

Institute of Advanced Management and Research, Ghaziabad

Subject Code: 3.1

Subject Name: Business Environment

Topics
Socio - cultural environment and dynamics of business with reference to India and other economics. Study of India cultural heritage and Indian political system.
Indian economic environment; Structure of Indian economy ,planning in India, Industrial growth, Industrial policy, India's balance of payments, Trade policy, Indian Financial system, Money and capital market, India's Monetary policy, Fiscal policy, An overview of Direct & Indirect Taxes; Income Tax, Corporate Tax, Wealth Tax, Exercise, CST & Custom Tax; Economics Reform1 Programme.
Globalization; Opportunities & challenges. Global Markets, International economic institutions: IMF, World Bank, WTO, IFC etc. Study of Regional Trade Blocks like NAFTA, EEC & SAPTA.

Readings:

1. Kapila, Uma" Indian Economy
2. India Dev. Report - 2002, 2000 & 1997, Oxford University Press
3. Gupta, Dipankar, Social Structure in India

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Subject Code: 3.2

Subject Name: Entrepreneurship

Topics
Introduction to Entrepreneurship. Mission / Vision statement, Quality Policy
Conducting SWOT analysis and Competitor analysis
Entrepreneurship : Motivation, Types and Barriers to Entrepreneurship
Innovation, Creativity and Entrepreneurship Multi Skill developments
Business Planning Process – Creating Scalable Business Plan
Product / Service Selection & Positioning
Selecting Key Team/Organization Chart
Marketing Plan : Production System, Capacity Planning, Inventory Management(ABC, VED), Quality Management (Six Sigma, ISO, ISI)
Organizational Plan : Building Organization Structure and Manpower Planning, Professional Team Creation / Selection
Costing, Pricing, Taxes, Profitability
Financial Plan : Cash Budget, Working Capital, Cash Flow Forecast, Break-Even Analysis, Ratio Analysis
Source of Finance : Debt, Equity, Capital Structure, Venture Capital
Small-Scale Industry
Women Entrepreneurship
Entrepreneurship Development Institutions : EDI – Ahmedabad and NIESBUD, New Delhi, NSIC
Elements of business finance – understand and explain reasons for business finance, identify and describe the types and sources of business finance
Financial Institutions IDBI, SIDBI, SFC, NABARD and Commercial Banks like SBI, BoB, PNB
Entrepreneurship & E-Business
Successful Entrepreneurs, D. Ambani, JRD Tata, GD Birla, Bill Gates, Warren Buffet
Successful Managers / CEO Jack Welch, General Electric
Proposed business activity – Describe a business idea, describe the personal skills required to establish a business and Team skills
Process of setting up a business – investigate types of business organization, understand and explain essential business start-up requirements, legal requirements, company formation, MoU with Suppliers, Customers, Dealers, Distributors
Structure of the business plan – investing and explain the nature of the business plan, demonstrate ability to understand and produce an scalable business plan (of upto Rs. 100 Cr. Per annum turnover), Optimizing Taxes & Profits
Symptoms for detecting sickness in Small Scale Industries
Causes of sickness in Small Scale Industries
Assessment of Viability of Sick Industries and their Rehabilitation (BIFR)
Conceptual Framework of Sickness in SSI, Status and Dimensions of SSI's and Industrial Sickness
Case Studies

References :

1. Taneja, Satish : Entrepreneur Development, *Galgotia Publication*
2. Zimmeres: Essentials of Entrepreneurship and Small Business Management, *Pearson Edition*
3. Coulter, Mary : Entrepreneurship in Action, *Printice Hall India*
4. Kumar, S. Anil and Poornima: Entrepreneurship Development, *New age International Publication*
5. Sahay, A. and Nirsar, A.: Entrepreneurship, *Excel Book*
6. Gupta, C.B. and Das, Srinivas, Entrepreneurship Development in India, *Sultan Chand and Sons.*
7. Jain, Sheenu : Entrepreneurship,
8. Research Journals, ICAI University, Entrepreneurship

