

## BHARATHIAR UNIVERSITY, COIMBATORE – 641 046

### M.Com (Finance & Computer Applications)

[Offered in University Department under CBCS]

SYLLABUS (FROM THE ACADEMIC YEAR 2018 – 2019)

#### COURSE OF STUDY AND SCHEME OF EXAMINATION

### 1. ELIGIBILITY FOR ADMISSION TO THE COURSE

A Graduate in Commerce, Business Management / Administration, Bank Management, Corporate Secretaryship, Corporate Secretaryship & Computer Applications, Business Management / Administration & Computer Applications and Commerce & Computer Applications, E-Commerce or an Equivalent Qualification.

(Or)

A Graduate in Computer Science, Computer Applications, Computer Technology, Information Technology, Computer Engineering, Information Science or an Equivalent Qualification

### 2. DURATION OF THE COURSE

The course shall extend over a period of two years comprising four Semesters, with two Semesters per year. There shall not be less than ninety instructional days for each semester. Examination shall be conducted at the end of each semester for the respective subjects.

### 3. COURSE OF STUDY AND SCHEME OF EXAMINATION

The course of study and scheme of examination for the M.Com (Finance & Computer Applications) course shall consist of the following:

Semester	Core	Subject code	Subject Title	Hours / Week	University Examination			Credits
					Internal (25%)	External (75%)	Total (100)	
1	Core 1	13A	Communicative Skills	4	25	75	100	4
	Core 2	13B	Financial Accounting	4	25	75	100	4
	Core 3	13C	Quantitative Techniques for Finance	4	25	75	100	4
	Core 4	13D	Object Oriented Programming with C++	4	25	75	100	4
	Core 5	13E	Financial Instruments and Services	4	25	75	100	4
	Elective 1	1EA	Oracle and RDBMS	4	25	75	100	4
	Elective 2	1EB	Environmental Management Accounting	4	25	75	100	4
	<b>Supportive</b>		Offered by other Department	2	12	38	50	2
2	Core 6	23A	Cost and Management Accounting	4	25	75	100	4
	Core 7	23B	Visual Basic	4	25	75	100	4
	Core 8	23C	Direct Taxes	4	25	75	100	4
	Core 9	23D	Modern Banking	4	25	75	100	4
	Core 10	23E	Investment Analysis & Portfolio Management	4	25	75	100	4
	Elective 3	2EC	Enterprise Resource Planning	4	25	75	100	4
	Elective 4	2ED	Insurance and Risk Management	4	25	75	100	4
	<b>Supportive</b>		Offered by other Department	2	12	38	50	2
		Online Course*					2	
3	Core 11	33A	Business Research Methods	4	25	75	100	4
	Core 12	33B	E-Commerce	4	25	75	100	4
	Core 13	33C	Java Programming and HTML	4	25	75	100	4
	Core 14	33D	Financial Management	4	25	75	100	4
	Core 15	33E	Financial Derivatives Management	4	25	75	100	4
	Elective 5	3EE	Software Engineering	4	25	75	100	4
	Elective 6	3EF	International Financial Management	4	25	75	100	4
	<b>Supportive</b>		Offered by Other Department	2	12	38	50	2
4	Core 16	46A	Internship & Training		100	-	100	4
	Core 17	47V	Software Development / Project & Viva		50	150	200	8
		<b>Grand Total</b>			<b>2250 Marks</b>		<b>92</b>	

\*All the students must complete one online course at the end of each semester and the certificate must be submitted to the **Controller of Examinations, Bharathiar University** through the Head of the Department, for inclusion of credits in the marks statement.

**Supportive Courses offered to other Departments**

Paper – I	Principles of Accounting	2
Paper – II	Principles of Modern Banking	2
Paper – III	Principles of Personal Finance	2
Paper – IV	Principles of Insurance Management	2

***Question Paper Pattern***

**Max: 75 Marks.**

**SECTION A:** Short Answers Type Questions with no choice  
(10 Questions)

**10 X 1 = 10**

**SECTION B:** Short answer Questions of either / or type  
(10 Questions - 2 each from every Unit)

**5 X 5 = 25**

**SECTION C:** Essay type Questions of either / or type  
(10 Questions - 2 each from every Unit)

**5 X 8 = 40**

**PROGRAM OBJECTIVE FOR THE ENTIRE PROGRAMME**

**PROGRAM OUTCOMES (POS):**

PO1: To enhance sound knowledge in finance to make candidate industry ready.

PO2: To excel in data base management for the industry requirement.

PO3: Ability to make students to develop the programs using languages depending on the industry requirement.

PO4: Acquire technical and decision making skills in the area of accounting, taxation, portfolio analysis and E-commerce.

PO5: Identify, analyze and grab the opportunities available in global scenario.

PO6: Gain knowledge in commerce and accounting software for corporate requirements.

PO7: Get employment in IT fields, software, banks, companies, BPO's and KPO's.

## CORE- 1. COMMUNICATIVE SKILLS

Code No.13A	No. of Credits: 4	No. of Teaching Hours: 4 Hours / Week
-------------	-------------------	---------------------------------------

### Course Objectives:

It helps the students to acquire knowledge about the effective Business Communication System and the methods of drafting the business letters in an effective manner.

### UNIT- I

Business Communication – Objectives, Principles and Scope - Ethics of Communication - Language – Arts - Basics - Punctuation, Grammar and Word usage - Electronic Technology in global business communication: Internet, Fax, e-mail - Work Team Communication - Group Communication - Variables - Solving group problems - Strategies for communicating across culture.

### UNIT - II

Principles of Business Writing - Planning - Drafting - Revising - Formatting – 3Ps of Business Writing (problem, process, product) for Goodwill messages, Routine Messages and Negative news – Aids to correct writing – Essay writing.

### UNIT - III

Report writing - Characteristics - Purpose - Types - Periodic reports - Situational report - Proposals - Policies and Procedure - Report structure - Writing research and technical reports.

### UNIT - IV

Non-verbal communication - Personal appearance posture - Body language – Presentation Techniques – Case Studies - Visual & Audio Visual aids for Communication – Barriers to communication – Overcoming Barriers to communication.

### UNIT - V

Conducting Meetings: Procedure - Preparing Agenda, minutes and resolutions – Practicals with respect to conduct of meetings – Secretary's Report – Mock Interviews  
Conducting seminars and conferences:- Procedure of Regulating speech - Evaluating oral presentation – Interview Skills – Resume preparation, Application letters, Testimonial, Reference - Group Discussion – Presentation Skills. Libre Office Writer, Calc and impress.

**Note:** Question Paper shall cover 100% Theory.

### Reference Books:

1. Krishnamohan & Meera Bannerjee, "Developing Communication Skills", Mic Millan, London, UK .
2. Woolcott & Unwin, "Mastering Business Communication, Mic Millan, London, UK.
3. Anderson & Others, "Assignment & Thesis Writing", illustrated Publisher, Wiley.
4. Rajendra Paul and Koralahalli, "Business Communication", S.Chand & Sons Publisher, New Delhi.
5. Lesikar and Flatley, "Basic Business Communication", TMH Publications, New Delhi.
6. L.Gartside, "Business English", Mac Donald & Events Ltd, London
7. Spoken Tutorials – IIT – Mumbai.

