



**R.A Podar College
Of Commerce and Economics,
(Autonomous)
Matunga, Mumbai.**



**Syllabus
and
Question Paper Pattern
Of
Courses of B.Com (Actuarial Studies)
First Year (Semester I and II)
Under Choice Based Credit System
To be implemented from Academic Year 2019-2020**

Faculty of Commerce

www.rapodar.ac.in

Bachelor of Commerce (B.Com) Programme (Actuarial Studies)

Under Choice Based Credit, Grading and Semester System

Course Structure

F. Y. B. Com in Actuarial Studies

(To be implemented from Academic Year- 2019-20)

No. of Courses	Semester I	Credits	No. of Courses	Semester II	Credits
1	Elective Courses (EC)		1	Elective Courses (EC)	
1A	Discipline Specific Elective(DSE)Courses		1A	Discipline Specific Elective(DSE)Courses	
1	Accountancy and Financial Management I	03	1	Accountancy and Financial Management II	03
1B	Discipline Related Elective(DRE)Courses		1B	Discipline Related Elective(DRE)Courses	
2	Insurance Business I	03	2	Insurance Business II	03
3	Business Economics I	03	3	Business Economics II	03
2	Ability Enhancement Courses (AEC)		2	Ability Enhancement Courses (AEC)	
2A	Ability Enhancement Compulsory Courses (AECC)		2A	Ability Enhancement Compulsory Courses (AECC)	
4	Business Communication I	03	4	Business Communication II	03
5	Environmental Studies I	03	5	Environmental Studies II	03
2B	Skill Enhancement Courses (SEC)		2B	Skill Enhancement Courses (SEC)	
6	Foundation Course - I	02	6	Foundation Course - II	02
3	Core Courses (CC)		3	Core Courses (CC)	
7	Financial Mathematics I	03	7	Financial Mathematics II	03
Total Credits		20	Total Credits		20

Bachelor of Commerce (B.Com) Programme (Actuarial Studies)
Under Choice Based Credit, Grading and Semester System
Course Structure

(To be implemented from Academic Year- 2019-20)

Semester I

No. of Courses	Semester I	Credits
1	Elective Courses (EC)	
1A	Discipline Specific Elective(DSE)Courses	
1	Accountancy and Financial Management I	03
1B	Discipline Related Elective(DRE)Courses	
2	Insurance Business I	03
3	Business Economics I	03
2	Ability Enhancement Courses (AEC)	
2A	Ability Enhancement Compulsory Courses (AECC)	
4	Business Communication I	03
5	Environmental Studies I	03
2B	Skill Enhancement Courses (SEC)	
6	Foundation Course - I	02
3	Core Courses (CC)	
7	Financial Mathematics I	03
Total Credits		20

Syllabus of courses of F.Y.B.Com Programme (Actuarial Studies)

With effect from the Academic Year 2019-20

Discipline Specific Elective (DSE) Courses

1. Accountancy and Financial Management (3 Credits)

Objectives:

1. To impart the knowledge of various accounting concepts, conventions, policies and related accounting standards to the learners.
2. To impart the knowledge to learners about accounting procedures, methods and techniques in solving problems and issues relating to various areas of accounting.
3. To acquaint learners with practical aspects of 'accounts writing' by giving them exposure to special areas of accounting such as Co-operative Housing Societies, Trust, Branches, Installment Sale, Lease Accounting, Single Entry, etc.

Semester I

Modules at a Glance

Accountancy and Financial Management - Paper I (3 Credits)		
Sr. No.	Modules	No. of Lectures
1	Accounting Concepts, Conventions and Related Standards	15
2	Valuation of Inventories: AS-2	15
3	Final Accounts of Manufacturing Enterprise	15
4	Accounting for Installment Sale and Lease	15
Total No. of Lectures:		60

Sr. No.	Modules
1	Accounting Concepts, Conventions and Related Standards
	<ul style="list-style-type: none"> • Accounting Concepts: Business Entity, Going Concern, Money Measurement, Periodicity, Accrual, Matching, Realisation, Historical Cost, Fair Value, Dual Aspect, Contingent Assets, Contingent Liabilities, Provisions v/s Reserves, Charge v/s Appropriation • Accounting Conventions: Conservatism, Materiality, Consistency, Uniformity • Accounting Standards: <ul style="list-style-type: none"> AS-1: Disclosure of Accounting Policies: Purpose, Areas of Policies, Illustrations AS-6: Depreciation Accounting: Introduction, Definitions, Applicability, Disclosure, Illustrations AS-9: Revenue Recognition: Meaning and Scope, Transactions excluded, Sale of Goods, Rendering of Services, Effects of Uncertainties, Disclosure, Illustrations AS-10: Accounting for Fixed Assets: Introduction, Definitions, Applicability, Disclosure, Illustrations
2	Valuation of Inventories: AS-2
	<ul style="list-style-type: none"> • AS-2: Valuation of Inventories: Meaning and Definition, Applicability, Measurement of Inventory, Disclosure in Final Account, Explanation with Illustrations • Inventory Valuation (Stock): Cost for Inventory Valuation, Inventory Systems, Periodic Inventory, Perpetual Inventory, Valuation: Meaning and Importance, Methods of Stock Valuation as per AS-2, First in First Out (FIFO) Method, Weighted Average Method, Illustrations on computation of inventory as per above methods as on a particular date and as on a balance sheet date if inventory is taken on a date which is either before or after the balance sheet date
3	Final Accounts of Manufacturing Enterprise
	Expenditure: Capital, Revenue; Receipts: Capital, Revenue; Adjustment and Closing Entries, Final Accounts of Manufacturing Concerns (Proprietary Firm)

4	Accounting for Installment Sale and Lease
	<ul style="list-style-type: none">• Installment Sale :Meaning, , Distinction between Hire Purchase and Installment Sale, Calculation of Interest, Accounting for Installment Sale by Asset Purchase (Credit Purchase) Method, Interest Suspense Method, Journal Entries, Ledger Accounts, (Including Default, Repossession and Calculation of Cash Price)• Lease: Operational Lease, Financial Lease, Accounting in the books of Lessor, Accounting in the books of Lessee

Semester II

Modules at a Glance

Accountancy and Financial Management - Paper II		
Sr. No.	Modules	No. of Lectures
1	Accounting from Incomplete Records	15
2	Accounting for Non-Profit Organisation w.r.t. Co-operative Housing Society and Trusts	15
3	Departmental Accounts	15
4	Branch Accounts	15
Total No. of Lectures:		60

Sr. No.	Modules
1	Accounting from Incomplete Records
	Introduction, Problems on preparation of final accounts of Proprietary Trading Concern (By Conversion Method)
2	Accounting for Non-Profit Organisation w.r.t. Co-operative Housing Society and Trusts
	Earmarked Funds, Earmarked Investments, Interest Accounting of Earmarked Investments, Other provisions in relation to preparation of Final Accounts, Receipts and Payments Accounts, Income and Expenditure Accounts and Balance Sheet
3	Departmental Accounts
	Meaning, Basis of Allocation of Expenses, Basis of Allocation of Incomes/Receipts, Inter Departmental Transfers, At Cost Price, At Invoice Price, Reserve, Illustrations –Departmental Trading and Profit & Loss Account and Balance Sheet
4	Branch Accounts
	Meaning, Classification of Branch, Accounting of Independent Branch, Accounting for Dependent Branch not maintaining full books by Debtors Method and Stock and Debtors Method.

