

# SEMESTER III

## Core Course

**Paper : PCB3C01**

### **Applied Operations Research**

**Unit I: Game Theory** - Terminology, Game Models, Two Person Zero Sum Games and their Solutions, Graphical Method, Algebraic Method, Arithmetic Methods, Methods of Matrices.

**Unit II: PERT/CPM** - Rules of Network Construction, Network Analysis (Forward Pass, Backward Pass, Critical Paths and Floats). Resource Analysis and Allocation (Crashing), Probability in PERT, PERT vs. CPM.

**Unit III: Replacement** - Replacement Policies: Equipment Deteriorate Gradually, Time Value of Money Considered. Equipment Fail Suddenly (Group Replacement), Staff Replacement.

**Unit IV: Sequencing** - Introduction, Terminology & Assumptions, Processing  $n$  jobs through 2, 3 and  $m$  machines.

**Unit V: Simulation** - Introduction, Simulation Process, Monte Carlo Simulation, Generation of Random Numbers, Queuing Model [M/M/1: ( $\infty$ /FCFS)], Simulation of Queuing System. Simulation of Inventory System, Simulation of Investment Problems, Advantages and Disadvantages of Simulation, Applications of Simulation.

**Unit VI: Dynamic Programming** - Concept, Dynamic Programming & Resource Allocation, Dynamic Programming vs. Linear Programming. **Application of Computer in ORT**- Introduction, Packages, Practical Use of these Packages.

#### **Suggested Readings:-**

1. Introduction to Operations Research- Hillier & Liberman – McGraw Hill
2. Quantitative Techniques in Management by N. D. Vohra – Tata McGraw Hill
3. Operations Research - Paneersevam – Prentice Hall of India
4. Operations Research – J. K. Sharma - McMillan
5. Operations Research – Hira and Gupta – S. Chand & Co.

# **Paper : PCB3C02**

## **Business Ethics & Corporate Governance**

### **Unit I: Business Ethics: Introduction, Concepts and theories** : Introduction,

definitions, importance and need for Business ethics, Values and morals. Management and ethics, Normative Theories, – Gandhian Approach, Friedman's Economic theory, Kant's Deontological theory, Mill & Bentham's Utilitarianism theory.

**Unit II : Business & Organisational Ethics** : The Indian Business scene, Ethical Concerns, LPG & Global trends in business ethics, Business ethics rating in India. Organizations & Organisation culture, Types of Organization, Corporate code of ethics – Formulating, Advantages, implementation Professionalism and professional ethics code.

**Unit III : Corporate Governance** : Introduction, mechanisms and systems of corporate governance, Indian model of Corporate Governance, OECD principles, World Bank on Corporate Governance, McKinsey Survey on CG, Indian Committees and guidelines.

**Unit IV: Corporate social Responsibility** : Introduction, Models for implementation of CSR, Advantages, Scope, and steps to attain CSR, Prestigious awards for CSR, CSR & Indian Corporations-A Score Card, Future of Indian CSR

**Unit V: Environment Ethics, Marketing Ethics & Ethics in HRM** : India's Environment

Policy, Environment Risk Management, Environment Audit, Areas in Marketing Ethics , Beyond the 4P's, Role of HR in creating an ethical organisation.

**Unit VI: Globalisation & Business ethics** : Growth of Global Corporations, Factors facilitating Globalisation, Impact of globalization on Indian corporate and social culture, Advantages and disadvantages of MNC's to the Host Country, International codes of Business Conduct, Whistle blowing and its codes.

### **Suggested Readings:**

1. Business Ethics – Concept & Practice - B. H. Agalatti & R. P. Banerjee – (Nirali Publication)
2. Ethics in Business & Management - R. P. Banerjee (Himalaya Publication)
3. Business Ethics. by Crane – Pub. By Oxford Press
4. Corporate Governance & Business Ethics – (Text & Cases), U. C. Mathur, Macmillan India Ltd.
5. Business Ethics, C S V Murthy, Himalaya Publishing House
6. Business Ethics & Corporate Governance, by A.C. Fernando

# Compulsory Foundation

**Paper : PCB3F03**

## **Project Management and Quality Management**

**Unit I: Introduction to Project Management - Concepts of Project and Project Management; Project Life Cycle, Project Stakeholders; Organizational Influences**

**Unit II: Knowledge Areas I & II – Process Flow Diagram; Plan, Direct, Manage, Monitor, Control and Close a Project. Scope; Time Management: Activity Sequencing, Resource and Duration Estimation; Cost vs. Quality Management in Projects.**

**Unit III: Procurement and Risk Management – Planning Purchase and Contracting; Select Sellers; Contract Administration and Closure; Qualitative vs. Quantitative Risk Analysis; Risk Monitoring and Control.**

**Unit IV: Introduction to Quality Systems** - Overview of quality, history of quality, competitive advantage, industrial perspective, total quality system, Taguchi —Loss Function concept;

**Statistical Process Control:** Process Control Chart calculations, Extraction of information, Capability Index, Individual and Moving Range Charts, Implementation of Statistical Process Control, Control Charts for Attributes, Numerical.

**Unit V: Strategic Quality Management** - Total Quality Management (TQM), Implementation of TQM, **Reliability Health and Safety:** Defining Reliability, Product Life Characteristic Curve, Reliability Function, Reliability Engineering. Classification of Hazards, Codes of Practice, Company Safety Statement.

**Unit VI: Quality Techniques, Standards and Certifications** - Indian Quality Standards, Japanese vs. American Techniques, KAIZEN, **Six Sigma:** Design, Measure, Analysis, Improve and Control Phases; TOYOTA WAY. ISO 9000, ISO 14000, BS 7799 ISMS, TS; Agency Inspection Services: BSI (UK), VDE (GERMANY), NSAI (IRELAND), UL (US), MHTA (US) and BIS (INDIA); NABCB: National Accreditation Board for Certification Bodies; BVQI: Bureau Veritas Quality International and TÜV.

### **Suggested Readings**

1. Project Management, A Managerial Approach, Meredith and Mantel, John Wiley and Sons, Fifth Edition, 2003. Course Text.
2. The New Project Management, J. Davidson Frame, Jossey-Bass, 1994.
3. The Management and Control of Quality: J.R. Evans, W.M. Lindsay: West Publishing Company 1996, ISBN0314472851
4. Introduction to Quality Control: Kaoru Ishikawa; Chapman and Hall 1992 ISBN 0412435403
5. Introduction to Statistical Quality Control; D.C. Montgomery, John Wiley & Sons, ISBN 047108459x

# **Paper : PCB3F04**

## **Public System Management**

**Unit I: Introduction & Public Enterprise Management** - Understanding the state of the economy, Government & public welfare, Concept of Public Goods & services, Concept of Public System, Role of Government in Public System, Types of Public system, Weaknesses & Issues of the Public System in India. Objectives and Roles of Public Enterprise ,PublicEnterprise Policy and Reform Measures, Marketing Problems of Public Enterprises; Cases: Western Coalfields Limited (WCL), MECL, MOIL and MSEB etc.

**Unit II: Energy & Water Resource Management** - Organisation for Energy Management:Goalsetting in Energy Management; Energy crisis, energy use Patterns and scope for Conservation; Energy Audit, Energy Pricing; Non conventional sources of energy; The option of Nuclear energy in the developing countries; Case: Suzlon. Objectives and organization of water resource Management; Optimization techniques for water resources projects; Scientific utilization of Agriculture water; irrigation projects; Water crisis management flood and droughts; Water harvesting; Cases: Jalswaraj by Govt. of India, SardarSarovar, BhakraNangal and Maharashtra JivanPradhikaran.

