNexis, Wadhwa and Buttersworth.
7. Manual of Companies Act, Corporate Laws and SEBI Guideline, Bharat Law House, New Delhi,.
8. A Compendium of Companies Act 2013, along with Rules, by Taxmann Publications.
9. Gower and Davies, Principles of Modern Company Law, Sweet & Maxwell
10. Sharma, J.P., An Easy Approach to Corporate Laws, Ane Books Pvt. Ltd., New Delhi

Note: Latest edition of text books must be used.

2.3. Macroeconomics

Marks : 100

Total Lectures : 65

Unit 1 : National Income Accounting 10 lectures

- Concept and measurement of GDP,NDP, GNP and PDI
- Saving-investment identity in open economy.
- Government Budget Deficit and Twin Deficit
- Real vs. Nominal GDP and GDP Deflator.
- Construction of Price Indices : CPI and PPI.

Unit 2 : Income and Interest Rates: Keynesian Cross Model and IS-LM Model 15 lectures

- Business Cycle and Income Determination
- Simple Keynesian Model of Economic Fluctuation with Government spending and lump sum taxes-Fiscal policy effect and multiplier, paradox of thrift
- Effect of interest rate on autonomous spending –IS curve.
- Income, interest rate and money demand function-LM curve.
- Economy's general equilibrium in terms of IS-LM model.
- Effectiveness of Fiscal and Monetary Policy in the IS-LM Model with specific reference to crowding out and liquidity trap.
- Integrating financial markets into IS-LM Model : Financial bubbles and Monetary Policy dilemma in IS-LM Model

Unit 3 : Aggregate Demand, Aggregate Supply and The Great Depression 15 lectures

- Flexible Prices and the aggregate demand (AD) curve-Effect of change in prices on LM curve.
- Shifting the AD curve with monetary and fiscal policy.
- Alternative shapes of the Short Run Aggregate Supply Curve (SAS)

- Explanation of positively sloped short-run aggregate supply curve-fixed input cost (nominal wage, prices of raw material and level of productivity & technology)
- Vertical long run aggregate supply curve (LAS)
- Fiscal and monetary expansion in the short & long run.

Unit 4 : Inflation, Unemployment and Labour market

10 lectures

- Inflation : causes of rising and falling inflation, inflation and interest rates, social cost of inflation.
- Unemployment: natural rate of unemployment, frictional and wait unemployment, labour market and its interaction with production system.
- Phillips Curve : trade-off between inflation and unemployment and Sacrifice Ratio.

Unit 5 : Open Economy and Macroeconomic Policy 7 lectures

- Balance of Payment Accounting
- Current Account and National Saving.
- Market for foreign exchange – fixed versus flexible exchange rates
- BOP equilibrium and external balance schedule
- IS-LM Model with flexible exchange rate.

Unit 6: Money and Banking System

8 lectures

- Measures of money supply
- High powered money
- Money multiplier and credit creation of the commercial banking system.
- Seigniorage and inflation tax.

Suggested Readings :

1. Mankiw N.G : “Macroeconomics”, Third Edition.
2. Dornbush and Fisher : “Macroeconomics”, TMH.

3. Soumyen Sikdar : “Principles of Macroeconomics”, OUP.
4. Robert J. Gordon: “Macroeconomics”, Pearson.
5. Paul R. Krugman, Maurice Obstfeld and Marc Melitz: “International Economics : Theory and Policy”, 10th Edition.
6. Caves, Frankel and Jones : “World Trade and Payments : An Introduction” Harper Collins, 8th Edition.

2.4. Business Communication

Marks : 50

1. Definition of meetings – Types of meetings, rules
 - a) Various types of notices of Annual General Meetings, Board meetings, Statutory Meetings of Company, Co-operative Society, Drafting of Minutes.
 - b) Definition of Agenda, Quorum, Notice, Chairman

10 Marks 4 Lectures

2. All types of Business Letters – Presentation, Inviting Quotations- Import, export letters, Banking, Insurance, Writing tenders, Sales letters, Letters of ordering and cancellation, Job Application, Appointment, Memo, Memorandum, Preparing the resume

15 Marks 4 lectures

3. Vocabulary- Words often confused, common errors of English (Tense/Preposition), words misspelt, common idioms, stressing on professional business English.
4. Nature of Communication- Process and types (Verbal / Non – Verbal). Different forms of Communication.

5 Marks 1 Lecture

5. Writing of an Advertisement, Display Advertisement, Press Release, Email, Tender etc.

10 Marks 3 Lectures

Books Recommended :

1. Communication Skills for Technical Students – T.M. Farhatullah
2. Wren and Martin
3. Commercial English – K.K. Sinha
4. Secretarial Practice – SurajitSengupta
5. Mastering Business English – Orient Longman

2.5. (a) Hindi (MIL)**Marks : 50**

1. क) चलचित्र समीक्षा (हिंदी चलचित्र / फिल्म की समीक्षा) 10
ख) पुस्तक समीक्षा (हिंदी पुस्तक की समीक्षा)
(इन विकल्पों में से किसी भी एक १० अंक के लिए चुना जा सकता है)
2. प्रूफ संशोधन 10
3. विज्ञापन : 5+5=10
परिभाषा, भेद, माध्यम, उपयोग, लाभ-हानि।
4. क) प्रतिवेदन
ख) अपठित गद्यांश 10
(इन विकल्पों में से किसी भी एक १० अंक के लिए चुना जा सकता है)
5. अनुवाद (अंग्रेजी से हिंदी में) 10

