# JIS College of Engineering

## Syllabus/ Curriculum

### Regulation: 2017 (R-17)

### Program Name:

### Master of Business Administration

### Department of Business Administration

## MBA Curriculum

| Code | Course Name | Type (L/P) | Credit | Contact Hour | Marks |
|------|-------------|-----------|--------|--------------|-------|
| MB101 | Accounting for Managers | L | 4 | 40 | 100 |
| MB102 | Information Systems for Business | L | 4 | 40 | 100 |
| MB103 | Managing Organization | L | 4 | 40 | 100 |
| MB104 | Managerial Communication | L | 4 | 40 | 100 |
| MB105 | Economics for Business | L | 4 | 40 | 100 |
| MB106 | Quantitative Methods for Managers | L | 4 | 40 | 100 |
| MB107 | Seminar and Presentation** | P | 4 | 20 | 100 |
| MB108 | Term Papers* (4 papers) | P | 4 | - | 100 |

| Code | Course Name | Type(L/P) | Credit | Contact Hour | Marks |
|------|-------------|-----------|--------|--------------|-------|
| MB201 | Marketing Management | L | 4 | 40 | 100 |
| MB202 | Human Resource Management | L | 4 | 40 | 100 |
| MB203 | Financial Management | L | 4 | 40 | 100 |
| MB204 | Legal Aspects of Business | L | 4 | 40 | 100 |
| MB205 | Business Analytics | L | 4 | 40 | 100 |
| MB206 | Operations Management | L | 4 | 40 | 100 |
| MB207 | Field Project & Seminar*** | P | 4 | 20 | 100 |
| MB208 | Term Papers* (4 Papers) | P | 4 | - | 100 |

*Term Papers: 4 Term Papers on 4 subjects out of 6 subjectstaught, are to be submitted in

in each semester. Each term paper will carry 25 marks.

** Individual student has to present at least 4 seminars, each carrying 25 marks.

*** Field Project will be based on primary data collection.

## SEMESTER 3<sup>rd</sup>

| Sl No | Paper Code | Title of the Paper | Credits | External Marks | Internal Assessment | Practical | Total Marks |
|---|---|---|---|---|---|---|---|
| 1 | MB 301 | Management Accounting | 4 | 70 | 30 | - | 100 |
| 2 | MB 302 | Operations Research | 4 | 70 | 30 | - | 100 |
| 3 | MB 303 | Project Work & Viva Voce | 8 | 70 | 30 | - | 100 |
| 4 | Specialization | Four courses – three from one specialization and one from another specialization | 16 | 70 | 30 | - | 100 |
| | | Total | 32 | | | - | 700 |
| **Specialization Subjects** | | | | | | | |
| **Marketing Specialization papers in 3<sup>rd</sup> Semester** | | | | | | | |
| 1 | MM 301 | Sales and Distribution Management | 4 | 70 | 30 | - | 100 |
| 2 | MM 302 | Advertising and Marketing Communications | 4 | 70 | 30 | - | 100 |
| 3 | MM 303 | Marketing Research | 4 | 70 | **30** | - | 100 |
| **Finance Specialization papers in 3<sup>rd</sup> Semester** | | | | | | | |
| 1 | FM 301 | Corporate Taxation & Tax Planning | 4 | 70 | 30 | - | 100 |
| 2 | FM 302 | Advance Corporate Finance | 4 | 70 | 30 | - | 100 |
| 3 | FM 303 | Security Analysis & Portfolio Management | 4 | 70 | 30 | - | 100 |
| **HR Specialization papers in 3<sup>rd</sup> Semester** | | | | | | | |
| 1 | HR 301 | Employment & Compensation Administration | 4 | 70 | 30 | - | 100 |
| 2 | HR 302 | Human Resource Planning | 4 | 70 | 30 | - | 100 |
| 3 | HR 303 | Labour Laws | 4 | 70 | 30 | - | 100 |
| **System Specialisation papers in 3<sup>rd</sup> Semester** | | | | | | | |
| 1 | SM 301 | Database Management System | 4 | 70 | 30 | - | 100 |
| 2 | SM 302 | System Analysis Design & Software Management | 4 | 70 | 30 | - | 100 |
| 3 | SM 303 | Computer Aided Management | 4 | 70 | 30 | - | 100 |

# SEMESTER 4th

| Sl No | Paper Code | Title of the Paper | Credits | External Marks | Internal Assessment | Practical | Total Marks |
|---|---|---|---|---|---|---|---|
| 1 | MB 401 | Project Management & Entrepreneurship Development | 4 | 70 | 30 | - | 100 |
| 2 | MB 402 | Strategic Management | 4 | 70 | 30 | - | 100 |
| 3 | MB 403 | Comprehensive Viva Voce | 8 | 70 | 30 | - | 100 |
| 4 | Specialization | Four courses – three from one specialization and one from another specialization | 16 | 70 | 30 | - | 100 |
| | | Total | 32 | | | - | 700 |
| **Specialization Subjects** | | | | | | | |
| Marketing Specialization papers in 4th Semester | | | | | | | |
| 1 | MM 404 | International Marketing | 4 | 70 | 30 | - | 100 |
| 2 | MM 405 | Service Marketing | 4 | 70 | 30 | - | 100 |
| 3 | MM 406 | Consumer Behaviour | 4 | 70 | 30 | - | 100 |
| Finance Specialization papers in 4th Semester | | | | | | | |
| 1 | FM 404 | Financial Institutes and Markets | 4 | 70 | 30 | - | 100 |
| 2 | FM 405 | International Finance | 4 | 70 | 30 | - | 100 |
| 3 | FM 406 | Derivatives Risk Management | 4 | 70 | 30 | - | 100 |
| HR Specialisation papers in 4th Semester | | | | | | | |
| 1 | HR 404 | Industrial Relations | 4 | 70 | 30 | - | 100 |
| 2 | HR 405 | Organizational Development | 4 | 70 | 30 | - | 100 |
| 3 | HR 406 | Human Resource Development | 4 | 70 | 30 | - | 100 |
| System Specialisation papers in 4th Semester | | | | | | | |
| 1 | SM 404 | Enterprise Resource Planning | 4 | 70 | 30 | - | 100 |
| 2 | SM 405 | E-Business | 4 | 70 | 30 | - | 100 |
| 2 | SM 406 | Business data & Communication | 4 | 70 | 30 | - | 100 |

# Semester-I

# MB-101-ACCOUNTING FOR MANAGERS

**Course Contents:**

## Module I: Financial Accounting

1. **Overview:**Importance and scope of accounting, Objectives for accounting , Users of accounting information , Basic terminologies, Accounting Concepts and conventions,Transactions and events, Accounting equation, Classification of accounts under Traditional approach, Classification of accounts,Accounting Standards, International Financial Reporting System.

2. **Mechanics of Accounting:**Double entry system of accounting,journalizing of transactions; ledger posting and trial balance, preparation of final accounts.

3. **Depreciation Provisions and Reserves :** Concept of depreciation; Causes of depreciation; depletion, amortization and dilapidation; Depreciation accounting; Methods of recording depreciation; Methods for providing depreciation; Depreciation policy as per Accounting Standard, Provisions and reserves.

4. Using accounting software (practical)

## Module II: Cost Accounting

1. **Introduction:** cost concepts, classifications, total cost components, cost accounting and management accounting, cost accounting and financial accounting.

2. **Cost Accounting**: Cost classification, Cost behaviour, Overhead Cost and Control, Job Costing. Activity based costing.

3. **Management Accounting**: Concept, Need, Importance and Scope, Budget and Budgetary Control, Performance budgeting, Zero – based Budgeting, Marginal costing: Concept, C-V-P Analysis, Marginal Costing vs. Absorption Costing.

# MB-102- INFORMATION SYSTEMS FOR BUSINESS

**Course Contents:**

**Module 1: Systems concepts:** Systems, components of a system, interfaces & boundaries, environment of a system, Types of Systems , Types of Systems, Distinction between Real Time, Online and Batch Processing System. Systems Development Life cycle (SDLC), Life cycle models: Waterfall model, Prototyping model, Spiral model

**Module 2: Information System (IS):** Information system as a system, CBIS, Types of CBIS (brief descriptions and their interrelationships/hierarchies): OAS, TPS, MIS- Definition, Characteristics, Subsystems of MIS (Activity and Functional subsystems), Structure of MIS; Reasons for failure of MIS., DSS- Definition, Relationship with MIS, Evolution of DSS, Characteristics & classification of DSS, EIS, Knowledge based system, Expert system.

**Module 3:** Database Management System: Overview of DBMS; Components of DBMS, Recent trends in database, RDBMS. Concepts of tables, records, attributes, keys, integrity constraints, SQL: DDL & DML concepts, SQL commands [ANSI standard]

**Module 4:** Introduction to Data Communication and Computer Networks, Fundamentals of Data Communication: Analog and Digital, Bandwidth, Types of Transmission, Computer Networks: Advantages, types of computer networks, basic components of computer networks, Internet: Basic services over Internet like WWW, FTP, SMTP etc., IP addresses, ISPs, URL, Domain names, Web Browsers, Internet Protocols, Search engines, e-mail, Internet applications in business

**Module 5:** E-Business: Introduction, Traditional commerce and E-commerce; Advantages & disadvantages of e-commerce, Issues in Implementing Electronic Commerce. Threats: Virus, hacking, phishing, spyware, spam, physical threats (fire, flood, earthquake, vandalism). Concepts of security measures: firewall, encryption. Cyber security: meaning, importance, tools, etc.