Accountancy & Financial Management:
Semester I & II
Paper Pattern
(Academic Year: 2019-20)

Maximum Marks

: 60

Duration

: 2 Hours

Note: (1) Question No. 1 and 5 are Compulsory

(2) Attempt any Two Questions from the remaining Q. No. 2, 3 & 4.

(3) All questions carry 15 marks each

Question No.	Particulars (Nature of Questions)	Marks (To Be Attempted)
1.	Concept /Application Based Questions (3 Marks Each) To be given : Seven To be attempted : Any Five	15
2.	Practical Question/s (*)	(15 x 2) = 30
3.	Practical Question/s (*)	
4.	Practical Question/s (*)	
5 (A) 5 (B)	Attempt any three out of five sub questions given (2 marks each) Short Notes: Attempt any three out of five given (3 marks each)	6 9
Total		60

*Note – Q. No. 2, 3 & 4 may be divided into sub questions of 10/5, 8/7 or 5/5/5 marks each.

Reference:

1. Introduction to Accountancy by T. S. Grewal, S. Chand and Company (P) Ltd., New Delhi
2. Advance Accounts by Shukla & Grewal, S. Chand and Company (P) Ltd., New Delhi
3. Advanced Accountancy by R. L Gupta and M Radhaswamy, S. Chand and Company (P) Ltd., New Delhi
4. Modern Accountancy by Mukherjee and Hanif, Tata Mc. Grow Hill & Co. Ltd., Mumbai
5. Financial Accounting by Lesile Chandwichk, Pentice Hall of India Adin Bakley (P) Ltd.
6. Financial Accounting for Management by Dr. Dinesh Harsalekar, Multi-Tech. Publishing Co. Ltd., Mumbai.
7. Financial Accounting by P. C. Tulsian, Pearson Publications, New Delhi Accounting Principles by Anthony, R.N. and Reece J.S., Richard Irwin Inc.
8. Financial Accounting by Monga, J.R. Ahuja, Girish Ahujaand Shehgal Ashok, Mayur Paper Back
9. Compendium of Statement & Standard of Accounting, ICAI. Indian Accounting Standards, Ashish Bhattacharya, Tata Mc. Grow Hill & Co. Ltd., Mumbai
10. Financial Accounting by Williams , Tata Mc. Grow Hill & Co. Ltd., Mumbai
11. Company Accounting Standards by Shrinivasan Anand, Taxman.
12. Financial Accounting by V. Rajasekaran, Pearson Publications, New Delhi.
13. Introduction to Financial Accounting by Horngren, Pearson Publications.
14. Financial Accounting by M. Mukherjee.M. Hanif. Tata McGraw Hill Education Private Ltd; New Delhi

Syllabus of courses of F.Y.B.Com Programme (Actuarial Studies)

With effect from the Academic Year 2019-20

Discipline Related Elective (DRE) Courses

2. Insurance Business I (3 Credits)

Objectives:

The objective of this course is to explain the concept of insurance as well as the underlying risks and returns to undergraduate students of commerce.

Semester I

Modules at a Glance

Insurance Business I (Principles of Insurance)		
Sr. No.	Modules	No. of Lectures
1	The Conceptual Framework	11
2	The Insurance Contract	11
3	Insurance Products	11
4	The Insurance Market	12
Total No. of Lectures:		45

Sr. No.	Modules
1	The Conceptual Framework
	<ol style="list-style-type: none"> 1. What is insurance- Meaning and Definition 2. Brief history of Insurance 3. Understanding Perils and Risks 4. Classification of Risks and Hazards 5. Role of Insurance in Social and Economic Development 6. Classes of Insurance 7. Growth and Evolution of Insurance Industry in India 8. Unique Characteristics of Insurance Business 9. Managing Risks 10. Introduction into Insurance Funds 11. Trustees in Insurance Business 12. Reinsurance 13. Linking Insurance with Social Security
2	The Insurance Contract
	<ol style="list-style-type: none"> 1. Utmost Good Faith or Uberrima Fides 2. Insurable Interest 3. Insurer's Insurable Interest 4. Criminal Acts 5. Indemnity 6. Subrogation and Contribution 7. Proximate Cause 8. Personal and Non-Personal Contracts 9. Distinguishing Insurance Contracts with other contracts 10. Insurance Terminology- First Premium- Renewal- Mode- Limited Payment- Policies- Single Premium- Convertible- Days of Grace- Lapse- Paid Up Policy- Revival- Deferment Period- Nomination- Assignment- Bonus- Arbitration
3	Insurance Products
	<ol style="list-style-type: none"> 1. Life Insurance Products including Government Schemes 2. Introduction to Non-Life Insurance, Fire, Loss of Profits, Marine , Marine Cargo, Motor and Miscellaneous 3. Personal, Accident, Hit and Run Cases, Aviation etc 4. Insurance Policy and Documents- Certificates of Insurance, Open Policy, Floater, Franchise, Coinsurance 5. Compensation under Insurance- Total Loss- Actual or Constructive Loss- Bonus- Replacement- Policy value- Agreed value- Full value- First Loss- Increased value

4	The Insurance Market
	<ol style="list-style-type: none">1. Life and Non-Life Insurers- Reinsurers- Individual and Corporate Agents- Brokers- Surveyors- Medical Examiners- Third Party Administrators2. IRDA- Insurance Councils- Ombudsmen- Educational Institutes- Councils- Tariff Advisory Committee3. Career Opportunities in Insurance Business4. Ethical Aspects of Insurance Business

Insurance Business –II (Life and other Contingencies)

Objectives:

- 1.
- 2.

Learning Outcomes:

- 1.
- 2.

Semester II

Modules at a Glance

Insurance Business –II (Life and other Contingencies)		
Sr. No.	Modules	No. of Lectures
1	Life Insurance Organization	15
2	Introduction to Actuarial Valuation	10
3	Annuities	10
4	Introduction to health Insurance	10
Total No. of Lectures:		45

Sr. No.	Modules
1	Life Insurance Organization
	<ol style="list-style-type: none"> 1. Introduction 2. Approaches to Life Insurance- The Indian Context 3. Internal Organization 4. The Distribution System 5. Appointment of Agents 6. Functions of Agents 7. Agency continuation and termination 8. Remuneration to Agents 9. Trends in Life Insurance 10. Distribution Channels 11. Premiums and Bonuses 12. Net and Pure Premium 13. Premium Calculation 14. Lapse and Revival- Special Revival Scheme- Installment Revival Scheme- Loan- cum- Revival Scheme 15. Assignment, Nomination
2	Introduction to Actuarial Valuation
	<ol style="list-style-type: none"> 1. Bonus- Simple Reversionary Bonus- Compound Reversionary Bonus- Interim Bonus 2. Plans of Life Insurance- Death Cover- Survival Benefit- Term Assurance- Pure Endowment- Linked 3. Some Popular Plans 4. Common Variations 5. With profit and without profit policies 6. Joint Life Policies 7. Children Plans 8. Variable Insurance Plans 9. Postal Life Insurance
3	Annuities
	<ol style="list-style-type: none"> 1. The nature of Annuity 2. Immediate Annuity 3. Deferred Annuity 4. Group Insurance- Introduction- Meaning of Group Insurance- Types of Group Insurance Schemes 5. Ways to meeting Gratuity Liability 6. Group Superannuation Scheme 7. Group Leave Encashment Schemes (GLES) 8. Other Group Schemes 9. Social Security Schemes 10. Other Special Need Plans 11. Industrial Life Insurance 12. Married Women's Property (MWP) Act Policies 13. Plans for Differently Abled