### Course Outcomes (COs):

- CO1 :** To obtain the basics of Business Communication System  
**CO2 :** To apply the principles of Business Writing in an effective manner  
**CO3 :** To understand the different between verbal and non verbal communications  
**CO4 :** To get knowledge about the procedure of conducting meetings in an organization  
**CO5 :** To analyze the implications of various types of Communication

Course prepared by: Dr. M.Sumathy

## **CORE - 2. FINANCIAL ACCOUNTING**

Code No.13B	No. of Credits: 4	No. of Teaching Hours: 4 Hours / Week
-------------	-------------------	---------------------------------------

### **Course Objectives:**

- To set a base for fundamental accounts
- To learn the importance of IFRS and INDAS
- To familiarize Double Entry Book Keeping

### **UNIT - I**

Introduction – Definition - Accounting Principles and Conventions - Transaction Processing – Debit and credit classification – Double Entry Book Keeping - Types of Accounts.

### **UNIT - II**

Journal – Ledger – IFRS - & INDAS : Opening Accounts – Closing Entries - Day Book – Cash transaction – Entry making - Subsidiary Books of Accounts – Sales Ledger – Purchase Ledger - Cash Book –Cash with Bank transactions – Bank Reconciliation Statement

### **UNIT - III**

Trial Balance – Debit accounts – Credit accounts – Balance - Features of Manufacturing and Trading Account – Preparation of Final Account with all adjustments.

### **UNIT - IV**

Depreciation Accounting – Need & Causes for Depreciation – Methods.

### **UNIT - V**

Accounting for Non – Trading Concerns - Income & Expenditure – Receipts & Payments Account and Balance sheet. Front Accounting.

**Note:** Question paper shall cover 40% theory and 60% Problems.

### **Reference Books:**

1. R.L.Gupta & Radhasamy, “Advanced Accounting”, S.Chand & Sons Publisher, New Delhi
2. R.S.N.Pillai, Bagavatahi & S.Uma, “Fundamentals of Financial Accounting”, S.Chand & Sons Publisher, New Delhi
3. S.K.Battacharya, “Accounting for Management”, Vikas Publishing House Pvt Ltd., New Delhi
4. Dr.Ashok Sehgal & Dr.Deepak Sehgal, “Advanced Accounting / Financial Accounting”, Taxmann’s Publications, New Delhi
5. M.A.Arulanandam & K.S.Raman, “Advanced Accountancy”, Himalaya Publishing House, Mumbai.
6. Dr.Kaustubh Arvind Sontakke, “Financial Accounting”, Himalaya Publishing House, Mumbai.
7. Spoken Tutorials – IIT – Mumbai.

### **Course Outcomes (COs):**

- CO1 :** Explain the accounting principles.  
**CO2 :** Record the transactions and construct financial statements.  
**CO3 :** Analyze the financial statements.  
**CO4 :** State the uses of accounting information.  
**CO5:** Study the financial position of a concern

### CORE - 3. QUANTITATIVE TECHNIQUES FOR FINANCE

Code No.13C	No. of Credits: 4	No. of Teaching Hours: 4 Hours / Week
-------------	-------------------	---------------------------------------

#### Course Objectives:

- To understand the various applications used QT for finance decision
- To apply the various quantitative techniques to solve business problems
- To determine and evaluate the project to minimize the cost and time
- To be able to select the best course of action and to improve the professional skills for their business

#### UNIT - I

Probability – Definition- Addition and multiplication rules Probability distribution – Theoretical distributions – Binomial poison and normal – Simple problems applied to finance.

#### UNIT - II

Queuing theory – Applications to Business Decisions – Simulation – Monte Carlo Techniques - Time series – Components of time series – Use of time series data for financial analysis.

#### UNIT - III

Index numbers – concepts – simple and weighted index numbers – Economic and business index numbers published in India

#### UNIT - IV

Network Analysis - Managerial Applications - CPM / PERT network components - CPM - Methodology - Critical Path - Total Float, Free Float - Independent Float - Distinction Between PERT and CPM.

#### UNIT - V

Inventory Management - Determinants - Factors affecting Inventory Control - EOQ - inventory models - Types of Inventory models - Game theory - Zero sum Games: Arithmetic and Graphical Method, .

**Note:** Question Paper shall cover 40% Theory and 60% Problems.

#### Reference Books:

1. C.R.Kothari, "Quantitative Techniques", Vikas Publications, New Delhi
2. S.P. Gupta, "Statistical Methods", S.Chand & Sons Publisher, New Delhi.
3. V.K. Kappor, "Operations Research - Problems and Solutions", Sultan Chand & Sons Publisher, New Delhi.

#### Course Outcomes (COs):

- CO1:** Ability to understanding of the basic theory of probability and applications of theoretical distribution in finance.
- CO2:** Ability to know the role and applications of queuing theory, simulation and time series in business for financial analysis.
- CO3:** Ability to analyze and interpret the various index numbers in business and to know the economic and business index in India.
- CO4:** Ability to determine and evaluate the project to minimize the cost and time through CPM.
- CO5:** Ability to apply the inventory control technique to control the material cost and to identify the optimum profit through game theory that is minimized lose and maximize the profit.

Course prepared by: Dr. P.Chellasamy

## CORE - 4. OBJECT ORIENTED PROGRAMMING WITH C++

Code No.13D	No. of Credits: 4	No. of Teaching Hours: 4 Hours / Week
-------------	-------------------	---------------------------------------

### Course Objectives:

The course facilitates the students to master in developing C++ Software programming language and demonstrate C++ language by implementing the solution for variety of problems in different types of business fields.

### UNIT – I

Evaluation of Programming Paradigm – Elements of Object oriented programming - Merits and demerits of OOP – Popular OOP languages – C++ at a glance – Applications of C++ - C++ statements – Structure of C++ program. Data types – Character set: Token, Identifiers and Keywords – Variables – Operators and Expressions.

### UNIT – II

Control flow statements: IF, IF... Else, Nested If... Else, switch statement, For loop, While.. loop, do.. while loop, break statement, continue statement and go to statement. Arrays: operations on arrays – Multidimensional arrays – strings – string manipulations. Functions: Function components – Library functions – Inline functions.

### UNIT – III

Classes and objects – Class specification – Declaring class objects– Defining member functions – Data Hiding – Friend functions and Friend classes. Constructor – parameterized constructors – constructor overloading – destructor – copy constructor.

### UNIT – IV

Operator overloading – Overloadable operators – Rules for overloading operators – Data Type conversion - Inheritance: Forms of inheritance – single, multiple, multilevel, multipath, hierarchal and hybrid inheritance – when to use inheritance – Benefits of Inheritance.