**Module 6: Enterprise Systems :** ERP (Enterprise Resource Planning):Concepts of ERP, architecture of ERP, Generic modules of ERP, Applications of ERP, Examples of Commercial Packages, CRM (Customer Relationship Management): Concepts of CRM, Features of CRM (acquisition and retention), Features of commercial software, SCM (supply Chain Management): Concepts of SCM, drivers of SCM, inbound & outbound SC, Definition, brief description and

applicability of: eProcurement, eTailing, eLogistics, eCollaboration, eIntegration, Case studies for ERP, CRM, SCM

**Module 7: Data Warehousing and Data Mining:** Concepts of Data warehousing, data mart, meta data, multidimensional modelling, Online Analytical Processing (OLAP), Online Transaction Processing (OLTP), Data mining concepts, knowledge discovery v. data mining, Case studies on data warehousing / data mining

# MB-103: Managing Organization

**Course contents:**

1. **Introduction to Management and Organization:** Concepts, Function and Process of Management, Need for Management, Understanding Management and Administration, Managerial Skills, Roles of a Manager, Levels of Management, Mission, Goals, Importance of OB, Case Study

2. **Development of Management Thought**: Early Classical Approaches - Scientific Management, Contribution and limitation of Scientific Management, Administrative Management: Bureaucracy, Neo-Classical Approaches, Modern Approaches – Quantitative, Social System, Decision Theory, Contingency Approach, Business Ethics and Social Responsibility. Case Study

3. **Planning:** Definition of Planning, Nature of Planning, Importance of Planning , Steps involved in Planning, Types of plans, Types of Planning, Process of Planning, Process of Managing by Objectives, Decision Making - Concept, Significance and Types of Decision. Case Study

4. **Concept of Corporate Strategy**: The TOWS Matrix, The Portfolio Matrix, Three Generic Competitive, Strategies by Porter, Effective Implementation of Strategies.

5. **Organizing and Staffing:** Concept, Process of Organizing, Forms of Organizational Structure, Formal and informal organization, Types of Organization& Designs, Span of Control, Authority, Responsibility, Accountability, Delegation of authority, Departmentation, Decentralization. Staffing – Selection Process – Techniques Case Study

6. **Motivation & Leading:** Core of Leadership: Influence, Functions of Leaders, Leadership Style, Motivation, Hierarchy of Needs, Motivation theories, Motivational Techniques, CommunicationProcess, Importance of Communication, Communication Channels, Barriers to Communication, Case Study

7. **Controlling:** Definition, importance, Characteristics, process, Types of Control System, Essentials of good Control Systems, Techniques of Control, Budgetary and Non-Budgetary Control , Case Study

8. **Determinants of Individual Behaviour:** Personality - Concept, Determinants and Theories, Transactional Analysis (TA) Perception, Learning - Concept, Theories and Managerial Implications, **Attitudes :** Sources, types of Attitudes, Attitudes and Consistency, Cognitive Dissonance Theory, Attitude Surveys, Case Study

9. **Work Stress:** Understanding Stress, Potential Sources of Stress, Consequences of Stress, Managing Stress, Case Study

10. **Group Behaviour**: Characteristics of Group, Types of Groups, Stages of Development, Group Decision-making, Organizational Politics, Cases on Group Decision-making

11. **Conflict in Organization**: Sources of Conflict, Types of Conflict, Conflict Process, Johari Window, Conflict Resolution, Case Study

12. **Organisational Change and Development:** Model for Managing Change, Forces for Change, Need for Change, Alternative Change Techniques, New Trends in Organisational Change, OD - Meaning, Process, Interventions, Case Study.

## MB-104-MANAGERIAL COMMUNICATION

## Course contents:

1. **Principles of Communication:** Definition, Purpose, Process, Types, Barriers to Communication, Listening, Feedback, Non-verbal Communication

2. **Written Communication:** Composing Business Letters/email [Request, Enquiry, Placing Order, Instruction, Action, Complaint, Adjustment, Sales, Reference, Good News & Bad News, Acknowledgement, Circulars, Notices, Memos, Agenda and Minutes, Resume/CV, Facsimiles (Fax)], Preparing Notes,  Punctuation, Using simple words, Proof Reading, Vocabulary, Basic Grammar, Comprehension, précis, preparing user manual

3. **Report Writing:** Report Planning, Types of Reports, Developing an outline, Nature of Headings, Ordering of Points, Logical Sequencing, Graphs, Charts, Executive Summary, List of Illustration, Report Writing, Annual Report,

## MB 105- MANAGERIAL ECONOMICS

**Course Contents**

1. **Introduction:** Meaning of Economics, Nature and Scope of Managerial Economics.

2. **Theory of Demand and Supply**: Demand functions, Determinants of Demand, Individual and Market Demand, Indifference curve approach and Consumer's Equilibrium, Income and Substitution effects, Concepts of Supply, Shift in Demand and Supply curves, Determination of equilibrium price and quantity Elasticity of Demand and Supply.

3. **Theory of Production:** Production Function, Laws of Production: Law of Variable Proportions and Returns to Scale, Equilibrium of the Firm, Concept of Revenue.

4. **Theory of Costs:** Concept of Short run and Long run, Different Cost Curves, Relation between Average costs and Marginal Costs, Relation between Short Run costs and Long run costs, Break-even analysis.

5. **Theory of Firm**: Theory of Profit maximization, Managerial Utility maximization and Sales Revenue maximization.

6. **Market Structure**: Features, Short run and Long run Equilibrium aspects under Perfect Competition, Monopoly and Monopolistic Competition, Concept of Oligopoly.

7. **Macro Economic Aggregates and Concepts**: GNP and GDP, Concepts and Measurement of National Income, Determination of National Income, Aggregate Consumption, Consumption Function.

8. **Inflation**: Causes and Remedies, Balance of Payments-components, Business Cycles-concepts.

# MB-106 - QUANTITATIVE METHODS FOR MANAGERS

**Course Contents:**

**Module I**

1. **Theory of Sets**: Meaning, elements, types, presentation and equality of sets; union, intersection, compliment & difference of sets; Venn diagrams; Cartesian product of two sets; applications of set theory

2. **Functions**: Basic concepts, different types and applications

3. **Derivatives (single variable)**: Basic working rules

4. **Integration**: Concept of integration and working rules; application to business and economic problems

5. **Matrices:** Concept of matrices and their applications

6. **Probability:** Probability and its applications in business and economics

**Module II**

1. **Introduction:** Scope, functions and limitations of statistics

2. **Collection and presentation of data:** Tabular and diagrammatic representation, Frequency distribution, relative frequency, cumulative frequency; Bar graphs and pie charts; Histogram, Ogive.

3. **Measures of Central tendency**: Mean, Median, Mode, Percentiles, Quartiles

4. **Measures of Dispersion**: Range, Inter-quartile range, Mean deviation, Mean Absolute deviation, Standard deviation, Variance, Coefficient of Variation.

5. **Correlation and regression analysis**: Simple correlation and regression analysis, Covariance analysis.

# Semester-II

# MB-201-MARKETING MANAGEMENT

**Course content:**

1. **Introduction:** Fundamentals of Marketing – need, want, demand, value, exchange, transaction, competition; Definitions of marketing; Evolution of marketing concepts (orientations); Marketing Mix – 4Ps and their sub-elements.

2. **Marketing Environment and environment scanning:** SWOT Analysis; Product-Market Grid, Major components of the microenvironment and macro-environment

3. **Market Segmentation, Targeting and Positioning:** Consumer Behaviour, Concepts of market segmentation and targeting; Various bases for segmentation (consumer and industrial); Differentiation and Positioning strategies.

4. **Product and Branding:** Product Classification, Service – characteristics and expanded service mix elements; Product Mix; Product Life Cycle and marketing strategies at different stages of PLC; New Product Development; Purpose of branding; Characteristics of good brand name, Brand equity; Branding strategies; Purpose of Packaging; Types of Packaging.

5. **Pricing:** Procedure for price setting; Pricing objectives; Cost and demand consideration; Pricing methods; Modifying the price; Pricing Strategies and Tactics

6. **Marketing Channels:** Importance of Marketing intermediaries; Types of intermediaries and their functions; Levels of marketing channels; Channel flows and functions; Channel design decisions.

7. **Promotion:** Elements of Promotion Mix (advertising, sales promotion, personal selling, direct marketing, PR and publicity) – characteristics and their relative strengths and weaknesses; Concept of Integrated Marketing Concept.

8. **Emerging Trends in Marketing:** An Introduction to Internet Marketing, Multi Level Marketing and Introduction of CRM, E-Marketing, Green Marketing, Event Marketing, Rural Marketing, Global Marketing.

# MB 202-HUMAN RESOURCE MANAGEMENT

**Course Contents:**

1. **Human Resource Management:** Scope and Coverage, Structure and functions of HR Department, Role of HR manager.

2. **Human Resource Planning:** Supply and Demand Forecasting methods, Manpower Inventory, Career Planning, Succession Planning, Personnel Policy, Human Resource Information System (HRIS)

3. **Recruitment and Selection:** Process, Sources, Methods of selection, Interviewing Method, Skills and Errors.

4. **Human Resource Development:** Policy and Programes, Assessment of HRD Needs, HRD Methods: Training and Non-Training.

5. **Performance Appraisal Systems** : Purpose, Methods, Appraisal instruments, 360 degree Appraisal HR Score Card, Errors in appraisal, Potential Appraisal, Appraisal Interview.

6. **Compensation Management:** Wages - Concepts, Components; System of Wage Payment, Fringe Benefits, Retirement Benefit.

7. **Industrial Relations in India:** Parties; Management and Trade Unions, Industrial Disputes: Trends, Collective Bargaining, Settlement Machineries, Role of Government, Labour Policy in India.

8. **Workers' Participation in Management:** Concept, Practices and Prospects in India, Quality Circles and other Small Group Activities.

9. **Discipline Management:** Misconduct, Disciplinary action, Domestic Enquiry, Grievance Handling

10. **Time Management**: Definition, Importance, Benefits, Techniques, Time Management in Corporates, Role of Managers in Time Management.

11. Performance Management System.

# MB-203 FINANCIAL MANAGEMENT

**Course Contents:**

1. **Introduction:** Concept of Finance, scope and objectives of finance, Profit maximization vs. Wealth maximization, Functions of Finance Manager in Modern Age.

