Syllabus MBA 3 Year

First Year		Second year	
Semester I	**Semester II**	**Semester III**	**Semester IV**
11001 :Quantitative Technique I (Business Mathematics and Statistics)	12001 :Quantitative Technique II (Opérations Research)	23001:Managerial Economics –II	24001:Information Technology And managerial decisions.
11002:Financial & Cost Accounting for Managers.	12002:Taxation, Audit & Managerial Accounting	23002: Human Resource Management	24002:Strategic Management, Corporate Planning , Business Policy,.
11003:Computer Applications in Management	12003 : Managérial Economics I	23003: Marketing Management	24003: Research Methodology in Management
11004: Organization Behaviour	12004: Corporate Governance and Business Laws.	23004: Operations Management.	24004: Financial Management

Third year (Specialization) Semester V & VI				
Marketing Management	**Human Resource Management**	**Financial Management**	**Systems/IT Management**	**Project Management**
35MM1: Product and Starategic Brand management	35HR1: Human Resource Development & Social Responsibility of Business	35FM1: Corporate Finance	35SM1: E-Commerce & Its Application In Business	35PM1:Project Concepts, Feasibility Study and Appraisal
35MM2 : Marketing Research	35 HR 2: Labour Laws	35 FM 2: Security Analysis and Portfolio Management	35SM 2: Object Oriented Programming Using C++	35PM2:Project Planning, Scheduling and Control
35MM3 : Consumer Behaviour	35HR3:International Human Resource Management	35 FM 3: Merger and Acquisition.	35SM 3: Networking	35PM4:Project Materials
35MM4 : Integrated Marketing Communication	35 HR 4 :Change Management & Organizational Development	35 FM 4: International Finance	35SM 4: Data Structure Using C	35PM4:Project Finance
36MM1 : International Marketing /	36 HR 1: Training & Development	36 FM 1: Derivatives and Risk Management.	36SM 1: Database Management System	36PM1:Project Human Resources
36MM2 : Sales and Distribution Management	36 HR 2:Industrial Relations	36FM 2: Commercial Banking	36SM 2: Software Engineering	36PM2:Contract Management
36MM3 : Service Marketing	36 HR 3: Management of Compensation & Wages	36 FM 3: Corporate Taxation and Investment Management .	36SM 3: Java & Web Technology	36PM3:Project Environment
36MM4 : Retail Marketing	36 HR 4: Project Human Resource Management	36 FM 4: International Business Economics	36SM 4: Information Security & Risk Management.	36PM4: Project MIS

In addition to the above syllabus Business Communication (**non-credit**) session will take place during 3-30 pm to 5-30 pm on every Saturday. Two projects apart from eight elective papers in V and VI semester. One Grand Viva at semester VI.

Year 1: Semester I
Paper 11001: Quantitative Technique I (Business Mathematics and Statistics)

Business Mathematics :
Definition of a determinant, Basic properties of determinants (statements only) Minor and co-factors. Products of two determinants of the same order. Adjoint and reciprocal determinants. Solution of linear simultaneous equations by Cramer's Rule illustrative examples on all the topics.

Definition of a matrix. Matrixes of different types. Transpose of a matrix. Algebra on matrixes – addition, subtraction, multiplication, inverse of a matrix. Rank of a matrix. Vectors and Euclidean space. Linear dependence of vectors. Spanning set and basis. Replacing a vector in a basis. Representation on a matrix in terms of vectors. System of linear equations consistency and solution by matrix and method. Illustrative examples.
Differential Calculus: Maxima and Minima – functions of single variables, functions of several variables, Lagrangian multiplier technique, applications to management oriental problems.

Differential Calculus: Forward and backward differences, formation of successive differences, shift operator, inverse operators, factorial functions, difference tables, application. Formation of difference equations, linear difference equations with constant coefficients, solution of homogeneous and non-homogenous equations. Applications in economics – Harrod's model of economic growth, multiplier and accelerator model of economic

Business Statistics:
Data and Statistics: Understand the meaning of the terms elements, variables, and observations as they are used in statistics, understanding of the difference between qualitative, quantitative, cross-sectional and time series data, sources of data, errors in data, meaning of descriptive statistics and statistical inference, population and a sample.

Descriptive Statistics: Tabular and Graphical Methods for frequency and relative frequency distributions, cumulative frequency and cumulative relative frequency distributions,

Descriptive Statistics: measures of location, mean, median, mode, quartiles, and various percentiles, compute the range, interquartile range, variance, and standard deviation, computation of z scores and how its use as a measure of relative location of a data value, Chebyshev's theorem and the empirical rule to determine the percentage of the data within a specified number of standard deviations from the mean, construct a box-n-whisker plot, compute a weighted mean

Probability: role probability information plays in the decision making process, three methods commonly used for assigning probabilities, laws that are available for computing the probabilities of events, probability estimates using Bayes' theorem.

Discrete Probability Distributions: concepts of a random variable and a probability distribution, discrete and continuous random variables, compute probabilities using a binomial probability distribution and be able to compute these probabilities using Excel's BINOMDIST function, compute probabilities using a Poisson probability distribution and be able to compute these probabilities using Excel's POISSON function

Continuous Probability Distributions: difference between how probabilities are computed for discrete and continuous random variables, compute probabilities using a normal probability distribution, understand the role of the standard normal distribution in this process, use Excel's NORMSDIST and NORMDIST functions to compute probabilities for the standard normal distribution and any normal distribution, use Excel's NORMSINV and NORMINV function to find z and x values corresponding to given cumulative probabilities

Sampling and Sampling Distributions: Understand the importance of sampling and how results from samples can be used to provide estimates of population characteristics such as the population mean, the population standard deviation and / or the population proportion, concept of a sampling distribution, central limit theorem and the important role it plays in sampling, characteristics of the sampling distribution of the sample mean and the sampling distribution of the sample proportion, sampling methods including stratified random sampling, cluster sampling, and systematic sampling, simple random sampling, standard error, sampling without replacement, sampling with replacement, sampling distribution, Point estimator.

Interval Estimation: construct and interpret an interval estimate of a population mean and / or a population proportion, concept of a sampling error, to use knowledge of a sampling distribution to make probability statements about the sampling error, the margin of error, t distribution and its in constructing an interval estimate for a population mean, definition of confidence interval, alpha, sampling error, confidence level, margin of error, degrees of freedom.

Hypothesis Testing: formulate and test hypotheses about a population mean and/or a population proportion, types of errors, compute and interpret p-values, null hypothesis,level of significance alternative hypothesis, one-tailed test, two-tailed test, type I error, type II error, p-value, critical value.

Comparisons Involving Means

Comparisons Involving Proportions

Regression Analysis: covariance and correlation, development of an equation that estimates mathematically how two variables are related, regression model, the regression equation, and the estimated regression equation, to use a residual plot to make a judgement as to the validity of the regression assumptions, recognize outliers, and identify influential observations, definition of independent and dependent variable, simple linear regression, regression model, regression equation and estimated regression equation, scatter diagram.