4	Introduction to Health Insurance
	<ol style="list-style-type: none">1. Range of Products2. Awareness about health Contingencies3. Importance of Health Insurance in India4. Growth and Evaluation of Health Insurance Companies in India5. Insurance and Equity Funds6. Insurance and Debt Funds7. Insurance and Money Market Funds8. Liquid Funds9. Balanced Funds10. Premium Holiday11. Annuities and Pensions12. Future for Health Insurance

Insurance Business
Paper I and Paper II
Question Paper Pattern
(Academic Year: 2019-20)

I. Cumulative Continuous Assessment (CCA)

- Written test on concept clarity for 10 marks where the learners need to answer within two lines the concepts meant for testing for e.g.-words like invoice, tender, entrepreneur, examples of private sector, public sector, private companies,
- Individual project about Role of business in a growing economy. Faculty members could identify 15 to 20 topics and ask the learners to choose from. For example:
 1. Industrial revolution of 18th century compared with the revolution in the 19th, 20th century.
 2. Trade across the world during different time frame
 3. Banking reforms in India during last 100 years
 4. Retail revolution in the developed countries
 5. Relevance of make In India
 6. Aviation sector – past, present and future
 7. Fruits of Liberalization-A comparison of 20 years prior to 1991 and 20 years
 8. Mergers and demergers in Indian public sector banks-last 50 years
 9. Laws relating to NPAs in India
 10. International trade-what? Why? And How?

As it is individual projects related to the syllabus, the learner may be tested for originality by making them answer one or two questions on the topic while accepting the submission

- Ten marks for group projects-This may cover successful businesses, start up space, Failure of business houses, Unethical practices found in business firms and many more. The evaluation shall be on the basis of project presentation. Rubrics may be developed and communicated
- Ten marks for any other criteria to be specified by the faculty.(including attendance)
It is suggested that 5 marks be given for maintaining a commerce diary where weekly record of business events are recorded and suitable observations are made by the learner.
Five marks for a scrap book which will have a collection of forms and procedure used in every day transactions such as, credit card details, NEFT procedure, Face of cheque, Precaution while using ATM, meaning of banking code, innovative payment mechanisms etc.,
The contents of the scrap book may be divided as per the syllabus of 2 semesters.

- The scheme of marking need to be discussed with all other department members, authorized by the HOD and sanctioned by the Principal
- Scheme of marking need to be elaborate with the rubrics and should be enclosed with the instructions to be given to the students about the CCE programme
- Such document should form part of the teaching methodology
- Such document needs to be given wide publicity amongst the students.
- The document to be submitted to the Exam wing well in advance preferably within 2 to 3 weeks after the commencement of the semester.

Total: 40 marks

II. Semester End Examination (SEE)- 60 Marks

Maximum Marks : 60

Duration : 2 Hours

Note: (1) All questions are Compulsory.

Question No.	Particulars (Nature of Questions)	Marks
Q-1 (Module-I)	Answer any 2 out of 3 a) b) c)	12
Q-2 (Module-II)	Answer any 2 out of 3 a) b) c)	12
Q-3 (Module-III)	Answer any 2 out of 3 a) b) c)	12
Q-4 (Module-IV)	Answer any 2 out of 3 a) b) c)	12
Q-5	A) Experience based question based on the various projects presented in the class by the students / Case Study OR B) Write short notes on(Any 3 out of 4) Based on entire syllabus	12
	Total	60

References:

1. Kew John, Business Environment: Managing in a Strategic Context, Jaico Publications 2006
2. Hanke John K, Business Forecasting, Prentice Hall India, 2002
3. Paul Justin, Business Environment, Tata McGraw Hill, 2008
4. Butter David, Business Planning: A Guide to Business Start-up, Butterworth Heinemann, 2003
5. Piramal Gita, Business Legends, Penguin Books, 1998
6. Hitt Michael A, Strategic Management, Cengage Learning ,2016
7. Zeithaml, Valarie A, Services Marketing, McGraw Hill Education,2011
8. Gupta S L, Retailing & E- tailing, International Book House, New Delhi, 2011
9. Raghuram G, Logistics & Supply Chain Management: Cases and Concepts, Macmillan Business Books,
10. Joseph P T, E-Commerce an Indian Perspective, Prentice Hall India, 2015

Syllabus of courses of F.Y.B.Com Programme (Actuarial Studies)

With effect from the Academic Year 2019-20

Discipline Related Elective (DRE) Courses

3. Business Economics (3 Credits)

Preamble:

This paper provides an overall introduction to economics as dealing with the problems of allocation of scarce resources in optimum manner. It aims to build a familiarity with the basic tools of consumer and producer theory, the operation of markets and optimisation in an economic context. In order to explain economic issues and solutions in a practical manner, the concepts are to be discussed with case studies and numerical problems wherever applicable.

Semester I

Modules at a Glance

Business Economics-I		
Sr. No.	Modules	No. of Lectures
1	Demand Analysis	10
2	Consumer Behaviour Theory	15
3	Supply and Production Decisions	10
4	Cost of Production	10
Total No. of Lectures:		45

Sr.No.	Modules
1	Demand Analysis
	<p>Demand Function and determinants of demand - Concept and Importance of Elasticity of Demand: Income, Cross and Promotional.</p> <p>Demand Estimation and forecasting: Meaning and significance - methods of demand estimation</p> <p>survey and statistical methods (numerical examples on trend analysis and simple linear regression)</p>
2	Consumer Behaviour Theory
	<p>Ordinal Utility theory: (Indifference curve approach): Consumer's preferences; Indifference curves; Budget line; Consumer's equilibrium (necessary and sufficient conditions)</p> <p>Income and substitution effect; Price consumption curve.</p> <p>Indifference curves as an analytical tool (Cash subsidy v/s kind subsidy)</p> <p>Consumer surplus</p>
3	Supply and Production Decisions
	<p>Production function: short run analysis with Law of Variable Proportions- Production function with two variable inputs- isoquants, ridge lines and least cost combination of inputs-</p> <p>Long run production function and Laws of Returns to Scale - expansion path - Economies and diseconomies of Scale.</p>
4	Cost of Production
	<p>Cost concepts: accounting cost and economic cost, implicit and explicit cost, social and private cost, historical cost and replacement cost, sunk cost and incremental cost - fixed and variable cost - total, average and marginal cost- Cost Output Relationship in the Short Run and Long Run –(hypothetical numerical problems to be discussed).</p>

Semester II

Modules at a Glance

Business Economics-II		
Sr. No.	Modules	No. of Lectures
1	Market Structure	15
2	Factor Markets	10
3	Pricing practices	10
4	Market Failure	10
Total No. of Lectures:		45