### UNIT – V

Pointers – Virtual functions – Abstract classes – Data file operations: Opening of file – closing of file – reading/writing from a file – Structures – Exception Handling - Classes and file operations. Practical Applications of C/C++.

**Note:** Question Paper shall cover 100% Theory.

### Reference Books:

1. K.R.Venugopal, Raj kumar, T.Ravishanker, “Mastering C++”, Tata McGraw Hill Publishing Company Ltd, Noida, UP
2. E.Balagurusamy, “Object Oriented Programming with C++”, Tata McGraw Hill Publishing Company Ltd, Noida, UP
3. D.Ravichandran, “Programming with C++”, Tata McGraw Hill Publishing Company Ltd, Noida, UP
4. Herbert Schildt, “C++: The Complete Reference”, Tata McGraw-Hill Publishing Company Ltd, Noida, UP
5. Spoken Tutorials – IIT – Mumbai.

### Course Outcomes (COs):

- CO1:** Understand the difference between structured and Object Oriented Problem solving methods and apply them in various business fields based on the given problem.
- CO2:** Know the C++ control statements and arrays that are helpful in developing the program.
- CO3:** Identify the classes and objects and able to create the class specification for the given problem.
- CO4:** Develop the reusability of C++ program by applying the concept of Inheritance and Polymorphism.
- CO5:** Apply the data files operation technique and solve the given problems in a practical manner.

### **CORE - 5. FINANCIAL INSTRUMENTS AND SERVICES**

Code No.13E	No. of Credits: 4	No. of Teaching Hours: 4 Hours / Week
-------------	-------------------	---------------------------------------

#### **Course Objectives:**

It helps the students to acquire knowledge about **Financial Instruments and services** and its functions in business and stock market.

#### **UNIT - I**

Financial Instruments – Definition– Features – Classification – Money Markets – Call Money Market – Treasury Bills Market – Commercial Bills Market - Short term loans ; Capital Market – Industrial Securities Market – Govt. Securities - Long term loans ; Financial Services – Features – Classification – Importance - New Financial Product and Services.

#### **UNIT - II**

Mutual Funds in India – Definition – Features - Types – Risk in mutual Funds – Organization of the fund - Performance evaluation of Mutual Funds – Merits and Demerits of Investing in Mutual Funds - Mutual Fund Industry in India.

#### **UNIT - III**

Merchant Banking – Meaning - Definition - Scope – Functions of Merchant Banking - Qualities of Merchant Bankers. Venture Capital Investment Process - Advantages - Venture Capital Industry in India - International Experiences in Venture Capital Financing.

#### **UNIT - IV**

Factoring – Meaning – Definition – Characteristics - Types of Factoring – Factoring Mechanism – Functions of Factor – Advantages and disadvantages of Factoring – Factoring in India.

#### **UNIT - V**

Credit Rating - Objectives – Rating Methodology – Rating Process. Credit cards – Concept – Evolution of credit cards – Varieties of credit cards – operational procedure – Acceptability of credit cards from the point of view of bankers, customers, members – Establishments. Hire purchase Vs. Leasing.

**Note:** Question Paper shall cover 100% Theory.

#### **Reference Books:**

1. Nalini Prava Tripathy, “Financial Instruments and Services”, Prentice Hall Pvt Ltd,
2. E.Gordan & K.Natarajan, “Financial Markets and Services”, Himalaya Publishing House.
3. Dr.S.Gurusamy, “Financial Services and Markets”, Vijay Nicole Imprints Pvt Ltd, Chennai.
4. M.Y.Khan, “Financial Services”, Tata McGraw Hill Publishing Company Limited, Noida, UP.
5. Dr. D.Joseph Anbarasu & Others, “Financial Services”, S.Chand & Sons Publisher, New Delhi.

#### **Course Outcomes (COs):**

- CO1:** To get fundamental knowledge about money market, capital market and financial services.
- CO2:** To acquire awareness about mutual funds and mutual fund industry in India, apply the knowledge in developing database for business concerns.
- CO3:** To get familiarity about Merchant Banking, Venture Capital Industry in India, International Experiences in Venture Capital Financing.
- CO4:** To understand the factoring, advantages and disadvantages of factoring and factoring in India
- CO5:** To get knowledge about credit rating, credit cards, hire purchase and leasing

Course prepared by: Dr. M.Jegadeeshwaran

## ELECTIVE -1. ORACLE AND RDBMS

Code No.1EA	No. of Credits: 4	No. of Teaching Hours: 4 Hours / Week
-------------	-------------------	---------------------------------------

### Course Objectives:

It aims to facilitate the student to understand the various functionalities of oracle and RDBMS, software and perform many operations related to creating, manipulating, maintaining data base for real-world applications and to understand various designing concepts, storage methods, querying and managing the database.

### UNIT – I

Database concepts: A relational Approach – Database Management Systems (DBMS) – Relational Database Model – Integrity rules – Theoretical Relational Languages - Database Design: Data Modeling and Normalization.

### UNIT – II

Oracle 8: An overview - Personal Databases – Client / Server Databases - Table Creation & Modification: Data types – Constraints – Creating an Oracle Table - Working with tables: Data Management and retrieval.

### UNIT – III

Multiple Tables: Joins – Set Operators - Sub Queries - Advanced Features: Objects, Transactions and Data Control – Views – Sequences – Synonyms – Index – Controlling Access – Object privileges.

### UNIT – IV

PL/SQL Programming Language: History of PL / SQL – Fundamentals of PL/SQL – Data types – Variable declaration - Control Structures in PL/SQL.

### UNIT – V

PL / SQL Cursors and Exceptions – Procedures, Function, Packages and Trigger. PHP and My SQL

**Note:** Question Paper shall cover 100% Theory.

### Reference Books:

1. Nilesh Shah, “Database Systems Using Oracle”, Prentice Hall Pvt Ltd, New Delhi
2. Abraham Silberschatz Henry F.Korth S.Sudarshan, “Database System Concepts”, Tata McGraw Hill Publishing Company Limited, Noida, UP
3. Alexis Leon, Mathews Leon, “Essentials of Database Management Systems”, Vijay Nicole Imprints Pvt Ltd, Chennai
4. Raghu Ramakrishnan & Johannes Gehrke, “Database Management Systems”, Tata McGraw Hill Publishing Company Limited, Noida, UP
5. Spoken Tutorials – IIT – Mumbai.

### Course Outcomes (COs):

**CO1:** Understand the database concepts and design.

**CO2:** Applying basic components in oracle 8 for developing a programme.

**CO3:** Apply multiple tables for developing an oracle program.

**CO4:** Understand the programming language and SQL for developing a database.

**CO5:** Understand the concepts’ of cursors, exceptions, procedures, functions and packages

Course Prepared by: Dr. M.Dhanabhakym



## ELECTIVE - 2.ENVIRONMENTAL MANAGEMENT ACCOUNTING

Code No.1EB	No. of Credits: 4	No. of Teaching Hours: 4 Hours / Week
-------------	-------------------	---------------------------------------

### Course Objectives:

It helps the students to understand environmental management accounting, its increasing importance and new developments. It provides insight about the environment management accounting approaches and the political and economic factors which influence environmental accountability.