2.5 (b) Bengali (Compulsory)**Full Marks: 50**

- ১। ভাষা : ৩০
(ক) প্রবন্ধ — নিচের প্রবন্ধগুলি থেকে বোধ পরী(ণ) ভিত্তিক প্র(ণ) হবে। ১০
১। বই পড়া — প্রমথ চৌধুরী
২। স্ত্রী জাতির অবনতি — বেগম রোকেয়া শাখাওয়াত হোসেন
৩। সমবায় ও রবীন্দ্রনাথ — ভবতোষ দত্ত
(খ) চলচ্চিত্র পর্যালোচনা / সমালোচনা : ১০
সংবাদপত্রে প্রকাশের উপযোগী যে কোনও ভাষায় নির্মিত চলচ্চিত্রের পর্যালোচনা।
কম-বেশি ১৫০-২০০ শব্দে।
অথবা
প্রুফ সংশোধন — (কলিকাতা বিশ্ববিদ্যালয়ের বানানবিধি অনুসারে)
অথবা
বিজ্ঞাপনের বয়ান রচনা — মূলত সংবাদপত্রে প্রকাশের জন্য লিখিত বিজ্ঞাপন।
কম-বেশি ৫০ শব্দে।
(গ) বাংলায় অনুবাদ — কমপ(ণ)ে দশটি বাক্যের একটি ইংরেজী রচনার বাংলা অনুবাদ করতে হবে। (দুটি দেওয়া হবে, যে কোনও একটির বঙ্গানুবাদ করতে হবে।) ১০
- ২। সাহিত্য : ২০
(ক) কবিতা : কাব্যসৌন্দর্য বি(ণ)ে-ষণধর্মী প্র(ণ) হবে। ১০
(দুটি প্র(ণ)ের, যে কোনও একটির উত্তর লিখতে হবে কম-বেশি ৩০০ শব্দে।)
অ) অদ্ভুত আঁধার এক — জীবনানন্দ দাশ
আ) মিছিলের মুখ — সুভাষ মুখোপাধ্যায়
ই) যেতে পারি, কিন্তু কেন যাব? — শক্তি(চ)ট্টোপাধ্যায়
ঈ) বাবরের প্রার্থনা — শঙ্খ ঘোষ
(খ) ছোট গল্প : বি(ণ)ে-ষণধর্মী প্র(ণ) হবে। ১০
(দুটি প্র(ণ)ের, যে কোনও একটির উত্তর লিখতে হবে কম-বেশি ৩০০ শব্দে।)

কলিকাতা বিশ্ববিদ্যালয় প্রকাশিত 'এ কালের ছোটগল্প সংগ্রহ' (১ম খণ্ড) —
 গ্রন্থে প্রাপ্য নিম্নলিখিত গল্প দুটি —
 অ) পুঁই মাচা — বিভূতিভূষণ বন্দ্যোপাধ্যায়
 আ) হারাণের নাতজামাই — মানিক বন্দ্যোপাধ্যায়

পাঠ্যগ্রন্থঃ

- ১। ভাষা পাঠ সংগ্রহ — কলিকাতা বিশ্ববিদ্যালয় প্রকাশিত।
- ২। একালের কবিতা সংগ্রহ — কলিকাতা বিশ্ববিদ্যালয় প্রকাশিত।
- ৩। একালের ছোটগল্প সংগ্রহ (১ম খণ্ড) — কলিকাতা বিশ্ববিদ্যালয় প্রকাশিত।

2.5. (c) Alternative English (MIL)

Full Marks : 50

1. The following pieces to be studied as seen comprehensions:

10 Marks

 - a) The Lagoon – Joseph Conrad (3 Lectures)
 - b) The Lost Jewels – Rabindranath Tagore (2 Lectures)
2. The following essays to be studied for 15 Marks (Only objective questions to be asked)
 - a) The Ideals of Education – Rabindranath Tagore
 - b) Science and war - J. Bronowski
 - c) Sir Roger at Church - Joseph Addison (5 Lectures)
3. Writing of an Advertisement, Email, Press Release

(5 marks 2 Lectures)

4. Business Letters – Letter of complaint, adjustment, Application, Placing Orders, cancellation of Orders.

(10 Marks 2 Lectures)
5. Report Writing (Commercial and journalistic)

(5 Marks 2 Lectures)

Books Recommended :

1. University Alternative English selections.
2. Wren and Martin
3. Communication Skills for Technical Students - T.M. Farhatullah
4. Bovee and Thill - Pearson Education

2.6. Environmental Studies

Full Marks : 50

Unit 5 : Natural Resources : Renewable and Non-renewable Resources (6 lectures)

- A. Land resources and land use change; Land degradation, soil erosion and desertification.
 - B. Deforestation : Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations.
 - C. Disaster management : floods, earthquake, cyclones and landslides. Resettlement and rehabilitation of project affected persons; case studies.
- Water** : Use and over-exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter-state).

- D. Energy resources : Renewable and non renewable energy sources, use of alternate energy sources, growing energy needs, case studies.

Unit 6 : Environmental Management : Laws, Policies & Practices (7 lectures)

UN Initiatives and International agreements: Montreal and Kyoto protocols, Paris Climate Summit (2015) and Convention on Biological Diversity (CBD).

Environmental ethics: Role of Indian and other religions and cultures in environmental conservation. Green Politics, Earth Hour, Green Option Technologies, ISO standards: ISO 9000 and 14000. Environmental communication and public awareness, Role of National Green Tribunal; EIA Formulations, stages, Merits and demerits: case studies (e.g., CNG vehicles, Bharat IV stage)

Environment Laws: Environment Protection Act (1986); Air (Prevention & Control of Pollution) Act (1981); Forest Conservation Act (1980); Water (Prevention and control of Pollution) Act (1974); Wildlife Protection Act (1972), Biodiversity Act (2002).

Unit 7 : Human Population and the Environment (2 lectures)

Human population growth: Impacts on environment, human health and welfare. Family Welfare Programs, Human Rights.

Environmental movements: Chipko, Silent valley, Bishnoi, Narmada Bachao Andolan, Nava Danya.

Role of Information Technology (IT) in environment and Human Health

Unit 8 : Field work / Paper Writing (Equal to 5 lectures)

Visit to an area to document environmental assets: river/ forest/ flora/fauna, etc.

Visit to a local polluted site-Urban/Rural/Industrial/Agricultural.

Study of common plants, insects, birds and basic principles of identification.

Study of simple ecosystems-pond, river, Delhi Ridge, etc.

Text Books :

1. **Basu, M. and Xavier, S.,** Fundamentals of Environmental Studies, Cambridge University Press, 2016.
2. **Mitra, A. K and Chakraborty, R.,** Introduction to Environmental Studies, Book Syndicate, 2016.
3. **Enger, E. and Smith, B.,** Environmental Science: A Study of Interrelationships, Publisher: McGraw-Hill Higher Education; 12th edition, 2010.