2. **Time Value of Money:** Simple and Compound Interest Rates, Amortization, Computing more that once a year, Annuity Factor.

3. **Cost of Capital:** Concept, Computation of Specific Cost of Capital for Equity - Preference – Debt, Weighted Average Cost of Capital – Factors affecting Cost of Capital.

4. **Leverages:** Determination of operating leverage, financial leverage and total leverage, EBIT-EPS Analysis & Indifference Points.

5. **Management of Working Capital:** Concepts of Working Capital, Operating and Cash Conversion Cycle, Permanent and Variable Working Capital, Determinants of Working Capital, Estimation of working capital requirements of a firm,Management of working capital – cash, receivables, and inventories.

6. **Capital structure decisions**: Concept and Approaches of capital structure decision: NI, NOI, Traditional and Modigliani Miller Approach.

7. **Dividend Policy:** Factors influencing Dividend Policy, Forms of Dividends, Stock Dividends and Stock splits, Dividend Theories like Gordon's Model, Walters Model, M-M Approach and Residual Approach, Legal Consideration of Paying Dividends.

8. **Investment Decision:**Appraisal of project; Concept, Process & Techniques of Capital Budgeting and its applications; Risk and Uncertainty in Capital Budgeting.

## MB 204- LEGAL ASPECT OF BUSINESS

**Course Contents:**

1. **Introduction to Business Law**: Introduction, Meaning and Nature of Law, Sources of Indian Law, Legal Environment of Business, Mercantile Law, Some Basic Legal Concepts, Essentials of Law.

2. **Indian Contract Act, 1872** – Contract defined, Elements of valid contract, Classification of contracts, Offer and acceptance, Consideration, Capacity to contracts, Free consent, Legality of object and consideration, Illegal agreements, Termination of contracts, Breach of contract, Indemnity and guarantee, Laws of Agency, Case Studies

3. **Negotiable Instruments Act, 1881** – Definition and characteristics of different types of negotiable instruments, Parties to a negotiable instrument and their capacity, Dishonour of cheques, Discharge from Liability, Crossing of cheques, Bank drafts and Banker's cheques, case studies.

4. **Sale of Goods Act, 1930** – Classification of goods, Conditions & Warranties, Passing of ownership rights, Rights of an unpaid seller, Remedies for breach of Contract of Sale of Goods, case studies, case studies.

5. **Companies Act, 1956** – Nature and kinds of companies, Formation, Memorandum, Articles, Prospectus, Capital – shares, debentures, borrowing powers, minimum subscription, Appointment of Directors; Winding up of companies, case studies.

6. **Consumer Protection Act, 1986** – Salient features and objectives of the Consumer Protection Act, 1986, Different Consumer redressal Forums, Composition and jurisdiction of district, state and National forum, Mode of complaints, Procedures for disposal of complaints, Penalty, case studies.

7. **Intellectual Property Laws**- Introduction, Legal Aspects of Patents, Filing of Patent Applications, Rights from Patents, Infringement of Patents, Copyright and its Ownership, Infringement of Copyright, Civil Remedies for Infringement, case studies.

# MB 205: BUSINESS ANALYTICS

**Module 1: Foundations of Business Analytics**:

Introduction to Business Analytics: - Competing on Analytics - The New Science of Winning Business Analytics – Definition, Market, Trends and People - The Paradigm Shift from Data to Insight and from Business Intelligence to Business Analytics – Descriptive - Predictive and Prescriptive Analytics Chapter, Analytics on Spreadsheets

**Module 2: Business Analytics in Practice**:

Financial Analytics, Human Resource Analytics, Marketing Analytics, Supply Chain Analytics, Analytics for Govt. and Nonprofits, Web Analytics

**Module 2: Predictive Analytics**:

Predictive Modeling and Analysis, Regression Analysis, Forecasting Techniques, Simulation and Risk Analysis, Introduction to Data Mining

**Module 3: Prescriptive Analytics**

Linear Optimization, Applications of Linear Optimization, Integer Optimization, Nonlinear and Non-Smooth Optimization, Optimization Models with Uncertainty

**Module 4: Big Data:**

Introduction to Big Data: Structuring of Big Data, Elements of Big Data-Business Applications of Big Data, Handling Big Data Technologies-Data Mining and Text Mining

## OPERATION MANAGEMENT (MB-206)

**Course Contents:**

**Module I**

**UNIT - IIntroduction: Nature and Scope of Operations Management** Production design & Process planning: Plant Capacity - Capacity Planning – Make or Buy Decisions – Use of Crossover Chart for Selection Processes. Plant location: Factors to be considered in Plant Location – Choice of General Region, Particular Community and Site – Multiple Plant Location Decision – Plant Location Trends.

**UNIT – IILayout of Manufacturing facilities**: Principles of a Good Layout – Layout Factors – Basic Types of Layout – Service Facilities – Principles of Materials Handling – Materials Handling Equipment. Human Factors in Job-Design: Consideration of Man and Machine in Job–Design, Adaptation of Machine to Man – Ergonomics – Working Environment – Worker Safety.

**UNIT – IIIProduction and Inventory Control**: Basic types of production, Intermittent, Batch, Continuous – Routing, Scheduling, Activating and Monitoring – Basic Inventory Models – Economic Order Quantity, Economic Batch Quantity – Reorder point – Safety stock – Classification and Codification of stock - ABC classification – Procedure for Stock Control, Materials Requirement Planning (MRP). JIT.Implications for Supply Chain Management. Maintenance: Preventive vs. Breakdown Maintenance – Break-down Time Distribution – Maintenance of Cost Balance – Procedure for Maintenance.

**UNIT – IVMethods Analysis and Work Measurement**: Methods Study Procedures – The Purpose of Time Study – Stop Watch Time Study – Performance Rating – Allowance Factors – Standard Time – Work Sampling Technique. Quality Control: Purposes of Inspection and Quality Control – Acceptance Sampling by Variables and Attributes – Control Charts for Variables, Fraction Defectives and Defects. Dynamic Purchasing: Purchasing Function – Selection of Materials and Vendors – Purchasing Organisation – Concept of Value Analysis. **Network Analysis:** PERT/CPM techniques, Shortest path algorithms and theirapplications (Dijkstra's algorithm; Flloyd's algorithm, Kruskal's algorithm, Ford-Fulkerson method).

**Module II**

**UNIT-I**: **Integrated Materials Management:** Need, scope, advantage, concept; materialsrequirement planning and budgeting; make or buy decision;. Materials RequirementPlanning (MRP – I, MRP – II)

**UNIT:II**: **Purchase Management:** Purchase Policy, Systems, Procedures; Vendor Selection;Negotiation; Vendor Development and Evaluation; Make or Buy decision; Legalaspects of purchasing.

**UNITIII**: **Inspection and Quality Control:** Types and criteria of inspection; Statistical Quality Control; Control Charts, Total Quality Management (TQM) Concept.

**UNITIV: Service Operations Management: Introduction** – Types of Service – Service Encounter - Service Facility Location – Service Facility Design and Layout - Service Operations Planning and Control - Resource Utilization - Managing Waiting Lines – Service Processes and Service Delivery.

**UNIT-V**: **Scheduling :**Gantt Chart, Johnson's Rule

# Semester-III

# MBA Revised Syllabus 3<sup>rd</sup> and 4<sup>th</sup> sem

## [MB-301]: MANAGEMENT ACCOUNTING

1. **Introduction**: Meaning, nature, scope and functions of management accounting; Role of management accounting in decision making; Management accounting vs financial accounting; Tools and techniques of management accounting.

2. *Cash Flow Analysis:* Introduction, Meaning of Cash Flow Statement, Purpose of Cash Flow Statement , Preparation of Cash Flow Statement, Format of Cash Flow Statement (AS3: Revised Method)

3. **Ratio Analysis:** Classification of ratios – Profitability ratios, turnover ratios, liquidity ratios, turnover ratios; Advantages of ratio analysis; Limitations of accounting ratios.

4. **Marginal Costing:** Marginal Costing versus Absorption Costing, Cost-Volume-Profit Analysis and P/V Ratio Analysis and their implications, Concept and uses of Contribution & Breakeven Point

5. **Budgetary Control:** Meaning of a Budget , Budgetary control , Objectives of budgetary control , Types of Budgets , Cast Budget , Flexible Budget , Limitation of Budget Control

6. **Relevant Costing:** Concept – Sunk cost, Opportunity cost, Relevant cost etc. Decision making using relevant cost concept e.g., make or buy, export or domestic sale, closure of a department or a product etc.

# [MB-302]: OPERATIONS RESEARCH

1. **Decision-making environments**:Decision-making under certainty, uncertainty and risk situations; Decision tree approach and its applications.
2. **Linear programming**: Mathematical formulations of LP Models for product-mix problems; graphical and simplex method of solving LP problems; sensitivity analysis; duality.
3. **Transportation problem**: Various methods of finding Initial basic feasible solution and optimal solution.
4. **Assignment model**: Algorithm and its applications.
5. **Game Theory**: Concept of game; Two-person zero-sum game; Pure and Mixed Strategy Games; Saddle Point; Odds Method; Dominance Method and Graphical Method for solving Mixed Strategy Game.
6. **Sequencing Problem**: Johnsons Algorithm for n Jobs and Two machines, n Jobs and Three Machines, Two jobs and m - Machines Problems.
7. **Queuing Theory**: Characteristics of M/M/I Queue model; Application of Poisson and Exponential distribution in estimating arrival rate and service rate; Applications of Queue model for better service to the customers.
8. **Project Management**: Rules for drawing the network diagram, Applications of CPM and PERT techniques in Project planning and control; Crashing of operations.