### UNIT – I

Environment: Meaning of Environment, Components of environment, Structure of environment, Functioning of environment, and Levels of organization. Environment Impact on Business: Social, Economic, Political, Cultural, Legal and constitutional sub-systems of environment and their impact on Business. Introduction to Environmental Legislation: Parliament functions

### UNIT – II

Environmental accounting system - Introduction to environmental and conventional accounting - Environmental Management Accounting (EMA): Meaning – Need – Uses and benefits - Frameworks and Tools.

### UNIT – III

Physical Information and Performance Indicators: Flow of energy, water, materials and wastes - Monetary Information and Performance Indicators – Environment related Costs and Earnings - Environmental costing and decision-making - Categories of environmental cost and revenues – EMA with environmental management tools.

### UNIT – IV

Environmental management plan - Environmental monitoring plan - Environmental impact assessment - Physical and financial impacts of environmental performance - Environmental risk assessment – EMA Challenges with Current Accounting Practices.

### UNIT – V

Environmental performance evaluation, compliance monitoring and reporting - EMA Links to National Accounting and Reporting – EMA links to Financial Accounting and Reporting – EMA links to Corporate Environmental Performance Reporting.

### Reference Books:

1. Christian Herzig, Tobias Viere, Stefan Schaltegger, Roger L. Burritt – “Environmental Management Accounting”, Routledge Publisher, New York, 2012.
2. Pain, S.W. 2010. Safety, Health, and Environmental Auditing - a Practical Guide, New York : Taylor and Francis Group, 2010. 206 p. ISBN 978-1-4398-2947-9
3. UNDSO (United Nations Division for Sustainable Development) (2001) Environmental Management Accounting. Procedures and Principles, New York: UN DSD
4. Economic Development – Problems, Principles & Policies – by Benjamin Higgins.
5. Economic Development – Past & Present – by Gill
6. Badrinath S. D. & Rama N. S. – “Environmental Audit: A Step towards an Ecological Economy” Chemical Business Vol. 12, 1994

### Course Outcomes (COs):

**CO1:** Understanding the impact of social, economic, political, cultural, legal and constitutional sub-system of environment.

**CO2:** Understanding the concept of environmental management accounting and conventional accounting system.

**CO3:** Applying the environmental management tools for taking decisions on environmental cost and revenues.

**CO4:** Creating skills in environmental management plan and current accounting practices.

**CO5:** Understanding the concept of environmental performance evaluation and reporting.

**SEMESTER - II**  
**CORE - 6. COST AND MANAGEMENT ACCOUNTING**

Code No.23A	No. of Credits: 4	No. of Teaching Hours: 4 Hours / Week
-------------	-------------------	---------------------------------------

**Course Objectives:**

- To understand the basic concept and procedures used to determine product cost.
- To be able to interpret cost and management accounting statement.
- To be able to analyze and evaluate information for cost ascertainment, planning, control and decision making.

**UNIT – I**

Management Accounting – Definition, Nature and Scope – Functions – Role of Management Accountant – Tools of Financial Analysis and Planning – Ratio, Fund Flow and Cash Flow Analysis.

**UNIT - II**

Cost Concept – Absorption Vs Variable Costing – Cost Center – Profit Center - Preparation of Cost Sheet - Marginal Costing – Break - Even and CVP Analysis and Decision Making. Application of Marginal Costing in Managerial Decision Making. Advanced Problems.

**UNIT - III**

Activity Based Costing – (ABC) – Introduction – Concept of ABC – Approaches to ABC – Allocation of overheads under ABC – Characteristics of ABC – Implementation of ABC System, ABC supports to Corporate strategy. Pricing Decision – Back Flush Costing – Life Cycle Costing (Theory Only).

**UNIT – IV**

Standard Costing – Setting standards – Variance Analysis and Reporting – Material, Labour, Overhead – Sales and Profit Variance - Reporting and investigation of variances.

**UNIT – V**

Budget and Budgetary Control Forecasting Vs. Budget – Preparation of Functional Budget – Types of Budgets – Zero Base Budgeting, Programme Budgeting and Performance Budgeting.

**Note:** Question Paper shall cover 40% Theory and 60% Problems.

**Reference Books:**

1. S.P.Jain & R.L.Narang, “Advanced Cost Accounting”, Kalyani Publishers, Ludhiana.
2. B.M.Lall Nigam, “Cost Accounting Principles and Practices”, Himalaya Publishing House, Mumbai.
3. Dr. S.N.Maheswari, “Cost and Management Accounting”, Sultan Chand & Sons Publisher, New Delhi.
4. Murthy & Gurusamy, Management Accounting, Vijay Nichole Imprints (P) Limited, Chennai.
5. P.C Tulsian, Cost Accounting S.Chand & Company Limited.
6. M.N. Amara, "Cost and Management Accounting ( Theory and Problem)", Himalaya Publishing House, Mumbai.
7. N.S. Zad, "Cost and Management Accounting", Taxman Publishers Private Limited.

**Course Outcomes (COs):**

**CO1:** Ability to understand basic concept of management accounting and its tolls and techniques applied in business.

**CO2:** Ability to know the basic concepts and procedures used to determine product cost and to use marginal costing techniques for decision making.

**CO3:** Ability to understand the ABC concepts its approaches to allocate the overhead cost.

**CO4:** Ability to formulate standards and apply the standard costing techniques and to analyze the causes of variance in material cost, labour cost, overhead and sales.

**CO5:** Ability to formulate and use budgets for planning and control purposes;

Course Prepared by: Dr. P. Chellasamy

## **CORE - 7. VISUAL BASIC**

Code No.23B	No. of Credits: 4	No. of Teaching Hours: 4 Hours / Week
-------------	-------------------	---------------------------------------

### **Course Objectives:**

The course aims at making the students to understand and perform the software programs in a visual environment. It also helps the students to solve the problems by applying graphical user interface mechanism.

### **UNIT – I**

Introduction to Visual Basic – GUI – Integrated Development Environment – Introduction to Forms, Common Properties, Methods and Events – Introduction to Visual Basic Programming – Variables, Constants and Operators.

### **UNIT – II**

Intrinsic Controls: Pointer, Label, Frame, Command button, Option button, Check box, Combo box, HS Scroll bar, Timer, Dir List box, Shape, Image, Picture box, Text box, List box, VS Scroll bar, Drive list box, File list box, Line controls -OLE Adding new controls to the form.

### **UNIT – III**

Control structures: If/Then, If/Then/Else, Select case – Looping structure: Do.. While, Do.. Until, For.. Next. Arrays - Multidimensional array – control arrays – Sub procedures and function procedures – Strings, Dates and Times.

### **UNIT – IV**

Enterprise controls: Menu editor – SDI and MDI forms – Introduction to database: Visual database Tools – Creating tables in access – Data bound controls – DAO, RDO, ADO – Validating data.