**Unit III : Management of Education System** - Education as Development Priority; Education and Economic growth; International Comparisons; Strategies of Development of Education System; Concept of Investment in Man; Systems of Education in India: Formal, informal, Primary, Secondary and Higher Education; Cases: Ivy League, Yale, IIT's and IIM's.

**Unit IV: Management of Telecommunication systems** - Role of Telecommunication; Effectsoftechnology and scale on cost of service, Organization, management and financing in Telecommunication; Mobilizing resources for expansion, Impact of Telecommunications on rural development, Cases: BEL, C-DOT, DoT, BSNL and Telecom Commission.

**Unit V: Public Infrastructure Management-** Organizational Studies andInfrastructureDevelopments from Road Transport, Railways, Power, Airports and Shipping Ports like PWD, MSRDC, Central Railway, DLF, GMR, GVK, TATA Energy and Reliance Energy etc; Profile Study: RC Sinha (Mumbai-Pune Expressway), T. Chandrashekhar (Administrative Reforms), S. Sreedharan (Konkan Railway), VilasraoSalunkhe (PaniPanchayat) and MS Swaminathan (Gender Divide) etc

**Unit VI : Emerging Trends** - Privatization, Public Private Partnership (PPP) - concept, Role of PPP in development of Public systems, Strengths & weaknesses of privatization & PPP; PPP Agreements in India; Infrastructure scenario in Nagpur: SEZ, MIHAN, MADC, NIT, NMC (SETU), MRSAC (Maharashtra Remote Sensing Application Center) etc.

## Suggested Readings

1. —Ideas that have Worked by Department of Administrative Reforms and Public Grievances, 2004, Penguin / Viking, New Delhi
2. "Infrastructure Management: Design, Construction, Maintenance, Rehabilitation, Renovation." Hudson, Haas, and Uddin, McGraw-Hill, 1997
3. Bureau of Public Enterprises. Public Enterprises Survey, 1994-95, New Delhi, 1996
4. Donglass, C. —Energy Technology Handbook. McGraw Hill, New York. 1977
5. Chaturvedi, T.N. (ed) —Training in Public Administration: The changing Perspectives. 1989. The Indian Institute of Public Administration, New Delhi
6. Chatuvedi, M.C. and Rogers P. —Water Resources Systems Planning: Some Case Studies for India. Indian Academy of Sciences, Bangalore, 1995.

**Elective Foundation**  
**Group A : Marketing Management**  
**SP01: PCB3EA1:**  
**Retail & Services Marketing**

**Unit 1**

Retail marketing and retail management, strategic retail marketing, retail marketing mix, CRM and retail marketing, CBB & retail marketing

**Unit 2**

Retail location & related strategies, retail store operations, retail organizations & structure, applications of IT in retail, retail distribution and SCM

**Unit 3**

Retail pricing and promotional pricing, retail branding strategies, store & non-store brands, merchandising and warehousing, global retailing, modern trade and new trends in retailing

**Unit 4**

Services, nature, characteristics, service product & pricing, service positioning, pricing services

**Unit 5**

CRM and services, managing service quality, CBB and services marketing, service demand management, promoting & services

**Unit 6**

MIS & research for services, demand analysis for services, managing service processes, service distribution, employees (people) and services marketing

**References:**

1. Retail Marketing Management – David Gilbert
2. Retail Marketing – A Sivakumar
3. Retail Marketing – P Mcgoldrick
4. Retail Management – Barry Berman/ Joel R Evans/ Mini Mathur
5. Services Marketing – K Rama Mohan Rao
6. Services Marketing - Alan Wilson, Valarie Zeithaml, Mary Jo Bitner, Dwayne Gremler
7. Services Marketing – Christopher Lovelock/ Jochen Wirtz/ Jayanta Chatterji
8. Services Marketing – Harsh Verma

## **SP02: PCB3EA2**

# **Product Management & Brand Management**

### **Unit 1**

Product Life Cycle and its variants, levels of a product, product mix, product portfolio decisions, BCG matrix and its applications.

### **Unit 2**

Product planning, new product development process, Innovation and Creativity, product testing, product placement & commercialisation, conducting financial cost benefit analysis and its tools.

### **Unit 3**

Introduction to brands, branding and brand management, brand research and brand equity, branding for different product categories, branding & differentiation, brand image, brand element and brand association.

### **Unit 4**

Brand equity measurement, competitive analysis, brand positioning, brand hierarchies and brand portfolio analysis.

### **Unit 5**

CBBE (Customer based brand equity), Branding & IMC, branding and marketing mix, branding and product mix, brand attributes, branding and segmentation.

### **Unit 6**

Developing brand strategies, brand image and awareness, brand equity systems, brand value, brand extensions, brand roadmap, sustaining and managing brand equity and global branding.

### **References:**

1. Product Strategy & Management – M Baker & S Hart
2. Strategic Brand Management – K Keller, MG Parameswaran, Isaac Jacob
3. Expert Product Management – Brian Lawley
4. 42 Rules of Product Management – Greg Cohen
5. The Product Manager's Handbook – Linda Gorchels
6. Building Strong Brands – David Aaker
7. Managing Strong Brands – David Aaker
8. Branding Unbound – Mathieson
9. United we Brand – Moser

# **GROUP B: FINANCIAL MANAGEMENT**

## **SP01: PCB3EB1**

### **ADVANCED FINANCIAL MANAGEMENT**

**Unit I: Capital structure & Value of firm** - Assumptions & definitions, NI approach, NO approach, Traditional Position, MM position, Taxation & capital structure, Trade off theory, Signaling theory. EBIT-EPS Analysis

**Unit II: Cash & Receivables Management** - Motives of holding cash, factors determining the cash balance, Managing the cash flow, Options for investing surplus funds & strategies for managing surplus funds, Cash Management Models- The Baumol model, The Beranek Model, The Miller-Orr Model.

Credit policies, Evaluating the debtors, Credit analysis & decision, Credit terms & collection policies, Control of accounts receivables, Heuristic approach

**Unit III: Leasing, Hire-purchase & Project Finance** - Types of leases, rationale for leasing, Mechanics of leasing, Operating lease, Leasing as financial decision, Lease Vs borrow & buy evaluation, Hire-purchase arrangement, Choice between leasing & hire purchase, Project finance

– Private Equity, Venture Capital.

**Unit IV: Risk Analysis in Capital Budgeting** - Sources & perspective of risk, Sensitivity analysis, Scenario analysis, Breakeven analysis, Miller Model, Simulation analysis, Decision tree analysis, Corporate risk analysis, Managing risk, Project selection under risk, Risk analysis in practice.

**Unit V: Valuation of business and Mergers & Acquisitions** - Valuation of business- Adjusted book value method, value of shares and debt method, comparison method, DCF method. M&A

– Exchange ratio Financial evaluation of mergers, M&A as capital budgeting decision, Economic value added & market value added Taxation aspects.