Sr. No.	Modules
1	Market Structure
	<p>Perfect Competition: Assumption; Equilibrium of the firm in the short run and long run, The long run industry supply curve.</p> <p>Imperfect Competition:</p> <p>(i) Monopoly: Short-run and long-run equilibrium of monopoly firm; Concept of supply curve under monopoly; Allocation inefficiency and dead-weight loss monopoly.</p> <p>(ii) Monopolistic Competition: Assumption; Short run Equilibrium; Long run Equilibrium; Concepts of excess capacity</p> <p>(iii) Oligopoly and interdependence- Kinked demand curve, collusive oligopoly-price leadership model- dominant firm.</p>
2	Factor Markets
	<p>Factor markets- Factor pricing in the case of short and long run under conditions of perfect and imperfect commodity markets; Determination of factors rewards under conditions of Monopsony, bilateral monopoly and role of labour unions. Economic rent and quasi rent.</p>
3	Pricing practices
	<p>Cost oriented pricing methods: cost –plus (full cost)/mark-up pricing, marginal cost pricing,</p> <p>Mark up pricing, discriminating pricing, multiple – product pricing - transfer pricing (case studies on how pricing methods are used in business world)</p>
4	Market Failure
	<p>Market failure Externalities: Environment and its impact on market, Common property resources and public goods, Asymmetric Information and Signaling, moral hazard, principal-agent problem.</p>

Business Economics

Semester I & II

Question Paper Pattern (Academic Year: 2019-20)

I. Continuous Assessment (CA) - 40 Marks

(i) CA-I: Test – (Objective type of questions)- 20 Marks

(ii) CA-II: Case Studies/Assignments/Industrial Visits- 20 Marks

II. Semester End Examination (SEE) - 60 Marks

Maximum Marks : 60

Duration : 2 Hours

Note: (1) Question No. 1 is compulsory.

(2) Attempt any **one question out of three** in each question.

(3) All questions carry 15 marks each.

Question No.	Particulars (Nature of Questions)	Marks (To Be Attempted)
Q-1 (Module-I)	A) Full Length Question B) Three Short Notes (5 Marks Each) C) Application/Numerical Question	15
Q-2 (Module-II)	A) Full Length Question B) Three Short Notes (5 Marks Each) C) Application/Numerical Question	15
Q-3 (Module-III)	A) Full Length Question B) Three Short Notes (5 Marks Each) C) Application/Numerical Question	15
Q-4 (Module-IV)	A) Full Length Question B) Three Short Notes (5 Marks Each) C) Application/Numerical Question	15
	Total	60

References:

1. Mehta, P.L.: Managerial Economics – Analysis, Problem and Cases (S. Chand & Sons, N. Delhi)
2. Hirchey.M., Managerial Economics, Thomson South Western
3. Salvatore, D.: Managerial Economics in a global economy (Thomson South Western Singapore)
4. Frank R.H, Bernanke.B.S., Principles of Economics (Tata McGraw Hill)
5. Gregory Mankiw., Principles of Economics, Thomson South Western
6. Samuelson & Nordhas.: Economics (Tata McGraw Hills, New Delhi)
7. Pal Sumitra, Managerial Economics cases and concepts (Macmillan, New Delhi)

Syllabus of courses of F.Y.B.Com Programme (Actuarial Studies)

With effect from the Academic Year 2019-20

Ability Enhancement Courses (AECC)

4. Business Communication (3 Credits)

Objective:

1. To develop learners' awareness of the communication process
2. To develop effective listening skills in students so as to enable them to comprehend instructions and become a critical listener
3. To develop effective spoken language skills so as to enable students to speak confidently, interpersonally as well as in groups
4. To develop effective writing skills so as enable students to write in a clear, concise, domain-specific and audience-centred manner
5. To develop ability to communicate effectively with the help of electronic media
6. To familiarize the learners with the nuances of corporate communication
7. To develop global communication competency in learners
8. To use innovative and progressive evaluation techniques
9. To integrate E-learning and M-learning in instruction and assessment

Course Outcome:

On completion of the course, the learner will have the skill and knowledge of:

1. various types of oral, written and digital communication modes
2. effective business writing
3. effective presentations
4. effective interpersonal communication
5. communication that maximises team effectiveness
6. soft skills and employability skills
7. communication that makes effective personality

Semester I
Modules at a Glance

Business Communication-I		
Sr. No.	Modules	No. of Lectures
1	Theory of Communication	12
2	Obstacles to Communication in Business World	12
3	Business Correspondence	12
4	Writing Skills	09
Total No. of Lectures:		45

Note: One tutorial per batch per week in addition to number of lectures stated above (Batch size as per the University norms)

Sr. No.	Modules
1	Theory of Communication
	<p>Concept of Communication: Meaning, Definition, Process, Need, Feedback, and impact of technological advancements on communication</p> <p>Channels and Objectives of Communication: Channels: Formal and Informal, Vertical, Horizontal, Diagonal and Grapevine</p> <p>Objectives of Communication: Information, Advice, Order and Instruction, Persuasion, Motivation, Education, Warning, and Boosting the Morale of Employees.</p> <p>Methods and Modes of Communication: Methods: Verbal and Nonverbal, Characteristics of Verbal Communication Characteristics of Non-verbal Communication Modes: Telephone, Computers and E- communication, Video and Satellite Conferencing, Social media.</p>
2	Obstacles to Communication in Business World, Listening and Communication Etiquette
	<p>Problems in Communication /Barriers to Communication: Physical/ Semantic/Language / Socio-Cultural / Psychological Barriers, ways to overcome these barriers</p> <p>Listening: Importance of Listening Skills, Process of listening, Cultivating good Listening Skills, types of listening skills</p> <p>Communication etiquette: Etiquette of letter writing, E-mail etiquette, Telephone etiquette, Social media etiquette, Corporate etiquette.</p>
3	Business Correspondence
	<p>Theory of Business Letter Writing and Email: Parts, Structure, Layouts—Full Block, Principles of Effective Letter Writing, Principles of effective Email Writing, Email Drafting- regular office correspondence.</p> <p>Personnel Correspondence: Statement of Purpose, Job Application Letter and Resume, Letter of Acceptance of Job Offer, Letter of Resignation [Letter of Appointment, Promotion and Termination, Letter of Reference, Letter of Refusal, office circular, office order, Memo - to be taught but not to be tested in the examination]</p>
4	Language and Writing Skills
	<p>A. Paragraph Writing: Developing an idea, using appropriate linking devices, etc Cohesion and Coherence, self-editing, etc [Interpretation of technical data,</p>

Composition on a given situation etc.]

B. Activities (Tutorial)

- Speaking Skills: Telephonic communication, Debate, Dialogue and Speeches
- Paragraph Writing: Preparation of the first draft, Revision and Self – Editing, Rules of spelling and punctuation
- Use of mobile-based dictionary

Semester II
Modules at a Glance

Business Communication-II		
Sr. No.	Modules	No. of Lectures
1	Group Communication	15
2	Business Correspondence	15
3	Presentation Skills	05
4	Language and Writing Skills	10
Total No. of Lectures:		45

Note: One tutorial per batch per week in addition to number of lectures stated above (Batch size as per the University norms)