Website : www.entrepreneurship.org

PGDM III Semester

Subject Code: Com 3.41

Subject Name: B2B Marketing

<p>Nature, Scope and challenges of Business Marketing</p> <ul style="list-style-type: none"> • Differences between B2B Marketing , Challenges of B2B Marketing , Business Market Processes , Working Relationships and Business Networks
<p>Business Customers Buying Process and Behavior</p> <ul style="list-style-type: none"> • Understanding Purchasing Orientation • Key Tools Used in Purchasing Decisions <ul style="list-style-type: none"> ▪ Life Cycle , Value Analysis , Time Based Buying Strategies • Technologies and ways of Buying <ul style="list-style-type: none"> ▪ Just in time Inventory , Material Requirement Planning , Electronic Data Interchange and the Internet ▪ Web-based Procurement , Enterprise Resource Planning • The Concept of the Buying Center <ul style="list-style-type: none"> ▪ Roles of Buying Team Members , Bases of Power of Buying Team members ▪ Modeling Business Customer's Buying Behavior , Understanding the Buying Process , Evaluation of Supplier Performance
<p>High-tech industrial Product development and Marketing</p> <ul style="list-style-type: none"> ▪ The growth of new -to-the-world Technologies , Technology Forecasting , Technology Assessment , Technology Appraisal , Technology Fusion , Technology Sourcing , Managing Technological Risk , Concurrent Engg. ,Critical Issues Facing High~tech Market
<p>Marketing Tactic When Uncertainty is High, The Future of Technology Commercialization</p>
<p>Managing Mature Industrial Products</p> <ul style="list-style-type: none"> • Concept of Market life Cycle , Key Concept of Communization , Flexible Market Offerings , Strategies to Beat the Commodity Magnet , Mass Customization
<p>Pricing of Industrial Products</p> <ul style="list-style-type: none"> • Relevant Costs for Pricing of Industrial Products • Factors Determining Industrial Buyer's Price - Sensitivity • Perceived Value Pricing Model for Industrial Products • Competitive Bidding • Price Negotiation • Pricing OEM Manufacturer's Product • Lease Pricing • The Future: Pricing and the world wide web
<p>Business - to - Business Distribution</p> <ul style="list-style-type: none"> • Distinctive Aspects of Business - to Business Channels • Business Customer's Channel Function Requirements • Types of Intermediaries in Business - to - Business Distribution <ul style="list-style-type: none"> • Manufacturer's Representatives • Industrial Distributors • Multiple Channels, Hybrid Channels, and Adaptive channels • Strengthening Reseller Performance through Channel Positioning • Sustaining Reseller Partnership
<p>Logistics of Industrial Products</p> <ul style="list-style-type: none"> • Special Role of Logistics in Industrial Products Distribution • Warehousing Decisions • Transportation Decisions • Inventory Decisions • Handling and Storage Decisions
<p>Managing the Total Logistic System</p>
<p>Business to Business Communication</p> <ul style="list-style-type: none"> • Communication Channels for Industrial Marketer • Trade Shows • Managing Industrial Advertising Effort
<p>Media for Industrial Advertising</p>

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Personal Selling of Industrial Products <ul style="list-style-type: none">• Role of Personal Selling in B2B Markets• Team Selling for Complex Industrial Products• Consultative Selling for Complex Industrial Products
<ul style="list-style-type: none">• Rational of Key account management in b2B Market• Analysis of key account• Key Account planning Key Account Strategy• Managing Key Account Relationship• Strategic Partnership with key account
Customer Service for Industrial Products <ul style="list-style-type: none">• Elements of customer service for industrial products• Establishing customer service strategy• Measuring and controlling customer service performance• Fixing order management cycle• Customer service and Internal Marketing• Improving customer service by digitization of business
Digital Business for Industrial firms <ul style="list-style-type: none">• What is digital business• Advantage of digital business• Creating a profitable digital business strategy• The Choice Board System Digital Readiness

Readings:

1. Reeder Robert, R., Brierty Edward G., Reeder Bedly H., Industrial Marketing Analysis, Planning & Control, Prentice Hall

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Subject Code: 3.42

Subject Name: Product & Brand Management

Topics
Product Management & Process
Product – a company’s offering, New Product Planning
Product Strategy
The Product Development Process
Organizing people for product
Identifying Opportunities
Concept Generation
Concept Evaluation
Technical Development
Test Marketing
Marketing Potential and Sales Forecasting
Market Planning
Commercialization & Launch
Integrated Approach to New Product Development & Life Cycle Management
The positioning concept
The pursuit of Differential advantage strategies for competitive advantage
Category attractive analysis
Competition analysis
Customer Analysis
Packaging Decision
Brand & Brand Management
Brand Identity and Sources
Brand Creation Principles- Brand Awareness, Brand Personality
Time Effects – Pyramidal Model, Revitalizing Brands, Brand Equity
Brand Extension and Portfolio Brands
Brand & Product Strategies, Corporate Branding
Making Brands Go Global
Diffusion of Innovation Product Planning for International Markets
Product Liability Environmental Concerns & Intellectual Property Development
Case Studies: 1. L’Oreal - Building a Global Cosmetic Brand
2. P&G's Brand Management System