Suggested Readings :

1. Gleeson, B. and Low, N. (eds.) 1999. *Global Ethics and Environment*, London, Routledge.
2. Gleick, P. H. 1993. *Water in Crisis*. Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute, Oxford Univ. Press.
3. Grumbine, R. Edward, and Pandit, M.K. 2013. Threats from India's Himalaya dams. *Science*, 339: 36-37.
4. McCully, P. 1996. *Rivers no more: the environmental effects of dams* (pp. 29-64). Zed Books.
5. McNeill, John R. 2000. Something New Under the Sun: An Environmental History of the Twentieth Century.
6. Rosencranz, A., Divan, S., & Noble, M. L. 2001. *Environmental law and policy in India*. Tripathi 1992.
7. World Commission on Environment and Development. 1987. *Our Common Future*. Oxford University Press.
8. Ghosh Roy, MK, Sustainable Development (Environment, Energy and Water Resources), Ane Books Pvt. Ltd., 2011.
9. Karpagam, M and Geetha Jaikumar, Green Management, Theory and Applications, Ane Books Pvt. Ltd., 2010.
10. Bala Krishnamoorthy, Environmental Management, PHI learning Pvt. Ltd, 2012

SEMESTER III

3.1. Management Principles and Applications

Marks : 100

Total Lectures : 65

Objective : The objective of the course is to provide the student with an understanding of basic management concepts, principles and practices.

Unit 1: Introduction to Management

Lectures: 12

- I. Management Concept: Significance, Managerial Functions – An overview; Co-ordination (concept, types and techniques, essence of managing)
- II. Evolution of the Management Thought, Classical Approach – Taylor, Fayol, Weber. Neo-Classical and Human Relations Approaches – Mayo, Hawthorne Experiments, Behavioural Approach, Systems Approach, Contingency Approach
- III. Development of Management Thought: Contingency approach- Lawrence & Lorsch; MBO - Peter F. Drucker; Business Process Re-engineering - Hammer and Champy; Michael Porter – Five-force analysis, Three generic strategies and value chain analysis; Senge's Learning Organisation, 'Fortune at the Bottom of the Pyramid' – C.K. Prahalad.

Unit 2: Planning

Lectures: 10

- I. Definition of planning and types of plan –strategic, tactical, operational, characteristics, importance.
- II. Strategic planning – Concept, process, Importance and limitations
- III. Environmental Analysis and diagnosis (Internal and external environment) – Definition, Importance and Techniques (SWOT/ TOWS/WOTS-UP, BCG Matrix, Competitor Analysis).
- IV. Business environment; Macro and Micro-Concept and Components

- V. Decision-making – Concept, importance; Committee and Group Decision-making, Process, Perfect rationality and bounded rationality, Techniques - qualitative and quantitative

Unit 3: Organising

Lectures: 13

- I. Concept and process of organising – An overview; Principles of Organising, departmentation; Span of management (concept, types: narrow and wide, factors deciding the nature of span, authority, responsibility, accountability, relationship); Different types of authority (line, staff and functional), Decentralisation (concept, centralization vs decentralisation); Delegation of authority (concept, principle, obstacles)
- II. Formal and Informal Structure of organisation; Network Organisation Structure

Unit 4: Staffing and Leading

Lectures: 20

- I. *Staffing*: Concept of staffing, staffing process
- II. *Motivation*: Concept, Importance, extrinsic and intrinsic motivation; Major Motivation theories - Maslow's Need-Hierarchy Theory; Herzberg's Two-factor Theory, McGregor X and Y theory.
- III. *Leadership*: Concept, Importance, Major theories of Leadership- trait and behavioural theory; Leadership styles- Employee and Production orientation, Ohio-Michigan Theory, Blake and Mouton's Managerial Grid theory, Tannenbaum & Schmidt Continuum Theory, Fielder's situational Leadership, Transactional leadership, Transformational Leadership, Charismatic Leadership.
- IV. *Communication*: Concept, purpose, process; Oral and written communication; communication network (formal and informal channel); Formal and informal communication networks, Barriers to communication, Overcoming barriers to communication.

Unit 5 : Control

Lectures: 6

Control : Concept, Stages of Control, Limitations, Types; Principles of Effective Control, Techniques of Control (traditional

vs. modern) - Ratio Analysis, ROI, Budgetary Control, EVA, PERT/CPM.

Unit 6 : Emerging issues in Management & Case Studies

Lectures : 4

Globalization, ethics and responsibilities, work force diversity, empowerment of employee, technological innovation, TQM (total quality management).

Suggested Readings :

1. Harold Koontz and Heinz Weihrich, *Essentials of Management: An International and Leadership Perspective*, McGraw Hill Education.
2. Stephen P Robbins and Madhushree Nanda Agrawal, *Fundamentals of Management: Essential Concepts and Applications*, Pearson Education.
3. George Terry, *Principles of Management*, Richard D. Irwin
4. Newman, Summer, and Gilbert, *Management*, PHI
5. James H. Donnelly, *Fundamentals of Management*, Pearson Education.
6. B.P. Singh and A.K. Singh, *Essentials of Management*, Excel Books
7. Griffin, *Management Principles and Application*, Cengage Learning
8. Robert Kreitner, *Management Theory and Application*, Cengage Learning
9. TN Chhabra, *Management Concepts and Practice*, DhanpatRai & Co. (Pvt. Ltd.), New Delhi
10. Peter F Drucker, *Practice of Management*, Mercury Books, London Note
11. Prasad, L. M., *Principles and Practice of Management.*, Sultan Chand & Sons, New Delhi.
12. Stoner, Freeman & Gilbert, *Management*, Prentice Hall, New Delhi

13. C.B.Gupta, *Business Entrepreneurship And Management*, Sultan Chand & Sons, New Delhi.

14. Northhouse, *Leadership*, Sage Publishing.

15. Rowe, *Cases in Leadership*, Sage Publishing.

Latest edition of text books may be used.

3.2. Income Tax Law and Practice

Marks : 100

Total Lectures : 62

Objective : To provide basic knowledge and equip students with application of principles and provisions of Income-tax Act, 1961 and the relevant Rules.

Unit 1 : Introduction

(10 Lectures)

Basic concepts: Income, agricultural income, person, assessee, assessment year, previous year, sources of income and heads of income ; gross total income, total income, maximum marginal rate of tax; Permanent Account Number (PAN)

Residential status; Scope of total income on the basis of residential status (individual and firm); Exempted income under section 10

Unit 2 : Computation of Income under different heads-1

(18 Lectures)

Salaries; Income from house property.

Unit 3 : Computation of Income under different heads-2

(20 Lectures)

Profits and gains of business or profession; Capital gains (Sec. 45, 47, 48, 49, 50C, 50D, 51, 55 111A, 112; Sec. 54 to Sec. 54GB – Exemptions) ; Income from other sources.

Unit 4 : Computation of Total Income and Tax Liability (14 Lectures)

Income of other persons included in assessee's total income; Aggregation of income and set-off and carry forward of losses; Deductions from gross total income under Chapter VI-A (related to individual and firm only); Rebates and reliefs; Computation of total income of individuals and firms; Tax liability of an individual and a firm (including AMT u/s115JC).