### **UNIT - V**

Database Programming: SQL basics – Tables and reports – Data Grid control – Flex Grid control – Data report designer. Practical Applications of Visual Basic.

**Note:** Question Paper shall cover 100% Theory.

### **Reference Books:**

1. H.M.Deitel., P.J.Deital and T.R.Nieto, “Visual Basic 6 – How to Program”, Prentice Hall Pvt Ltd, New Delhi
2. Francesco Balenda, “Programming Microsoft Visual Basic”, WP Publications & Distributors, Bangalore
3. Gary Cronell, “Visual Basic 6”, Tata McGraw Hill Publishing Company Limited, Noida, UP
4. Julia Case Bradley & Anita C.Millspaugh, “Programming in Visual Basic 6.0”, Tata McGraw Hill Publishing Company Limited, Noida, UP

### **Course Outcomes (COs):**

- CO1:** Know the basic concepts of visual basic and helps to understand how this programming language differs from others.
- CO2:** Get the knowledge about the controls or objects which are available in visual basic.
- CO3:** Develop programs using visual basic control statements and procedures.
- CO4:** Create menus and perform the programs with MS- Access and other applications using Data Access Objects and ActiveX Data Objects.
- CO5:** Prepare the data report and solve the given problems in a practical way.

### **CORE - 8. DIRECT TAXES**

Code No.23C	No. of Credits: 4	No. of Teaching Hours: 4 Hours / Week
-------------	-------------------	---------------------------------------

#### **Course Objectives:**

The students get a complete knowledge, concepts and procedures used to calculate taxable incomes from various heads. They also learn how to calculate taxable incomes.

#### **UNIT – I**

Income Tax Act – Definition – Income – Agricultural Income – Assessee – Previous year – Assessment year – Residential Status – Scope of Total Income – Capital and Revenue – Receipts and Expenditure – Exempted Incomes.

#### **UNIT – II**

Computation of Income from Salaries and Income from House Property.

#### **UNIT – III**

Computation of Profits and Gains of Business or Profession – Calculation of Capital Gain.

#### **UNIT – IV**

Computation of Income from Other Sources – Set-off and carry Forward of Losses - Deduction from Gross Total Income ( 80C, 80E and 80G only) – Assessment of Individuals.

#### **UNIT – V**

Income Tax Authorities – Procedure for Assessment – PAN Card- Tax Deducted at Source (TDS)– Residents and to Non – Residents – Tax collected at Source. Practical Applications of E-Filing.

**Note:** Question Paper shall cover 40% Theory and 60% Problems.

#### **Reference Books:**

1. Gaur & Narang, “Income Tax Law & Practice”, DP Kalyani Publishers, Latest Edition, New Delhi.
2. Dr.H.C.Mehorotra, “Income Tax Law & Practice”, Prentice Hall Pvt Ltd, New Delhi.
3. Dingar Pagare, “Tax Laws”, S.Chand & Sons Publisher, New Delhi.
4. Bhagavathi Prasad, “Income Tax”, Wishwa Prakashan, New Delhi.

#### **Course Outcomes (COs):**

**CO1:** To understand the basic concept and procedures of Income Tax Act, Agricultural Income, Assessee, Previous year, Assessment year and know the how to calculate Residential Status, Scope of Total Income, Capital, Revenue & Exempted Incomes.

**CO2:** to Get the knowledge about how to calculate the taxable salary income.

**CO3:** to learn how to calculate Profits and Gains of Business or Profession and capital gain.

**CO4:** To study regarding Income from Other Sources, Deduction from Gross Total Income and Assessment of Individuals.

**CO5:** To get knowledge about Income Tax Authorities, PAN Card, Tax Deducted at Source and Practical Applications of E-Filing.

Course Prepared by: Dr. M.Jegadeeshwaran

## CORE - 9. MODERN BANKING

Code No.23D	No. of Credits: 4	No. of Teaching Hours: 4 Hours / Week
-------------	-------------------	---------------------------------------

### Course Objectives:

It helps the students to understand the adoption of information technology in banking, different modes of e-banking and their applications. It also gives exposure about latest developments in Digital banking.

### UNIT – I

Banking – Definition – Banking System – Role of Banks in Economic Development – Central Bank – Functions – Credit Control Measures – Role of RBI in Regulatory and Controlling Banks.

### UNIT – II

E-Banking – meaning – E-Banking and Financial Services – Risk Management for E-Banking – Internet Banking – Mechanics of Internet Banking – Drawbacks of Internet Banking – Future outlook.

### UNIT – III

Mobile Banking – meaning – Services – Security Issues – Telephone Banking – Mechanism – Telephone Banking System – Call Centers.

### UNIT – IV

ATM – Features – Mechanism – Benefits – Shared ATM Network in India – Digital Money – Mode of Issue and Implications – E-Money and Monetary Policy – Policy issues of RBI – Electronic Funds Transfer System.

### UNIT – V

Indian Financial Network – Features – Application – Recent trends in Indian Banking – Payment Banking. Small Banks - Mudra Banks - Digital Payments - Outsourcing of Non - Core Services - Financial Inclusion - RBI Measures.

**Note:** Question Paper shall cover 100% Theory.

### Reference Books:

1. K.C. Shekhar and Lakshmy Shekhar, “Indian Banking System”, Vikas Publishing House Pvt Ltd, New Delhi.
2. Muraleedhran, “Modern Banking Theory and Practice”, PHI Learning Pvt Ltd, New Delhi.
3. S. Nataraj and R. Parameswaran, “Indian Banking”, S.Chand & Sons Publisher, New Delhi.
4. O.P.Agarwal, “Modern Banking of India”, Himalaya Publishing House, Mumbai
5. P.N.Varshney, S.L.Gupta and T.D.Malhotra, “Principles of Banking”, S.Chand & Sons Publisher, New Delhi.
6. P.Chellasamy, “Modern Banking Management”, Himalaya Publishing House, Mumbai

### Course Outcomes (COs):

- CO1:** To know the Indian banking system, functions of central bank and its contribution to the Indian economy
- CO2:** To explore the financial services provided through e-banking and how the banking risks are managed.
- CO3:** To learn about the shared network for ATM, mechanism of telephone banking, mobile banking and their benefits and limitations.
- CO4:** To understand the RBI guidelines towards e-money and its implications apart from knowing the Electronic Fund Transfer System.
- CO5:** To understand the applications of Indian financing network and to analyze the latest trends and developments in e-banking.

Course Prepared by : Dr. (Mrs.) Padmasani

## CORE - 10. INVESTMENT ANALYSIS AND PORTFOLIO MANAGEMENT

Code No.23E	No. of Credits: 4	No. of Teaching Hours: 4 Hours / Week
-------------	-------------------	---------------------------------------

### Course Objectives:

The students get a complete knowledge about the principles of investment, various approaches to investment analysis and core of modern portfolio theory. They also learn to calculate risk and return for various securities.

### UNIT - I

Investment Analysis: Nature - Scope - Investment Risk & Return Objective of Investment Approaches to Investment Analysis. Securities - Types - Features.