Readings & References:

1. Moore, William L and Pessemier: Product Planning & Management, *McGraw Hill International*
2. Wheelwright, Steven, C. and Clark, Kim B: Revolutionizing Product Development-Quantum Leaps in speed, efficiency and quality, *New York, Free Press.*
3. Tapan, K. Panda: Building Brand, *Excel Books*
4. Mathur, U.C.: Product & Brand Management , *Excel Books*
5. Mathur, U.C.: Brand Management: Text and Cases, *Mcmilan India Ltd.*
6. Majumder: Product Management in India, *PHI.*
7. Moorthi, Y.L.R.: Brand Management- The Indian Context, *Vikas Publication.*
8. ICFAI Journal
9. Harvard Business Review
10. IIFT Research Journal
11. Indian Journal of Marketing

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Subject Code: 3.43

Subject Name: Advertising and Sales Promotion

Topics
Advertising – Its purpose and function, ethical issues in Advertising
Economic and Social Implications of Advertising
Advertising in Marketing Mix
Advertising Process
Advertising Strategy planning and organization
Advertising Appeals
Advertising Appropriation
Creativity in Advertising
Media Planning and Strategy
Evaluation of Advertising Effectiveness
Advertising Agencies function, selection, and coordination
Industrial Advertising
Institutional Advertising
Non-commercial Advertising
Existing popular Advertisement campaigns (on TV, Press, Radio)
Integrated Marketing Communication
Analysis of Communication Process
Sales Promotion (Scope, Role, Growth)
Sales Promotion Techniques
Sampling, Coupons, Premiums, Contest, Bonus, Price offs, Event Marketing
Public Relations
Publicity
Case Studies

References :

1. Manendra, Mohan, Advertising Management Concept & cases,
2. Belch, George E. & Belch, Michael E.: Advertising & Promotion

Subject Code: 3.44

Subject Name: Services Marketing

Topics
Introduction to Goods, Services, Processes
Difference between Goods Marketing & Services Marketing
Customer behavior in – service Encounters
Service Marketing Mix (7P's)
Designing communication Mix for Services
Pricing and Revenue Management
Distributing Service
Designing and Managing Service processes
Managing people for service advantage
Customer feedback and Service Recovery
Service Quality (PZB Gaps Model)
Service Life Cycle
Tourism Marketing
Hotel Management
Travel Service Marketing
Courier Service Marketing
Marketing of Insurance Services
Bank Marketing
Telecom Service Marketing
Hospital Service Marketing
Consultancy Service Marketing
Advertising Service Marketing
Retail Services Marketing
Education Service Marketing
Social Marketing
Case Studies : Indian Hotels Ltd., DHL/Fedex, Concor, Apollo Hospital, ICICI/HDFC/SBI

References:

1. Love-lock, Christopher: Service Marketing, *Person Edition*.
2. Shanker, Ravi: Service Marketing, *Excel Books*.
3. Valarie A. Zeithaml, Service Marketing, *Tata McGraw Hill*
4. Gupta, Rampal: Service Marketing, *Excel Book*
5. Research Journals , Service Marketing, ICFAI University

Websites:

1. www.irctc.co.in, www.jetairways.com, www.oberoihotels.com, www.engineersindia.com