Notes:

1. Latest edition of text books must be used.
2. Assessment Year to be followed for examination is the Assessment Year in which the exam is conducted.
3. If new legislation(s) are enacted in place of the existing legislation(s), the syllabus will accordingly include such new legislation(s) in the place of old legislation(s).

Suggested readings :

1. Singhania, Vinod K. and Monica Singhania. Students' Guide to Income Tax, University Edition. Taxmann Publications Pvt. Ltd., New Delhi.
2. Ahuja, Girish and Ravi Gupta. *Systematic Approach to Income Tax*. Bharat Law House, Delhi.

Journals

1. *Income Tax Reports*. Company Law Institute of India Pvt. Ltd., Chennai.
2. *Taxman*. Taxman Allied Services Pvt. Ltd., New Delhi.
3. *Current Tax Reporter*. Current Tax Reporter, Jodhpur.

3.3. Human Resource Management

Marks : 100

Total Lectures : 65

Objective : The objective of the course is to acquaint students with the techniques and principles to manage human resource of an organisation.

Unit 1 : Introduction to Human Resource Management

Lectures : 12

- Human Resource Management: Concept and Functions (Managerial and Operative)
- Evolution of HRM, Distinction between HRM and Personnel Management
- Objectives of HRM, HR Policies
- Human Resource Development: Concept, HRM vs. HRD

Unit 2 : Acquisition of Human Resources

Lectures : 12

- Human Resource Planning: Quantitative and Qualitative Dimensions, Steps in the HRP Process
- Job Analysis and Design: Job Analysis – Concept, Job Description and Job Specification, Steps in the Job Analysis Process, Purposes of Job Analysis, Methods of Collecting Information for Job Analysis, Job Design – Concept, Job Rotation, Job Enlargement and Job Enrichment
- Recruitment: Concept and Sources (Internal and External)
- Selection: Concept and Process, Tests – Types, Interviews – Types,
- Placement: Concept -Meaning and Definition, Importance of Placement.

Unit 3 : Development of Human Resources

Lectures: 12

- Induction / Orientation – Concept & Importance
- Concept and Importance of Training

- Training vs. Development
- Identifying Training and Development Needs
- Designing Training Programmes
- Management Development
- Mentoring and Coaching - Concepts
- Career Development Stages, Managing Transfers, Promotion Decisions: Concept, Seniority vs. Competence Considerations

Unit 4 : Motivation of Human Resources Lectures : 12

- **Performance Appraisals** : Nature, Objectives and Importance, Techniques of Performance Appraisal (Traditional and Modern), Potential Appraisal and Employee Counselling- Concepts
- **Job Evaluation** : Concept and Methods (Quantitative and Qualitative)
- **Compensation** : Concept and Policies, Components of Employee Remuneration (Financial and Non-Financial), Methods of Wage Payments and Incentive Plans, Fringe Benefits, Performance-Linked Compensation, Executive Compensation- Components.

Unit 5 : Maintenance of Human Resources Lectures : 12

- Employee Health and Safety
- Employee Welfare
- Social Security
- Employee-Employer Relations – An Overview
- Industrial Disputes: Causes and Settlement Machinery
- Grievance Handling and Redressal

Unit 6 : Emerging Issues in HRM& Case Studies

Lectures: 5

- Impact of Technological Development on HRM Practices
- Dealing with Workforce Diversity
- Work / Life Balance

- Employee Empowerment
- Downsizing
- Voluntary Retirement Schemes
- Human Resource Information System

Suggested Readings :

1. V. S. P Rao, *Human Resource Management*, Taxmann's
2. P. Subba Rao, *Human Resource Management*, Himalaya
3. Aswathapa, K., *Human Resource and Personnel Management*, Tata McGrawHill.
4. Mamoria, C. B., *Personnel Management*, Himalaya.
5. Gary Dessler. *A Framework for Human Resource Management*. Pearson Education.
6. DeCenzo, D. A. and S. P. Robbins, *Personnel / Human Resource Management*, Pearson Education.
7. Bohlander and Snell, *Principles of Human Resource Management*, Cengage Learning
8. Ivancevich, John M. *Human Resource Management*. McGraw Hill.
9. Wreather and Davis. *Human Resource Management*. Pearson Education.
10. Robert L. Mathis and John H. Jackson. *Human Resource Management*. Cengage Learning.
11. TN Chhabra, *Human Resource Management*, Dhanpat Rai & Co., Delhi
12. Biswajeet Pattanayak, *Human Resource Management, PHI Learning*
13. Bhattacharya, *Training and Development*, Sage Publishing.

Note: Latest edition of text books may be used.

3.4. Business Mathematics and Statistics

Marks : 100

Objective : The objective of this course is to familiarize students with the basic statistical tools used for managerial decision-making.

Unit 1 : Statistical Data and Descriptive Statistics Marks : 20

- Nature and Classification of data: univariate, bivariate and multivariate data; time-series and cross-sectional data
- Measures of Central Tendency
- Mathematical averages including arithmetic mean, geometric mean and harmonic mean. Properties and applications.
- Positional Averages
Mode and Median (and other partition values including quartiles, deciles, and percentiles) (including graphic determination)
- Measures of Variation: absolute and relative.
Range, quartile deviation, mean deviation, standard deviation, and their coefficients, Properties of standard deviation/variance
- Idea of Moments, Skewness: Meaning, Measurement using Karl Pearson and Bowley's measures; Concept of Kurtosis.

Unit 2 : Probability and Probability Distributions Marks : 20

- Basic idea of Permutation and Combination.
- Theory of Probability. Approaches to the calculation of probability; Calculation of event probabilities. Addition and multiplication laws of probability; Conditional probability and Bayes' Theorem.
- Expectation and variance of a random variable
- Probability distributions:
- Binomial distribution: Probability distribution function, Constants, Shape, Fitting of binomial distribution

- Poisson distribution: Probability function, (including Poisson approximation to binomial distribution), Constants, Fitting of Poisson distribution
- Normal distribution: Probability distribution function, Properties of normal curve, Calculation of probabilities

Unit 3 : Simple Correlation and Regression Analysis

Marks : 10

- **Correlation Analysis** : Meaning of Correlation: simple, multiple and partial; linear and non-linear, Correlation and Causation, Scatter diagram, Pearson's co-efficient of correlation; calculation and properties . Correlation and Probable error; Rank Correlation
- **Regression Analysis** : Principle of least squares and regression lines, Regression equations and estimation; Properties of regression coefficients; Relationship between Correlation and Regression coefficients; Standard Error of Estimate and its use in interpreting the results.