Sr. No.	Modules
1	Group Communication
	<p>Interviews: Definition of interview, types of Interviews – Selection – face to face, telephonic/online, Appraisal, Grievance, Exit, Basics of job interview, preparing for a job Interview, how to use social media – job portal like timesjobs, naukari etc., professional portals like LinkedIn etc.</p> <p>Meetings: Need and Importance of Meetings, Conduct of Meeting and Group Dynamics, Role of the Chairperson, Role of the Participants, Drafting of Notice, Agenda and Resolutions</p> <p>Conference: Meaning and Importance of Conference, Organizing a Conference, Modern Methods: Video and Tele-Conferencing</p> <p>Public Relations: Meaning, Functions of PR Department, External and Internal Measures of PR</p>
2	Business Correspondence
	<p>Trade Letters: Precautions to be taken while drafting trade letters. Order, Credit and Status Enquiry, Purchase order.</p> <p>Only following to be taught in detail: -</p> <ol style="list-style-type: none"> 1. Letters of Inquiry and reply to inquiry 2. Letters of Complaints, Claims, Adjustments 3. Letters under Right to Information (RTI) Act 4. Consumer Grievance and Redressal Letters 5. Promotional leaflets, fliers and Sales letter
3	Presentation Skills
	Selection of topics, structure of presentation, Use of PPT, Body language and non-verbal cues
4	Language and Writing Skills
	<p>A. Reports: Parts, Types, Feasibility Reports, Investigative Reports, Project Report, Business Proposal.</p> <p>B. Summarisation: Identification of main and supporting/sub points. Presenting these points in a cohesive manner.</p>

Business Communication
Paper I and Paper II
Question Paper Pattern
(Academic Year: 2019-20)

I. Tutorial Activity: 40 Marks

Vocabulary building exercises (scrabble, crosswords, word games etc.)

Scrap book of all the letters

Making of a dictionary / Creating functional dictionary

1. Speech (10 marks)
2. Debate (10 marks)
3. Role Play (10 marks)
4. SWOC – Self Analysis of the student (05 Marks) – online submission
5. Paragraph Writing- (05 Marks) – online submission

II. Semester End Examination (SEE): 60 Marks

Maximum Marks : 60

Duration : 2 Hours

Note: (1) All questions are compulsory.

Question No.	Particulars (Nature of Questions)	Marks (To Be Attempted)
Q-1 (Module-I & II)	Short Notes – Any 3 out of 5	15
Q-2 (Module -I & II)	Essay type question – Any 2 out of 4	20/15
Q-3 (Module -III)	*Job Application and Resume Writing (Fresher/Experience) –Any 1 out of 2 **Letter of inquiry Letters of Complaints, Claims, Adjustments Letters under Right to Information (RTI) Act Consumer Grievance and Redressal Letters	10/15
Q-4 (Module -IV)	*Letter Writing (SOP, Job Acceptance, Job Resignation, e-mail) – Any 2 out of 4 **Report Writing/ Business Proposal & Summarization	15
Total		60

***Semester I **Semester II**

References:

1. Raman Meenakshi and Singh Prakash. *Business Communication*. Oxford University Press , 2007. 24x19 - 275 PB 0-19-567695-5, Meenakshi X45.
2. Deshmukh Sandeep. *Group Communication: Theory and Methods*. Ane Books India, 2008. 22x15 - 495 HB 81-8052-146-X, Sandeep X45
3. Riel Cees B.M. *Essentials of Corporate Communication: Implementing Practices for Effective Reputation Management*. 23x15 - 495 PB 0-415-32826-8, Riel, Cees B.M. X45
4. Bhatia R.C. *Business Communication*. Ane Books India, 2008. 24x18 - 250 PB 81-8052-016-1, Bhatia, R. C. X45.
5. Ober Scat. *Contemporary Business Communication (with CD)*. Bizatantra , 2005. 26x20 - 349 PB 81-7722-522-7. Scat X45.
6. Kumar Raj. *Basic Business Communication (With CD # C01130) : Concepts, Applications and Skills*. Excel Books, 2010. 295 PB 978-81-7446-866-6, Kumar Raj X45.
7. Lesikar, Raymond.V., Pettit John D and Flatley Marie . *Basic Business Communication*. Richard D. Irwin, INC. 1993. 26x20c.m. HB 0 256 10936 2, Lesikar, R.V. X:8(22).
8. Naterop, B. Jean and Revell, Rod. *Telephoning in English*. Cambridge University. 2007. 24x18 + C00942 - C00943 - 375 PB 0-521-70893-1, B. Jean X45.

Suggested List of MOOCs

1. <https://www.mooc-list.com/tags/communication-skills>
2. <https://www.mooc-list.com/.../effective-communication>
3. <https://www.mooc-list.com/tags/business-communication>
4. <https://www.skilledup.com/.../learn-communications-online-free>
5. <http://www.about.com/Communication+Skills+List>

Courses:

1. <https://www.coursera.org/learn/management-leadership-english#>
2. <https://www.coursera.org/learn/business#>
3. <https://www.coursera.org/learn/powerpoint-presentations>

Syllabus of courses of F.Y.B.Com Programme (Actuarial Studies)

With effect from the Academic Year 2019-20

Ability Enhancement Compulsory Courses (AECC)

5. Environmental Studies (3 Credits)

Course Outcome

1. The successful completion of the course will create an environmental awareness among Commerce students.
2. It will make students aware about various environmental factors and their relation to the field of Commerce.
3. The course will highlight functional and spatial links between environment, economy and society.
4. The course will create an insight into various environmental issues at various levels and environmental movements towards making environment sustainable.

Semester I

Modules at a Glance

Environmental Studies-I		
Sr. No.	Modules	No. of Lectures
1	Environment and Ecosystem	13
2	Natural Resources and Sustainable Development	13
3	Populations and Emerging Issues of Development	13
4	Urbanization and Environment	13
5	Reading of Thematic Maps and Map Filling	08
Total No. of Lectures:		60

Sr. No	Modules
1.	Environment and Ecosystem
	Environment: Meaning, definition, scope; Various spheres of environment (Atmosphere, lithosphere, hydrosphere and biosphere), Layers of atmosphere; concept of an ecosystem: definition, Characteristics, components and types, functioning and structure; Food Chain and Food Web- Ecological Pyramids- Man and environment relationship; Importance and scope of Environmental Studies
2.	Natural Resources and Sustainable Development
	Meaning and definitions; Classification and types of resources, factors influencing resource utilization; Resource conservation-meaning and methods - conventional and non-conventional resources, problems associated with and management of water, forest and energy resources- resource utilization and sustainable development
3.	Populations and Emerging Issues of Development
	Population explosion in the world and in India and arising concerns- Demographic Transition Theory-pattern of population growth in the world and in India and associated problems-Measures taken to control population growth in India; Human population and environment- Environment and Human Health–Human Development Index – The World Happiness Index
4.	Urbanisation and Environment
	Concept of Urbanisation–Problems of migration and urban environment - changing land use, crowding and stress on urban resources, degradation of air and water, loss of soil cover impact on biodiversity, Urban heat islands– Emerging Smart Cities and safe cities in India - Sustainable Cities
5.	Reading of Thematic Maps and Map Filling
	Reading of Thematic Maps (4 Lectures) Located bars, Circles, Pie charts, Isopleths, Choropleth and Flow map, Picograms- Only reading and interpretation. Map Filling: (4 Lectures) Map filling of World (Environmentally significant features) using point, line and polygon segment.