Subject Code: 3.31

Subject Name: Financial Services

Topics
Overview of Financial services- classification of financial services Management issues in Financial services, financial services providers
Introduction to Merchant Banking- registration requirements and norms of SEBI, Functions, role and responsibility in issue management.
Activities- structuring financial instruments including hybrid instruments , Issue management –Issue pricing & Issue Timing, Listing etc.
Market and book building process - private placement –loan syndication-underwriting, Green shoe option
Venture Capital Financing(VCF): Introduction, process of VCF, stages of financing, evaluation of V C project, Due Diligence, Exit route, Working and recent scenario of Venture Capital Funds in India.
Housing Finance services : Introduction, factor considered for lending housing finance, EMI calculations, Role of National Housing Bank
Product pricing with fixed and floating rate options, Re-financing –take over of housing loans granted by other housing finance companies.
Mortgage backed securitization and Asset back securitization
Factoring and Forfeiting : concept, activities, Export Factoring, forms, Factoring Vs. Bill discounting and Factoring Vs. Forfeiting
Financial evaluation of factoring and forfeiting
Stock Broking-Capital adequacy and other registration requirements, their role and responsibilities
Functioning of primary dealers in Money market-Currency dealer
Money changer, depository organizations and clearing houses
Financial management of NBFCs-Hire purchase and Leasing activities
Pricing techniques- Capital adequacy – issues relating to raising of public deposit ,Risk management strategies
Merger and acquisitions: Introduction, stages, motives of merger, Pre and post-M&A evaluation -Practical, Valuation of Company.
Corporate governance issues in financial service sector

Readings:

1. Khan M.Y.: Financial services, *Tata McGraw Hill*.
2. Various notifications of *RBI and SEBI*
3. Tripathy and Prava, Nalini: Financial Services, *PHI*

Research Journal:

1. Metamorphosis, A journal of management Research, Indian Institute of Management, Lucknow
2. Decision, Indian Institute of Management, Calcutta
3. Research Journal: Management and labour studies, XLRI, Jamshedpur

Subject Code: 3.32

Subject Name: Cost Management

Topics
Introduction to strategic cost management –Philosophy , Meaning, Definition and significance,
Cost control Vs. Cost reduction, Various strategies for cost reduction
Implementing strategic tool : Value Chain Analysis- Meaning, Categorization of activities involved in VCA,
Process of implementing VCA , limitations of VCA
Implementing strategic tool: Activity based cost accounting with practical
Activity based cost Management in product and service industry with cases
Marginal vs. Absorption costing; concept, analysis, impact on profits and balance sheet
Joint costing and process costing: uses, application and financial evaluation
Implementing strategic tool: Balance score card- meaning and significance
Steps involved in implementation BSC with cases
Strategic transfer pricing policies in Decentralized organizations
Target costing – New product development and theory of constraints
Profit variance analysis: A strategic perspective on a common Cost Management tool
Strategy of Life cycle costing for pricing product
Break even analysis: Cost. Volume Profit analysis
Quality costing : meaning, significance and classification of quality related costs
Managing quality cost through Quality planning, Quality assurance and Quality Control
Measurement of performance in new technological environment –
Total Productivity Management

Readings:

1. Lal, Jawahar and Seema Srivastava: Cost Accounting, *Tata Mc Graw Hill*
2. Horngren, Charles T., Foster, George and Datar, Srikant M.: Cost Accounting - A Managerial Emphasis, *PHI*.

Subject Code: 3.33

Subject Name: Investment Management

Topics
Overview of global capital market and market indices
Fixed Income securities: corporate bond, international bond, preferred stock – issues and policy guidelines
Analysis of yield, duration, convexity of various government and corporate bonds
Discounted Cash Flows, Simulation , Sensitivity, Scenario Analysis, Decision Tree Analysis, Hillier Model
Equity Research Techniques – industry analysis- understanding products- techniques of company selection based on financial parameters- understanding credit ratings – analysis of corporate forecast – identification of neglected stocks
Equity valuation models: Intrinsic vs. market value, dividend discount model, price earning ratio, free cash flow approach
Derivatives- Futures & Forwards
Swaps: Models & Hedging Techniques
Equity portfolio formulation – capital asset pricing model – arbitrage pricing theory – models of Markowitz and Sharpe
Portfolio Risk Management : use of derivative instruments – delta neutral portfolio – delta gamma neutral portfolio
Use of stock and stock index future – use of option and option spreads
Secondary market dealings – analysis of impact cost – noise theory – technical analysis
Management of mutual funds and other managed portfolios – formulation and monitoring of income, growth & balanced funds.
Tax saving, sector and Pure Bond Portfolio Management
Portfolio performance evaluation

Readings:

1. Investments: ZVI Boodie, Alex Kane, Alan & Pitabas Mohanty – Tata Mc Graw Hill
2. Francis, J. C., Investment – Analysis and Management, McGraw Hill.
3. Shape, W.F., Gordon Alexander, J. V. Bailey, Investment ,PHI.
4. Farrell, J. L. Jr., Portfolio Management – Theory and Applications, McGraw Hill International
5. Richard J. Peterson, Inside IPOs, McGraw Hill.