Unit 4 : Matrices and Determinants

Marks : 10

- a. Algebra of matrices. Inverse of a matrix, Matrix Operation – Business Application, Rank of a Matrix.
- b. Solution of system of linear equations (having unique solution and involving not more than three variables) using matrix inversion Method and Cramer's Rule, The Leontief Input Output Model (Open Model Only).

Unit 5 : Calculus I

Marks : 20

- a. Mathematical functions and their types- linear, quadratic, polynomial, exponential.
- b. Logarithmic function Concepts of limit, and continuity of a function.
- c. Concept and rules of differentiation. Application of differentiation, rate measure, slope, increasing and decreasing functions, Maxima and Minima involving second or higher order derivatives.

Practical Lab :**Marks : 20**

The students will be familiarized with software (Spreadsheet and / or SPSS) and the statistical and other functions contained therein related to formation of frequency distributions and calculation of averages, measures of Dispersion and variation, correlation and regression co-efficient.

LAB OUTLINE :

1. Basics of Research Methodology and Introduction of SPSS.
2. Running SPSS and the Initial window(s)
 - ◆ Running SPSS
 - ◆ The Initial SPSS window(s)
 - ◆ Basic Commands

Overview

- ◆ The Title Bar
 - ◆ The Menu Bar
 - ◆ The (Power) Tool Bar
 - ◆ The Data Editor (Data View and Variable view)
 - ◆ The Status Bar
3. Sample SPSS session
 - ◆ Open File
 - ◆ List Cases
 - ◆ Frequencies
 - ◆ Explore
 - ◆ Graphics
 4. Creation of a small data file and computation of new variables
 - ◆ Handling data in SPSS data entry-Concept of variable view, data view, output view, draft view and syntax view.
 - ◆ Data Editing
 - ◆ Data transformation

- ◆ Computation of new (or existing variables)
 - ◆ Data Re-coding
5. Descriptive statistics
 - ◆ Construction of frequency table
 - ◆ Measures of Central Tendency
 - ◆ Measures of dispersion
 - ◆ Skewness & Kurtosis
 6. Graphing your data
 - ◆ Simple bar graph
 - ◆ Histogram
 - ◆ Pie chart
 - ◆ Box plot
 - ◆ Scatter plot
 7. Correlation and Regression (Bivariate & Multivariate cases)

Suggested Readings :

- Levin, Richard, David S. Rubin, Sanjay Rastogi, and HM Siddiqui. *Statistics for Management*. 7th ed., Pearson Education.
- Goon, Gupta and Dasgupta, *Fundamentals of Statistics*, Vol. I. World Press Private Limited.
- N. G. Das *Statistical Methods*. McGraw Hill Education.
- J.K. Sharma, *Business Statistics*, Vikas.
- Vohra N. D., *Business Statistics*, McGraw Hill Education.
- Murray R Spiegel, Larry J. Stephens, Narinder Kumar. *Statistics (Schaum's Outline Series)*, McGraw Hill Education.
- Gupta, S.C. *Fundamentals of Statistics*. Himalaya Publishing House.
- Anderson, Sweeney, and Williams, *Statistics for Students of Economics and Business*, Cengage Learning.

3.5. E-Commerce (Theory)

Marks : 100

MODULE A

75 Marks

Chapter 1 : Overview of E-Commerce

[10 Hours, Minimum 20 Marks]

Concepts, advantages, disadvantages, e-commerce business models (introduction, key elements of a business model and categorizing major E-commerce business models - B2B, B2C, C2C, B2G, C2G, G2G), Revenue Models of e-commerce (Advertising Revenue Model, Sales Revenue Model, Subscription based Revenue Model, Referral fee Revenue Model, Pay Per Click Revenue Model), Basic concepts of Internet Architecture – Types of Server (Web, Database, Mail, File), Protocol (http, ftp), WWW, URL. Basic concepts of Web publishing (domain registration, web hosting, launching).

Chapter 2 : Security and Encryption

[10 Hours, Minimum 20 Marks]

Dimensions of E-commerce security , Security threats in the E-commerce environment – malicious codes (virus, Trojan, worm), hacking, spoofing, sniffing, phishing, cyber-vandalism. Technology solutions (Encryption, Decryption, Symmetric & Asymmetric Encryption, Secured Electronic Transaction (https, SSL), protecting networks (Firewall, DMZ)).

Chapter 3 : IT Act 2000 and Cyber Crimes

[10 Hours, Minimum 15 Marks]

IT Act 2000: Objectives, Definitions, Electronic governance, Attribution, acknowledgement and dispatch of electronic records, Regulation of certifying authorities, Digital signatures and certificates, Duties of subscribers, Penalties and adjudication, Appellate Tribunal, Offences and Cyber-crimes.

Chapter 4 : Transactions in Ecommerce

[15 Hours, Minimum 20 Marks]

a) E-Payment System :

Methods of e-payment (Debit Card, Credit Card, Smart Cards, e-money), payment gateways. Online banking (concept, importance, electronic fund transfer – RTGS, NEFT). Basic concept of CBS. Risks involved in e-payments (Tax evasion, Fraud, Impulse buying, Payment conflict).

b) E-Marketing :

Concept, types of e-marketing, means of advertising [Banner, Pop-up, sponsored link, email], e-branding, SEO-Basics, onsite and offsite optimization techniques.

Suggested Readings :

1. Kenneth C. Laudon and Carlo Guercio Traver, *E-Commerce*, Pearson Education.
2. David Whiteley, *E-commerce: Strategy, Technology and Applications*, McGraw Hill Education
3. Bharat Bhaskar, *Electronic Commerce: Framework, Technology and Application, 4th Ed.*, McGraw Hill Education
4. P T Joseph, *E-Commerce: An Indian Perspective*, PHI Learning
5. K K Bajaj and Debjani Nag, *E-commerce*, McGraw Hill Education
6. Sushila Madan, *E-Commerce*, Taxmann
8. T N Chhabra, Hem Chand Jain, and Aruna Jain, *An Introduction to HTML*, Dhanpat Rai & Co.

MODULE B**25 Marks****Introduction to HTML and scripting language**

Tags and attributes : Text Formatting, Fonts, Hypertext Links, Tables, Images, Lists, Forms, Frames, Cascading Style Sheets. JavaScript (event handling, mathematical function, string function, document object model), connectivity with database.