Coefficient of determination: association between two variables, use of regression analysis, fit an estimated regression equation to a set of sample data based upon the least-squares method, assumptions necessary for statistical inference and be able to test for a significant relationship

Multiple Regression: test the independent variables for significance, use residual plots to make a judgment as to the validity of the regression assumptions, recognize outliers, and identify influential observations, concept of multicollinearity, to forecast (predict) y based on a new x vector, to use and interpret a qualitative independent variable

Books: 1.
1. Business Statistics: by Levin Berenson Krehbiel , Pearson Publication
2. Business Statistics: by Aczel , Tata Mcgraw Hills Pub.
3. Business Statistics By Anderson- Sweezy-William , Thomson Publication.

Year 1: Semester I
Paper 11002: Cost and Financial Accounting

Cost Accounting : Scope, Cost Ledger and Control Accounting, Reconciliation between Cost and Financial Accounts, Material, Labour and Overhead Costs, Cost Volume Profit Relationship, Marginal Cost and Break Even Point, Application of Marginal & absorption Costing, Budget and Standard Costing, Process costing, Joint Product,By-producr, Contract Costing, Service Costing,Concept of Relevant Cost, Zero Base and Performance Budgeting. Activity based costing.

Financial accounting : Overview of Finance function, Objective of an organization, Principal areas of control – Financial Accounting, Basic Accounting Concepts, Accounting Principles, Concept of Double Entry, Preparation of Financial Statements and analysis of Balance Sheet, Double Accounting,
 Inventory Valuation and methods of Depreciation,   Analysis of Company Balance Sheet – Form and Presentation, Accounting Standards.
Valuing of material issues, value analysis – cost audit.
Books: 1. Financial Accounting for Business Managers- by Asish K. Bhattacharyya, PHI
         2. Financial Accounting for Management – by Gupta, Pearson Education
         3. Financial Accounting – by R. Narayanaswamy, PHI
         4. Cost Accounting: Theory & Practice – by Bhabatosh Banerjee, PHI 12th ed. 2007
         5. Principles and practice of cost Accounting – by Asish K Bhattacharyya, PHI

Year 1: Semester I
Paper 11003: Computer Applications in Management
Introduction: Computer and Its Applications, Data vs. Information, Basic Architecture of Computer System, Input & Output Devices, Primary & Secondary Memory, Storage Devices, Operating Systems: Introduction to Windows, Basic Elements of Desktop, Working with Windows, Managing File System, Working with Windows Explorer..
Number Systems: Binary, decimal, Octal, Hexadecimal, Conversion of one number system to another number system, Binary algebra, Boolean algebra.
MS-Word , MS-EXCEL, MS-PowerPoint ,
MS-Access Database: Introduction to Access, Creating a New Database, Data Types Available for a Database, Creating a Table, Editing and Deleting Records, Columns, Tables.
Programming **In** C: Flow Chart & Basic Symbols of Flow Charts, Representation of Programming Logic through Flow Charts, Compiler & Assembler, Constant, Variables, Data Types & Ranges, Operators, Input & Output statements, Control Statements, Looping Statement, Array & String operations, Functions & Structures.
Application **In** Management: Application of Computers in Financial Systems, Inventory Control, Cost Reduction, Manpower Planning, Resource Allocation, On-line Real time System. Expert Systems Application in Railways, Banking, Education, Metropolitan, Electric Supply Corporation etc.

Books: 1 Programming in ANSI C- by E. Balaguruswamy, Mcgraw Hill
         2.Let us C – by Kanetkar, BPB
         3, Mastering C – by Venugopal McGraw Hill .

Year 1: Semester I
 Paper 11004: Organization Behaviour
Fundamentals of Organizational Behaviour: Need of study, meaning of organization & organizational behaviour.
Organizational Structure & Organizational Environment: Linking different scientific studies, managerial assumption & different organizational structure.
Organization of Individual Behaviour: Individual differences in orgaisational setting – learning, ability, skill, personality, emotion and emotional intelligence, values & ethics, perception, attitude, commitment & job satisfaction.
Motivation, job performance, productivity, job design. Management by objectives & performance

appraisal.

Group Behaviour: Group & intergroup relations, leadership & group decision making. Organizational processes: Communication & information processing.

Organizational power & politics, conflict & negotiation.

Stress & well being.

Employee & organizational development: Careers & employee development, organizational change & development,

Impact of IT on OB

Globalisation & Cultural diversity and OB – Hofstede's framework

Books: 1. Management of Behavioral Processes: B. Janakiram & Vijay Rao, Excel Books; 2009

2. Organisational Behavior – by V S P Rao; Excel Books;2009.

3. Understanding Organisational Behavior – by Udai Pareek; Oxford University Press;2004

4. Organizational Psychology – by Edgar H Schein; PHI

Year 1: Semester II
Paper 12001: Quantitative Technique II (Opérations Research)

Basic of Operations Research (O.R): Development, definitions & characteristics of O.R. Scope of O.R. in industry & management. Linear programming Problems (L.P.P): formation of an L.P.P. Mathematical structure of a general L.P.P. Graphical method of solution of I.RP Types of solution of a I.PE Reduction of a I.PP. into its standard (Canonical) form. Simplex algorithm with applications to L.P.P.s of different types – unique optimal solution, alternative optimal solutions no feasible solution. Charnes M-method. Concept of Duality. Mathematical formation of duals, Properties of duality and shadow price. Transportation Problems: Definition & mathematical formation. Initial basic feasible solution – North-West Corner method, Matrix Minima Method. Vogel's approximation method, Raw Minima & Column Minima methods, Optimality test of feasible solutions. Degeneracy, Unbalanced problem, Applications. Assignment problems: Definition & mathematical formulation. Method of solution Unbalanced problem. Applications. Theory of Games: Two-person zero-sum games. Minima & Maximum principles. Saddle Point. Pure & mixed strategies. Solution of games without saddle point – principle of dominance, algebraic method, graphical method. Replacement Models: types of replacement problems, Replacement of deteriorating item. Money value & present worth. Group Replacement Policy. Applications. Inventory Model: Necessity for maintaining inventory, inventory costs. Inventory control problem. Basic inventory models with deterministic & probabilistic demands. Inventory models with price break. Network Analysis: Fundamental Concepts- network diagram, activity, dummy activity, nodes, critical path, slack path. CPM & PERT Applications. Branch and Bound technique. Dynamic programming, Travelling Sales Man problem, Markov analysis – its application in marketing.

Books:
Year 1: Semester II
Paper 12002: Taxation, Audit & Managerial Accounting

Taxation – basic concepts: Tax planning, Tax avoidance, tax evasion; conceptual framework on the basis of Income Tax Act. 1901. Residential Status, impact on taxation. Income and Business/ Profession, Deductions under Chapter VIA. Overview of Tax Administration machinery and procedures. Taxation and tax planning, Service tax.

Audit – basic concepts : nature, principles, process and techniques of auditing. Company audit; internal, statutory, Govt. replying to audit queries

Insurance – Principles of insurance, life and general insurance, Reference to various types insurance (marine/fire/flood/burglary/thirdparty(vehicles), etc.)