## MM-301 Sales and Distribution Management

1. **Sales Management:** Nature, Meaning and Scope, Objectives of Sales Department , Sales as a function of Marketing Management , Theories of Selling – Buyer Seller Dyads, AIDAS Theory, Right Set of Circumstances Theory, Buying Formula Theory, Behavioral Equation Theory

2. **Selling Process:** Prospecting, Planning the Sales call, Selecting the Presentation Method, Making the Sales Presentation, Handling Sales Objections, Closing the Sale, Follow up. Role of Relationship Marketing in Personal Selling, Value Added Selling

3. **Sales Organization:** Need & Structure, Sales Management Functions & Responsibilities

4. **Sales Force Management:** Recruitment and Selection, Training of Sales People, Determination of sales force size, Sales Force Motivation, Designing Sales Compensation plans, Evaluation of Sales Force

5. **Physical Distribution System:** Introduction, Need & Benefits, Distribution as link between Sourcing and Marketing, Distribution as Service function - Needs and Levels, Recent Developments in Sales and Distribution scenario.

6. **Information Systems for Physical Distribution:** Designing Distribution Logistics System, Logistics Management and Logistics Information System, Role of Logistics in Corporate Strategy, Suitability of Movement in Tracking System, Factors in Designing Strategic Distribution System

7. **Channel Management Decisions:** Selection & Compensation of Channel Members. Managing Channel Conflicts, Co-operation vs. Competition in Channels, Marketing Channel Policies and Legal Issues

8. **Time and Territory Management:** Designing Sales Territories, Routing and Scheduling.

9. **Sales Quota:** Purpose, Importance & Types.

**Minimum 5 cases to be discussed**

**Suggested Readings**
1. Fundamentals of selling, Charles Futrell, McGraw Hill
2. Marketing Channels , Louis W Stern and Adel L Ansary, Thomson Publishing
3. Sales Management-Still and Cundiff and Giovonni, Prentice Hall
4. Selling and sales management, Jobber, Prentice Hall
5. Professional Sales Management,Andersen R, McGraw Hill Education
6. Strategic Marketing Channel Management, Bowersox and Coope, - McGraw Hill

# MM-302 Advertising and Marketing Communication

1.  **Introduction to Integrated Marketing Communication (IMC):** Evolution & significance of IMC, Role of Various promotional elements in MarketingCommunication. The IMC Planning Process, Review of Consumer Buying decision process and factors affecting it.

2.  **Introduction to Advertising:** History of advertising, Classification of advertising, The structure of the Advertising &Promotions World , Advertisers, Advertising agencies, and M edia. Economic Social and Ethical issues in Advertising, Advertising Regulation, Role of ASCI and other regulatory bodies.

3.  **The Communication Process:** Basic Communication Model, Traditional Communication Response Hierarchy Models,Consumer Involvement, The FCB Planning model, Kim Lord Model, Elaboration LikelihoodModel.

4.  **Planning an advertising campaign:** Setting the advertising objective, Sales vs Communication Objective, DAGMAR, Defining the target audience, Apportioning the advertising budget.

5.  **Creative Strategy:** Role of Creativity in Advertising, Research inputs to the creative process, Relevance of Brand Positioning & USP, Advertising appeals, Finding the Big Idea, Creative Execution themes - Demonstration, Testimonial etc, Creative Execution in Print Advertising, Creative Execution in TV Advertising.

6.  **Media Strategy:** Types of media, Media characteristic, Using Indexes (Brand Development Index & CategoryDevelopment Index) to determine where to promote, Establishing the Media Objective, Factors affecting Media Selection, Media Scheduling, Establishing Reach & Frequency objectives, Audience Measurement , Media selection and scheduling, Media Buying

7.  **The Advertising Agency:** Agency structure, Flow of work in an Agency, Agency Compensation, Client AgencyRelationship

8.  **Testing Advertising Effectiveness:** Communication and sales Effectiveness, Various methods of Pre & Post testing.

9.  **The New Age Promotional Media:** Integrating the internet in the IMC programme, communicating through websites, Search Engine Marketing, Banner advertisements, Blogs & Community Forum, Marketing Communication through Social Media**,** Merchandising, Mobile Advertising

10. **Other Tools of Promotion:** Public Relations, Publicity, Direct marke ting, Sales Promotion, Event Marketing.

**Minimum 5 cases to be discussed**

**Suggested Readings**
1. Advertising and Promotions; An IMC Perspective, Belch & Belch, McGraw Hill
2. Advertising and Promotions, An IMC Perspective, Shah & D'Souza, McGraw Hill
Advertising and Sales Promotion , Kazmi and Batra, Excel Publishing
3. Integrated Advertising Promotion and Marketing Communications , Clow and Baack, Prentice Hall
4. Advertising Management, Jethwaney & Jain, Oxford Publishing

**MM-303 Marketing Research**

1. **Introduction:** Conceptual framework, Significance of Marketing Research (MR), the MR Industry, MR andMarketing Information System, An overview of the Marketing Research Process

2. **Research Designs:** Types of research - exploratory studies, descriptive studies, causal studies, Types of information needed - behavioural and non-behavioural correlates.

3. **Sources of Data:** Primary Data and Secondary Data, Secondary Data Sources for MR in India.

4. **Sampling:** Census and Sampling, Sampling & Non Sampling error, The population, Sample frame, Sampling Units and elements, Sampling Techniques, Sample Size Determination.

5. **Data Collection:** Survey Vs Observation method, Various Interviewing Methods, Process of Designing a Questionnaire, Types of Questionnaire.

6. **Attitude Measurement:** Types of scales, Nominal, Ordinal, Interval, Ratio Scales, Thurstone, Likert and Semantic Differential Scales, Disguised Structured methods, Depth Interview and Focus Group Interview, Disguised and Unstructured Methods, Projective Techniques.

7. **Data Analysis:** Data editing, coding and tabulation,Measures of Central tendency, Test of Hypothesis, Type I and Type II Errors, application of "z"& " t" tests, Chi-square Analysis, Analysis of Variance, Factor Analysis, Cluster Analysis and Conjoint Analysis, Application of Correlation and Regression Analysis, Conceptual knowledge of SEM.

8. **Report Writing:** The contents and characteristics of a good report.

**Minimum 5 cases to be discussed**
**Suggested Readings**
1 Marketing Research: Text & Cases, Boyd, Westfall & Stasch, R D Irwin
2 Research For Marketing Decisions ,Green & Tull, Prentice Hall
3 Marketing Research; Measurement & Method, Tull & Hawkins, Prentice Hall
4 Marketing Research ,G C Beri, Tata Mcgraw Hill
5 Marketing Research, Debashish Pati, Universal Press
6 Marketing Research: Text & cases, R Nargundkar, Tata Mcgraw Hill
7 Marketing research: An Application Orientation, Naresh K Malhotra, Pearson

# [FM-301]: CORPORATE TAXATION & TAX PLANNING

Part – A: Corporate Taxation:

Income Tax

1. Definition: Cannons of Taxation Person, Assesse, Income, Previous Year, Assessment Year, GrossAvoidance, Planning, Exemption, Planning, Exemption, Deduction, Rebate, Relief.

2. Residential Status & Tax Incidence: Individual & Corporate.  3. Income Exempted from Tax: Individual & Corporate.

4. Computation of Taxable Income of Individual, Firm &Corporate

a) Heads of Income – Salaries, Income from House Property, Profits & Gains from Business orProfession, Capital Gains, Income from Other sources.

b) Deduction from Gross Total Income – 80CCC, 80D, 80DDB, 80E, 80G, 80GG, 80GGA, 80C, 80U.

c) Set Off & Carry Forward of Losses – Principles, Meaning, Inter – sources & Inter – head Set Off, CarryForward and Set Off of Losses under sections 71,72 & 73.

5. Computation of Tax for Individual, Firm & Corporate:

a) Rate of Tax and Surcharge.

b) Tax Rebate.

c) Tax Management – Submission of Return and Procedure of Assessment, Pan, Tan, Preliminary ideas ofDeduction and Collection of Tax at Source, Advance Payment of Tax, Refund of Tax.

d) Minimum Alternate Tax.

Indirect Tax

1. Central Sales Tax Act, 1956.

a) Definition: Dealer, Sale, Turnover, Sale Price, Sale or Purchase in course of interstate Trade or Commerce,Sale or Purchase outside a state, Sale or Purchase in the course of Import or Export.

b) Incidence & Levy of Tax, Exemption, Determination of Turnover.

c) Registration of Dealers & Procedures thereof.

2. Customs Act and Valuation: Basic Concepts only.

3. Central Excise Act, 1944: Definitions – Broker or Commission Agent, Central Excise Officer, Excisable Goods,Factory, Manufacture, Sale & Purchase, Wholesale Dealer & Cenvat.

4. Value Added Tax: Basic concept of VAT.

Part – B: Tax Planning

1. Scheme of Tax Planning

2. Tax Planning for Salaries

3. Tax Planning for Profits and gains of Business or Profession

4. Tax Planning for Capital Gains

5. Tax Factor in Dividend Policy

6. Tax Planning for Employee's Remuneration

7. Tax Planning different forms of Business Organization

Readings:

1. Lal & Vasisht: Direct Taxes, Pearson Education

2. Singahnia: Direct Taxes, Taxman

3. Singhania: Indirect Taxes, Taxman

# [ FM-302] : ADVANCEDCORPORATE FINANCE

1. Alignment of Managers and Owners Goal: : Practical aspects of Capital Investment Process, Information andCapital Investment, Incentives and their role in agency Problem, Measuring and Rewarding Performance: EVA, Pros and Cons of EVA

2. Capital Budgeting and Risk: Company and Project Costs of Capital, Measuring the Cost of Equity, Capital Structureand the Company Cost of Capital, Risk Adjusted Discount Rate , Sensitivity Analysis, Monte Carlo Simulation, RealOptions and Decision Trees.

3. Market efficiency and Corporate Financing Basics of EMH, The Anomalies, The lessons for the CorporateManager

4. The Financing Decision: The Financing Process, The financing Mix: Tradeoffs and Theory, The Optimal FinancingMix, The Financing Mix and Choices, Concept of Asset Beta, Corporate Tax Shield – APV.