**Unit VI: Contemporary issues in Financial Management** – Public offerings - IPO, FPO, ASBA, book building, Reverse book building, private placement, Green shoe option, Red Herring Prospectus. ESOP, ESPP, Refinancing, Securitization, Private equity, venture Capital,

Carbon Credit, Sarbanes Oxley Act, Balanced score card, Sub-prime crisis, P notes, GDR, ADR, ECB, Indian Depository Receipts, Hundi, Parta system,

#### **Suggested Readings:**

1. Financial Management- Ravi Kishore, Taxmann\_s, New Delhi.
2. Financial Management: Problems and Solutions, Ravi Kishore, Taxmann, New Delhi
3. Financial Management – Theory & Practice by Prasanna Chandra, TMH Publishers 2004
4. Financial Management-I.M. Pandey, Vikas publishing house, New Delhi.
5. Financial Management & Policy – V. K. Bhalla – (Anmol Publication, New Delhi)
6. Strategic Financial Management – Dr. J.B. Gupta – Taxmann\_s, New Delhi
7. Financial Management – Rajiv shrivastava , Anil Misra – Oxford Higher Education.
8. Financial Management – M. Y. Khan & P. K. Jain – Tata McGraw Hill E

## SP02: PCB3EB2

# RISK MANAGEMENT AND DERIVATIVES

**Unit-I: Risk, Return and Market Indices-** Types of Risk; Significance of Beta, Beta versus Standard Deviation; Risk – Return Trade-Off, Understanding Interest rates, Understanding the Stock Index, Economic Significance of Index Movements, Index Construction Issues, Desirable Attributes of an Index – impact cost, Applications of Index. Construction and composition - Sensex and Nifty, Calculation of indices. Free float Market capitalization.

**Unit-II: Introduction to Derivatives Trading and Settlement :** Types of Derivative Contracts, History of Financial Derivatives Markets, Participants in a Derivative Market, Economic Function of The Derivative Market; Trading of Derivatives Contracts Futures and Options Trading System, The Trader Workstation, Futures and Options Market Instruments, Criteria for Stocks and Index Eligibility for Trading, Charges ; Clearing and Settlement - Clearing Entities, Clearing Mechanism, Settlement Procedure, Risk Management, Margining System

**Unit-III: Option Derivatives and Trading Strategies using options** –Types of Options - Call Options, Put Options; Option Pay-Offs; Terminologies used in the Options Market; Option Pricing – Binomial Model and Black & Scholes Model; Trading Strategies using options- caps, collars, butterfly, straddle, strangle etc. Option Greeks.

**Unit-IV: Futures Derivatives and Trading Strategies using futures** –Types of Futures– On the basis of Maturity, On the basis of the underlying asset; Margining in the Futures market; Terminologies used in the Futures Market; Futures Pricing – Cost of Carry Model; Trading Strategies using futures.

**Unit-V: Foreign Exchange risk & Corporate Exposure Management** –Types of Exposure– Transaction, Economic and Translation; Foreign Exchange Risk – Types, Risk Management Techniques – External and Internal. International portfolio diversification and transfer pricing, Risk Management practices in India.

**Unit-VI: Swaps and Credit Derivatives** –Concept and Characteristics; Types of Swaps– Interest Rate Swaps and Currency Swaps; Structure of Interest Rate Swaps and Intermediated Interest Rate Swaps; Relation between Interest Rate Swaps and Forward Rate Agreements; Calculations on Swaps. Concept of Credit Derivatives; Evolution and the Global Scenario; Types – Credit Default Swaps, Total Return Swaps, Credit Options, Credit Linked Notes. RBI guidelines.

*NB: Numerical shall be based on Unit I, Unit III, Unit IV, Unit V and Unit VI only.*

### **Suggested Readings:**

1. Strategic Financial Management – Dr. J.B. Gupta – Taxmann\_s, New Delhi
2. Financial Management – Rajiv Shrivastava , Anil Misra – Oxford Higher Education
3. Financial Management- Ravi Kishore, Taxmann\_s, New Delhi.
4. Financial Management: Problems and Solutions, Ravi Kishore, Taxmann, New Delhi
5. Financial Management – Theory & Practice by Prasanna Chandra, TMH Publishers 2004
6. Financial Management-I.M. Pandey, Vikas publishing house, New Delhi.
7. Options Futures and other Derivatives – John C.Hull, PHI-EEE, 2011
8. Reference Material of NCFM from [www.nseindia.com](http://www.nseindia.com)

# **Group C-Human Resource Management**

## **SP01: PCB3EC1 :**

### **Performance Management & Compensation**

**Unit I: Job Evaluation / Grade Structure** - a. Purpose and Methods of Job Evaluation, Ranking Systems, Job Classification / Grading method, Points System, Factor Comparison Method, Packaged Point Plans, Implementation; b. Job Analysis; Nature/Use, Methods, Job Identification Summary, Relationships, Responsibilities and Duties, Writing Job Specifications and Descriptions – Judgmental and Statistical Methods.

**Unit II: Compensation Planning** - Concepts, Nature and objectives of Compensation, Wages, Wage Fixation, Wage differentials, legal Status of Wages (basics), **Wages–Variable Compensation and Supplementary Compensation** – Perks, Fringe Benefits, Pay for Performance – Incentives.

**Unit III: Competency Mapping / Workflow Mapping** - Concept, Practical Application, Implementation  
**HR Scorecard / Balanced Scorecard** - Introduction, Concept, Structure, Practical Application

**Unit IV: Performance Management System** - Introduction, Objectives, Tools, Methods of PA, Graphic Rating Scales, BARS, Alternation Ranking, Forced Distribution Method, Critical Incident Method, MBO, Assessment Centers, Group Appraisal; 360 deg Feedback, Appraisal Interview;

Performance Planning and Potential Appraisal – Trait Based, Behavior Based and Result Based, Pitfalls.

**Unit V: Career Management** - Career Development Plan - Employee's and Employer's Role, Career Anchors, Nature of Careers, Career Problems – Low ceiling Careers, Career Mapping, Career Counseling, Succession Planning.

**Unit VI: Ancillary Topics** - Goal Setting, Promotions and Transfers; Separations- Retirement, VRS, Deputation, Death, Retrenchment, Pink Slips.

### **Suggested Readings**

1. Human Resource Management, by Snell / Bohlander Publication – Thomson
2. Compensation by Milkovich & Neman, 8 th edition. Publication – McGraw –Hill
3. Human Resource Management, by Gary Dessler Publication – Thomson
4. Accounting Practices in HRM by M. Kolay
5. Managing Human Resources by Monappa Publication – Macmillan

## **SP02 : PCB3EC2:**

### **Training & Development Practices**

**Unit I: Training and Development** - What is training? Nature of training, Significance of training, Importance of training, Scope & Objectives of training, Benefits of training, Philosophy of training.

**Unit II: Training Need Analysis and Design** - Identification of training needs, Environment for training, Areas of training, Responsibilities for providing training, Training Calendar, Facilities for training. **Training Design** - Perspectives for Designing Training, Designing a training programme, Objectives, components and methods of training designs, Training Process, Training of trainers (TOT).

**Unit III: Training & Development Methods and Techniques** - Approaches to Training, On the Job Training & Off the Job Training, Training Methodology – Case Study, Management Games, Brain Storming, Role Play, In- Basket exercises, Group Discussion; Teaching aids and techniques, Audio-visual aids, Cross cultural training. Concept & Importance of MDP\_s, Steps in MDP\_s, Methods and Techniques of MDP\_s.

**Unit IV- Evaluation of Training** - Feedback from participants, Measurement of training effectiveness, Types of evaluation techniques, Evaluation of trainers and facilities for training.

**Unit V-Introduction to HRD** - Field of HRD: A multi dimensional and new concept, Goals and challenges, Objectives and determinants, Approaches to HRD. **Issues in HRD** - Strategy for HRD: Diversify in work force, exit strategy, competitive advantage and relationship management; Human Resource Planning for diversification, expansion, mergers, acquisitions and takeovers.

**Unit VI- HRD In Different Sectors:** - HRD Organizations, Government Agencies and their role in HRD, Rural development through HRD, Emerging Sectors: I.T. and I.T.E.S.