Managerial Accounting; Responsibility Accounting, Cost Centre, Profit Centre & Investment Centre, Elementary Transfer Pricing; Divisional Performance Measurement; Equivalent Production; Management Decision making, Policy decisions- Case studies.

Books: 1.Management Accounting – by Atkinson, Pearson Education.

2. Financial Policy and Management Accounting – by Bhabatosh Banerjee ,PHI 7th Ed, 2008

3. Mnagement Accounting – by Khan & Jain, TMH

4. Direct Taxes – by Singhania
5. Audit – by Kamal Gupta.

Year 1: Semester II
Paper 12003: Managérial Economics I
i) Introduction to Managerial Economics; The roles of the firm and the House hold
ii) Decision Making in the Household: Consumer Choice, Demand; its Determination, Estimation and Forecasting
iii) Decision Making in the Firm: Production, Cost, Supply : its Determination and Derivation
iv) Equilibrium in Different Market Structures: Competitive markets- Equilibrium in the short run and long run, monopoly equilibrium, oligopoly: Strategic interactions and Game Theory.
v) Markets for Factor inputs
vi) The Economics of Information
vii) Market Failure: Externalities, Public Goods

Year 1: Semester II
Paper 12004: Corporate Governance & Business Laws.
Introduction to Indian Legal system.
Indian Contract Act. 1871 (Sections 1 -67).
Law of Agency. Partnership Act.
Companies Act. 1956 (As amended by Companies(Amendment) Act 2001). (Sec.I208, 252-270, 274-278, 283-293B, 397-404, 425-434, 464-488).
SEBI (Disclosure & Investor protection) Guidelines 2000.
The Environment (protection) Act.
1986. Consumer Protection Act. 1986.
Negotiable Instruments Act.
Foreign Exchange Management Act.
Indian Patent Rights Act 2005.
Intellectual Property Law.
Right to Information Act 2005.

Year 2: Semester III
Paper 23001: Managerial Economics –II

Introduction: Schools of Macroeconomic Thought
National Income Accounting
Consumption Function and the Multiplier
A Business Cycle Model and Policy Alternatives
The Money Market
The Extended IS-LM
Monetary and Fiscal Policy in a Closed Economy
BOP, imbalance, remedies, impact on exchange rates
Capital Account and Interest Rates
Open sector ISLM
Monetary and Fiscal Policy in an Open Economy
Overview of the Indian Economy
Indian Macroeconomic Policy

Year 2: Semester III
Paper 23002: Human Resource Management

Strategic role of Human resource management (HRM)
Human resource planning (HRP)
Equal employee opportunity: the legal environment.
Introduction to strategic recruiting, selection and induction
Compensation management
Training and development.
Performance management system
Career planning process
Separation process
Social security benefits, health and safety, ergonomics.
Industrial relation
Trade unionism in industry.
HR audit
Human resource information system (HRIS)
HR outsourcing
Employee satisfaction Survey
Energing Trends in HRM in a Globalised Economy

Year 2: Semester III
Paper 23003: Marketing Management
Introduction to Marketing
Marketing Process
Marketing Environment
Segmentation
Targeting, Positioning
Consumer Behaviour
Marketing Research
Demand Forecasting
Competition
Marketing Strategy
Customer Satisfaction
Developing New Market Offerings
Product Life Cycle
Designing Global Market Offerings
Product and Branding Strategy
Project Proposal Presentation
Designing and Managing Services
Developing Pricing Strategy
Advertising Strategy
Media Planning
Marketing Channels
Retailing
Marketing Communication
Advertising
Managing Sales Force
Industrial Marketing
Total Marketing Effort

Year 2: Semester III
Paper 23004: Operations Management

o   Nature & Scope of Operations Management.

- Product and Process design.

- Arrangement of Facilities – Location & Layout.

- Planning & Controlling of Operations - Demand forecasting, Capacity & Aggregate planning, and Operations scheduling.

- Management of Service operations - understanding services; designing service delivery

  systems; facilities decision for services; managing service capacity & demand; quality in services,

  Logistics, Supply Chain management .

- Quality Management – Quality concepts, Inspection/Quality control/Quality assurance; TQM & Kaizen; SQC & Process capability analysis; Control charts; Acceptance sampling; Six sigma : ISO:9001, Service Quality.

  Maintenance management – Concepts; Types of Maintenance including TPM & 5S.

- Materials management – Purchasing; Inventory control – EOQ/ROP/ABC; Basics of Logistics & SCM; MRP & ERP.

- Business excellence – Benchmarking; BPR ; Product & Process technology.

- Lean Manufacturing – Lean logic; Toyota production system ; JIT & Kanban.

Year 2: Semester IV
Paper 24001: Management Information Systems:
Dynamic environment & its impact on business, IT/IS and its influence on organizations, Organisation Structure , Managers and activities, Data and Information, Identification of Information needs of Managers- Burch & Strater Methods, Dimensions of Information, MIS—Definition, Characteristics, Sub-systems of MIS(Activity and Functional),MIS and top Management, Structure of MIS(conceptual and physical), MIS planning & Control: MIS Master Plan – Content and description, Nolan Stage Model, Three stage Model (by Bowman, Davis and Wetherbe) of Planning process. MIS Design- Conceptual and detailed design. Implementation Phase of MIS and post-implementation activities. Myths, pitfalls and Limitation of MIS.
Decision Making: Simon's Model,Structured Vs. Unstructured decisions, Decision Support Systems(DSS) – Alter's Classifications, Group DSS, Artificial Intelligence & Expert Systems.
System Analysis and Design: Need and stages of system Analysis, System Development Life cycle,Structural SAD, Data Flow diagram, HIPO, Context Diagram, Decision tables.
System Development Models: Waterfall, Prototype, Spiral, RAD, End user computing.
Data Base Management System: Concept of E-R Diagram, Normalisation, Relational and Canonical data base.
Information Systems for Accounting, Finance, Manufaturing, Marketing, HRM, Hospital , Banks, Hotels etc.
Security and Ethical Challenges: Ethical responsibility, Cyber crime, Piracy , Privacy issues, Health & Social issues, Ergonomics and Cyber terrorism.

Year 2: Semester IV
 Paper 24002: Strategic Management, Corporate Planning & Business Planning
Introduction to business policy, nature & scope of business policy, business policy & strategic management.
Nature of management functions. Nature of corporate mission, objectives, goals, policies, planning, Strategies.
Basic model of strategies management, environmental scanning (ETOP), strategy formulation, risk – identification, assessment & evaluation, Evaluation & Control, (general principles). Internal scanning: organizational analysis, value chain analysis, strategic formulation, SWOT analysis, strategic alternatives.

Portfolio Analysis (BCG, GE, DPM, etc), Functional strategies, strategy evaluation & control, Balance score card, MBO, financial analysis, Risk analysis, experience curve, diversification, merger & acquisition, restructuring predicting company failures. Strategic Issues in non – profit organization.
Basic Idea of Corporate Governance & social responsibility, Business ethics, Balance scored card, Merger & Acquisition.

Year 2: Semester IV
Paper 24003: Research Methodology in Management

Introduction to business research –management problem, research process, proposal. Basic definition. Logical structure of any scientific research.Ethics in business research.