5. Valuation: Principles and Practice of Valuation, Value Enhancement: Tools and Techniques, Acquisitions andTakeovers

6. Strategic Finance Decisions: Mergers & Acquisitions, Buy-backs, Spin Off, Divestures.


Readings:

Text:

1.      Brearly, Myers , Mohanty: Corporate Finance, Tata McGraw-Hill

2.      Copeland Weston Shastri: Financial theory & Corporate Policies, Pearson Education

3.      Damodaran: Corporate Finance, Wiley

4.      Ehrhardt & Brigham: Corporate Finance- a Focused approach, Thomson Learning

5.      Megginson, Smart & Gitman: Principles of Corporate Finance, Thomson Learning

6.      Ross, Westerfield & Jaffe: Corporate Finance, Tata McGraw-Hill

Reference:

1.      Benninga & Sarig: Corporate Finance A valuation approach, McGraw-Hill Inl.

# [FM-303]: SECURITY ANALYSIS & PORTFOLIO MANAGEMENT

1.  Introduction: The Investment Environment, Financial Instruments, The Securities Trading – Market & Mechanism.

2.  Security Analysis: Macroeconomic and Industry analysis, equity Valuation Models, Company analysis, BriefOverview of Technical Analysis (Charts, Line Charts, Line & Volume, Charts, Point & Figure Charts, Bar Chart,Candlestick Chart, Various Patterns, Dow Theory & Elliot wave Theory)

3.  Portfolio Theory: Concepts of Risk & Return, Diversification of Risk, Optimum Portfolio SelectionProblem - Markowitz Portfolio Theory - Mean Variance Criteria (MVC) - MVC and Portfolio Selection -Portfolio Selection.

4.  Equilibrium in Capital Markets: The Capital Asset Pricing Model, Index Models, Arbitrage Pricing Theory andMultifactor Models of Risk and Return, Market Efficiency and Behavioral Finance, Empirical Evidence on SecurityReturns

5.  Bond Portfolio Management : Bond Prices and Yields, the Term structure of Interest Rates, Managing BondPortfolios

6. Active Portfolio Management: Portfolio Performance Evaluation, International Diversification, The Process ofPortfolio Management, The Theory of Active Portfolio Management

Readings:

Text:

2.  Bodie, Kane, Marcus,; Mohanty : Investments, Tata McGraw-Hill

3.  Chandra: Investment Analysis and Portfolio Management, Tata McGraw-Hill

4.  Fischer & Jordan: Security Analysis & Portfolio Management, Pearson Education/PHI

5.  Sharpe, Alexander, Bailey: Fundamentals of Investment, Pearson Education/PHI

6.  Ranganatham & Madhumati: Investment analysis & Portfolio Management, Pearson education

7.  Rielley & Brown: Investment analysis & Portfolio management, Thomson Learning

Reference:

1.  Elton, Grubber: Modern Portfolio Theory, Wiley

2.  Haugen: Modern Investment Theory, Pearson Education

3.  Hirschey & Nofsinger: Investments, Tata McGraw-Hill

4.  Luenberger: Investment Science, OUP

5.  Sharpe: portfolio Theory & Capital Markets, McGraw-Hill Intl.

# [HR – 301]: EMPLOYMENT & COMPENSATION ADMINISTRATION

Module – I

1. Employment – Policy and Programmes, Reservation Rules, Employment of Women and Dependents, Employment of Land Oustees

2. New Employment Practices – Outsourcing, Contingent Workers, Employee Leasing

3. Employment of Contract Labourers – Provisions and Practices under the relevant Act.

4. Case Studies on Contract Labourers

Module – II

5. Concept of Wage – Minimum Wage, Fair Wage, Living Wage, Wage Policy

6. Compensation – Wage/Salary, Real Wage, Components of Wages: Basic, Dearness Allowances, House Rent Allowances, City Compensatory Allowance, Other Allowances, Wage Fixation, Pay for different types of employees, Managerial Compensation.

7. Dearness Allowance – Methods of DA payment, Consumer Price Index, Neutralization.

8. Productivity and Wages – Productivity Bargaining, Incentive Payments, Productivity Linked Bonus, Incentives –Individual & Group, Case Studies on Productivity Bargaining.

9. Employee Benefits – Statutory & Voluntary Benefits, Retirement Benefits – Provident Fund, Gratuity, Pension,Medical Insurance; Reward Management

Readings

Belcher, D.W.: Wage and Salary Administration, Prentice Hall

Dasgupta, A. K. : A Theory of Wage Policy, OUP.

Mondy, R.W. & Noe, R.M. : Human Resource Management, Pearson

Raynolds, G. L. : Labour Economics & Labour Relations, Prentice-Hall.

Verma, Pramod : Labour Economics and Industrial Relations, Tata McGraw Hill.

Govt of India : Report of the National Commission on Labour (1 st – 1969, 2 nd – 2002 )

ILO : Payment by Results

# [HR – 302]: HUMAN RESOURCE PLANNING

Module – I

1. Basics in HR Planning – Macro Level Scenario of HRP, Concepts and Process of HRP, Considerations – Technology, Finance, Product Demand.

2. Methods and Techniques – Demand Forecasting: Managerial Estimates, Trend Analysis, Utilization Analysis:Work Study, Job Analysis, Supply Forecasting: Inventory Analysis, Wastage Analysis, Markov Analysis,Balancing Supply & Demand, Issues of Shortage and Surplus.

3. Human Resource Information System (HRIS) - Concept and Procedures

4. Strategic HRP – Planning, Tools and Evaluation

Module – II

5. Job Analysis & Job Evaluation – Job Analysis - Concepts, Process, Job Description, Job Specification, Uses,Limitations; Job Evaluations – Concepts, Methods, Limitations

6. Measurements of HR Planning – HR Audit, HR Accounting

7. HR Plan – Implementation Strategies – Recruitment, Redeployment, Redundancy, Retention, Productivity Plan,Training Plan, Career Plan, Succession Plan, Compensation Plan.

8. Case Studies on HR Planning


Readings

1. Bennison, M. & Casson, J. : The Manpower Planning Handbook, McGraw Hill.

2. Bell, D. J.: Planning Corporate Manpower, Longman.

3. Bohlander, G., Snell, S., Shermen, A.: Managing Human Resources, Thomson.

4. Mellow, Jeffrey A. : Strategic Human Resource Management, Thomson

5. Pettman, B. O. & Taverneir, G. : Manpower Planning Workbook, Gower.

6. Walker, J. W. : Human Resource Planning, McGraw Hill.

7. ILO : Job Evaluation

# [HR – 303] : LABOUR LAWS

Module – I

1. Legal Framework: Evolution of Labour Laws in India 2. Laws regulating Establishment – Factories Act, 1948; Mines Act, 1952; Plantations Labour Act, 1951; Shops &Establishment Act

3. Laws relating to Remuneration – Payment of Wages Act, 1936; Minimum Wages Act, 1948; Payment of BonusAct, 1965; Equal Remuneration Act, 1976

4. Case Laws on Remuneration

Module – II

5. Laws relating to Industrial Relations – Industrial Disputes Act, 1947; Industrial Employment (Standing Orders)

Act, 1946; Trade Unions Act, 1926

6. Laws relating to Social Security – Workmen's Compensation Act, 1923; Employees' State Insurance Act, 1948;Employees' Provident Funds & Misc. Provisions Act, 1952; Maternity Benefit Act, 1961; Payment of Gratuity Act,1972

7. Case Laws on Industrial Disputes

Readings

1. Agarwal, S. L. : Labour Relations Law in India, McMillan

2. Pathak, A. : Legal Aspects of Business, Tata McGraw Hill

3. Samant, S. R. & Dongre, B. N. (eds) : CLR's Yearly Labour Digest, Dwivedi.

4. Srivastava, S. C. : Labour Law in Factories, Mines, Plantations etc., Printice Hall.

5. Labour Law Journal – Case Laws

# [ SM-301] : DATABASE MANAGEMENT

1.  DBMS: What is a DBMS. Need for using DBMS. Concepts of tables, records, attributes, keys, integrity constraints, 3-schema architecture, data independence. Data models – Hierarchical, Network, Relational

2.  The Relational Model, Language & Systems : The Relational Data Model & Relational Algebra SQL: DDL , DML, & DCL concepts, SQL commands (ANSI standard) Oracle 8 or above/ MS SQL Server / MS Access

3.  Integrity and Security:   Integrity constraints, concept of triggers, stored procedures (theoretical concepts only),Database Security & Authorization (concept of GRANT / REVOKE)

4.  Database Design :ER modeling [Entity-Relationship Diagrams (ERD), construction of tables], Functional Dependencies & Normalization (upto 3NF; concept of BCNF), Denormalization Case Study on Normalization.

5.  System Implementation Techniques : Query Processing & Optimization (concept only), Transaction Processing Concepts, Concurrency Control and Recovery Techniques (concept only).

6.  Indexing concepts:Ordered indices (primary , secondary, dense, sparse, multilevel), concepts of hashing (static, dynamic)

7.  Advanced Data Models & Emerging Trends :Advanced Data Modelling Concepts, Object– Oriented Databases, Distributed Databases & Client Server Architecture, XML

Readings:
1.  Elmasri, Navathe : Fundamentals of Database System, Pearson Education.
2.  Silberschatz, Korth, Sudarshan : Database System Concepts, McGraw Hill International.
3.  Date : An Introduction to Database System, Pearson Education.
4.  Hopper, Prescott, Mc fadden : Modern Database Management, Pearson Education.
5.  Molina, Ullman, Widom : Database System , Pearson Education.
6.  Schaum's Outline Series : Funamentals of Relational Databases, Tata McGraw Hill.
7.  Chang : Oracle XML Handbook , McGraw Hill.
8.  ISRD, Introduction to Database Management Systems, Tata McGraw Hill

# [SM-302] : SYSTEM ANALYSIS AND DESIGN

1. Overview of Systems Analysis & Design:Business Systems Concepts, Systems Development Life Cycle(SDLC), Life cycle models (Waterfall model, Prototyping

model, Incremental model, Spiral model, RAD model), Feasibility Analysis, Design, Implementation, Testing & Evaluation.