Subject Code: 3.34

Subject Name: Corporate Finance

Topics
Corporate strategies and its impact on corporate finance, understanding financial statements
Capital Budgeting – uncertainties in capital budgeting, issues in capital budgeting
Capital structure: Raising Finance – sourcing domestic and global markets – comparative capital cost analysis, capital structure models and their application
Problems and advantage of listing financial instrument abroad
Risk & Return Analysis: a comparative analysis of risk and return models
Financial Instruments – structuring ADR & GDR – convertibles – option embedded securities, listing of securities abroad – advantages and disadvantages
The Financial decisions: Equity, debt and hybrid securities , Market efficiency lessons
Bonus shares, buy back strategies: issues, process and implications
“Trade Investment” Strategy – subsidiaries etc.
“Trade Investment” Strategy – group companies, associates
Joint Ventures – Planning strategic alliances
Dividend policy: Dividend decisions- relevant and irrelevant theory, dividend and taxation issues
Valuation Decisions: Discounted cash flows, Equity valuation model
Corporate strategy and value of firm: Asset investment and divestiture, capital structure changes.
Investment Decisions in New Technologies: Technical and financial viability
Corporate Tax Planning: Direct and indirect tax planning issues

Readings:

1. Rustagi, R.P: Financial Analysis, *Galgotia Publications*.
2. Damodaran: Corporate Finance, *John Wiley & Sons*.
3. *Kevin: Security Analysis & Portfolio Management, PHI*.

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Subject Code: 3.51

Subject Name: Training and Development

Topics
Training and Development : concept
Types of Training
Training Modalities
Phases of Training
Adult Learners-Features, Problems, Approach
Models of training
Training Needs Assessment
Training Plan and Strategy
Course design / objectives / contents
GD Technique
Field Training
Role Play
Business Games
Simulation Exercises
Fish Bone Exercises
In- Basket Exercise
Training Evaluation
Training costs
MNCs perception of training function
Case Study-Infosys Technologies: Training for Retaining
Case Study- Gyanodaya at Aditya Birla Group

Readings:

1. Lynton & Pareek: Training for Development, Vistaar *Publication*.
2. Saha, A.K.: Training & Development, *Sterling Pub*.
3. Dayal Eshwar: Management Training in Organization, Text, Cases and Simulated Exercise, *PHI*.
4. Sahu, R.K.: - Training for Development, *Excel Books*.
5. Tapomoy Deb: - Training & Development Concepts & Application, Ane Books
6. Blanchard: Effective Training, *Pearson education*.

Sharma H. and Singh, A. K.: Team Building and Leadership, *Sun India Publications*

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Subject Code: 3.52

Subject Name: Leadership

Topics
Leadership: Concept, Manager and Leader, Role and Importance
Trait Theory of Leadership
Behavioral Theories of Leadership and Power, Politics and Leadership
LPG contingency/Situational Theories
Path-Goal Theory Cognitive Resource Theory
Leader-Member Exchange theory
Charismatic, Transformational and Transactional Leadership
Leadership in Teams
Strategic Leadership
Psycho-Dynamic Approach
Developing Leadership
Ethical Issues in Leadership, Corporate Social Responsibility
Women and Leadership
Culture and Leadership
Trust Building
Role of Leader: as Coach, Mentor and Counselor Concepts, processes, barriers and elements of its effectiveness
Case Study – Grooming Future Leader : The Infosys Way
Case Study- Leadership Competencies in the 'Knowledge' -Driven Context'

Readings:

1. Yukl, G.: Leadership in Organization, *Pearson Education*.
2. Northhouse, P.G.: Leadership - Theory & Practice, *Sage Publisher*.
3. Graham, R. Little: Team Leadership, *Jaico Publisher*.
4. Reddy, B. Rathan: Team Development and Leadership, *Jaico Publisher*.
5. Sadler, Philip: Leadership, *Crest Publishing House*.
6. Stogdill, R.M.: Handbook of Leadership. *Free Press, NY*.
7. Singh, A.K.: Developing Leaders, Team and Organizations, *Excel Books*.