The design of research – design strategies
Methods of Business research study. The sources of information collection.
Analysis and presentation of data.
Application of statistics in business research.
Realiability and validity testing.
Cost of research.
Research report writing.

Year 2: Semester IV
 Paper 24004: Financial Management

Nature of Financial Management – Scope of Finance, Finance Functions, job of the Financial Manager: Financial Goal: Profit Versus Wealth. Conflict of Goals: Management versus Owners organization of the finance functions ; financial information. Financial Statement Analysis – Nature of charges in the financial position. Definition of funds, Fund Flow Statement, Cash Flow Statement. Uses of the statement of changes in financial position, Ratio Analysis – Comparison with industry averages. Time Series Analysis, Index Analysis, Common size analysis. Du Point Analysis. Working Capital Management – Management of working capital, Estimating Working Capital needs Financing current assets, Management of cash, Management of Accounts Receivable & Factoring Management of Inventory, Financing & Dividend Decisions – Financial and Operating Leverage, Capital structure theories, Capital structure planning, Dividend Theories, Dividend Policy in practice. Analysis of Capital Budgeting Decision – Investment Evaluation criteria, Incremental approach for cash flows estimation, Component of cash flows, risk analysis in capital budgeting, concept of cost of capital, opportunities cost, Weighted average cost of capital, Long term sources of finance – share, debentures and term loans, New Capital Market Instruments, Convertible Debentures, Warrants, Cash flow consequences of a financial lease, Evaluation of a financial lease, Venture Capital Financing.

Year 3 : Semester V: Group I: Marketing Management
Paper 35MM1: Product and Strategic Brand Management

Product Management — An Introduction
Corporate Strategy and Product Policy
Productline Decisions
Product Life Cycle and Marketing Strategies
New Product Development and the Techniques of Idea Generation and Screening
Concept Development and Testing

Test Marketing
Launching and Tracking New Product Programmes
Organising for New Products
Introduction to Brand Management and Crafting of Brand Elements
Consumer Brand Knowledge
Brand Identity, Personality and Brand Associations
Managing Brand Architecture and Brand Portfolios
Corporate Branding and Tools for Building Brand Equity
Leveraging Brand Equity
Measurement of Brand Equity

Year 3 : Semester V: Group I: Marketing Management
Paper 35MM2: Marketing Research
Introduction: A Decision Making Perspective of Marketing Research
An Overview of the Marketing Research
Problem Identification
Methodology
Qualitative Research
Factor Analysis
Multi Dimensional Scaling
Pre-processor to MDS
Conjoint Analysis
Discriminant Analysis
Cluster Analysis
Segmenting and Positioning
New Product Development
Pricing Research
Media Research
Strategy Formulation
Brand Value
Selling the Idea of MR

Year 3 : Semester V: Group I: Marketing Management
Paper 35MM3: Consumer Behaviour

Consumer Decision Process.
Determinants of Buyer Behaviour and Framework of Buyer Behaviour.
Consumer Expectations & Perceptions: Satisfaction & Value
Post–purchase Processes, Measuring satisfaction and value.
Individual Determinants of Buyer Behaviour and Internal Processes
Self Concept, Needs & Brand Choice:
Consumer Personality and Consumer Motivation
Need identification and classification.
Measurement and Modification of Consumer Attitudes
Situational Determinants of Buyer Behaviour.

Family Influences on Buyer Behaviour
Social Class & Social Stratification
Cultural Influences on Consumer Behaviour.
Consumer Research.
 New Developments in the field of Consumer Research

Year 3 : Semester V: Group I: Marketing Management
Paper 35MM4: Intergrated Marketing Communication
Introduction to marketing communication.:
Modeling for marketing Communications process.
Response process.: Models of buyer behavior,   Cognitive dissonance.
Advertising response Models:
360* communication : Role of IMC, various communication mix elements
Marketing planning process.
Basis of brand strategy planning
Case presentations : Related to marketing and brand strategy
Creative Planning Process
Creative strategy and it's 360* build-up
 Media planning and process: Industry practice   & Buying. (Workshop by practitioner)

Year 3 : Semester VI: Group I: Marketing Management
Paper 36MM1: International Marketing
Introduction to International Marketing: International Marketing Environment, Preparing for International Marketing Strategies
International Marketing Mix: International Research and Segmentation, , Developing Global Products and Pricing, International Promotion and Advertising, International Distribution Systems.
The Indian Export Scenario: The Export Import Scene in India, Import-Export Policy, Export Documentation, Export Procedure, International Technology Transfer and Counter Trade, The Trade Mark Regime
International Marketing Planning: Managing Systems for International Marketing

Year 3 : Semester VI: Group I: Marketing Management
Paper 36MM2: Sales and Distribution ManagementI

Distribution Management Module: Sales and Distribution Management, Distribution Objective/Strategy, Interface between Salesforce and Channel, Channel Design, Implementing Channel Design, Managing the Channel Members, Channel Power and Conflict, Channel Evaluation.
Sales Management Module: Territory Allocation, Managing Accounts, Effective Selling, Salesman Recruitment, Compensation and Motivation of Sales Force, Supervisory Styles, Sales Organisation, Evaluation and Control of Sales Personnel

Year 3 : Semester VI: Group I: Marketing Management
Paper 36MM3: Service Marketing

Service Marketing: Uniqueness and challenges
Service Marketing Strategies
Managing Demand for Services
Pricing of Services

Communication of Services
Delivering of Services
Service Quality
Customer Satisfaction and Delight
Service Profit Chain
Quality and Profitability
Return on Quality
Service Productivity

Year 3 : Semester VI: Group I: Marketing Management
Paper 36MM4: Retail Marketing
Introduction to Retailing: Retailing in India, Significance of retail industry, Marketing retail equations
New role of retailers, Indian retail scenario and its future prospects.
Retail Formats and Theories
Understanding the Retail Consumers
Store Locations
Retail Pricing
Retail Merchandising
Retail Communication
Retail Store Operations
Retail Store Design & Visual Merchandising
Supply Chain Management:
Retail Management (IT)
CRM
HR in Retail
Year 3: Semester V: Group II: Human Resource Management
Paper 35HR1: Human Resource Development and Social Responsibility of Business
Contents & Strategy of HRM: Human Resource strategy & corporate strategy.
Strategic Management: problem solving & decision – making.
Organizational change & management.
Competency mapping.
Management by Objectives (MBO). Performance Appraisal.
Organizational Development (OD).
Human Relation: Psychological aspect of employees – employee relation, complexity of human relation; review & audit of employment relation.
Personnel Counseling.
Participative Management
Workers Participation in Management in India
Defining social responsibility, why business must be socially responsible.
Interaction between business and society.
Responsibility towards internal customers for their development, enhancement and support.
Major social responsibility of business-optimum utilization of scarce resources. Responsibility not to make loss, improved quality of life, Responsibility of income and employment.
Fair trade practice, fair price and better quality of product and service, other statutory obligations.
Role of motivated work force for performance of social responsibilities.