2. Business Process Re-engineering: Concepts, Process involved; Case study.

3. System Requirement Specification & Analysis: Fact finding techniques, data - flow Diagrams, data dictionaries, process organization & interactions, decision analysis,

standards ( IEEE/ ISO).DataModelling& Analysis.

4. Detailed Design Modularization:Module Specification, File Design, Systems Development involving Data Bases.Structured Design Methodology(SDM).

Database DesignOutput DesignInput DesignUser Interface Design.

5. Object-Oriented Analysis &Design (OOAD): Modeling System Requirements using 'USE CASES'Object Modeling: Object Structure, Object Features, Classes & Objects, Key Concepts of object oriented approach, ObjectRepresentation methods, Object Status, State Diagram, Modeling behaviour in object Modeling - use cases, Object orientedAnalysis, Object oriented Design, Modeling & Design using UML, Activity Diagram & Swim lane Diagram, Sequence &Collaboration Diagram.

OO Testing strategies & techniques.

6. System Control & Quality Assurance through testing:Design Objectives reliability & maintenance, Software Design & documentation tools, top – down, bottom – up and variants.Testing strategies & techniques: Unit and integration testing, testing practices and plans. System Controls, Audit Trails,CASE Tools.

7. Hardware & Software Selection:Hardware acquisition, memory , process, peripherals, Benchmarking, Vendor selection, Software selection – operating

system, languages, Language Processes, performance & acceptance criteria.

Readings:

1. Booch, Grady: Object Oriented Analysis & Design.
2. Hoffer: Modern System Analysis & Design, Pearson Education.
3. Jalote, Pankaj: An Integrated approach to Software Engineering, Narosa.
4. Kendall: System Analysis & Design, Pearson.
5. Kiewycs, Igor Hawrysz: Systems Analysis & Design, PHI
6. Rajaraman V., Systems Analysis and Design, PHI

## [SM-303] : COMPUTER AIDED MANAGEMENT

Course Contents :

1. Management Support Systems:Introduction, Objective and Characteristics,

Collaborative Computing Technologies: Group Support System, Technologies,

Data Reviewing Concept and Applications

2. Data Warehousing : Access, Analysis, Mining & Visualization; OLAP & OLTP

3. Enterprise Decision Support Systems: Concepts, Definitions, EIS, Organisational DSS, Supply & Value Chains & Decision Support.

4. Knowledge Management: Concepts, Development Methods, Technologies & Tools, Electronic Document Management. Case Study.

5. Knowledge - Based Decision Support: - Artificial Intelligence (AI):

Concept, Definition, AI Vs Natural Intelligence. Expert System: Concept, Structure, Working, Benefits & Limitations. Knowledge Acquisition & Validation: Scope, Methods, Validation, Verification, Analysing, Coding, Documenting &Diagramming.

Knowledge Representation Inference Techniques Intelligence System Development.

Fuzzy Logic, Genetic Algorithm

8. Neural Computing :Fundamentals, Types of Neural Networks, Neural Network Application, Development, Architecture, Learning Algorithms, Neural Network Software & Hardware, Benefits & Limitations of Neural Networks.

9. Grid Computing: Overview.

10. Implementing & Integrating Management Support Systems: Issues, Strategies, Generic Models, Integrating EIS, DSS, ES & Global Integration.

Suggested Readings:

1. Dan W. Paterson: Introduction to Artificial Intelligence & Expert System, PHI./Pearson Education

2. Kartalopoulos, Stamatioys V : Understanding Neural Networks & Fuzzy Logic – Basic

3. Concepts & Application, PHI.

4. Poole, Computational Intelligence, OUP

5. Rich, Elaine & Knight, Kevin: Artificial Intelligence, Tata McGraw Hill.

6. Turban, Aronson: Decision support system & Intelligent System, Pearson.

7. Yegnanarayana, B : Artificial Neural Networks, PHI

8. Zaruda, Introduction to Artificial Neural System, Jaico

# Semester-IV

# [MB -401]: PROJECT MANAGEMENT & ENTREPRENEURSHIP DEVELOPMENT

## Module I

1. Project Planning: Project Management scenario; Project Asset – issues & problems; Gantt Chart & LOB; Network Analysis; PERT / CPM, Resource Monitoring & Control.

2. Project Buying: Projects Procurement Process, Life – cycle Costing, Project Cost Reduction methods, Project Stores, Organization & HRD issues, Computerization.

3. Investment Feasibility Studies: Managing Project Resources Flow; Project Cost – Capital & Operating; Forecasting Income, Estimation of Investment & ROI, Project Evaluation, Financial Sources, Appraisal Process.

4. Issues in Project Management: Project Audit, Project Monitoring & MIS, Cost Control, Real Time Planning, Intangibles.

5. Project Management: Case Studies

## Module II

1. Entrepreneurship: Meaning & concept; psychological & social factors; conditions needed for entrepreneurship; role of government; qualities of a prospective entrepreneur.

2. Entrepreneurial Motivation: McClelland's N-Ach theory; self – analysis, personal efficacy, culture & values, risk- taking behaviour, technology backup.

3. Entrepreneurial Skills: Creativity, problem solving, decision making, communication, leadership quality.

4. Information: Assistance from different organizations in setting up a new venture; technology parks; industrial corporations; directorate of industries / cottage and small scale industries, SISI, Khadi & Village Industries Commission, DGS & DNSIC, DGFT, how to apply for assistance – procedure, forms, procedures for obtaining contract from Railways, Defence, P & T etc., SIDBI.

5. Preparation of Project Report: Product/service selection; feasibility report preparation

6. Case Studies: Diagnostic case studies of successful / unsuccessful entrepreneurs; key variables explaining success

# [MB -402]: STRATEGIC MANAGEMENT

1. **Introduction:** Business policy and strategy, Nature and Scope of Strategic Management, Vision, Mission, Goal, Objective, Strategic Management process.

2. **Environmental Scanning:** SWOT Analysis, External Environment Analysis (Economic, Legal, Govt, Political, Social, Geographic, Technical); Internal Environment Analysis-Strategic Advantage Factors (Finance, Marketing, Production, HR, R & D, etc.)

3. **Competitive Strategy:**Porter's Five Forces Theory, Generic strategies, Competitive Advantage, Value chain analysis,Mc Kinsey's 7S Model, Balance Score card.

4. **Formulating Strategies :** Corporate, Administrative/Executive and Operating Levels, Developing Functional Strategies – Production/Operations, Finance, Marketing, HR, Materials, R & D; Portfolio analysis - BCG & GEC matrix.

5. **Strategic Implementation and actions** : Stability, Growth, Turnaround, Retrenchment, Diversification, vertical integration, Horizontal integration, Strategic alliance, merger and acquisition, Divestment, Joint Ventures, De-Merger.

6. **Evaluation of Strategy**: Need, Problems, Criteria for Evaluation (Qualitative/Quantitative), Process of Evaluation.

# MM-404 INTERNATIONAL MARKETING

1. **Introduction:** Definition of international marketing, Domestic vs. international marketing,Benefits of international marketing, Process of internationalization, EPRG framework.

2. **International marketing environment:** Business Practices and Ethics, Cultural, Political, and Legal Environment, MinimizingEnvironmental Risk.

3. **Trade Theories:** Basis of international trade, Principles of absolute and relative advantage,Factor endowment theory.

4. **International Institutions (only the objectives):**WTO, World Bank, IMF, ADB, UNCTAD,EEC, SAPTA, NAFTA etc.

5. **International Product Policy:** New product policy, International product life cycle, Productline policies, Branding, packaging and labelling

6. **International Pricing Strategies:** Factors in pricing, Alternative strategies, Forfeiting,Transfer pricing, Dumping, Counter trade.

7. **Export Import Process:**Export Documentation -certificate of origin, bill of lading, mates receipt, letter ofcredit, line of credit, Methods of paymen.t

8. **Overseas Distribution system:** Alternative Middleman Choices - Home country, Foreign country and Government affiliatedMiddlemen, Selection of Agents, Locating, Selecting & Motivating Channel Members.

**Minimum 5 cases to be discussed**

**Suggested Readings**
1. International Marketing-Analysis and strategy ,Onkvsit, Sak and Shaw,TMH
2. Global Marketing Management, Keegan ,Pearson
3. International Marketing, Rajagopal , Vikas
4. International Marketing and Export Management, Albaum, Duer & Strandskov, Pearson
5. International Business Management, Si nha & Sinha, Excel Books
6. International Marketing, P K vasudev, Excel Books

# MM-405 SERVICE MARKETING

1. **Introduction:** Definition, Differences between Services and Goods, Tangibility Spectrum, Distinctive Characteristics of Services, Categories of Service Providers, Marketing Implications of Service Characteristics, Services Marketing Mix – People, Physical Evidence & Process.

2. **The Gap Model of Service Quality:** The Customer Gap, The Provider Gap, The Customer Expectations of Service, The Zone of Tolerance, Customers Perception of Quality and Customer Satisfaction, SERVQUAL.

3. **Understanding Customer Requirements:** Listening to Customers through Research, Building Customer Relationship, Service Recovery, Factors Necessary for Appropriate Service Standards, Types of Customer -Defined Service Standards

4. **Physical Evidence and Servicescape:** Meaning, Types of Servicescapes, Strategic Roles of Servicescape, Guidelines for Physical Evidence Strategy, Strategic Roles of Servicescape .

5. **Employees and Customers Role in Service Delivery:** Service Culture, Importance of Service Employees and Customers in Service Delivery.

6. **Managing Demand and Capacity:**Capacity Constraints, Demand Patterns, Strategies for matching Capacity and Demand.

7. **Marketing Communication:** Need for Coordination in Marketing Communication, Promotion in Services Marketing, Logistics and Distribution in Services Marketing.