Semester II

Modules at a Glance

Environmental Studies-II		
Sr. No.	Modules	No. of Lectures
1	Solid Waste Management for Sustainable Society	13
2	Agriculture and Industrial Development	13
3	Tourism and Environment	13
4	Environmental Movements and Management	13
5	Map Filling	08
Total No. of Lectures:		60

Sr. No.	Modules
1.	Solid Waste Management for Sustainable Society
	Classification of solid wastes–Types and Sources of Solid Waste; Effects of Solid Waste Pollution–Health hazards, Environmental Impacts; Solid Waste Management–solid waste management in Mumbai- Schemes and initiatives run by MCGM- Role of citizens in Waste Management in Urban and Rural areas.
2.	Agriculture and Industrial Development
	Environmental Problems Associated with Agriculture: Loss of Productivity, Land Degradation, desertification- Uneven Food Production– Hunger, Malnutrition and Food Security–Sustainable Agricultural practices, GMO/Crops, Environmental Problems Associated with Industries- pollution- Global warming, Ozone Layer Depletion, Acid rain, Sustainable Industrial practices– Green Business and Green Consumerism, Corporate Social Responsibility towards environment
3.	Tourism and Environment
	Tourism: Meaning, Nature, Scope and importance– Typology of tourism with special reference to Ecotourism; Tourism potentials in India and challenges before India; Consequences of tourism: Positive and Negative Impacts on Economy, Culture and environment- Ecotourism
4.	Environmental Movements and Management
	Environmental movements in India: Save Narmada Movement, Chipko Movement, Appiko Movement, Save Western Ghats movement and other contemporary environmental movements; Environmental Management: Concept, need and relevance; Concept of ISO 14000; Concept of Carbon Bank and Carbon Credit, EIA, ecological footprint; Environment Protection Acts; Concept and components of Geospatial Technology- Applications of GST in Environmental Management
5.	Map Filling
	Map filling of Konkan (4 Lectures) and Mumbai (4 Lectures) (Environmentally significant features)

Environmental Studies
Semester I & II
Question Paper Pattern
(Academic Year: 2019-20)

- I. Class test : 10 marks**
II. Map practice work/ Exhibition : 10 marks
III. Project / Field Work : 20 marks

Project/Field Work shall include:

- a. Composting
- b. E-waste management
- c. Tetra pack management
- d. Field tours/ Nature trails
- e. Beach clean up
- f. Group assignments/projects
- g. Case studies
- h. Article review
- i. Book review
- j. visit to a solid waste/ medical waste/ e-waste recycling unit
- k. Industrial visit
- l. Visit to an NGO
- m. Debate club
- n. Documentary review
- o. Plastic waste management
- p. Case studies related to other projects mentioned above (National/International level)
- q. Swachh Bharat Abhiyaan (in different areas)
- r. Develop a game for waste management/green campus/environmental conservation
- s. Best out of Waste Project
- t. Environmental / Green Audit.

Total: 40 marks

IV. Semester End Examination (SEE)- 60 Marks

Maximum Marks : 60

Duration : 2 Hours

Note: (1) All questions are compulsory, subject to internal choice.

(2) Draw diagrams wherever necessary.

(3) Figures to the right indicate full marks.

Question No.	Particulars (Nature of Questions)	Marks (To Be Attempted)
Q-1	* A) Reading and interpretation of World thematic map (05 Marks) B) Map filling-World map (05 Marks) ** A) Map filling- Mumbai Map (05 Marks) B) Map filling- Konkan Map (05 Marks)	10
Q-2 (Module-I)	A) Full length question OR B) Full length question	10
Q-3 (Module-II)	A) Full length question OR B) Full length question	10
Q-4 (Module-III)	A) Full length question OR B) Full length question	10
Q-5 (Module IV)	A) Full length question OR B) Full length question	10
Q-6	Write a short notes (Any Two) a. From Unit-I b. From Unit-II c. From Unit-III d. From Unit-IV	10
	Total	60

*Semester-I **Semester-II

References:

1. Agarwal, K.C. 2001 Environmental Biology, Nidi Publ. Ltd. Bikaner
2. Bharucha Erach, The Biodiversity of India, Mapin Publishing Pvt. Ltd., Ahmedabad – 380 013, India, Email:mapin@icenet.net
3. Brunner R.C., 1989, Hazardous Waste Incineration, McGraw Hill Inc. 480p
4. Clark R.S., Marine Pollution, Clanderson Press Oxford
5. Cunningham, W.P. Cooper, T.H. Gorhani, E & Hepworth, M.T. 2001, Environmental Encyclopedia, Jaico Publ. House, Mumbai, 1196p
6. De A.K., Environmental Chemistry, Wiley Eastern Ltd.
7. Gleick, H.P. 1993. Water in crisis, Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute Oxford Univ. Press. 473p
8. Hawkins R.E., Encyclopedia of Indian Natural History, Bombay Natural History Society, Bombay
9. Heywood, V.H &Waston, R.T. 1995. Global Biodiversity Assessment. Cambridge Univ. Press 1140p.
10. Jadhav, H &Bhosale, V.M. 1995. Environmental Protection and Laws. Himalaya Pub. House, Delhi 284 p.
11. Mckinney, M.L. & School, R.M. 1996. Environmental Science systems & Solutions, Web enhanced edition. 639p.
12. Mhaskar A.K., Matter Hazardous, Techno-Science Publication
13. Miller T.G. Jr. Environmental Science, Wadsworth Publishing Co.
14. Odum, E.P. 1971. Fundamentals of Ecology. W.B. Saunders Co. USA, 574p
15. Rao M N. &Datta, A.K. 1987. Waste Water treatment. Oxford & IBH Publ. Co. Pvt. Ltd. 345p.
16. Sharma B.K., 2001. Environmental Chemistry. Geol Publ. House, Meerut
17. Townsend C., Harper J, and Michael Begon, Essentials of Ecology, Blackwell Science XI
18. Trivedi R.K., Handbook of Environmental Laws, Rules Guidelines, Compliances and Standards, Vol I and II, Enviro Media (R)
19. Trivedi R. K. and P.K. Goel, Introduction to air pollution, Techno-Science Publication
20. Ecotourism Economics and Environment” by Nagarajan K and Alex K Thottunkel
21. Indian Ecotourism: Environmental Rules and Regulations” by Ratandeeep Singh
22. Ecotourism and Sustainable Development” by Ravishanker Singh
23. K. Agarwal et al (1996) Biodiversity and Environment, APH, Dehra Dun.
24. S.S. Negi (1993) Biodiversity and its Conservation in India, Indus Publications, New Delhi.
25. W.W. Collins and C.O. Qualset (1998) Biodiversity in Agro-ecosystem, CRC, Boston.
26. V.K. Krishnamurthy (2003) Text Book of Biodiversity, Science Publisher, Chennai
27. Bharucha Erach, Textbook of Environmental Studies for Undergraduate Courses, Universities Press, 2005.

Syllabus of courses of F.Y.B.Com Programme (Actuarial Studies)

With effect from the Academic Year 2019-20

Skill Enhancement Course (SEC)

6. Foundation Course (2 Credits)

Objectives (for the learners):

- 1) To help the learner understand the inter-disciplinary approach of social fabric.
- 2) To sensitize learners on the socio-economic concerns in India with specific focus on the issues of the youth
- 3) To help learners articulate their views on the contemporary social issues.

Course Outcome:

- 1) The successful completion of course will enable the learner to understand factual aspects of Indian society.
- 2) It will help create awareness and empathy among learners about various issues faced by youth
- 3) It will help ingrain sense of social responsibility and participatory approval towards society.