Suggested Readings :

1. T N Chhabra, Hem Chand Jain, and Aruna Jain, *An Introduction to HTML*, Dhanpat Rai & Co.
2. HTML COMPLETE, BPB
3. Mastering HTML, CSS & Java script Web Publishing, BPB
4. Web Enabled Commercial Application Development Using HTML, JavaScript, DHTML and PHP (4th Revised Edition), IVAN BAYROSS, BPB

4.1. Management Accounting**Marks : 100****Total Lectures : 65**

Objective : To impart the students, knowledge about the use of financial, cost and other data for the purpose of managerial planning, control and decision making.

COURSE CONTENTS :**Unit 1 : Introduction (6 Lectures)**

Meaning, Objectives, Nature and Scope of management accounting, Difference between cost accounting and management accounting, Cost control and Cost reduction, Cost management

Unit 2 : Budgetary Control (10 Lectures)

Budgeting and Budgetary Control: Concept of budget, budgeting and budgetary control, objectives, merits, and limitations. Budget administration. Functional budgets. Fixed and flexible budgets. Zero base budgeting. Programme and performance budgeting.

Unit 3 : Standard Costing (12 Lectures)

Standard Costing and Variance Analysis: Meaning of standard cost and standard costing, advantages, limitations and applications. Variance Analysis – material, labour, overheads and sales variances. Disposition of Variances, Control Ratios.

Unit 4 : Marginal Costing (12 Lectures)

Absorption versus Variable Costing: Distinctive features and income determination. Cost-Volume-Profit Analysis, Profit / Volume ratio. Break-even analysis-algebraic and graphic methods. Angle of incidence, margin of safety, Key factor(s), determination of cost indifference point.

Unit 5 : Decision Making (18 Lectures)

Steps in Decision Making Process, Concept of Relevant Costs and Benefits, Various short-term decision making situations – profitable product-mix, Acceptance or Rejection of special/export offers, Make or buy, Addition or Elimination of a product line, sell or process further, operate or shut down. Pricing Decisions: Major factors influencing pricing decisions, various methods of pricing.

Unit 6 : Contemporary Issues (7 Lectures)

Responsibility Accounting: Concept, Significance, Different Responsibility Centres, Divisional Performance Measurement: Financial and Non-Financial measures. Transfer Pricing.

Suggested Readings :

1. Dr. M. Hanif – “Modern Cost and Management Accounting”, McGraw-Hill Education Pvt. Ltd.
2. Saxena and Vashist – “Cost and Management Accounting (Text)”, Sultan Chand and Sons.
3. Dr. B. Banerjee – “Cost Accounting”, Prentice Hall, India.
4. Ashis Bhattacharya – “Cost Accounting”, Prentice Hall, India.
5. Basu and Das – “Cost and Management Accounting”, Rabindra Library, Kolkata.

4.2. Computer Application In Business (Theory)

Marks : 100

MODULE A

25 Marks

1. Chapter 1 – Information and Database

[12 hrs, minimum 15 marks]

- a. Data Organization Basics – Concept (Data, Data Types, Character, Field, Record, File, Database, Information), Centralized and Distributed Data Processing System, Flat File organization Vs Database Management System.
- b. Relational Database Management System – Concept, Important terms (Entity, Attribute, Primary Key, Foreign Key, Candidate Key, Referential Integrity, Table, Relation, Views, SQL, Data Dictionary, Schema, Metadata), Introduction to SQL, Types of SQL commands (DDL,DCL,DML,TCL).
- c. Advanced Concepts of DBMS – OLAP & OLTP, Data Warehousing and Data Mining (Concept, Features, components & application areas), Data Backup (Concept & types).

2. Chapter 2 - Emerging Trends

[3 Hrs, minimum 10 marks]

- a. Overview of Cloud Computing – Definition & concept, Benefits of Cloud Computing, Types of Cloud (Private/VPN, Public, Hybrid), Services offered in cloud computing (IaaS, PaaS, SaaS), Challenges in cloud computing.
- b. Business Continuity Planning – Introduction & concept, Need for BCP, Components of BCP, Roles and Responsibilities of BCP, Performance of BCP Review.

Suggested Readings :

1. Introduction to Information Technology, ITL Education, Pearson Education

2. Information Technology for Management, Ramesh Behl, McGraw Hill
3. Information Technology and Its Applications in Business, Reema Thareja, OUP
4. Management Information Systems, Girdhar Joshi, OUP.

Computer Applications In Business (Practical)

MODULE B

75 Marks

Chapter 1 : Word Processor [5 Hrs. – 10 Marks]

- a. Features of Word Processor - Entering text, Formatting (Font, Paragraph & Page), editing & saving a document, finding and replacing text, creating hypertext links, Drop cap.
- b. Working with Tables - Inserting, filling and formatting a table,
- c. Tools - Language Checking Tools, Mail Merge including linking with Spreadsheet & Database, Autocorrect, Macro, Tracking.

Chapter-2 : Electronic Spreadsheet [20 Hrs. - 30 Marks]

- a. Numerical Data Representation using formatting features for cell, Font, Column, Row, Work Sheet, Introduction to Cell Address, Name, Using Name in formula
- b. Numerical Data Analysis using
- c. FUNCTIONS-Mathematical (Count, Sum, Average, CounIf, Max, Min) Logical (If, nested IF, OR, AND), Financial (NPV, IRR, NPER, PV, FV, RATE, PMT, IPMT, SLN, DB), Statistical Functions (Mean, Median, Mode, Standard Deviation, Correlation, Regression)
- d. GRAPHS-LINE, BAR, AREA, PIE etc.

- e. Linking data using Cell References [Absolute, Relative and Mixed].
- f. Linking data among worksheets using Sheet Reference.
- g. Data Analysis Tools – Sorting, Subtotals, Data Validation
- h. Advance Tools for Data Analysis - Goal Seek, Scenario, Pivot Table, VLookup Wizard, Macro.
- i. Handling external Data.

Chapter-3 : Database Management System.

[15 Hrs. - 25 Marks]

- a. Single Table creation – Using Wizard, and using SQL
- b. Multiple Table Handling Using wizard and defining Relationship in-between
- c. Query creation (simple and conditional) – Using Wizard and using SQL, Queries to Update, Delete and Append records in Tables.
- d. Use of calculated fields and calculated queries.
- e. Creating Forms, Reports.