## **Suggested Readings**

1. Personnel Management and Human Resources – N.C. Jain & Saakshi (Allied Publisher)
2. Effective Human Resource Training and Development Strategy – Dr. B. Rathana Reddy  
Publication – Himalaya Publication House
3. Human Resource and Personnel Management – Text and cases, K. Aswathappa,  
Publication - McGraw- Hill Publishing co. Ltd
4. Human Resource Management , Tenth Edition, Gary Dessler, Publication- Pearson  
Education
5. Human Resource Management , Ninth Edition, R. Wayne Mondy, Robert M, Noe,  
Publication- Pearson Education
6. Human Resource and Personnel Management, by K Aswathappa, Publisher: Mc-Graw  
Hill.
7. Strategic Human Resource Management, by Tanuja Agrawal, Publisher: Oxford  
University Press.
8. Personnel and Human Resource Management: Text and Cases, By P. Subba Rao,  
Publisher: Himalaya Publishing House.
9. [Knowledge Management and the Role of HR](#) by Chris Harman, Publisher:  
FTPrenticeHall
10. [HR Interventions in the Global Competitive Regime: Strategies for  
Leadership](#) by Charles Xavier, C.S. Adhikary and Ramana Murthy, Publisher:  
ExcelBooks

## Elective

### Group D - Information Technology Management

#### SP01: PCB3ED1:

#### Database Management Systems

**Unit I: Introduction to Database Management System - DBMS** (Database Management System), FMS (File Management System), FMS Versus DBMS, Over view of DBMS, DBMS Model, DBMS Architecture. Design Consideration, Decomposition, Functional Dependency, Normalization, 1NF (First Normal Form), 2NF (Second Normal Form), 3NF (Third Normal Form), BCNF (Boyce-Codd Normal Form) (First Normal Form), 4NF (Fourth Normal Form), 5NF (Fifth Normal Form), De-normalization.

**Unit II: Entity / Relationship (ER) Modeling** - Aspects of ER modeling, Types of Relationship, Practical Applications, Developing of ER Diagrams of various systems (e.g. Organizations, Educational Institutions and any live entity examples). Relational Model - Relational Database Primer, Relational Database Characteristics, Relational Algebra, Relational Calculus, Database Integrity, Keys, Entity & Referential Integrity, Views, Joins.

**Unit III: Brief Introduction to SQL** - History & standardization of SQL, Benefits of SQL, Elements of SQL languages, Database Objects, Reserve words, Variables, data types, DDL commands (CREATE, DROP, MODIFY, ALTER), DML COMMANDS (INSERT, UPDATE, DELETE, SELECT), DCL commands, Embedded SQL, Dynamic SQL.

**Unit IV: Data Mining & Data Warehousing** - Data Mining- Concept, Terminology, Functions, Applications, Types (Text, Concept, Graph, Sequence, Tree), Techniques, Software. Data Warehousing - Concept, History, Storage Methods, Success Parameters, Software Evaluation, Architecture, Developing Strategy, Use in Strategic Decision Making, Maintenance Issues, Web Data Analysis.

**Unit V: Object Technology** - Introduction to Object Technology, Abstraction, Encapsulation, Inheritance, Object Technology & RDBMS, Object Oriented Database Management System (OODBMS).

**Unit VI: Advanced Topics in DBMS** - Deductive Databases: features, Overview of Logic, knowledge representation, Internet & DBMS, Multimedia Database, Digital Libraries and Mobile Databases. Database Security - Threats & Risk, Cryptography, Digital Signature, Database Control, User & Database Privileges.

#### Suggested Readings:

1. Database Processing; Fundamentals, Design, and Implementation: David Kroenke, McMillan
2. Systems and Developers Manual for a RDBMS such as ORACLE
3. Guide to SQL: Philips Pratt, Boston Boyd and Fraser, 1990
4. Object Oriented Analysis: Peter Coad and Yourdon Edward, 2nd Ed, Eaglewood Cliff, New Jersey Yourdon Press
5. Database Management: Fred McFadden and Jeffery Hooper, 3rd Ed., Redwood City, Benjamin – Cummins, 1991
6. Data Mining Techniques: For Marketing, Sales, and Customer Relationship Management by Michael J. A. Berry

## **SP02: PCB3ED2: E-BUSINESS**

**UNIT- I: Introduction**-Definition of E-commerce, Unique Features of E-commerce Technology: Ubiquity, Global Reach, Universal Standards, Richness, Interactivity, Information Density, Personalization/ Customization, Social Technology: User Content Generation and Social Networking, Web 2.0, Play My version; Growth of the Internet and the Web, Origins and Growth of E-commerce, Insight on Technology: Spider Webs, Bow Ties, Scale-Free Networks and Deep Web Technology and E-commerce in Perspective

**Unit – II: E-Business Technologies**-The Internet: Key Technology Concepts: Packet Switching, Transmission Control Protocol/Internet Protocol (TCP/IP), IP Addresses, Domain Names, DNS, and URLs, Client/Server Computing The Internet Today: The Internet Backbone, Internet Exchange Points, Campus Area Networks (CANs), Internet Service Providers, Intranets and Extranets, Who Govern the Internet? Building an E-commerce Website: Planning: The Systems Development Life Cycle, Systems Analysis/Planning: Identify Business Objectives, System Functionality and Information Requirements. , System Design: Hardware and Software Platforms, Building Your-Own versus Outsourcing, Host your Own versus Outsourcing

**UNIT – III: E-Business Models**- Eight Key Elements of a Business Model: Value Proposition, Revenue Model, Market Opportunity, Competitive Environment, Competitive Advantage, Market Strategy, Major Business to-Consumer (B2C) Business Models: Portal, E-tailer, Insight on Technology: Search, ads and Apps: The future for Google, (and Microsoft), Content Provider, Transaction Broker, Market Creator, Service Provider, Community Provider, Major Business-to-business (B2B) Business Model: E-distributor, E-Procurement, Exchanges, Insight on Business: Onvia Evolves, Industry Consortia, Private Industrial Networks, Business Models in Emerging E-commerce Areas: Consumer-to-consumer (C2C) Business Models, Peer-to-peer (P2P) Business Models, M-commerce Business Models , E-Commerce Enablers: The Gold Rush Models, Insight on Society: Is Privacy Possible in a Wireless World?, How the Internet and the Web Change Business: Strategy, Structure, and Process, Industry structure , Industry Value Chains, Firm Value Chains, Firm Value Webs, Business Strategy.

**UNIT- IV: Back Office Automatics For E-Business** - Basics of Enterprise Resource Planning, ERP Decision, Enterprise Architecture Planning, ERP Implementation, ERP Architecture and Toolkit Evolution, Implementation Supply Chain Management And E-Fulfillment: The Basics of Supply Chain Management, Internet-Enabled SCM, E-Supply Chain Fusion, Management Issues in e-supply Chain Fusion, The continuing Evolution of e-Supply Chains, A Roadmap for Managers, Demystifying E-Procurement: Buy-Side, Sell-Side, Net Markets And Trading Exchanges: Evolution of e-Procurement Models, Evolution of Procurement Processes, e-Procurement Infrastructure Integrating Ordering, Fulfillment, and payment, E-Procurement, Analysis and Administration Applications, Marketplace Enables, A Roadmap for e-Procurement Managers.

**UNIT-V: Moving To E-Business** - Spotting E-Business Trends, Trends Driving E-Business, Customer-Oriented Trends, E-Service Trends, Organizational Trends, Employee Megatrends, Enterprise Technology, Trends, General Technology Trends, What These 20 Trends Have In Common, Digitizing The Business: E-Business Patterns, E-Business Patterns: The Structural Foundation, The E-Channel Pattern, The Click-And-Brick Pattern, The E-Portal Pattern, The E-Market Maker Pattern, The Pure-E —Digital Products| Pattern, Thinking E-Business Design: More Than Technology, The Race To Create Novel E-Business Designs, Step: 1: Self – Diagnosis, Step: 2: Reverse The Value Chain, Step: 3: Choose A Focus, Step 4: Execute Flawlessly, Lessons From E-Business Design.