Semester I

Modules at a Glance

Foundation Course – I		
Sr. No.	Modules	No. of Lectures
1	Indian Society- Unity in Diversity and Conflicts	9
2	Social issues and problems	9
3	The Indian Constitution	9
4	Significant Aspects of Political Processes	9
5	Project	9
Total No. of Lectures:		45

Sr. No.	Modules
Unit I	Indian Society- Unity in Diversity and Conflicts
	<p>Concept of diversity vs disparity. Understand the multi-cultural diversity of Indian society; understand the regional variations: Rural, Urban and tribal. Inequalities and Inter group conflicts arising due to: Linguistic differences- Linguistic Regionalism; Religion – Communal Violence; Caste- Social unrest; Socio-Political – Naxalism; Affirmative action by the government to the address the conflicts</p>
Unit II	Social issues and problems
	<p>Explore the disparities arising out of gender with specific reference to violence against women and Psycho social and economic inequalities arising thereafter; Measures to enhance Status of women</p> <p>Understand the issues of people with physical and mental disabilities and role of society and government in facilitating their rehabilitation.</p>
Unit III	The Indian Constitution
	<p>Philosophy of the Constitution as set out in the Preamble;</p> <p>The structure of the Constitution- the Preamble, Main Body and Schedules; Fundamental Duties of the Indian Citizen; tolerance, peace and communal harmony as crucial values in strengthening the social fabric of Indian society; Basic features of the Constitution.</p>
Unit IV	Significant Aspects of Political Processes
	<p>The party system in Indian politics; Local self-government in urban and rural areas; the 73rd and 74th Amendments and their implications for inclusive politics; Role and significance of women in politics.</p>

Foundation Course–II

Objectives:

- 1) To understand the current economic reforms in India
- 2) To understand the genesis and present form of Human rights.
- 3) To understand oneself and manage personal stress and conflict for harmonious interpersonal relationships.

Course Outcome:

- 1) The successful completion of the course will help learners to understand the impact of globalization on Indian Economy.
- 2) It will create awareness about the current status and Human Rights.
- 3) It will help learners to understand the cause and effect relationship with respect to stress and conflict thus enabling them to cope up with growing anxiety and stress in society.

Semester II

Modules at a Glance

Foundation Course – II		
Sr. No.	Modules	No. of Lectures
1	Globalisation and Indian Society	9
2	Human Rights	9
3	Understanding oneself	9
4	Stress and conflict management	9
5	Project	9
Total No. of Lectures:		45

Sr.No.	Modules / Units
Unit I	Globalisation and Indian Society
	Understanding the concepts of liberalization, privatization and globalization; Growth of information technology and communication and its impact manifested in everyday life; Impact of globalization on industry: changes in employment and increasing migration; Changes in agrarian sector due to globalization; rise in corporate farming and increase in farmers' suicides.
Unit II	Human Rights
	Concept of Human Rights; origin and evolution of the concept; The Universal Declaration of Human Rights; Human Rights constituents with special reference to Fundamental Rights stated in the Constitution
Unit III	Understanding oneself
	Defining self and Personality development; determinants of Personality development; agents of socialisation and roles played by them in Individual development, Maslow's theory of self-actualisation. Aggression and Violence as the public expression of internal conflict.
Unit IV	Stress and conflict management
	Meaning of stress ; it's causes and Coping mechanisms for managing stress, Meaning of conflict; Its causes and response in society; Individual Conflict – resolution and efforts towards building peace and harmony in society.

Foundation Course
Semester I & II
Question Paper Pattern
(Academic Year: 2019-20)

I. Continuous Assessment (CA)– 40 Marks

- 1) Project I (20 Marks)
- 2) Project II (20 Marks)

II. Semester End Examination (SEE)- 60 Marks

Maximum Marks : 60

Duration : 2 Hours

Note: (1) All questions are compulsory.

(2) Attempt **any two out of three sub questions** from each question.

Question No.	Particulars (Nature of Questions)	Marks (To Be Attempted)
Q-1 (Module-I)	A) Full Length Question B) Full Length Question C) Reflective Question	15
Q-2 (Module-II)	A) Full Length Question B) Full Length Question C) Reflective Question	15
Q-3 (Module-III)	A) Full Length Question B) Full Length Question C) Reflective Question	15
Q-4 (Module-IV)	A) Full Length Question B) Full Length Question C) Reflective Question	15
	Total	60

References:**Semester I:**

1. Indian Society and Culture, Vinita Padey, Rawat Pub (2016)
2. Social Problems in India, Ram Ahuja, Rawat Pub (2014)
3. Faces of Feminine in Ancient, medieval and Modern India, Mandakranta Bose
Oxford University Press
4. National Human rights commission- disability Manual
5. Rural, Urban Migration: Trends, challenges & Strategies, S Rajagopalan, ICFAI-
2012
6. Regional Inequalities in India Bhat L SSSRD- New Delhi
7. Urbanisation in India: Challenges, Opportunities & the way forward, I J Ahluwalia,
Ravi Kanbur, P K Mohanty, SAGE Pub (2014)
8. The Constitution of India, P M Bakshi (2011)
9. The Problems of Linguistic States in India, Krishna Kodesia Sterling Pub
10. Politics in India: structure, Process and Policy Subrata Mitra, Routledge Pub
11. Politics in India, Rajani Kothari, Orient Blackswan
12. Problems of Communalism in India, Ravindra Kumar Mittal Pub
13. Combating communalism in India: Key to National Integration, Kawal Kishor
Bhardwaj, Mittal Pub

Semester II:

1. A decade of economic reforms in India (The past, the present, the future)-Edited by
Raj Kapila and Uma Kapila, Academic Foundation (2002)
2. Impact of the policies of WTO on Indian agriculture - S. Nehru, Serial Pub. (2012)
3. Privatisation of public enterprises – Emerging dimensions – Edited by G.S. Batra,
Narinder Kaur, Anmol Pub. (1995)
4. Economics of development – Dwight Perkins, Steven Radelet, David Lindauer,
Norton company (2006)
5. Industrial Policy and economic development in India (1947 -2012) – Anup
Chatterjee New Century Pub.(2012)
6. Globalisation and development of backward areas – Edited by G. Satyanarayana
New Century Pub. (2007)
7. Contemporary issues in globalisation – An introduction to theory and policy in India
Soumyen Sikder, Oxford University Press (2002)
8. Universal Human Rights: In theory and practice, Jack Donnelly, (2014)
9. Stress Management – Dr. N. Tejmani Singh, Maxford books (2011)
10. Stress blasters – Brian Chichester, Perry Garfinkel and others, Rodale Press (1997)

Syllabus of courses of F.Y.B.Com Programme (Actuarial Studies)

With effect from the Academic Year 2019-20

Core Courses (CC)

7. Financial mathematics (3 Credits)

Objective:

The main objective of this course is to introduce financial mathematics to undergraduate students of commerce, so that they can use them in the field of commerce and industry to solve the real life problems.