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Subject Code: 3.53

Subject Name – Industrial Relations and Labour Laws

Topics
Industrial relations (An overview, Related theories, IR Scenario in India vis-à-vis State policy)
Trade Unionism (An overview, related theories, Indian Trade Union, Scenario)
Structure of Indian Trade Unions, Trade Union Leadership, Trade Union Recognition, Multiplicity in Trade Unionism
International Trade Unionism – ILO
Collective Bargaining (Definition, content, salient features)
Pre-requisites for success preparation and tips for negotiations
Code of discipline
Personnel Management (Definition, Objective, Essential features, dimensions, State, Indian Scenario, players views & possible benefits)
Emerging trends in Union – management relations (Social Security and Welfare, Rationalization & automation in industry, Occupational health etc.)
Grievance resolution
Prevention of industrial conflicts (Works committee, conciliation, Adjudication, Voluntary arbitration, settlement)
Industrial Discipline (Need, pre requisites & Perceptions and objectives
Misconduct, charge – sheet , domestic enquiry, Principles of Natural justice
Evolution of Labour Legislation
ID Act, 1997, Factories Act 1948, Payment of wages 1936,, Payment of minimum wages Act 1936, Payment of bonus Act 1965, Payment of Gratuity Act 1972, Workmen’s Compensation Act 1972, The Maternity Benefit Act 1961, Shops and Establishment Act, Industrial employment (standing order) act 1961 ESI Act 1948, ,Trade Union Act 1926, Contract labour (abolition & regulative act, legislation relating to PF and pensions)

Readings:

1. Verma, Promod: Management of Industrial Relations Oxford *IBH*
2. Singh, B.D.: Industrial Relations & Labour Laws, *Excel Books*.
3. Sinha: Industrial Relations, Trade Unions and Labour Legislation ,*Pearson Education*
4. Srivastava, S.C: Industrial Relations and Labour Laws, *Vikas Publication*
5. Venkata, Ratnam: Industrial Relations, *Oxford*
6. Mamoria C.B. and Mamoria, Gankar: Dynamics of Industrial Relations, *Himalaya Publications*.

Website: Ministry of Labour, Govt. of India.

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Subject Code: 3.54

Subject Name – Organizational Development

Topics
Rationale for OD, what is OD? Example of OD intervention
Corporate culture – origins, level, dimensions, and characteristics, sub culture and counter culture values, assumptions and beliefs in OD. Example of an intervention
Models and theories of planned change – Force field analysis, systems theory, normative reductive strategy, action research.
Resistance to change – Lifecycle, process, momentum towards change, resisting forces, strategy. Project Presentation relating to TQM
Inter group and third party intervention. Team building interventions
Structural interventions.
Consultant – Client relationship
Power, politics and OD

Readings:

1. **French, W.L., and Bell, C.H. Organization Development, 5th ed, PHI, 1997**
2. **Harvey, D.F. and Brown, D.R., An experimental approach to Organization Development, 3rd ed. PH.**
3. **Margulies, N.Raia, A.P., Organization Development – Values, Process and Technology, TMH**

Subject Code: COM 3.61

Subject Name: Database Management Systems

Topics
Data bases and Database User <ul style="list-style-type: none"> • Introduction of database, Characteristics of the database approach , Database objective and utility
Database System Concepts and Architecture <ul style="list-style-type: none"> • Basic Concepts, Architecture of database system, data association, data dictionary etc. • Classification of database management system
File Organisation <ul style="list-style-type: none"> • Physical Data Organization and management, Index, hash, pointer, inverted file • Structure, B-trees, B+ trees etc.
Data Modeling <ul style="list-style-type: none"> • Hierarchical data model, Network data model, E-R model, Normalization
Relation Data Model <ul style="list-style-type: none"> • Relational constraints , Relational algebra, Domain/Tuple relational calculus
ORACLE <ul style="list-style-type: none"> • Basic Architecture , Data Definition, Data Manipulation • Functions (LIKE Operator, String Commands, Numeric Function, Date Function, Translate and Decode Function)
PL/SQL <ul style="list-style-type: none"> • Introduction to SQL, Types of SQL, Commands in SQL • Introduction to PL/SQL, Conditional, Logic, Loops, Go to Statements • Exceptional Handling , Triggers, Procedures, Functions, Cursor
Database Utilities; Security, Object/Basic Database Administration/ Remote Data Access. Distributed DBMSs – Concept Design <ul style="list-style-type: none"> • Introduction, Function and architecture of DBMS, Distributed relational database design • Transparencies in a DBMS, Overview of query processing , Query decomposition and data localization
Object Oriented Database <ul style="list-style-type: none"> • Object-oriented concepts, Storing objects in relational database • Object identity, object structure, and type of constructor etc. • Complex objects and other object oriented concept
<ul style="list-style-type: none"> • Introduction of other DBMS- Sybase, MS SQL, DB2