Chapter-4 : Onscreen Presentation [5 Hrs. - 10 Marks]

Application of Onscreen presentation – Creation, saving, addition and deletion of slides – Placing objects (graphs, images & links) on Slide - Use of Templates – Setting Custom animation and slide transition features – Setting up the Slide show.

Suggested Readings :

1. Introduction to Information Technology, ITL Education, Pearson Education
2. Information Technology for Management, Ramesh Behl, McGraw Hill
3. Information Technology and Its Applications in Business, Reema Thareja, OUP

4.3. Indian Economy

Marks : 100

Total Lectures : 65

Unit 1 : Basic Issues in Economic Development

(10 Lectures)

Concept and Measures of Development and Underdevelopment; India's relative position in the world economy with reference to per capita income, Human Development Index (HDI), health, education and poverty, sources and importance of economic growth, concept of inclusive growth, Pillars of factor driven growth for India: Physical capital, human capital, infrastructural capital and institutional capital, India among BRICS, Outlook for India's growth : SWOT Analysis.

Unit 2 : Basic Features of the Indian Economy at Independence

(10 Lectures)

Composition of national income and occupational structure, Growth and Structural Change Since 1950- the agrarian scene and industrial Structure and Coordination Failure.

Unit 3 : Policy Regimes

(15 Lectures)

Evolution of Economic Planning and State-dominated import substitution development strategy -the post 1991 globalization strategies based on stabilization and structural adjustment packages to stimulate growth through competition and trade - Shift in policy direction from prescriptive to indicative planning and redefined role of the State - Fiscal Policy- Government Budget- Different concepts of deficit and its impact on the economy- Sustainable fiscal deficit- Monetary Policy - Framework of the RBI in the recent years.

Unit 4 : Growth, Development and Structural Change

(15 Lectures)

- a) The experience of Growth, Development and Structural Change in different phases of growth and policy regimes.

- b) Growth and Distributional Issues - Unemployment and Poverty - Environmental concerns.
- c) Demographic Constraints: Interaction between population change and economic development.

Unit 5 : Sectoral Trends and Issues

(15 Lectures)

(1) Agriculture :

Agricultural Development in India - Performance, Issues and Policies, Food Inflation in India : Diagnosis and Remedies, Reforms in Agricultural Sector.

(2) Industry :

Industrial Development and Policies Since Independence : Growth without Employment, Dualism in Indian Manufacturing, Issues related to 'Make in India'.

(3) Service Sector :

Classification, growth and sectoral shares since 1991, growth drivers- Factors underlying the service sector growth, Liberalisation in Services, FDI in services.

(4) Financial Sector :

Structure, Performance and Reforms.

(5) External Sector :

Foreign Trade and balance of Payments: Structural Changes and Performance of India's Foreign Trade and Balance of Payments; Export policies and performance; India and the WTO, Role of FDI, Capital account convertibility.

Suggested Readings :

1. Bhagwati, J. and Desai, P. *India: Planning for industrialization*, OUP, Ch 2.
2. Patnaik, Prabhat. *Some Indian Debates on Planning*. T. J. Byres (ed.). *The Indian Economy: Major Debates since Independence*, OUP.

3. Ahluwalia, Montek S. *State-level Performance under Economic Reforms in India* in A. O. Krueger. (ed.). *Economic Policy Reforms and the Indian Economy*, The University of Chicago Press.
4. Dreze, Jean and Amartya Sen. *Economic Development and Social Opportunity*. Ch. 2. OUP.
5. Khanna, Sushil. *Financial Reforms and Industrial Sector in India*. *Economic and Political Weekly*. Vol. 34. No. 45.
6. Rangarajan, C. and N. Jadhav. *Issues in Financial Sector Reform*. Bimal Jalan. (ed). *The Indian Economy*. Oxford University Press, New Delhi.
7. Schwab, K. (2015) : *The Global Competitiveness Report*, 2015-2016: World Economic Forum.
8. World Development Report (Latest Available)
9. Mahendra Dev, S. (2008) : *Inclusive Growth in India*, OUP.
10. Kapila, U. (2016) : “ Indian Economy Today”, Chapter 41, pp 1002-1013, *Indian Economy Since Independence*, Academic Foundation.
11. Dreze, Jean and Amartya Sen (2013) : *An Uncertain Glory : India and Its Contradictions*. Allen Lane: Penguin Books.
12. Kapila, U. (2016) : “ Growth and Structural Change Since 1950 (Editorial Notes)”, Chapter 9, pp 165-216, *Indian Economy Since Independence*, Academic Foundation.
13. Basu, K. (2005) : *India's Emerging Economy: Performance and Prospects in the 1990s and Beyond*, Oxford University Press.
14. Panagariya, A. (2010) : *India: The Emerging Giant*, Oxford University Press.
15. Kapila, U. (2016) : “Agricultural Development in India : Performance, Issues and Policies”, Chapter 21, pp. 555-580, *Indian Economy Since Independence*, Academic Foundation.
16. Kapila, U. (2016) : “Food Inflation in India : Diagnosis and Remedies”, Chapter 25, pp. 639-650, *Indian Economy Since Independence*, Academic Foundation.

17. Kapila, U. (2016) : “Industrial Development and Policies Since Independence : Growth without Employment”, Chapter 28, pp. 713-735, *Indian Economy Since Independence*, Academic Foundation.
18. Kapila, U. (2016) : “The Employment Problem in India and the Phenomenon of the Missing Middle”, Chapter 33, pp. 825-834, *Indian Economy Since Independence*, Academic Foundation.
19. Kapila, U. (2016) : “Services in India's Growth Process(Editorial Notes)”, Chapter 34, pp. 835-857, *Indian Economy Since Independence*, Academic Foundation.
20. Srinivasan, T. N. (2000): *Eight Lectures on India's Economic Reforms*, Oxford University Press.
21. Nayyar, Gaurav (2012) : *The Service Sector in India's Development*, OUP.
22. J. Bhagwati & A. Panagariya (2012) : *India's Tryst with Destiny*, Collins Business.

4.4. Business Mathematics and Statistics

Marks : 100

Objective : The objective of this course is to familiarize the students with the basic mathematical tools, with an emphasis on applications to business and economic situations.

Unit 1 : Calculus II

Marks : 20

- Partial Differentiation : Partial derivatives up to second order; Homogeneity of functions and Euler's theorem; Total differentials; Differentiation of implicit functions with the help of total differentials.
- Maxima and Minima : Cases of two variables involving not more than one constraint including the use of the Lagrangian multiplier.
- Integration : Standard forms. Methods of integration – by

substitution, by parts, and by use of partial fractions; Definite integration; Finding areas in simple cases.