Year 3: Semester V: Group II: Human Resource Management
Paper 35HR02: Labour Laws

The Trade Unions Act, 1926, The Trade Unions (Amendments) Act, 2001The Industrial Employment (Standing Orders) Act, 1946. The Industrial Employment (Standing Orders) Rules, 1946, The Industrial Disputes Act, 1947, The Payment of Wages Act, 1936, The Payment of Wages (AMENDMENT) Act, 2005, The Minimum Wages Act, 1948, The Payment of Bonus Act, 1965, The Factories Act, 1948, The Workmen's Compensation Act, 1923 The Workmen's Compensation (Amendments) Act, 2000, The Employees' State Insurance Act, 1948, The Employees' Provident Fund & Miscellaneous Provisions Act, 1952, The Payment of Gratuity Act, 1972, The Unorganized Workers' Social Security Act 2008

Year 3: Semester V: Group II: Human Resource Management
Paper 35HR3: International Human Resource Management
Introduction to International Human Resource Management (IHRM**)**
Difference between IHRM and Domestic HRM. Reasons for emergence of IHRM.
Models of IHRM
Internationalization of HRM: Socio-cultural context, Organizational dynamics and IHRM: Role of culture in International HRM. Culture and employee management issues.
Organizational Processes in IHRM. Linking HR to International expansion strategies.

Strategies for International Growth: the logic of global integration, differentiation. Mastering expatriation, beyond the traditional expatriate model
The limits of global integration
Recruitment, Selection and staffing in International context
Performance Management: country specific performance management practices.
Training and development in international context
International Compensation
International Labour Relations: Key issues, response of labour unions to MNCs
HRM practices in different countries- Japan,USA,UK, Turkey, Middle East, India and China.

Year 3: Semester V: Group II: Human Resource Management
Paper 35HR4: Change Management & Organizational Development
Why organization change. What changes in organization. Images of managing change.
Diagnosis for change.
Resistance to change.
Implementing change: organization development (OD), appreciative inquiry (AI) and sense making approach (SA)
OD intervention
OD in global setting, Future directions
Linking vision and change.

Change Management. Robert A Paton and James McCSouthalman. Sage Pub
Organizational Change. Tupper F Cawsey, Gene Deszca and Cynthia Ingols. Sage Pub
Organization Development. S Ramnarayan and T V Rao. Sage Pub.
Organization Development. Donald L Anderson . Sage South Asia Edition.
Year 3: Semester VI: Group II: Human Resource Management
Paper 36HR1: Management of Training & Development
An Introduction to Training & Development: The Global & Indian Scenario.
Training and the organizational environment.
A systematic approach of training.
Reactive and Proactive route in training.
Learning process in training. Transferring learning to participants & organization.
Phases of T/D process

T/DStrategies – Internal & External strategies
Methods of T/D: For non-managerial operative & managerial personnel.
Identification of T/D needs
Designing T/D Programmes
Role of trainer
Support & evaluation.
Auditing training- training feedback system / retraining
An appraisal of T/D: The Indian problem & prospects; Global scenario; Indian Scenario. Apprentice Act 1961.
CISCO & Intel systems

Year 3: Semester VI: Group II: Human Resource Management
Paper 36HR2: Industrial Relations
Preparation of memo, charge sheet, investigation and domestic enquiry, welfare security measures, prevention of pollution, meaning of IR, Roles of trade union, employer and government, trade unions and its history and present status, collective bargaining, worker participation in management, grievance handling, main issues of industrial dispute and settlement, the impact of technology, globalization, Liberalization and the entry of MNCs in India.

Year 3: Semester VI: Group II: Human Resource Management
Paper 36HR3: Management of Compensation & Wages
Total Rewards Philosophy
Elements of cost and types of employees.
Labour turnover and productivity.
Job Evaluation. Market Pricing
Salary and wages – component and deduction.
Compensation and reward administration
Methods of remuneration. Expatriate remuneration

Executive Compensation
Indirect monetary and non monetary incentives.
Incentive plan for indirect employees.
Preparation of payroll- disbursement and control.
CPI / Inflation

Year 3: Semester VI: Group II: Human Resource Management
Paper 36HR4: Project Human Resource Management
Project organization : role of human resource in project.
Project authority or project governance.
Labour related laws.
Son of the soil – problem and prospects
Tendering & selection of Contractors/Sub-Contractors for HR in project.
Team building,
Settlements – hygiene, health, safety & security, Statutory Requirements.
Social development - local public & other social aspects.

Year 3: Semester V: Group III: Financial Management
Paper 35FM1 :Corporate Finance

A primer on Merger and Acquisition cash-flow valuation, Applying Relative, Asset-oriented and Real-option valuation methods to Mergers and Acquisitions, Applying Financial Modeling techniques to Value, Structure and negotiate Mergers and Acquisitions, Analysis and Valuation of privately held companies.

Divestitures:
Sell offs & Divestitures, Spin-Offs , Equity Carve outs, Motives for Divestitures, Voluntary liquidations and takeover Bust-Ups, Theories of Mergers, Timing of Merger activity.

Deal-Structuring and financing strategies:
Structuring the Deal: Payment and Legal considerations, Structuring the Deal: Tax and accounting considerations, Financing transactions: Private equity, Hedge funds, and leveraged buyout Structures and valuation.

Other alternative business & restructuring strategies:
Joint Ventures, Partnerships, Strategic alliances, and Licensing, Reorganization and Liquidation, Cross- Border Mergers and Acquisitions: Analysis and Valuation, Post Restructuring issue.

Case Study.

Year 3: Semester V: Group III: Financial Management

Paper 35FM4: International Finance
Intricacies of Foreign Exchange Markets
Spot and Forwards Exchange Rates
Eurocurrency and Domestic Interest Rates
Quotations and Market Rules
Parity conditions in International Finance
Purchasing Power Parity
Covered Interest Parity
Real Interest Parity
Parity Conditions and Managerial Implications
Forecasting Exchange Rates
Fundamental Factors Affecting Exchange Rates
Time Series Forecasting Models
International Sources of Finance for the Firm
Bond Financing (Fixed and Floating Rate Notes)
Loan Financing (Syndicates Loans)
Securitised Financing (Euronote)
Equity Financing (GDR and ADR)
Features of Loan Agreements: Loan Negotiations
International Financing Decision
Issues in Overseas Funding Choices
Economic Circumstances and overall Funding Choices
Funding and Risk Management Aspects
Analysis of International Capital Budgeting, Cost of Capital of a Foreign Investment
Foreign Exchange Risk Management
Conceptual Overview, Nature of Exposure (Economic, Transaction, Translation)
Hedging and Speculation
Derivatives and Exposure Management
Currency Forwards
Interest Rate Risk Management
Framework of Managing Exposures, Accounting Implications of Forex Transactions
Derivatives Accounting, Risk Management in a Treasury

Year 3: Semester VI: Group III: Financial Management

Paper 36FM1: Derivatives And Corporate Risk Management
    Mergers and Acquisitions Environment:
    Introduction: Definition of Risk   -Exchange Rate Risk, Interest Rate Risk, Commodity Price Risk, Transaction, Translation, Economic Exposure of MNCs, The Evolution of Risk Management Product, An Overview of the Risk Management Process, A Building-Block Approach to Forwards, Futures, Swaps, Options, and Hybrid Securities.