Laboratory: Database Management System

Topics
<ul style="list-style-type: none"> • PL/SQL BASICS: The PL/SQL Block, Language rules and conventions, • PL/SQL data types, Using Variables, Expressions
<ul style="list-style-type: none"> • Using SQL with PL/SQL Retrieving data, • Cursors, DML and DDL Statements, Using ROWID and ROWNUM
<ul style="list-style-type: none"> • Records ,Collections, Error Handling, Creating procedures, • Functions and packages, Database triggers, Database Cursors.

Readings:

1. Hansen and Hansen: Database Management and Design, *PHI*.
2. Martin, J.: Computer Database Organization, *PHI*.
3. Urman, Scott, Hardman, Ron and McLaughlin, Michael: Oracle Database 10g: PL/SQL Programming, *Oracle Press*.
4. Silberschatz, A., Korth H. F. and Sudarshan S.: Database Concepts, *McGraw Hill*.
5. Desai, Bipin C.: An introduction to Database Systems, *Galgotia Publication*.
6. Majumdar & Bhattacharya: Database Management System, *TMH*.
7. Kroenke: Database Processing: Fundamentals, Design and Implementation, *Pearson Education*.

Subject Code: COM 3.62

Subject Name: Networking and Telecom Management

Topics
Overview of Computer Network <ul style="list-style-type: none"> • Network as resource , Workstation; Server; Cables; Types of Ethernet; Broadband and base-band; • Data Speed Measurements / Units
<ul style="list-style-type: none"> • Optical Fibers; Network Interface Card., LAN, MAN, WAN and WLAN
Model Concepts <ul style="list-style-type: none"> • Broadcasting; Multicasting; Point-to-point communication; • IP Addressing, Concepts of Port; Socket; Tunneling; Virtual Private Network, Frame Relay, SNMP
Network Reference Model <ul style="list-style-type: none"> • OSI Model, Protocol hierarchy, interface and Services, TCP/IP Reference Model
Data Communication <ul style="list-style-type: none"> • Techniques of data communication, Tools and devices of data communication, High speed data access
Network Architecture and Protocols <ul style="list-style-type: none"> • Protocols in LAN, Connection oriented vs. Connection less, Data switching vs. packet switching, VLAN,
Wireless and Mobile Networks <ul style="list-style-type: none"> • VSAT based satellite network (DAMA / PAMA), Wireless network , GSM, CDMA, GPRS, WiMax • Broadband network and ATM
Telecommunication Fundamentals <ul style="list-style-type: none"> • Principles of integration of Telecom Management Systems, Network Surveillance and Service Assurance • Performance Management, Network Traffic Management
Telecom Policy and Standards <ul style="list-style-type: none"> • Telecom Policy in India, Relevant management Standards and Guidelines from ITU, ETSI • Tele Management Forum
Network Security <ul style="list-style-type: none"> • Securing Intranet, Extranet and Internet, Securing tools and techniques
Mobile Communication: <ul style="list-style-type: none"> • Applications of Mobile Communication; Wireless Communication: • Bandwidth, Transmission Impairment, Interference, • Terrestrial Microwave, Broadcast Radio, Infrared & Light Waves,
Mobile Internet & WML: <ul style="list-style-type: none"> • Mobile IP, Wireless TCP& UDP, WAP, WML
VoIP <ul style="list-style-type: none"> • Using VoIP in Business, Communication design and architecture of VoIP

Readings:

1. Panko, Raymond R.: *Business Data Communications and Networking*, Prentice Hall.
2. Forouzen: *Data Communication and Networking*, TMH.
3. Tanenbaum, A.S.: *Computer Networks*, Prentice Hall India.
4. Keshav, S.: *An Engineering Approach on Computer Networking*, Addison Wesley.
5. Stallings, W.: *Data and Computer Communication*, Macmillan Press.
6. Shay, William: *Understanding Data Communication and Network*, Course Technology Publication