**Minimum 5 cases to be discussed**

**Suggested Readings**
1. Services Marketing, Ziethmal & Bitner,McGraw Hill
2. Services Marketing, Lovelock, Pearson
3. ServicesMarketing , Jauhari & Dutta, Oxford
4. Services , Govind Apte, Oxford
5. Services Marketing, Lovelock, Pearson

# [MM 406]: CONSUMER BEHAVIOUR

1. **Introduction to Consumer Behaviour:** Defining consumer behaviour, Reasons for Studying Consumer Behaviour, Environmental Influences on Consumer Behaviour: Culture, Subcultures, Social Class, Reference Group and Family Influences, Personal Influences and Diffusions of Innovations.

2. **Consumer Decision Process:** Need recognition, information search, evaluation of alternatives, purchase decision, consumption and post-purchase evaluation, Types of decision process – complex decision making, variety seeking, impulse buying, loyalty.

3. **Individual determinants of Consumer Behaviour**: Motivation, Personality and Self Concept, Consumer Perception, Consumer Learning, Consumer Attitude Formation and Change.

4. **Family Influences on Buyer Behaviour:** Factors affecting the need of the family,family life cycle stage and size.

5. **Culture Subculture and Social Class:** Nature of culture, Types of subculture and their influence on behaviour, Nature of social class.

6. **Reference Groups, Opinion Leaders and Social Influences:** Nature and types of reference groups, How groups influence individuals, Opinion leadership, Word-of-mouth, Innovation and diffusion.

7. **Models of Consumer Behaviour:** Howard-Seth Model, Angle-Blackwell-Kollat (Multimediation Model), Nicosia Model.

# [FM -404]: FINANCIAL INSTITUTES AND MARKETS

1. Indian Financial System in India: Financial Concepts, Financial Assets, Financial Intermediaries, Financial Markets, Classification, Components of Financial Market, Financial Instruments, Multiplicity of Financial Instruments.

2. Money Market: Definition, Money Market and Capital Market and their Features, Objectives, Features of a Developed Money Market, Importance of Money Market, Composition of Money Market, Money Market Instruments, Structure of Indian Money Market, Features of Indian Money Market , Call Money Market, Recent Developments.

3. New Issues Market: Relationship between New Issues Market and Stock Exchange, Functions of New Issue Market, Instrument of Issues, Players in the New Issue Market, Recent Trends, causes for Poor Performance - Suggestions.

4. Secondary Market: Introduction, Control Over Secondary Market, Registration of Stock Brokers, Registration Procedure, Method of Trading in a Stock Exchange, Depository services, Emergence of NSE, Objectives, Features of NSE- Comparative analysis of BSE & NSE functioning

5. Securities And Exchange Board of India: SEBI – Background, Objectives, Functions, Powers, Organization, SEBI and the Central Government, SEBI Guidelines for Primary Market, Secondary Market.

6. The Banking Sector – Industry Overview – Financial statements and Analysis, Regulation of Commercial Banks, Prudential accounting Norms

7. The Insurance Sector – Basic Principles of Insurance – components of insurance Market- The changing scenario of the Indian Insurance Sector

8. Mutual Funds: Concept - Types - Nature – NAV – Trends in Indian Mutual Fund Market - SEBI & Mutual Fund.

9. Merchant Banking: Concept -Types -Functions - Trends in Merchant Banking in India - SEBI & Merchant Banking.

10. Leasing & Hire Purchase Finance: Definition of Leasing, Types of Lease, The Leasing Process, Definition of HirePurchase, Rights of Hirer, Rate of Interest, Evaluation of Leasing & Hire Purchase as method of financing

11. Credit Rating Agencies: Concept - Functions - Different Credit Rating Agencies - Popular Symbols – SEBI& Credit Rating. 2L

12. Personal Financial Services: Debit Card - Credit Card - Housing & Personal Loans.

# [FM -405]: INTERNATIONAL FINANCE

1. International Dimensions of Financial Management : The Emergence of the MNC, Nature of the MNC, Objectives of the Firm & Risk Management, Domestic Financial Management & International Financial Management.

2. International Monetary System: History of International Monetary System, Present Day Currency Regimes, Regime Choices for Emerging markets, Birth of EMU and EURO

3. Balance of Payments (BOP): Principles of BOP Accounting, Components of BOP, Significance of 'Deficit' & 'Surplus' in BOP, India's BOP and Economic Performance, Capital Mobility and Capital Account Convertibility.

4. The Foreign Exchange Market, Exchange Rate Determination, and Currency Derivatives: The Foreign Exchange Market – Functions, Participants and Transactions – Exchange Rates and Quotations – Indian foreign Exchange Market, Foreign Currency Derivatives – Currency Options , Futures, Forwards, Swaps – Foreign CurrencyDerivatives in India , International Parity Conditions – Purchasing Power Parity- Interest rate Parity, ForeignExchange Rate Determination

5. Foreign Exchange Exposure & Risk Management: Two dimensions of Foreign Exchange Risk (viz. Exposure& Unanticipated change in Foreign Exchange Rates ), Types of exposureMeasuring and Managing Economic Exposure, Transactions Exposure & Translation Exposure : (a) internalhedging strategies. (b) External or market based Hedging strategies.

6. International banking Services –Capital Adequacy Standards-International Money Markets, International Equity Sources - Global Equity Markets-Methods of Sourcing  - Cross-listing in Secondary Markets- New Equity Issues, International Debt Sources- Debt Management and Funding Goals - International Debt Instruments- International Bank Loans - Euronotes- International Bond Market

7. Financial Management of MNCs: Foreign Direct Investment and Cross- Border Acquisitions; InternationalCapital structure and the cost of Capital- An Overview- Impacts of Internationalization on the Cost of Capital-Improving Market Liquidity- Overcoming Market Segmentation- Causes of Segmentation- InternationalDiversification and the cost of capita l- International Cost of Capital Models- The Theory of Optimal FinancialStructure- Impact of Internationalization on Optimal Financial Structure - Financial Structure of Foreign Affiliates

8. Multinational Capital Budgeting- Capital Budgeting: An overview- Capital Budgeting for Foreign Projects - Two methods-Foreign Complexities- Parent vs project valuations;

Multinational Cash Management- The Management ofMultinational Cash Balances- Cash Management Systems in Practice- Transfer Pricing & Related Issues- BlockedFunds

# [FM-406]: DERIVATIVES AND RISK MANEGEMENT

1. Introduction- Forward contracts, Futures contracts, Options and other derivatives.

2. Forward and Futures – markets; use of futures for hedging; Risk Management Using Futures and Forwards; pricing- Costof Carry Model; interest rate futures

3. Options – Markets; Payoffs; Risk Neutral Valuation; Binomial Option Pricing Model; Black Scholes Option Pricing Model;Put Call Parity; Uses of Options; Option Strategies

4. Management of market risk – Stop loss; Delta hedging; Theta; Gamma; Vega; Rho; Scenario Analysis; Portfolio insurance, VaR

5. Other derivatives- Swaps, Warrants, Convertibles

6. Risk Management in Financial Institutions – Overview of BASEL –II, Market Risk, Credit Risk and Operational risk elements

# [HR – 404] : INDUSTRIAL RELATIONS

Module – I

1. Industrial Relations : Concept, Approaches to IR, Parties to IR, System Model of IR

2. Industrial Worker in India : Rise of Industrial Workers, Profile of Industrial Workers in India, Problems of Industrial Workers (absenteeism, commitment, Work Ethics)

3. Trade Unionism in India : Origin, Growth, Structure and Management of Trade Unions, Recognitions, Leadership, Trade Unionisms, Employers' Organisations in India, Managerial Associations.

4. Industrial Relations in India : Labour Policy in Five Year Plans, Tripartism, Role of Government and State, Roleof Management, Role of Trade Unions.

5. Industrial Disputes : Causes, Types, Trends and Settlement of Disputes (Internal Options, Third Party Machinery).

Module – II

6. Collective Bargaining : Theories, Prerequisites, Process, Negotiating Skills and Strategies, Agreement –content, Validity, Implementation, Productivity Bargaining, Growth of Collective Bargaining in India.

7. Workers' Participation in Management : Concept, Purpose and Practices in other countries; Workers'Participation Schemes in India – Works Committee, Joint Management Council, Worker – Director, Shop Counciland Joint Council, WPM, EPM; Problems and Prospects in India; Quality Circles – Concept and Practices in India.

8. Labour Welfare and Industrial Relations : Concept, Purpose, Statutory and Non-Statutory Provisions, ILOConventions and its application in India, Workers' Education Programmes in India.

9. Employee Discipline : Meaning Types, Misconduct, Disciplinary Action, Domestic Enquiry, Grievance Handling.

10. Case Studies - Wage Negotiation, Disciplinary Action, Industrial Disputes

Readings

1. Marchington, M. : Managing Industrial Relations, McGraw Hill.

2. Monapppa, Arun : Industrial Relations, Tata McGraw Hill.

3. Ramaswamy, E. A. : Managing Human Resources, Oxford University Press.

4. Venkata Ratnam, CS: Industrial Relations, OUP

5. Govt. of India : Report of the National Commission on Labour

# [HR – 405] : ORGANIZATIONAL DEVELOPMENT

Module – I

1. Organisational Change and Development : Concept, History, Assumptions, Organisational Change, Process,Lewin's Model, Organizational Life Cycle, Values and Asumption of OD.

2. Operational Components of OD : Diagnostic, Action and Process – maintenance component.

3. Characteristics and Foundation of OD Process : On-going interactive process, Form of Applied BehavioralScience, Strategy of Changing, Systems Approach, Approach to Planned Change, Experience-based, Goal Settingand Planning, Focus on Work Teams.

4. OD and Action Research : Process, Approach, Use of Action Research in OD.

5. OD Interventions : Nature of OD Interventions, Major OD Interventions, Dimensions, Individual, Group andTask – Process, Effective OD Interventions – Characteristics, Factors for Design

Module – II

6.Team Interventions : Teams and Work Groups, Team Building Interventions, Diagnostic Meeting, Team BuildingMeeting, Role Analysis Techniques, Role Negotiation Techniques, Gestalt Orientation to Team Building, Intergroup Interventions.