### UNIT - II

Investment Alternatives and Strategies: Financial Investment - Non Financial Investment - Inbound and Outbound Investments – Sources of Investment Information - Valuation of Fixed Income Securities and Variable Income Securities (excluding Derivatives).

### UNIT - III

Fundamental Analysis: Economic – Industry and Company Analysis – Sources of Information for Analysis.

### UNIT - IV

Technical Analysis – Types of Charts – Dow Theory, Elliott Wave Theory, Odd - Lot Theory, Breadth of Market, Relative Strength Analysis – Moving Average Analysis - Efficient Market Hypothesis.

### UNIT - V

Portfolio Analysis & Management: Portfolio Risk and Return – Diversification - Markowitz Model – Sharpe Model: Single Index Model – CAPM – Arbitrage Pricing Theory.

**Note:** Question paper shall cover 100% Theory.

### Reference Books:

1. S. Kevin “Security Analysis and Portfolio Management” PHI Learning Pvt Ltd, New Delhi.
2. V.A. Avadhani, “Security Analysis and Portfolio Management”, Himalaya Publishing House, Mumbai.
3. Punithavathy Pandian, “Security Analysis and Portfolio Management”, Vikas Publishing House Pvt Ltd, New Delhi.
4. M. Ranganatham & R. Madhumathi, “Investment Analysis and Portfolio Management”, Pearson Education (India) Pvt Ltd, New Delhi.
5. Bhalla, Tuteja, “Investment Management”, S. Chand & Sons Publisher, New Delhi.
6. Preeti Singh, “Investment Management”, Himalaya Publishing House, Mumbai.

### Course Outcomes (COs):

- CO1:** To understand the objectives of investment approaches to investment analysis and various types of securities.
- CO2:** To clarify the investments and learn the various methods of valuing fixed and variable income securities.
- CO3:** To understand how to carry out fundamental analysis.
- CO4:** To adopt technical analysis while taking investment decisions.
- CO5:** To understand and develop a portfolio for an investor based on few theories.

Course Prepared by: Dr. (Mrs.) Padmasani

### ELECTIVE - 3. ENTERPRISE RESOURCE PLANNING

Code No.2EC	No. of Credits: 4	No. of Teaching Hours: 4 Hours / Week
-------------	-------------------	---------------------------------------

#### Course Objectives:

It aims to facilitate the students to understand the theory behind the design and development of an integrated software system for an enterprise.

#### UNIT - I

Enterprise an Overview: Business Functions and Business Processes - Integrated Management Information - Business Modeling - Integrated Data Model. Business Processes: Major Business Processes. Introduction to ERP: Common ERP Myths- A Brief History of ERP - Basic ERP Concepts - ERP Architectures - Reasons for the Growth of ERP Markets - Advantages of ERP.

#### UNIT – II

Risks of ERP: People Issues - Process Risks - Technological Risks - Implementation Issues- Operation and Maintenance Issues - Unique Risks of ERP Projects - Managing Risks on ERP Projects. Benefits of ERP: Information Integration - Reduction of Lead Time - On-Time Shipment - Reduction in Cycle Time - Improved Resource Utilization - Better Customer Satisfaction - Improved Supplier Performance - Increased Flexibility - Reduced Quality Costs - Better Analysis and Planning Capabilities - Improved Information Accuracy and Decision Making Capability - Use of Latest Technology.

#### UNIT - III

ERP and Related Technologies: Business Process Reengineering (BPR) - Business Intelligence (BI) - Business Analytics (BA) - Data Warehousing- Data Mining - On - Line Analytical Processing (OLAP) - Product Life Cycle Management (PLM) - Supply Chain Management (SCM) - Customer Relationship Management (CRM) - Geographic Information Systems (GIS) - Intranets and Extranets. Advanced Technology and ERP Security: Technological Advancements - Computer Crimes - ERP and Security - Computer Security - Crime and Security.

#### UNIT - IV

ERP Market Place: Market Overview - ERP Market Tiers. Business Modules of an ERP Package: Functional Modules of ERP Software: Financial Module - Manufacturing Module - HR Module - Material Management Module - Production Planning Module - Plant Maintenance Module - Purchasing Module - Marketing Module - Sales and Distribution Module.

#### UNIT - V

ERP Implementation: Benefits of Implementing ERP - Implementation Challenges. ERP Implementation Life Cycle: Objectives of ERP Implementation - Different Phases of ERP Implementation- Reasons for ERP Implementation Failure. ERP Package Selection: ERP Package Evaluation and Selection - The Selection Process - ERP Packages: Make or Buy.

#### Reference Books:

1. Alexis Leon, “ Enterprise Resource Planning”, Third Edition, Tata Mcgraw Hill Publishing Company Limited, Noida, UP.
2. Rahul V Altekar, “ Enterprise Wide Resource Planning- Theory And Practice”, Prentice Hall Pvt Ltd, New Delhi.
3. Vinod Kumar Garg and N,K,Ventitakrishnan, “ Enterprise Wide Resource “, Prentice Hall Pvt Ltd, New Delhi.
4. Dr. Subodh Kesharwani, “ERP Systems- Application, Experiences”, Upsurge, Pragati Prakathan Publication, Meerut.

#### Course Outcomes (COs):

**CO1:** Understand the concepts of ERP and its related technologies.

**CO2:** Analyze the integration of ERP modules and its sub modules.

**CO3:** Understand the benefits of ERP package.

**CO4:** Analyze the ERP implementation life cycle.

**CO5:** Evaluate the future directions in ERP

## **ELECTIVE - 4. INSURANCE AND RISK MANAGEMENT**

Code No.2ED	No. of Credits: 4	No. of Teaching Hours: 4 Hours / Week
-------------	-------------------	---------------------------------------

### **Course Objectives:**

- To familiarize the principles of insurance
- To develop an understanding about the insurance industry and the types of insurance
- To lay a foundation for the risk management

### **UNIT – I**

Introduction to Insurance: Role of Insurance – Characteristics of an Insurable Risk – Principles of Insurance – Reinsurance – Double Insurance – IT in Insurance

### **UNIT – II**

Indian Insurance Industry – Reforms – Private Players to Indian Insurance Market – IRDA Regulations: For Licensing of Insurance Agents – For Protection of Policy Holders” Interest. Actuary – Meaning – SOA

### **UNIT – III**

Insurance Contract: Life Insurance Contract – Features, Policy Conditions and Products; Non – Life Insurance: Fire and Marine - Features, Policy Conditions and Products. Group, Health and Social Insurance – Schemes- Procedure for claiming Life and Health Insurance.