Unit 2 : Mathematics of Finance **Marks : 10**

- Rates of interest-nominal, effective– and their inter-relationships in different compounding situations.
- Compounding and discounting of a sum using different types of rates.
- Types of annuities, like ordinary, due, deferred, continuous, perpetual, and their future and present values using different types of rates of interest. Depreciation of Assets.
(General annuities to be excluded)

Unit 3 : Linear Programming **Marks : 10**

- Formulation of linear programming problem (LPP). Graphical solution to LPP. Cases of unique and multiple optimal solutions. Unbounded solutions, infeasibility, and redundant constraints. Degeneracy concept using rank of a matrix.

Unit 4 : Index Numbers **Marks : 10**

- Meaning and uses of index numbers; Construction of index numbers: fixed and chain base: univariate and composite. Aggregative and average of relatives – simple and weighted Tests of adequacy of index numbers, Base shifting, splicing and deflating. Problems in the construction of index numbers; Construction of consumer price indices: Important share price indices, including BSE SENSEX and NSE NIFTY

Unit 5 : Time Series Analysis **Marks : 10**

Components of time series; Additive and multiplicative models; Trend analysis: Fitting of trend line using principle of least squares – linear, second degree parabola and exponential. Conversion of annual linear trend equation to quarterly/monthly basis and vice-versa; Moving averages; Seasonal variations: Calculation of Seasonal Indices using Simple averages, Ratio-to-trend, and Ratio-to-moving averages methods. Uses of Seasonal Indices

UNIT 6 : Sampling Concepts, Sampling Distributions and Estimation : Marks : 20

Sampling : Populations and samples, Parameters and Statistics, Descriptive and inferential statistics; Sampling methods (including Simple Random sampling, Stratified sampling, Systematic sampling, Judgement sampling, and Convenience sampling).

Concept of Sampling distributions and Theory of Estimation: Point and Interval estimation of means (large samples) and proportions.

- In addition the students will work on software packages (Spreadsheet, *Mathematica*, etc) for solving linear programming problems and mathematics of finance topics listed above and analyze the results obtained there from. This will be done through internal assessment.

LAB OUTLINE : Marks : 20

1. Basics of linear programming problems, feasible region, graphical solution .
2. Running *Mathematica* and using it in the field of finance, annuity calculations.

Suggested Readings :

- Mizrahi and Sullivan. *Mathematics for Business and Social Sciences*. Wiley and Sons.
- Goon, Gupta and Dasgupta, *Fundamentals of Statistics*, Vol. II. World Press Private Limited.
- Budnick, P. *Applied Mathematics*. McGraw Hill Education.
- R.G.D. Allen, *Mathematical Analysis For Economists*
- Ayres, Frank Jr. *Schaum's Outlines Series: Theory and Problems of Mathematics of Finance*. McGraw Hill Education.
- Dowling, E.T., *Mathematics for Economics*, Schaum's Outlines Series. McGraw Hill Education.
- Wikes, F.M., *Mathematics for Business, Finance and Economics*. Thomson Learning.

4.5. Entrepreneurship

Marks : 100

Total Lectures : 50

Objective : The purpose of the paper is to orient the learner toward entrepreneurship as a career option and creative thinking and behaviour.

Unit 1 : Introduction

Lectures : 10

- Meaning, scope and importance of Entrepreneurship.
- Evolution of entrepreneurial thought.
- Entrepreneurship as a career option.
- Functions of Entrepreneurs
- Entrepreneurial Characteristics and Skills
- Entrepreneur vs. Manager
- Creativity & Creative Process
- Types of Entrepreneurs (Clarence Danhoff's Classification)
- Intrapreneurship – Concept and Types (Hans Schollhammer's Classification)
- Entrepreneurship in different contexts: technopreneurship, cultural entrepreneurship, international entrepreneurship, netpreneurship, ecopreneurship, and social entrepreneurship

Unit 2 : Family Business and Business Groups

Lectures : 10

- Family Business: Concept, Advantages and Disadvantages
- Role of the Founder(s) in family business re: Founders' values, business philosophy and behavioural orientations.
- Role of Non-family members in family business
- Succession: Choosing and Grooming Successors
- Conflict in family business and its resolution
- Family controlled business groups – the Indian Experience (Case Studies)

Unit 3 : Public and private system of stimulation, support and sustainability of entrepreneurship. Lectures : 10

- Requirement, availability to finance, technology, Sources of Finance
- Role of industries/entrepreneur's associations and self-help groups (Case Studies), Role and functions of business incubators, angel investors, venture capital and private equity fund (Features & Indian Scenario)

Unit 4 : Sources of Business Ideas and Feasibility Studies.

Lectures : 12

- Significance of drafting the business plan / project proposal
- Feasibility Studies: Concept and Stages
- Business Plan: Concept and Significance
- Stages in the Drafting of a Business Plan.

Unit 5 : Mobilising Resources for Start-Ups Lectures : 8

- Start-ups – Types, Mistakes/ Problems.
- Intellectual Property Rights and the Entrepreneur: Patents, Trademarks and Copyrights, Geographical Indicators and Biological Diversities.

Suggested Readings :

1. Kuratko and Rao, *Entrepreneurship: A South Asian Perspective*, Cengage Learning.
2. Robert Hisrich, Michael Peters, Dean Shepherd, *Entrepreneurship*, McGraw-Hill Education
3. Desai, Vasant. *Dynamics of Entrepreneurial Development and Management*. Mumbai, Himalaya Publishing House.
4. Dollinger, Mare J. *Entrepreneurship: Strategies and Resources*. Illinois, Irwin.
5. Holt, David H. *Entrepreneurship: New Venture Creation*. Prentice-Hall of India, New Delhi.

6. Plsek, Paul E. *Creativity, Innovation and Quality*. (Eastern Economic Edition), New Delhi : Prentice-Hall of India. ISBN-81-203-1690-8.
7. Singh, Nagendra P. *Emerging Trends in Entrepreneurship Development*. New Delhi : ASEED.
8. S S Khanka, *Entrepreneurial Development*, S. Chand & Co, Delhi.
9. K Ramachandran, *Entrepreneurship Development*, McGraw-Hill Education
10. SIDBI Reports on Small Scale Industries Sector.
11. Arya Kumar, *Entrepreneurship*, Pearson.

Note : Latest edition of text books may be used.

NOTES