7. Personal, Interpersonal and Group Process Interventions : Process consultation, Third – Party Intervention,Sensitivity Training, Transactional Analysis, Career Planning Interventions.

8. Comprehensive Interventions : Confrontation Meeting, Survey Feedback, Four System Management, Grid, Contingency Approach.

9. Structural Interventions : Job Design, MBO, QWL, Socio-technical Systems, Physical Setting, Conditions for OD, Re-engineering.

10. Issues in OD : OD facilitators Role, OD consultant, Consultant – Client relationship, Problems in ODInterventions, Resistance – Individual and Organizational, Research in OD.

Readings

1. French, W. L. & Bell, C. H. : Organisation Development, Prentice Hall of India./Pearson Education

2. French, W. L. & Bell , C. H. : Organisation Development and Transformation, Tata McGraw Hill

3. Gummings,T.G.& Worley, C.G. : Organization Development and Change, Thomson

4. Pareek, Udai : Understanding Organisational Behaviour, OUP

5. Robbins, S. P. : Organisational Behaviour, Prentice Hall of India./Pearson Education

# [HR – 406] : HUMAN RESOURCE DEVELOPMENT

Module – I

1. Human Resource Development : Meaning, Scope and Purpose, HRD Process, Techniques of Assessment of HRDNeeds – Organizational Analysis, Task Analysis, Individual Analysis.

2. Strategies of HRD: Organizational Development, Individual Development, Team Development, Organizational Culture Building.

3. Individual Development through Training: Designing Training Programme; On-the-Job, Off-the-Job; Methods –Lecture, Case Analysis, Role Play, Games, Exercises; Role of Trainer, MDPs, Out-Bound Training.

4. Evaluation of Training : Need, Principles, Criteria, Technique of Evaluation, Impediments to EffectiveTraining, Improving Effectiveness of Training.

Module – II

5. Individual Development through Non - Training - Job Redesign Programme; Job Enlargement, JobEnrichment, Job Rotation, Suggestion Schemes, Career Planning, Counselling.

6. Team Development Programmes – Methods and Schemes : Role of Staff and Line Managers in HRD, QualityCircle, Kaizen, Autonomous Small Group Activities.

7. Competency Management – Planning, Mapping, Measurement .

8. HRD Experiments and Cases – In India and Other Countries

Readings

1. Desimone, R. L., Werner, J. M. & Harris, D. M. : Human Resource Development, Thomson.
2. Pareek, Udai & Rao, T. V.: Designing and Managing Human Resource Systems, Oxford & IBH.
3. Rajsekharan, N.P. : Competency Web, Universities Press
4. Rao, T. V. : Readings in HRD, Oxford & IBH.
5. Silvera, D. M. : Human Resource Development – The Indian Experience-Publisher

# [SM - 404] : SOFTWARE MANAGEMENT

1. Introduction to Software Processes and Metrics, problems: Goals and requirements of Software Development.

2. Software Project Planning: Project Process Groups (Initiating, Planning, Executing, Controlling and Closing Processes).Planning Activities – Schedule Development, Resource Planning, Cost estimating / Budgeting, Quality Planning, HumanResource Planning, Communication Planning, Risk Management Planning, Procurement Planning, Developing onInformation Technology, Project Management Methodology, Software Project Management Plan (SPMP).Change Control on Information Technology Projects.

3. Project Scope Management: Definition, Project Initiation – strategic planning & project selection, Project Charters, the scope statement, WorkBreakdown Structure - approaches (using guidelines, the Analogy Approach, Top – Down & bottom – up Approaches ),Scope Verification and Scope change Control.

4. Project Time Management:Project Schedule, Project Network Diagrams ( AOA or ADM, PDM ), Activity duration Estimating, Gantt Charts, CriticalPath method , PERT.

5. Project Cost Management:Importance, Basic Principles, Cost Estimating (Types), Techniques and Tools, Problems with Cost Estimates, Cost Control,Earned Value Management.Estimation Techniques:COCOMO (Basic, Intermediate & complete COCOMO Model)Halstead's Software SciencePutnam ModelJensen Model

6. Quality Management: Quality Planning, Assurance & Control, Leadership - Cost of Quality, Organizational Influences, Work Place factors &Quality, Maturity Models.
[CMM, CMMi, Six Sigma], Zero defect, Quality assurance.

7. Project Human Resource Management: Managing People (Motivation Theories, Influences & power, Improving Effectiveness), Organizational Planning, StaffAcquisition & Team Development.

8. Project Communication Management: Importance, Communication Planning, Information Distribution, Performance Reporting, Administrative Closure.

9. Disaster Recovery Planning & Risk Management: Importance, Risk Management Planning, Sources of Risk, Risk Identification, Qualitative & Quantitative Risk, Risk

Response Planning , Risk Monitoring & Control.

10. Change management: Configuration management, ITIL methodology

11. Project Procurement Management: Importance, Plannin, Solicitation Planning, Solicitation, Contract Administration & Close Out.

12. Using Project Management Tool:  MS Project 2000 / 2003. Case Study.

Suggested Readings:

1. Behforooz: Software Engg. Fundamentals, OUP
2. Hughes & Cotterell, Software Project Management: TMH
3. Mall, Rajib: Fundamentals of Software Engineering, PHI.
4. Maylor: Project Mgmt., Pearson Education
5. Pressman: Software Engineering, McGraw Hill
6. Schwalbe, Kathy: Information Technology Project Management, Thomson Learning.
7. Basics of Software Project Management: NIIT, PHI

# [ SM - 405] : E-BUSINESS

1. Electronic Commerce: Overview, Definitions, Advantages & Disadvantages of E – Commerce, Threats of E – Commerce, Managerial Perspectives.

2. Technologies: Relationship Between E – Commerce & Networking, Different Types of Networking For E – Commerce, Internet, Intranet& Extranet, Client – Server, Web – Server Architecture, Infrastructure Requirement For E – Commerce, Intelligent Systems.

3. Business Models of e – commerce: Model Based On Transaction Type, Model Based On Transaction Party - B2B, B2C, C2B, C2C, Revenue based models, E –Governance.

4. E – strategy: Overview, Strategic Methods for developing E – commerce, E-advertisement.

5. M-commerce: Definition, Hand Held Devices, Mobility & Commerce, Mobile Computing, Wireless Web, Web Security, concepts ofWAP.

7. Supply Chain Management:E – logistics, Supply Chain Portal, Supply Chain Planning Tools (SCP Tools), Supply Chain Execution (SCE), SCE -Framework, Internet's effect on Supply Chain Power.

8. E – Payment Mechanism: Payment through card system, E – Cheque, E – Cash, E – Payment Threats & Protections.

9. E – Marketing: eShopping, Telemarketing.Commercial packages for building eShopping portal e.g. One&OneCase study

10. Electronic Data Interchange (EDI): Meaning, Benefits, Concepts, Application, EDI Model, Protocols (UN EDI FACT / GTDI, ANSI X – 12), Data Encryption(DES / RSA).

11. Risk of E – Commerce: Overview, Security for E – Commerce, Security Standards, Firewall, Cryptography, Key Management, Password Systems,Digital certificates, Digital signatures.Rules & Regulations For Controlling E – Commerce, Cyber Laws.

12. ERP Evolution through MRP I and MRPII, Need Identification, Scope and Problem of ERP selection and Implementation,Products and Packages of ERP, Selection of EEP processes, Integrating ERP with other systems, Opportunities and benefits.Case Study – BPR.

Suggested Readings:

1. Bhaskar Bharat : Electronic Commerce - Technologies & Applications.TMH
2. Christopher J. & Clerk T.H.K., Global E-Commerce, University Press
3. Joseph P.T. : E-commerce An Indian Perspective, PHI
4. Kalakota, Whinston : Frontiers of Electronic Commerce , Pearson Education.
5. Loshin Pete, Murphy P.A. : Electronic Commerce , Jaico Publishing Housing..
6. Reynolds, Beginning E-Commerce, SPD

# [SM - 406] : FUNDAMENTALS OF NETWORKING

1. Communications: [a] Need for computer networking, components of a data communication system,direction of data flow(simplex, half-duplex, full-duplex)[b] Types of networks: LAN, MAN, WAN; concepts of Internet, Intranet, Extranet, WWW.[c] Network topology, transmission media.[d] Applications of networking in business and society.[e] concepts of data transmission, signal encoding, modulation methods, synchronization, multiplexing and concentration,coding method, cryptography.

2. Network: Communication system architecture – OSI reference model, Topology types, selections, design, Local area networks (LAN),CSMA / CD, token bus, token ring techniques, link level control (LLC) protocols, HDLS, analysis of protocols &performance,

concepts in network layer, switching techniques, routing methods (static & dynamic), concepts of ALOHA, MACA,MACAW protocols.Concepts of Wi-Fi & Wi-Max.Case study: telephone network and satellite network.

3. TCP / IP:  Session, Presentation and Application Layers functions.

4. Networking and Internetworking devices: Introduction to repeater, hub, bridge, switch, router and gateway.Case study: Office network

5. Distributed Processing Potential: Client Server Computing, introduction to distributed database.

6. Internet: Internet Protocols, IP addressing (IP4 + IP6 ), class & subnets (concept only), Internet computing, MPLS.

7. Mobile Computing: Introduction to mobile technology, concept of GPRS, Wireless Application Protocols & other protocols, concept ofbluetooth.

8. Network Security & Privacy: overview, purpose, spamming , cryptography (ciphering, DES, RSA -concept only), authentication (concept only) andfirewall.

Suggested Readings:

1.  Comer : Internetworking with TCP / IP, Vol – 1, PHI/ Pearson Education
2.  Forouzan : Data Communication & Networking, TMH.
3.  Stallings, W., Data and Computer Communications, Pearson Education
4.  Tanenbaum : Computer Networks, Pearson Education
5.  Zheng,Computer Networks for Scientists &Engineers,OUP