### **UNIT – IV**

Introduction to Risk Management – Concept of Risk – Types of Risk – Principles of Risk Management – Risk Management process – Objectives of Risk Management

### **UNIT – V**

Risk management and control – Methods of Risk management – Risk management by individuals and corporations – Tools for Controlling Risk

**Note:** Question Paper shall cover 100 % Theory.

### **Reference Books:**

1. Dr. P.K.Gupta, “Insurance and Risk Management”, Himalaya Publishing House, Mumbai.
2. Alka Mittal and S.L Gupta, “Principles of Insurance and Risk Management”, S.Chand & Sons Publisher, New Delhi.
3. Nalini Prava Tripathy and Prabir Pai, “Insurance – Theory and Practice”, Prentice Hall Pvt Ltd, New Delhi
4. Mark S. Dorfman, “Introduction to Risk Management and Insurance”, Prentice Hall Pvt Ltd, New Delhi

### **Course Outcomes (COs):**

- CO1 :** Explain the Principles of Insurance
- CO2 :** Analyze the Position of Insurance Industry
- CO3 :** Examine the Types of Insurance Policies
- CO4 :** Control Risk
- CO5 :** Apply relevant method for risk Management.

Course Prepared by : Dr. M. Nirmala



## SEMESTER - III

### CORE - 11. BUSINESS RESEARCH METHODS

#### UNIT – I

Business Research – Meaning – Scope and Significance – Utility of Business research – Qualities of good researcher – Types of research – Research process – Identification, Selection and formulation of research problems – Hypothesis – Research design.

#### UNIT – II

Sampling – Methods and techniques – Sample size – Sampling error – Fieldwork and Data Collection. Tools of data collection – Interview schedule - Questionnaire – Observation, interview and mailed questionnaire – pilot study and final collection of data.

#### UNIT – III

Measurement and scaling techniques – Reliability and validity Processing and Analysis of data – Editing – Coding - Classification – Tabulation – Interpretations. Report writing – Steps-Types of reports.

#### UNIT – IV

Measures of Central tendency – Standard deviation – Correlation- simple, partial and multiple correlation – Path analysis – Auto correlation – Regression models – Ordinary Least Square methods – Multiple regression.

#### UNIT – V

Test of significance – t<sup>o</sup> Test - large sample and f<sup>o</sup> Test, test of significance for attributes, analysis of variance (ANOVA) – Chi-square test. Latex; Scilab.

**Note:** Question paper shall cover 60% Theory and 40% Problems.

#### Books for Reference:

1. Cooper, “Business Research Method”, Tata McGraw Hill Publishing Company Limited, Noida, UP.
2. J.K.Suchdeva, “Business Research Methodology”, Himalaya Publishing House, Mumbai
3. S.P. Gupta, “Statistical Methods”, S.Chand & Sons Publisher, New Delhi.
4. C.R. Kothari, “Research Methodology”, Himalaya Publishing House, Mumbai
5. R.S.N. Pillai & V. Bagavathi, “„Statistics”, S.Chand & Sons Publisher, New Delhi.
6. O.R.Krishnaswami & M. Ranganathan, “Methodology of Research in Social Science”, Himalaya Publishing House, Mumbai.
7. Spoken Tutorials, IIT, Mumbai.

## **CORE - 12. E-COMMERCE**

### **UNIT - I**

Introduction to E-Commerce – Benefits of Electronic Commerce – Impact of Electronic commerce- Classification of Electronic Commerce – Applications of Electronic Commerce Technologies- Business Models- Architectural Framework.

### **UNIT - II**

Network Infrastructure: Local Area Networks – Wide Area Network – Intranet, Extranet and Internet – TCP/IP Reference Model – Domain Name Systems – Internet Industry Structure. Information Distribution and Messaging: File Transfer Protocol Applications - Electronic Mail – World Wide Web Server – HTTP – Web servers Implementations.

### **UNIT - III**

Information Publishing Technology: Information publishing – Web browsers – Hyper Text Markup Language – Common Gateway Interface – Multimedia Content – Other Multimedia Objects – Virtual Reality Modeling Language.

### **UNIT - IV**

Securing the Business on Internet: Security policy, Procedures and practices – Site security – Protecting the Network – Firewalls – Securing the Web service.

Securing Network Transactions- Transaction Security – Cryptology – Cryptology Algorithms – Public Key Algorithm – Authentication Protocols – Digital Signatures – Electronic Mail Security – Security Protocols for Web Commerce.

### **UNIT - V**

Search Engines and Directory Services: Information Directories – Internet Advertising- E-Commerce Applications- Cyber Law-Introduction- Concept of Cyberspace - cyber law in E-Commerce-Contract Aspects - Electronic Governance. Drupal.

**Note:** Question Paper shall cover 100% Theory

### **Books for Reference:**

1. Bharat Bhasker, “Electronic Commerce: Framework, Technologies and Applications”, Tata McGraw Hill Publishing Company Limited, Noida, UP
2. Dr.C.A.Rayudu, “E-Commerce & E-Business”, Himalaya Publishing House, Mumbai
3. Ravi Kalakotoa & Andrew B. Whinston, “Frontiers of Electronic Commerce”, Addison-Wesley – An Imprint of Pearson Education, United States.
4. Jeffvey F. Rayport & Bernard J. Jaworeski, “Introduction to E-Commerce”, Tata McGraw Hill Publishing Company Limited, Noida, UP.
5. Suresh T.Viswanathan, “The Indian Cyber Law”, Bharat Law House, New Delhi.
6. Spoken Tutorials, IIT, Mumbai.

## **CORE - 13. JAVA PROGRAMMING AND HTML**

### **UNIT – I**

HTML: History of HTML – Features – Advantages – Components of HTML document – Formatting text using HTML – Adding images using HTML.

### **UNIT – II**

Overview of Java Language – Simple Java Program – Use of math functions – Application with two classes – Java program structure – Java Tokens – Implementing a Java program – Java Virtual Machine – Command line arguments - Constants – Variables – Data types.

### **UNIT – III**

Operators and Expressions – Decision making and Branching – Decision making and looping.

### **UNIT – IV**

Classes – Objects and methods – Arrays – Strings and Vectors. Interfaces: Multiple inheritance – Multi Threaded Programming.

### **UNIT – V**

Managing Errors and Exceptions – Applet programming – Graphics programming- Java and Netbeans.

**Note:** Question Paper shall cover 100% Theory

### **Books for Reference:**

1. E.Balagurusamy, “Programming with Java”, Tata McGraw Hill Publishing Company Limited, Noida, UP.
2. Herbert Schildt, “Java 2 – The Complete reference”, Tata McGraw Hill Publishing Company Limited, Noida, UP.
3. S.S.Khandare, “Programming in Java”, S.Chand & Sons Publisher, New Delhi.
4. C.Xavier, “World Wide Web Design with HTML”, Tata McGraw Hill Publishing Company Limited, Noida, UP.
5. Vishnu P.Singh, “HTML (With Dynamic HTML)”, Computech Publications Limited, New Delhi.
6. Spoken Tutorials – IIT – Mumbai.

## **CORE - 14. FINANCIAL MANAGEMENT**

### **UNIT – I**

Nature and scope of financial management – objectives – Financial decisions – Relationship between Risk and Return – Role and functions of financial manager – Time value of money – concept of value and return.

### **UNIT – II**

Cost of Capital – Meaning and importance – Cost of debt, preference, equity and retained earnings – weighted average cost of capital – capital budgeting – Techniques – ROI, payback period and discounted cash flow.