Semester I

Modules at a Glance

Financial Mathematics I		
Sr. No.	Modules	No. of Lectures
1	Functions and their applications	15
2	Sequences and Series	15
3	Permutations and Combinations	15
4	Interest	15
Total No. of Lectures:		60

Total number of lectures 75 +Notional75 = 150 lectures = 3 CREDITS

Sr. No.	Modules
1	Functions and their Applications
	<ol style="list-style-type: none"> 1. Introduction- Function 2. Types of Functions- One-one functions, Onto Functions, Algebraic Functions, Logarithmic Functions and Exponential Functions, Graph of Functions 3. Problems on functions 4. Functions related to Business and Economics (Demand Function, Supply Function, Cost Function, Revenue Function and Profit Function) 5. Problems based on these functions
2	Sequences and Series
	<ol style="list-style-type: none"> 1. Sum of the Series 2. Arithmetic Progression (AP), Geometric Progression (GP) 3. Sum of AP, Sum of GP
3	Permutations and Combinations
	<ol style="list-style-type: none"> 1. Introduction- Meaning of Factorial Notation 2. Fundamental Principle, Permutations, Problems on Permutations 3. Combinations, Problems on combinations
4	Interest
	<ol style="list-style-type: none"> 1. Simple Interest, Problems on Simple Interest 2. Compound Interest, Problems on Simple Interest 3. Present Value, Nominal and Effective Rate of interest

Semester II

Modules at a Glance

Financial Mathematics-II		
Sr. No.	Modules	No. of Lectures
1	Matrices	15
2	Graph of Linear Inequalities	15
3	Annuity and Sinking funds	15
4	Shares and Mutual Funds	15
Total No. of Lectures:		60

Total number of lectures 75 + Notional 75 = 150 lectures = 3 CREDITS

Sr. No.	Modules
1	Matrices
	<ol style="list-style-type: none"> 1. Introduction- Definition of a Matrix, Types of Matrices, Equal Matrices, Matrix Addition, Multiplication of a Matrix by a Scalar, Matrix Multiplication, Problems on the above concepts 2. Transpose of a Matrix, Orthogonal; Matrix, Symmetric and Skew Symmetric Matrices, Determinant of a square Matrix, Adjoint of a Matrix, Inverse of a Matrix 3. Problems based on the above concepts 4. Elementary Operations on a matrix, Reduction Method for finding inverse of a matrix, Solution of a system of Linear Equations 5. Problems based on the above concepts
2	Graph of Linear Inequalities
	<ol style="list-style-type: none"> 1. Introduction, Inequality, Solution of an inequality, Graph of an inequality, System of Linear Inequalities 2. Mathematical Formulation of Linear Programming Problems. 3. Solution of Linear programming Problems using graphical method up to two variables 4. Application of linear inequalities in practical problems
3	Annuity and Sinking Funds
	<ol style="list-style-type: none"> 1. Introduction- Concept of Annuity, Classification of Annuities, Amount of an ordinary annuity, Present Value of an ordinary annuity, Amount of an annuity due, Present value of an annuity due 2. Amount of a deferred annuity, sinking fund, Perpetual Annuity, Amortization, Leasing, Capital Expenditure and Bonds
4	Shares and Mutual Funds
	<ol style="list-style-type: none"> 1. Introduction- Concept of share, face value, market value, dividend, equity shares, preferential shares, bonus shares 2. Problems based on these concepts 3. Mutual funds: Simple problems on calculations of Net income after considering entry load, Dividend, change in Net Asset value (N.A.V) and Exit Load 4. Averaging of price under the Systematic Investment Plans (S.I.P)

Financial Mathematics
Semester I & II
Question Paper Pattern
(Academic Year: 2019-20)

- I. Tutorial Test I** : 15 marks
II. Tutorial Test II : 15 marks
III. Viva Based on Tutorials : 05 marks
IV. Class Participation & Attendance : 05 marks

Total: 40 marks

- V. Semester End Examination (SEE)- 60 Marks**

Maximum Marks : 60
 Number of Questions to be Set : 5 (Five)
 Duration : 2 Hours

Note: (1) All questions are compulsory.
 (2) Attempt **any three out of four sub questions** from each question.

Question No.	Particulars (Nature of Questions)	Marks (To Be Attempted)
Q-1 (Module-I)	A) Numerical B) Numerical C) Numerical D) Higher Order Thinking Skills	12
Q-2 (Module-II)	A) Numerical B) Numerical C) Numerical D) Higher Order Thinking Skills	12
Q-3 (Module-III)	A) Numerical B) Numerical C) Numerical D) Higher Order Thinking Skills	12
Q-4 (Module-IV)	A) Numerical B) Numerical C) Numerical D) Higher Order Thinking Skills	12
Q-5 (Module-V)	A) Numerical B) Numerical C) Numerical D) Higher Order Thinking Skills	12
Total		60

Reference :

1. Mathematics for Economics and Finance Methods and Modelling by Martin Anthony and Norman Biggs, Cambridge University Press, Cambridge low-priced edition, 2000, Chapters 1, 2, 4, 6 to 9 & 10.
2. Applied Calculus: By Stephen Waner and Steven Constenoble, Brooks/Cole Thomson Learning, second edition, Chapter 1 to 5.
3. Business Mathematics By D. C. Sancheti and V. K. Kapoor, Sultan Chand & Sons, 2006, Chapter 1, 5, 7, 9 & 10.
4. Mathematics for Business Economics: By J. D. Gupta, P. K. Gupta and Man Mohan, Tata Mc-Graw Hill Publishing Co. Ltd., 1987, Chapters 9 to 11 & 16.
5. Quantitative Methods-Part-I By S. Saha and S. Mukerji, New Central Book Agency, 1996, Chapters 7 & 12.
6. Mathematical Basis of Life Insurance By S.P. Dixit, C.S. Modi and R.V. Joshi, Insurance Institute of India, Chapters 1 and 2
7. Securities Laws & Regulation of Financial Market : Intermediate Course Paper 8, Institute of Company Secretaries of India, Chapter 11.
8. Investments By J.C. Francis & R.W. Taylor, Schaum's Outlines, Tata Mc-Graw Hill Edition 2000, Chapters 2,4 & section 25.1.
9. Indian Mutual Funds Handbook : By SundarShankaran, Vision Books, 2006, Sections 1.7,1.8.1, 6.5 & Annexures 1.1to 1.3.
10. STATISTICS by Schaum Series.
11. Operations Research by Gupta and Kapoor.
12. Operations Research by Schaum Series.
13. Fundamentals of Statistics - D. N. Elhance.
14. Statistical Methods - S.G. Gupta (S. Chand & Co.
15. Statistics for Management - Lovin R. Rubin D.S. (Prentice Hall of India)
16. Statistics - Theory, Method & Applications D.S.Sancheti& V. K. Kapoor.
17. Modern Business Statistics - (Revised)-B. Pearles& C. Sullivan –Prentice Hall of India.
18. Business Mathematics & Statistics : B Aggarwal, Ane Book Pvt. Limited.
19. Business Mathematics : D C Sancheti& V K Kapoor, Sultan Chand & Sons.

20. Business Mathematics : A P Verma, Asian Books Pvt. :Limited.
21. Statistics of Management , Richard Levin &David S. Rubin,Printice Hall of India ,
NewDelhi.
22. Statistics for Business & Economics, David R Anderson, Dennis J Sweney,
ThopmsonPublication.
23. Business Statistics , Bharadwaj , Excel Books,Delhi
24. Business Mathematics, S.K Singh & J.K Singh, Brijwasi Book Distributor &Publisher.
25. Mathematics for Economics and Finance, Martin Anthony, Norman Biggs, Cambridge
lowprice editions,2000.
26. Business Mathematics, J.K. Singh, 2009,Himalaya PublishingHouse.
27. Mathematics of Finance 2nd Edition Schaum's Outline Series Peter Zima, Robert
Brows Tata McGraw-Hill Publishing CompanyLtd