**UNIT – VI: Ethical, Social And Political Issues** -Understanding Ethical, Social, and Political Issues in E-commerce, A Model for organizing the issues, Basic Ethical Concepts: Responsibility, Accountability, and Liability, Analyzing Ethical Dilemmas, Candidate Ethical Principles, Privacy and Information Rights, Information Collected at Ecommerce Sites, Profiling and Behavioral Targeting, The Internet and Government Invasions of Privacy:, E-commerce Surveillance, Legal Protections, Informed Consent, Intellectual Property Rights, Types of Intellectual Property Protection, Copyright: The Problem of Perfect Copies and Encryption, Patents: Business Methods and Processes, Trademarks: Online Infringement and Dilution, Challenge: Balancing the Protection of Property with other values.

**Suggested Readings:**

1. Michael Allen's E-Learning Library: Creating Successful E-Learning: A Rapid System For Getting It Right First Time, Every Time (Michael Allen's E-Library) by Michael W. Allen
2. Harvard Business Review on Corporate Governance (Harvard Business Review Paperback Series) by Walter J. Salmon, Jay William Lorsch, Gordon aldson, and John Pound
3. E-Commerce: Business, Technology, Society (3rd Edition) by Kenneth Laudon and Carol Traver
4. Knowledge Management by Carl Frappaolo

# **GROUP E**

## **HEALTHCARE MANAGEMENT**

### **SP01: PCB3EE1 : Healthcare and Social Policy**

**Unit I:** Social Welfare, Social policy, **Factors in Social Policy:** Situational, Structural, Ideological and Environmental, **Health Policy formulation:** Factors, Determinants and other sectoral issues.

**Unit II:** Health care and Social development.

**Unit III: National health policy:** Review of different committees. **Health policy:** Input, Output and Performance; Role of Private and Voluntary groups; Role of national and International agencies. **Health and Social Policy:** International Perspective; Health policy the Disadvantaged.

**Unit IV:** Concept of Health Care Planning, Health Expenditures, Hospitals as a Health Care Delivery System. Management of Health Care Systems. Dimensions of Health Care Management.

**Unit V:** Concepts of Environmental Health Care; Microbiological considerations; Laundries, CSSD, Insect, Rodent Control, Emergency and Disaster Planning; Safety Management; Patients and Personnel Safety, Fire Safety, General Sanitation.

**Unit VI:** Hazardous Waste Management; Solid Waste Handling & Disposal; Liquid Waste Handling, Collection & Disposal; Water Treatment and Distribution, Planning and Organising for Safety and Waste management. Legal and Social Aspects of Waste Management; Trends and Practices.

#### **Suggested Readings**

1. Chatterice, Meera, "Implementing Health Policy". 1988, Manohar, New Delhi,
2. Djunkanovic, V and Mach, E P. ed "Alternative Approaches to Meeting Basic Health Needs in Developing Countries", 1975. WHO, Geneva.
3. Lee, Kenneth and Mills, Anne. "Policy making and Planning in Health Sector". 1987, Oxford University Press, Oxford.
4. Leichter, HM. "A comparative approach to Policy Analysis: Health Care Policies in Four Nations", 1979. Cambridge University Press, Cambridge.
5. Roemer, M I. "Comparative National Policies on Health Care". 1977. Mareel Dekker, New York.
6. Ferry, Ted Safety & Health Management Planning, Van Nostrand Reinhold, New York. 1990.
7. Journal of Hazardous Waste Management. U.S.A.
8. Zweife, Peter I and Friedrich Breyer Health Economics, Oxford University Press, New York, 1997.
9. Kurt. Darr & Jonathan S R, Hospital Organization and Management Text and Brading, CBS Publishers & Distributors, 1992

# **SP02 : PCB3EE2:**

## **Community Health, Epidemiology & Population Management**

**Unit I:** Meaning and scope of epidemiology.

**Unit II:** Health statistics and health indicator, Morbidity, Mortality. Data sources, collection, analysis and uses, Health Information System, Use of Computers.

**Unit III:** Primary health care and community participation. Models and factors associated with health and diseases.

**Unit IV:** Organizational aspects of community health. Clinical care.

**Unit V:** Physical aspects of community health, Psychological aspects of community health. Special aspects of community health, Drugs, Alcoholism etc. Preventive and promotive health care.

**Unit VI:** Population policy, Planning and management.

### **Suggested Readings**

1. Alderson, M. "An Introduction to Epidemiology". 2nd, ed. 1983. MacMillan, London.
2. Hill, A B. "A short textbooks of Medical Statistics". 1~84. UNI Books
3. Jolly, K G. "Family Planning in India 1969-84: A District Level Study", 1986. Hindustan, Delhi.
4. Abelln, T Brzenski, Z J and Carstals, V D. "Measurement in Health Promotion and Protection", 1987, WHO, Copenhagen.
5. Pollard, A H. etc "Demographic Techniques", 1981. Pergamon, Oxford.

**Group F**  
**International Business Management**

**SP01 : PCB3EF1 :**

**External Sector In India – Policy, Procedures & Practices**

**Unit I:** Composition, Growth And Direction Of Exports & Imports From India (Countries & Commodities/ Products) Major Export & Import Products & Services, Iec Codes Importance And Procedures, Export Incentives, Thrust Areas For Export Promotion.

**Unit II:** Role Of Government/ Institutions In Export Promotion–Commerce Ministry, Dgft, Chambers Of Commerce, Export Promotion Councils, State Trading Corporations, Commodity Boards, Eou Etc.

**Unit III:** Export Quality & Packaging Standards , Customs And Excise Regulations Applicable To Exports & Imports, Role Of Clearing & Forwarding Agents.

**Unit IV:** Exim Documentation, Preparation Of Contracts, Processing Export Order, Introduction To Letters Of Credit, Incoterms & Ucp 600, Ispm-15 (Fumigation)

**Unit V:** Logistics Management , Shipping Cargo, Vessels And Charters, Multi Modal Transport, Shipping Documents.

**Unit VI:** Marine / Air Insurance, Export Risk Coverage (Ecgc) Settlement Of International Trade Disputes, Arbitration,

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**Suggested Readings**

**International Business Environment– V.K. Bhalla, Anmol**

**Publications Export Management – Khurana, Galgotia Publications**

**Export Import Procedures & Documentation – K.S. Jain, Himalaya Publishing**

## **SP02 : PCB3EF2:**

# **Foreign Exchange Management & Export Finance**

**Unit I:** Foreign Exchange Framework–Exchange Rate Systems, Foreign Exchange Markets (Nature, Functions & Participants) , Determination Of Exchange Rates.

**Unit II:** Foreign Exchange Arithmetic–Types Of Exchange Rates, (Spot / Forward Etc.) Direct Quotation, Calculation Of Rate Of Exchange, Cross Rates & Chain Rule.

**Unit III:** Overview Of Fema–General Provisions Applicable For Export / Import Transactions

**Unit IV:** Finance Of Foreign Trade–Need, Importance Of Export Finance, Funded And Non-Funded Facilities, Pre-shipment, Post Shipment Credit Principles And Procedures, Pre-shipment Credit In Foreign Currency (Pfc), Factoring And Forfaiting, Role Of Financing Bank In Export Finance, Concept Of Central Bank & Its Control On International Trade In Country.