    Forwards & Futures:
    Forward & Futures Contracts, Structure, Pricing of Forward & Futures Contracts, Future Arbitrage Strategies Forward & Futures Hedging, Spreads, Target Strategies, Applications of different varieties, Commodity Future, Currency Forward and Future, Stock and Index Future.

    Options:
    Structure of Options Market, Principles of Option Pricing, Option Pricing Models, Option Strategies

    Other Advanced Derivatives:
    Interest Rate Forwards and Options, Swaps, Commodity Derivatives, Credit Derivatives, Exotic Options, Weather Insurance and Electricity Derivatives – Application and Strategies.

    Risk Management:
    Volatility, Value at Risk, Estimating Volatilities and Correlations, Impetus and Benefit of Risk Management, Managing Market Risk – Delta, Gamma, Vega hedging, Credit Risk, Other Risks, Managing Risk in an Organization, Risk Management Accounting.
    .

    Real Options.

Year 3: Semester VI: Group III: Financial Management
Paper 36FM2: Commercial Banking
Indian Financial System: An Overview
Indian Banking System
        Banking Structure in India
        Evaluation of the Banking System and Future Trends
Analysis of the Banking Structure and Performance Measurement
        Interpreting Bank Balance Sheet and Income Expenditure Statements
        Financial Statement Analysis and Bank Performance Measurement
        CAR, NPA, Liquidity Ratios, Structural Ratios and Profitability Ratios
Banking Regulations
        Control of the Banking Sector by the RBI
        CRR, SLR, CRAR and Income Recognition Norms, Provision for NPAs
Management of Banking Organisation
        Loan Management
        Investment Management
        Liquidity Management

        Profit and Growth Management
        Asset Liability Management Using traditional GAP and Modern Techniques
        Risk Management in Financial Institutions Overview of Basel II, Bancassurance and Universal Banking
        Opportunity for Strengthening the Banking Organisation

Financial Innovations and Opportunities for Banks
> Factoring, Securitisation and Take Out Finance

Technological Innovations and Opportunities for Banks
International Banking
> Organisational Structure, Activities and Regulation

Year 3: Semester VI: Group III: Financial Management
Paper 36FM3: Corporate Taxation And Investment Management
Introduction to Direct and Indirect Taxes
Indirect Taxes
Central Sales Tax
Service Tax
Excise Duty and CENVAT
Income Tax
Introduction to Income Tax
Exempted Income, Advance Taxes and TDS
Personal Income Tax (Salaries Only)
Profits and Gains of Business and Profession
Capital Gains
Set Off and Carry Forward of Losses
Deductions from Gross Total Income
Tax Planning Considerations
Major changes / Developments as per the last Union Budget
Advanced aspects of Capital Budgeting, Sensitivity Analysis, Capital Budgeting under
Risk and Uncertainty, Capital Rationing, Linear/ Integer Programming Optimum
Replacement Cycle, Simulation in Investment Decision, Abandonment Analysis,
Investment Decision under Inflationary condition, Social Cost Benefit Analysis.

Year 3: Semester VI: Group III: Financial Management
Paper 36FM4: International Business Economics

.International Monetary Systems
> International Business Environment
> International monetary System
> European Monetary System and Emergence of Euro

Developing Countries' Concerns
> Exchange Rate Policy of Developing Economies
> India's Exchange Rate Regimes and Experiences
> Nominal vs Real Exchange Rates, Bilateral vs Effective
> Exchange Rates and the Economy

International Financial Flows
> Emergence of International Financial Intermediation
> Recent Changes in the International finance
> Resource Flows to Developing Countries

Emerging Market Analysis
> Country Risk Analysis
> Foreign Investment Analysis: Direct and Portfolio
> Currency Convertibility: Current Account and Capital Account
> South Asian Currency Crisis

International Trade
> Developments in International Trade Theory
> Trade Policy Instruments and Liberalization
> World Trade Organization

Legal Dimension in International Business

Year 3: Semester V: Group IV: Systems/IT Management
Paper 35SM1: E-Commerce & Its Application In Business
Introduction to E-Business: Overview of E-Business, Information Services, Interpersonal communication, Shopping services, virtual Enterprises. **E-Commerce**: origin and need of E-commerce, Factors Affecting E-commerce, Business dimension and technological dimension Of E-commerce, E-commerce frame work, Internet as an E-commerce Enabler handling business transactions.

Handling payments: Electronic Fund transfer system, Digital token and notational based electronic Payment system, Smart card, Credit card and emerging financial Instruments, **B2B E-Commerce**:B2B E-Commerce models: Supply Oriented, buyer oriented, Intermediary oriented, Just-in time for B2B Commerce.

Mobile Commerce: Introduction to mobile commerce, Frame Required for mobile computing, Challenges emerging in mobile commerce Security considerations.

E-Commerce and Banking: Changing dynamics In banking industry, Home banking and its implementation, Management Issues in on-line banking. E-Commerce and retailing: On-line retail industry Dynamics, Online mercantile models from customer perspective, Management Challenges in on-line retailing.

E-Commerce and On-line publishing: Online Publishing approach from customer perspective, Supply chain management Fundamentals, Intranets and supply chain management, Managing retail Supply chains, Supply chain application software.

EDI: EDI application in business development, EDI technology, EDI as a re-engineering tool, Financial EDI.

Indian Perspective: Benefits of E-commerce, Drawbacks & Limitations of E-Commerce, Major requirements in E-business, Emerging Trends technologies in E-Business, From E-commerce to E-business

Web Security: Introduction, Firewalls and transaction security.

Year 3: Semester V: Group IV: Systems/IT Management
Paper 35SM2: Object Oriented Programming Using C++

Introduction: What is C++, C++ statements, creating the source file, Structure of C++ Programs, Compiling and Linking.

Token , Expression And Control Structure: Tokens , Keywords , Identifiers, Basic data types, User defined data types,declaration of variables, Memory management Operator, operator overloading ,Control structure.

Functions in C++: Main function, Function prototyping, call by reference, Return by Reference, Inline function, Function Overloading ,Friend and virtual Functions.

Class and Objects: Specifying a class, Defining member Function, Making an outside program inline, Nesting of member function, Private member function, Arrays using a class, Static data member, Static member function, Object as function arguments, Friend function, Pointers to Members.

Constructors and destructors operator, Operator overloading and type conversion: constructor, Parameterized Constructors, Constructor with default arguments, Copy constructors, What is operator overloading, Overloading unary operator, overloading Binary operator, Rules for overloading operators.
Inheritance: Defining derived classes, Single inheritance, Making a private members Inheritable ,Multiple inheritance,

Pointer, Virtual functions and Polymorphism : Introduction, Pointers to objects, pointers to derived Classes, Virtual functions, Run-time Polymorphism.