### **UNIT – III**

Financial leverage – measures – EBIT, EPS Analysis – operating leverage – financial – business and operating risks – Theories of capital structure – net income approach – Net – operating income Approach. MM Hypothesis – Determinants of capital structure.

### **UNIT – IV**

Dividend Theories – Walter's model – Gordon and MM's models – Dividend policy – forms of Dividend – Determinants of dividend policy.

### **UNIT – V**

Management of working capital – concept – importance – Determinants and computation of working capital – Management of cash, inventory and receivables – Regulations of Bank credit to industry – Credit Monitoring and Assessment (CMA) formats.

**Note:** Question Paper shall cover 60% theory and 40% Problem

### **Books for Reference:**

1. Prasanna Chandra, "Financial Management", Tata McGraw Hill Publishing Company Limited, Noida, UP
2. S.N Maheswari, "Financial Management", S.Chand & Sons Publisher, New Delhi.
3. L.J.Gitman & Dr.M.Manickam, "Principles of Managerial Finance", Pearson Education, New York
4. I.M. Pandey, "Financial Management", Vikas Publication, New Delhi.
5. Khan & Jain, "Financial Management", Tata McGraw Hill Publishing Company Limited, Noida, UP
6. James C. Van Horne, "Financial Management and Policy", Pearson Education, New York

## **CORE - 15. FINANCIAL DERIVATIVES MANAGEMENT**

### **UNIT - I**

Introduction: Meaning – Origin – Types of Derivatives – Significance – Derivatives Trading in India. Mechanics of Financial Futures Market – Origin of Futures Markets – procedures for opening a Futures Account – Role and Operation of Clearing Houses - Concepts pertaining to Delivery, Margin, Leverage and Liquidity.

### **UNIT - II**

Forwards: Basics – Determination of Forward Prices – Advantages – Disadvantages.

### **UNIT - III**

Options: Introduction – Types – Call Option – Put Option – Currency Option – Option pricing - Black – Scholes Model – Binomial Model – Over the Counter Options etc. Execution and Delivery Process.

### **UNIT - IV**

SWAPS – Interest Rate Swaps – Currency Swaps – Interest Rate Swaps – Bond Swaps – Substitution Swaps – Gains from Swaps – International Swaps – Evaluation of Swaps – International Swap Dealers Association (ISDA).

### **UNIT - V**

Hedging – Designing the Hedge Strategy, Setting Hedge Objectives and Evaluating Interest Rate – Determining Hedgability, Structuring the Hedge - Hedge Management Process. Evaluating and Monitoring the Hedge Position.

**Note:** Question paper shall cover 100% Theory.

#### **Books for Reference:**

1. Cox & Rubinstein, "Options Market", Prentice Hall Pvt Ltd, New Delhi
2. Hull, John, "Introduction to futures & Options", Prentice Hall Pvt Ltd, New Delhi
3. V.K. Bhalla, "Investment Management", S.Chand & Sons Publisher, New Delhi.
4. Somanthan, "Derivatives", Tata McGraw Hill Publishing Company Limited, Noida, UP.
5. Kevin's, "Commodity and Financial Derivatives", Prentice Hall Pvt Ltd, New Delhi
6. Marshall, John and V.K. Bansal, "Financial Engineering - A Complete Guide to Financial innovation", Prentice Hall Pvt Ltd, New Delhi

## **ELECTIVE - 5. SOFTWARE ENGINEERING**

### **UNIT – I**

Product: Evolving Role of Software – Software Characteristics – Software Applications – Software Crisis - Software Myths. The Process: Software Engineering: A Layered Technology – Software Process – Software Process Models.

### **UNIT – II**

Project Management Concepts: The Management Spectrum – People – Product – Process – Project – W<sup>5</sup>HH principle. Software Process and Project Metrics: Software Measurement – Metrics for Software Quality – Integrating Metrics. Software Project Planning: Objectives - Scope – Resources – Decomposition Techniques – Make / Buy Decision.

### **UNIT – III**

Software Quality Assurance: Quality Concepts – SQA – Formal Technical Reviews – Software Reliability – SQA Plan - Software Configuration Management: SCM Process – Change Control – Version Control.

### **UNIT – IV**

Analysis, Concepts and Principles: Requirements Analysis – Analysis Principles – Software Prototyping – Specification. Analysis Modeling: Data Modeling – Functional Modeling – Behavioral Modeling.

### **UNIT – V**

Software Testing Techniques: Testing Fundamentals – White Box Testing – Black-Box Testing. Software Testing Strategies: Unit Testing – Integration Testing – Validation Testing – System Testing. Python.

**Note:** Question Paper shall cover 100% Theory

#### **Books for Reference:**

1. Roger S. Pressman, “Software Engineering”, Tata McGraw Hill Publishing Company Limited, Noida, UP.
2. Carlo Ghezzi, Mehdi Jazayeri, Dino Mandrioli, “Fundamentals of Software Engineering”, Prentice Hall Pvt Ltd, New Delhi
3. Richard Fairley, “Software Engineering Concepts”, Tata McGraw Hill Publishing Company Limited, Noida, UP.
4. Ian Sommerville, “Software Engineering”, Pearson Education, New York.
5. Spoken Tutorials; IIT,Mumbai.

## **ELECTIVE - 6. INTERNATIONAL FINANCIAL MANAGEMENT**

### **UNIT – I**

International Financial Management – An overview – Importance – Nature and Scope – International flow of Funds – Balance of payments – International Monetary System.

### **UNIT – II**

Markets for Foreign Exchange – Foreign Exchange market – Feature – Spot and Forward market – Exchange Rate Mechanism – Exchange rate determination in the Spot and Forward markets – Factors Influencing Exchange Rate – Market for currency futures and currency options – Hedging with currency future and options.

### **UNIT – III**

International Investment decision – Foreign Direct Investment – International Capital Budgeting – International Portfolio Investment – meaning – Benefits – Problem of International Investment.

### **UNIT – IV**

International Financial decisions – Overview of the International Financial Market – Channels for International flow of funds – Role and functions of Multilateral Development banks – International banking – Functions – Credit Creation – Control of International Banks.

### **UNIT – V**

International Financial Market Instruments – Short-term and Medium-term instruments – Management of short-term funds – Management of Receivables and Inventory – Factors behind the Debt Crisis.

**Note:** Question Paper shall cover 100% Theory

### **Books for Reference:**

1. V. Sharan, “International Financial Management”, Prentice Hall Pvt Ltd, New Delhi.
2. A.K. Seth, “International Financial Management”, Galgotia Publishing Company, New Delhi.
3. P.G. Apte, “International Financial Management”, Tata McGraw Hill Publishing Company Limited, Noida, UP.
4. R.L. Varshney & S. Bhashyam, “International Financial Management”, S.Chand & Sons Publisher, New Delhi.

**SEMESTER - IV**

**CORE - 16. Internship & Training**

**CORE - 17. Software Development / Project & Viva**