**Unit V:** Risk Management In Foreign Exchange–Foreign Exchange Risk Nature And Implications, Transaction , Translation And Economic Exposure, Hedging, Forward, Future, Swaps And Options

**Unit VI:** Foreign Exchange Inflows (Major Sources) - Nri Accounts Types, Efc Accounts, Fdi And Fii , Ecb, Adrs And Gdrs, Nostro & Vostro Accounts.

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### **Suggested Readings**

**Foreign Exchange – Jeevanandam C. Sultan Chand & Sons**

**International Financial Management – V.K. Bhalla, Anmol Publications**

**Foreign Trade & Foreign Exchange – Chaudhari & Agrawal, Himalaya Publishing House**

# Group G

## Operation Management

### SP01 : PCB3EG1 : Supply Chain Management

#### **Unit I: Understanding the Supply Chain, Supply Chain Performance and Drivers**

What is Supply Chain, Objectives of a Supply Chain, Importance of Supply Chain Decision, Decision Phases in a Supply Chain, Competitive and Supply Chain Strategies, Achieving Strategic Fit, Drivers of Supply Chain Performance, Framework for Structuring Drivers.

**Unit II: Designing the Supply Chain Network Designing Distribution Networks and Applications to e-Business:** Role of distribution in a supply chain, Factors influencing distribution network design, design options for a distribution network, e-Business and the distribution network, **Network Design in the Supply Chain:** the role of network design in the supply chain, factors influencing network design decisions, framework for network design decisions, models for facility location and capacity allocation, **Network Design in an Uncertain Environment:** Impact of uncertainty on network design.

**Unit III: Planning Demand and Supply in a Supply Chain Demand Forecasting in a Supply Chain:** The role of forecasting in a supply chain, Characteristics of forecast, Components of forecast and forecasting methods, Basic approach to demand forecasting, managing, **Predictable Variability:** Responding to predictable variability in a supply chain, Managing supply and demand, Managing predictability and implementing solutions to predictable variability in practice.

**Unit IV: Planning and Managing Inventories in a Supply Chain Managing Economies of Scale in a Supply Chain:** Role of Cycle Inventory, Economies of Scale to exploit fixed cost and quantity discount, Short term discounting, Managing Multi-echelon Cycle Inventory, **Managing Uncertainty in a Supply Chain:** Role of Safety Inventory in a supply chain, Determining Appropriate Level of Safety Inventory, Managing Safety Inventory in a multi-echelon supply chain.

**Unit V: Designing and Planning Transportation Networks Transportation in a Supply Chain:** Role, Modes of transportation, transportation Infrastructure, Design options for transportation network, trade-offs in transportation design, Risk management in transportation.

**Unit VI: Managing Information Flow in Supply Chains** The Role of IT in a Supply Chain, The Supply Chain IT framework, Customer Relationship Management, Supplier Relationship Management, Internal Supply Chain Management, Supply Chain Technologies: Bar Code, RFID, EDI, e-business suites etc.

#### **Suggested Readings**

1. Supply Chain Management, Chopra, Meindl and Kalra, Pearson Education, 3<sup>rd</sup> edition and after
2. Designing and Managing the Supply Chain, David, Kaminsky, Edith, TMH Edition, 2<sup>nd</sup> Edition and after
3. Supply Chain Management Text & Cases, Vinod V Sople, Pearson Education
4. Supply Chain Management, Janat Shah, Pearson Education
5. Supply Chain Management, Ballou and Srivastava, Pearson Education

## **SP02: PCB3EG2: Total Quality Management**

**Unit I: Understanding Quality and Quality Philosophies** - Definition of Quality, Dimensions of Quality, Quality Planning, Quality costs, Quality Philosophy of Deming, Joseph Juran, Philip Crosby, Genich Taguchi.

**Unit II: TQM Principles** - What is TQM?, What Does TQM Cover?, Guiding Principles of TQM, Managerial Perspective to TQM

**Unit III: Statistical Process Control (SPC) and Other Quality Improvement Techniques** – Process Control Charts, Control Charts for variables and attributes, Pareto Diagrams, Scatter Diagrams, Run Charts, Cause and Effect Diagrams, Concept of six sigma.

**Unit IV: TQM Tools** - Benchmarking—Reasons to Benchmark, Benchmarking Process, Quality Function Deployment (QFD), QFD Process, Benefits, Taguchi's Quality Loss Function, Total Productive Maintenance (TPM) – Concept, Improvement Needs, FMEA – Stages of FMEA.

**Unit V: Quality Improvement Systems** - Kaizen, Lean, Poka-Yoke, 5S, 3M, Quality Circles, Value Analysis and Value Engineering.

**Unit VI: Business Process Reengineering** - What is BPR?, Need for BPR, BPR in USA, Europe, India.

### **Suggested Readings**

1. Total Quality Management, Dale H. Besterfield, et al., Pearson Education Asia, 1999. (Indian reprint 2002)

2. The Management and Control of Quality, James R. Evans & William M. Lindsay, (5<sup>th</sup> Edition), South-Western

(Thomson Learning), 2002 (ISBN 0-324-06680-5).

3. Total Quality Management, Feigenbaum, McGraw-Hill, 1991

4. Total Quality Management, Poornima M. Charantimath, 2<sup>nd</sup> Edition, Pearson Education  
5. TQM an Integrated Approach, Shailendra Nigam, Excel Books

# **GROUP H**

## **BANKING & FINANCIAL SERVICES MANAGEMENT**

### **SP01 : PCB3EH1 : Banking Operations and Services**

**Unit I: Overview** - Definition-utility of banks—banks and economic development -types of banks with their individual functions –Role of RBI – Monetary management –business in the globalized era, Rights of a banker, Clayton's case, Banker's Obligation to honour cheques, Secrecy of customers' accounts. Customers' Accounts -.Introduction for opening new accounts, opening of savings, current and fixed deposit accounts Minor's accounts, Club accounts, Partnership accounts, Joint stock company's account. Attorney's account, Joint accounts, Insolvency of the customer

**Unit II: Payment and Collection of Cheques** - Form of Cheque, Date, Amount, Insufficiency of funds, customer's signature, Countermanding payment of cheque, Crossing, Not Negotiable Crossing, Endorsements and Effect of Material Alterations. Liability for conversion, Protection to the collecting Banker, Duties of Collecting Banker.

**Unit III: Bills of Exchange** - Definition, Parties, Accommodation Bill, Calculation of Date of Maturity, Dishonour of Bills, Noting and Protesting, Drawee in Case of Need. Bank Drafts - salient features

**Unit IV: Advances** - Advances against various securities, Life Policy, Fixed Deposit Receipt, Goods, Shares, Advances against Guarantees, Advances to Small-scale industries, Registration of Charge under Companies Act, 1956. Accounts Receivable financing Advances for priority sectors— Hypothecation, Documentation.

**Unit V: Investment Banking services:** Fee based and Fund based services: Credit Cards, Debit Cards, , Venture Capital, Factoring, Forfeiting and Bill Discounting. Leasing and Hire Purchase, Housing Finance, Other investment banking services including distribution of Insurance and Mutual fund products, PMS – Process and monitoring.

**Unit VI: Merchant Banking Services** - Merchant Banking: An Introduction, Issue Management, Corporate Restructuring and Mergers and Project Financing. Securitization. Credit Rating.

### **Suggested Readings:**

1. Basics of Banking IIBF, Mumbai Taxmann Publications – paper I
2. Banking Law & Practices by H.C. Agarwal, Siwan Publications. –paper I
3. Indian Financial System & Commercial Banking by Shri B. Raviramchandran, Dr. Dwivedi et al, IIBF, Mumbai Paper I
4. An introduction to documentary Credit – Rup Narayan Bose, Macmillan India Ltd. New Delhi –paper I
5. Financial Institutions, Markets & money by David S. Kidwell & others, John Wiley & Sons

## SP02 : PCB3EH2: Bank Financial Management

**Unit I: Objective of bank management** - Raising financial resources of different types at most competitive rates; deployment of funds profitably in various avenues such as loans, securities, project finance, etc.; management of various risks accompanying these functions; compliance with various regulations; keeping expenses under control and optimizing the value to the shareholders.