Year 3: Semester V: Group IV: Systems/IT Management
Paper 35SM3: Networking

Introduction: Communication Systems, Signal and data, Channel Characteristics, Transmission modes:

Synchronous transmission, Asynchronous transmission

Transmission Media: Guided Media (Twisted pair, Co-axial cable, Optical fiber), Unguided Media (ratio, VHF, microwave, satellite), Infrared Transmission, Fiber Optics Communication: Components (Source, Channel Detector).

Data Modems Concept of Modulation, Pulse Code Modulation (PCM), Shift Keying, Encoding techniques and CODEC, Classification of modems, Standards and Protocols, Protocols used by Modem to Transfer files, Establishing a Connection.

Multichannel Data Communication Circuits, Channels and multi channeling, Multiplexing Techniques, Digital Hierarchies.

Networking Fundamentals An overview of networking, Switching techniques: Circuit Switching, Packet switching, Datagram, Virtual circuit and Permanent Virtual Circuit, Connectionless and connection oriented communication, communication, Message switching, Cell switching (ATM),

Network Topologies Bus Topologies: Examples of bus topology - Ethernet, Local Talk, Ring Topologies: Examples of token Ring Topology - IBM Token Ring, FDDI (Fiber Distributed Data Interface), Star Topologies: Example of Star Network - ATM (Asynchronous Transmission Mode). **OS1**

Model and TCP/IP Suite Network architectures, Layering the communication process, The need for layered solutions,Open Systems Interconnection (OSI) model, TCP/IP protocol, Data transmission by TCP and Ethernet, Data Encapsulation, Data routing, User Datagram Protocol (UDP), TCP/IP services and application protocols: The Client/Server Model, Telnet, File Transfer Protocol (FTP),

Local Area Network (LAN) Baseband versus Broadband, Media access control, LAN hardware, LAN operating systems,Transmission media, Implementing LAN: Implementation of LAN using coaxial cables Implementation of LAN using twisted pair, Implementation of LAN using fiber optic cables, Implementation of LAN using wireless technology, Fast LAN, Non-standard LANs. Extending LAN - Fiber Optic Extension, Repeaters, Bridges, Router, Gateways, Switching, Hubs, Virtual LANs.

Wide area Network (WAN) Network using Wan and network services, Host to terminal Connection, LAN to LAN Connection, Remote LAN connection, LAN to LAN Connection Router concepts, Forwarding Function, Filtering Function Routing Method (Static and dynamic routing). Local routing, ARP (Address Resolution Protocol) Table, Distributed routing, Hierarchical Routing, Distance-Vector Protocol, Link - State protocol, Communication protocols over WAN.

Data Transmission Networks Telephone networks: Dial up Telephone networks, Leased Line,X.25, The Integrated Services Digital Network (ISDN): Narrow band ISDN, Broadband ISDN Services Frame, Relay, Congestion Control, Cell Relay, ATM Structure.

Wireless Communication Cellular Radio, Telephony (GSM), VSAT.

Year 3: Semester V: Group IV: Systems/IT Management
Paper 35SM4: Data Structure Using C

Introduction: Abstract data types, Fundamental and derived data types, Representation, Primitive data structures.

Algorithm Design and Data Structures: Design and analysis of algorithm: Algorithm definition, Comparison of algorithms, Top-down and bottom up approaches to algorithm design, Analysis of Algorithm.

Arrays: Representation of arrays, Single and multidimensional arrays, Address calculation using column and row major ordering, Various operations on Arrays, Vectors, Application of arrays, Matrix multiplication, Sparse polynomial representation and addition

Stacks and Queues: Representation of stacks and queues using arrays and linked-list, Circular queues, Priority Queue and D-Queue, Applications of stacks, Conversion from infix to postfix and prefix expressions, Evaluation of postfix expression-using stacks.

Linked lists: Singly linked list, Operations on list, linked stacks and queues, Polynomial representation and manipulation using linked lists, Circular linked lists, Doubly linked lists, Generalized list structure.

Trees: Binary tree traversal methods, Preorder, In-order, Post-ordered traversal, Recursive and non-recursive, Algorithms for above mentioned Traversal methods, Representation to trees and its applications, Binary tree representation of a tree, Conversion of forest into tree,

Searching, Sorting and Complexity: Searching Sequential and binary searches, Indexed search, Hashing Schemes, Sorting Insertion, Selection, Bubble, Quick, Merge, Radix, Shell.

Graphs: Graph representation, Adjacency matrix, Adjacency lists, Adjacency Multicasts, Traversal schemes, Depth first search, Breadth first search, Spanning tree Definition, Minimal spanning tree algorithms, Shortest Path algorithm.

Year 3: Semester VI: Group IV: Systems/IT Management

Paper 36SM1: Database Management System
Introduction: Concept & Overview of DBMS, Data Models, Database Languages, Database Administrator, Database Users, Three Schema architecture of DBMS.

Entity-Relationship Model Basic concepts, Design Issues, Mapping Constraints, Keys, Entity-Relationship Diagram, Weak Entity Sets, Extended E-R features.

Relational Model Structure of relational Databases, Relational Algebra, Relational Calculus, extended Relational Algebra Operations, Views, Modifications of the Database.

SQL and Integrity Constraints Concept of DDL, DML, DCL. Basic Structure, Set Operations, Aggregate Functions, Null Values, Domain Constraints, Referential Integrity Constraints, assertions.

Relational Database Design Functional Dependency, Different anomalies in designing a Database., Normalization using functional dependencies, Decomposition, Boyce-Codd Normal Form, 3NF.
File Organization & Index Structures File & Record Concept, Placing file records on Disk, Fixed and Variable sized Records, Types of Single-Level Index (primary, secondary, clustering), Multilevel Indexes, Dynamic Multilevel Indexes.

Special Topics Brief introduction to distributed database systems, temporal databases and object oriented database, Data mining and data warehousing.

Year 3: Semester VI: Group IV: Systems/IT Management

Paper 36SM2: Software Engineering
Introduction: Why software Engineering, Software Crisis, Software myth, Software Engineer & Programmer.

Predevelopment, Development & Post Development Phases: Why Phases are required ? Feasibility study, Technical Proposals, Requirement study, Designing, Implementation, Integration and System testing, Maintenance.
Software Process & Cost Estimation Activities and milestones, Problem size, Program size, Several matrices for measuring problem size, COCOMO.

Software Project Management Starting the Project, Project character elements, Researching the Project, Working with management . Creating the budget, Organizing a project team, Building the project plan. Implementing the Project plan, Revising the project plan ,Enforcing quality.
Requirement analysis and Specification Requirements gathering, Requirements analysis, SRS document.

Design Concept and Principles Types of design, Why design is so important?, Technical criteria for good design, Design principles, System design, Detailed design, Coupling and cohesion.

Software Life Cycle Models Prototype model, RAD Model, Evolutionary model, Incremental model, Spiral model, concurrent development model.

Software Risk Management What is risk?, Risk types, functions of continuous risk management. Principles of risk management, Software risk management.

Implementation and Coding Unit testing, documentation, Coding standards.

Testing What is testing?, Why testing, What should we test?, Types of testing, Comparison of testing.