**Unit II: Bank Profitability and Productivity**-Analysis of Bank profits - computation of profit - various components of costs and yields and their parameters - indicators of return to shareholders. Need for growth – inter-dependability of growth in profits and in assets - growth of profits through improvement in efficiency (operating profitability and asset utilization) and through growth in assets (equity multiplier) - limitations on growth (regulation - risk management - technology and other costs - economic cycles)

**Unit III: Bank capital and Treasury Management** - Need for Bank Capital, Ideal Characteristics of Bank Capital, Common Stock, Financial Flexibility, Capital Adequacy. Treasury Management - Concept and Practice

.Role of Treasury and ALCO in asset-liability management Risk Management - Credit Risk Definition, Credit Risk and its underlying risks -Default risk, Exposure risk, Recovery risk, Collateral risk, Third party guarantee risk

**Unit IV: Liquidity Issues** - Structuring of timing of cash flows - inflow / outflow. Identification of availability of liquidity sources to match specific liquidity needs over the time horizon of short, intermediate and long-term needs, Sourcing liquidity from the money market and dependence on Liquidity Adjustment Facility of the Central Bank. Tying up back stop facilities / line of credit for contingent needs; Use of other on-balance sheet and off-balance sheet instruments for liquidity; Developing suitable investment management strategies to synchronize with liquidity needs

**Unit V: Liquidity Management** - Objective of Liquidity Management - i) Liquidity management policies and plans, ii) Recognizing distinct liquidity needs - short, intermediate and long, iii) Recognizing distinct group of liquidity sources: liquidity through fresh borrowings, liquidity through repayments from borrowers, liquidity through statutory reserves. Determination of optimal level of liquidity in terms of CRR and SLR.

**Unit VI: Interest rate management** -Fundamental factors affecting interest rates - Concept of interest, time, liquidity preferences, role of expectation in the interest rate formation, nominal and real interest rates, interest rate theories, role of the central bank in liquidity management, Role of Money Market and sources of liquidity in the Indian money market, RBI's policy and impact of Liquidity Adjustment Facility (LAF)

### Suggested Readings

1. [Financial Management- Theory and Practice, 6th Ed.,](#)- Prasanna Chandra
2. Financial Management- Theory and Practice, Khan & Jain
3. [Finance for Managers - Harvard Business Essentials](#)
4. [BUSINESS MASTERMINDS: WARREN BUFFETT](#) by [hellerrobert](#)
5. Financial Management- I M Pandey
6. Treasury Management & Risk Management by Trivedi & Hasan, Genesis Publishers, Mumbai. – Paper V

# **GROUP I**

## **AGRI-BUSINESS MANAGEMENT**

### **SP01 : PCB3E11 : Agro-Input Management**

**Unit1: Fertilizers:** Introduction, Concept of Agricultural Inputs; Role of fertilizer in agriproduction, raw materials needed for and principles of manufacture of nitrogen, phosphatic, and potassic fertilizers, secondary nutrient sources and micronutrients formulation; infrastructures for marketing and distribution of fertilizers; fertilizer quality control and pricing policy, constraints in fertilizer use and emerging scenario of fertilizer use, scope of bio-fertilizers; environmental pollution due to fertilizers. fertilizer sampling, quality evaluation, formulation of fertilizer mixture, and methods of fertilizer recommendation for crops, study of fertilizer marketing systems.

**Unit 2: Agro-Input Management:** Demand and supply scenario of major agro inputs seed, fertilizers, agrochemical tractor and other farm machines, pricing agro inputs; information system for agro-input marketing, Role of trade fairs like Agro Vision.

**Unit 3: Agro-Chemicals & Technology Management:** Role, status and organisation of agro-chemical industry in the Country; alternate of novel methods of pest control, integrated pest management; role of biological controls as plant protection methods; methods of quality control qualitative and quantitative agrochemicals and residue analysis; guidelines for the use of agrochemicals, environment; adulteration and legal requirements.

**Unit 4: Seed Production Technology:** Importance of quality seeds in agriculture; principles and methods of seed production of cereals, pulses, oilseeds and miscellaneous field crops; principles of seed certification and certification agency, seed laws and seed law enforcement; seed processing drying, cleaning, grading, treatment, weighing, bagging and handling of seeds;

**Unit 5: Seed Processing:** Installation and management of seed processing plants-Seed storage; loss of seed viability during storage; seed packaging storing breeder, foundation and certified seeds; Seed industry in India-present status and future prospects

**Unit 6: managing seed industry:** Role of public, private and cooperative sectors; national policy and programmes seed demand and supply; forecasting seed demands; seed trade and export potential, organization of seed industry in India; Human resource development in seed industry, managing seed industry efficiently.

#### **Suggested Readings**

1. Agri Business Management/Himanshu. Jaipur, Ritu
2. Encyclopaedia of Agricultural Marketing : Marketing of Farm Inputs Seed, Fertilizer and Irrigation, Vo. IX/Jagdish Prasad
3. Advances in Seed Science and Technology, Vol. I : Recent Trends in Seed Technology and Management/edited by K. Vanangamudi, N. Natarajan, K. Natarajan, A. Bharathi, R. Umarani and T. Saravanan
4. Seed Technology/Dhirendra Khare and Mohan S. Bhale
5. Plant Compost-Manure and Agro-Chemicals Analysis : A Laboratory Manual/P.K. Behera
6. Agro Based Hand Book of Cultivation, Plantation and Farming : With Directory of Manufacturers/Suppliers of Agricultural Equipments & Implements and Suppliers of Agricultural Fertilizer, Seeds, Chemicals etc
7. Industrial Agriculture/Payman Mahasti

# SP02: PCB3EI2 : Livestock Management

**Unit 1: Livestock Industry:** Present status of livestock products industry in India-dairy, meat, poultry, skin, hides,-wool; selection of livestock type, production and processing units; processing industry in India; alternate production and processing technology; demand scenario for livestock products in domestic and global markets; improvement in products through disease control;

**Unit 2 :Feed Business Management:** Role of management in feed manufacturing industry, organizing and planning feed manufacturing unit with special emphasis on design of manufacturing processes, equipment, material handling and physical facilities, control procedures in feed manufacturing units with emphasis on inventory management, developing and evaluation of purchasing organisations system, planning and production of good quality feeds, quality control of raw material and finished products, regulations relating to the manufacture and sale of feed stuff

Unit 3: Storage and transport: Veterinary advisory services, extension activities, quality control system; packaging, preservation and storage systems for livestock products; transport means for domestic and global markets; quality control during storage & transit; extent of losses during storage and transport and ways to minimize the same; slaughtering and processing-plant design and operations; treatment of by- products; marketing and distribution of animal products existing and desired; quality standards for various products, and environmental and legal issues.