Year 3: Semester VI: Group IV: Systems/IT Management

Paper 36SM3: Java & Web Technology

Introduction History, Evolution, Properties of Java as a Language, Data Types, Operators, Type Casting, Array, Control Statements. Introduction to class and object, Object Oriented features Member data, Class Data, Blocks, Constructor, Use of 'this' Keyword, Forward Referencing
Java Methods Passing arrays and objects as argument to a method, Method overloading, Returning Reference type from methods.
Basic Inheritance Super Keyword , Method overloading, Runtime polymorphism, Interfaces, Hierarchical class loading, Access Specified, Abstract methods and classes, Difference between abstract classes and interfaces.
Basic Exception Handling Exception Handling Fundamentals, Checked as well as unchecked exceptions, Rules of multiple catch blocks, Role in Method Overriding.
Basic Multi threading concept Life Cycle of a thread , Runnable Interface, Thread Class, Thread Synchronization, Thread Priority, Inter thread communication.

Concept of packages Defining a Package, Finding packages and CLASSPATH, ACCESS Protection, Importing packages.

Web Technology : Introduction History of the Internet and World Wide Web ,HTML 4 protocols, HTTP, SMTP, POP3, MIME,IMAP. Introduction to JAVA Scripts, Object Based Scripting for the web.

Structures, Functions, Arrays, Objects, Object refers, Collectors all and Children. Dynamic style, Dynamic position, frames, navigator, Event Model, On check, On load, Form process, Event Bubblers, Filters Transport with the Filter, Creating Images, Adding shadows, Creating Gradients Creating Motion with Blur Data Binding, Simple Data Binding, Moving with a record set, Sorting table data, Binding of an Image and table.

MULTIMEDIA: Audio and video speech synthesis and recognition, Electronic Commerce, E-Business Model E-Marketing, Online Payments and Security , Web Servers, HTTP request types, System Architecture, Client Side Scripting and Server side Scripting, Accessing Web servers lIS Apache web server.

DATABASE-ASP - XML 10: Database, Relational Database model, Overview, SQL Web Resources, XML, Structure in Data.

SERVLETS AND JSP 9: Servlet, Overview Architecture, Handling HTTP Request, Get and post request, Response, redirecting request, multi-tier applications, JSP, Overview, Objects, scripting, Standard, Actions - Directives, session, cookies.

Year 3: Semester VI: Group IV: Systems/IT Management

Paper 36SM4: Information Security and Risk Management.

Information Security Principles: Concepts and Definitions , The need for, and benefits of, Information Security.

Information Risk Threats to, and Vulnerabilities of information systems, Risk Management
Information Security Framework. Information Security Management, Organization and responsibilities, Policy, Standards and procedures, Information Security Governance, Security Incident Management, Information Security Implementation, Legal Framework, Security Standards and Procedures.

Information Security Controls Protection from Malicious Software , People User Access Controls, Networks and Communications, External Services, IT Infrastructure, Testing, Audit and Review, Systems Development and Support, Role of Cryptography, Training Physical and Environmental Security, Disaster Recovery and Business Continuity Management Investigations.

Year 3: Semester VI: Group V: Project Management:
Paper:35PM1: Project Concepts, Feasibility Study and Appraisal:
Project concepts and Identification, Categories of Projects, Project life cycle, Project Management concepts, Identification of Project opportunities, Project objectives, Feasibility Study – Market Feasibility, Technical feasibility, Financial & commercial viability, Environmental & Economic viability, Demand forecasting techniques, Life cycle analysis, technological forecasting, Critical success factors,
Estimation of Resources Quantity, cost and time, Performance goals, Project feasibility report, Cost-Benefit analysis, DPR, Project Risk management, Project Manual and its preparation.

Year 3: Semester VI: Group V: Project Management:

Paper:35PM2: Project Planning, Scheduling and Control:
Network techniques, PERT, CPM, GERT, Flow Networks, Decision networks, Project time estimates,

Time,Cost and Resource analysis, Work Breakdown Structure(WBS), Bar Chart, Optimal resource allocation--- crashing, Manpower Scheduling, Resource Levelling, BOLT, Progress monitoring and slippage analysis for control of time over-run and cost over-run. Simulation of Networks. Milestone Events. Line of Balance(LOB) techniques.

Year 3: Semester VI: Group V: Project Management:
Paper: 35PM3: Project Materials and Project Finance:

- Requirement and Availability.
- Project Purchases – Nature of project buying; Planning for project buying; Sourcing & Negotiation; Vendor development & Rating; Capital equipment purchasing; Service purchasing; e-procurement.
- Stores Management – Receiving/storing/Issue; Handling of standards, hazardous & special items; Spare parts management; Post-project disposal of un-required materials & equipments; stock valuation & verification.
- Inventory Management – Inventory techniques: Economic Order Quantity, Fixed quantity& Fixed period systems; EOQ with discounts & price-breaks; Re-order point with variable demand & lead time; Selective inventory control – ABC/VED/FSN, etc.; MRP &ERP.
- Standardization, Simplification , variety reduction & Codification.
- Logistics & Supply-chain management; e-Business.
- Value Engineering.

Sources and application of funds, Cost of capital, Hire purchase/Leasing and running cost of equipments. Role of Finance Institutions, Tax consideration,and incentives, Foreign Collaboration, Foreign Currency funds, Exchange rates, LC opening. Project Cash Flows, Working Capital Management----- Chore And Tandon committee norms. Contractor Payments, TDS, Procedural formalities, Measurement books. Progress Reporting of Projects, Analysis of Variance and corrective measures.

Year 3: Semester V: Group V: Project Management:
Paper: 35PM4: Project Quality Management. :

Year 3: Semester VI: Group V: Project Management:
Paper: 36PM1: Project Human Resources:
Project Organisation / Manager's Authority. Project Management Functions.Labour related Laws.Sons of the soil. Team Building, Settlements- hygiene, health , safety & security. Statutory requirements. Local public and other social aspects.

Year 3: Semester VI: Group V: Project Management:
Paper: 36PM2: Contract Management:
Contracts, 3"R" s of contracting, Tender procedures ,types of contracts, Turn-key contracts, Selection of contractors/sub contractors, Expression of Interest, Budgetary quotes. Two bid tenders, Risk purchase, Option Clause, LD clause in a contract. Technical Evaluation committee, Price Negotiation, Term contract, CST, Evaluation of tenders, CVC guidelines, Civil Works contracts,Schedule of Works, Artificer works, Market Variations, Freak rates.

Year 3: Semester VI: Group V: Project Management:
Paper 36PM3: Project Environment:
Environment Impact Analysis(EIA) of Project, Government/Public/Pollution control agencies, Clearance requirement including environmental appraisal of Projects, Pollution Control and afforestation measures,Effluent treatment and disposal, Social cost-benefit analysis, Project Support Institutions, Other infrastructures, Land Survey and acquisition, ISO and Project related issues, Waste management, Recycling.

Year 3: Semester VI: Group V: Project Management:

Paper 36PM4: Project MIS:

On-line and Off-line MIS, Control of Projects and Reporting formats, communication network, Use of intranet and internet in Project monitoring communication, Project abandonment analysis, Computer packages for Project Monitoring and Control, MS-Project.

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