Unit 4: Poultry and Hatchery Management: Poultry and hatchery industry, role of management in poultry industry establishing a poultry and hatchery unit -location, size and construction, equipment and physical facilities, organizing and managing poultry. Incubation and hatching, production of quality chicks and eggs, factors affecting hatchability, bio security and hatchery sanitation, handling of hatching eggs,

Unit 5: maintaining chick quality: -chick grading, sexing, packing, dispatch, transportation and chick delivery, franchise hatcheries, custom hatching, brooding, growing and laying management, crises management, industrial feeding, housing and disease management, waste management, record management accounting and budgetary control, risks and insurance, personnel management including wages and salaries, job evaluation and employee appraisal,

Unit 6: Marketing of Livestock : Direct sale and sale through franchisees/ agents, advertisement, sale and after sale services, other innovative sales strategies. Management- direct sale and sale through franchisees/agents, advertisement, sale services, other innovative sales .recent trends

## Suggested Readings

1. [Livestock Feeding Strategies for Dry Regions/edited by P.S. Pathak and S.S. Kundu](#)
2. [Trends in Livestock Research/S.K. Kaushish](#)
3. [Livestock Economy of India/P.C. Bansil and S.P. Malhotra](#)
4. [Sustainable Agriculture: Status and Prospects/P.N. Kalla, Anita Singh, S.S. Pareek, Shanti K. Sharma and Hanuman Ram](#)
5. [Hand Book of Poultry Farming and Feed Formulations](#)
6. [The Complete Technology Book of Dairy and Poultry Industries : With Farming and Processing](#)
7. [Fertility and Hatchability of Chicken and Turkey Eggs/Lewis W. Taylor](#)

## **Group J**

### **Power Management**

#### **SP01 : PCB3EJ1 :**

#### **CONVENTIONAL AND NON-CONVENTIONALRENEWABLE ENERGY SYSTEMS**

**Unit I : Steam power stations:** - Site selection, Prime movers, Arrangementofplant and principle auxiliaries, Operating costs.

**Unit II : Hydro power stations:** - Site selection, Prime movers, Arrangementofplant and principle auxiliaries, Operating costs, Surge tank and penstock.

**Unit III : Nuclear power stations:** - Fission and fusion technologyfundamentals,Layout and reactors, Prospects and limitations.

**Unit IV : Major non-conventional energy sources:** - Solar energy, WindEnergy:- Principles, Scope and Availability.

**Unit V : Other non-conventional/Renewable energy sources:** - Oceanthermalenergy, Tidal and wave energy, Geothermal energy, Principles, Scope and Availability.

**Unit VI : Bio-energy:** - Biomass and its uses, Classification of biomass asenergysources, Characteristics of bio-mass and its conversion process.

#### **Suggested Readings**

1. Generation of electrical energy by B.R. Gupta..
2. Elements of Power system design by M.V. Deshpande
3. Power Stations by Domkundwar
4. Renewable energy sources by Twidell and Weir, engineering language book society, London.
5. Energy Technology by S. Rao and Parulekar

# **SP02 : PCB3EJ2: ENERGY AUDIT AND MANAGEMENT**

**Unit I :**General energy problem, energy use pattern of various types of consumers, scope for energy conservation.

**Unit II :**Energy Audit, Energy monitoring, energy accounting and analysis.

**Unit III :**Auditing and targeting of electrical energy, electrical energy conservation in building and industries.

**Unit IV :** Load curve analysis and load management, energy efficient drives, Tariffs and power factor improvement.

**Unit V :**Economic operation of power plant operation, Economic scheduling of power stations.

**Unit VI :**Economic operation of power system, Demand side management: - Concepts, planning and implementation methods.

## **Suggested Readings**

1. Generation of electrical energy by B.R. Gupta..
2. Energy and energy resource management by Mahajan, Agnihotri, Atparia. Deep and Deep publication P.Ltd.
3. Power Stations by Domkundwar
4. Energy Management by Paul W. and O\_\_Callaghan, McGraw Hill, N.D.

**SEMESTER IV**  
**Specialization**  
**Elective Foundation**  
**Group A Marketing Management**  
**SP03: PCB4EA3:**

**Consumer Buying Behavior & Integrated Marketing Communications**

**Unit 1**

Concept of consumer personality & brand personality as related to STP, buying influences on consumers and organizational buyers, consumer motivation, perception, learning & attitudes.

**Unit 2**

Reference groups, buying process, factors influencing buying decisions, models of buying behavior, post purchase behavior.

**Unit 3**

Marketing research, methods of research and research process, data collection techniques, sources of secondary data for marketing decisions, relevance of secondary data, marketing metrics.

**Unit 4**

IMC definition, scope, elements, role, etc., models of IMC, media and media planning, IMC strategy and process, new media

**Unit 5**

IMC and brand communication process, role of advertising in branding process BTL, OOH, etc., promotions in IMC – consumer, trade sales, co-branding, in-branding, etc.

**Unit 6**

Creativity and innovation in IMC, packaging and labeling in IMC, PR and ethics in PR, corporate communications, International communications, cross cultural issues in IMC.

**References:**

- 2 Consumer Behaviour – Schiffman, Kanuk & Kumar
- 3 Consumer Behaviour & Branding – Kumar
- 4 Integrated Advertising, Promotion & Marketing Communications – Clow & Baack
- 5 Advertising – Jafkins
- 6 Advertising Management – R Batra, J Myers, D Aaker

# **SP04 : PCB4EA4:**

## **Advanced Marketing Techniques**

### **Unit 1**

Global marketing, country analysis & study of global /emerging markets, market entry and global sourcing strategies, global marketing using internet.

### **Unit 2**

Strategic Marketing Process, types of strategies like follower, leader, etc., value chain analysis and value creation strategies, growth strategies.

### **Unit 3**

Nature & scope of rural markets, characteristics of rural customers and buyer profile, marketing to cooperatives, channels of distribution in rural India.

### **Unit 4**

Marketing Engineering: Customer value assessment and valuing customers, marketing response models.

### **Unit 5**

Inbound marketing, qualification of opportunities, reverse marketing, up-selling, down-selling and cross selling techniques.

### **Unit 6**

Business marketing, characteristics of business markets, organizational buying behaviour, pricing and negotiations, B2B channel management, IMC for B2B marketing

### **References:**

1. Global Marketing – Douglas Lamont
2. Global Marketing Management – Warren J Keegan
3. Strategic Marketing – David W Cravens & Nigel Piercy
4. Rural Marketing – PradeepKashyap
5. Marketing Strategy – A Ranchhod&CalinGurau
6. Marketing Strategy & Competitive Positioning – G Hooley, Nigel Piercy, B Nicouland
7. Contemporary Direct & Interactive Marketing – L Spiller & M Baier
8. Marketing Engineering – Gary L Lilien, ArvindRangaswamy& Arnaud De Bruyn
9. B2B Marketing – Steve Minett
10. The DNA of Marketing – Ira Kalb

# **SP05 : PCB4EA5:**

## **Rural Marketing**

**Unit I: Introduction to Rural Marketing** - Meaning, Scope, definition & importance, Rural versus urban mindsets, Growth of rural markets, Basic differences between rural, semi urban and urban markets.

**Unit II: Rural Market Research & Segmentation** - Research, Location for Conducting Research, Classification of Rural Consumer based on economic Status, Basis of Market Segmentation, Multi-Attribute Segmentation.

**Unit III: Classification of Markets** - Regulated Market, Defects/Problems of Regulated Market, Role of Regulated Markets on Marketing of Agricultural Produce, Significance of Regulated Markets to Agriculturists.

**Unit IV: Rural Marketing Strategies** - Product Strategies, Pricing Strategies, Distribution Strategies, Production Strategies, Methods of Sale, Hatha System, Private Negotiations, Quotations on Samples, Dara and Moghum Sale Methods, Open Auction Method.

**Unit V: Role of Government in the Development of Agricultural Marketing** - Government Intervention in Marketing System, Role of agencies like, Council of State Agricultural Marketing Boards, (COSAMB), State Trading, Cooperative Marketing, Types of Cooperative Marketing Societies, Cooperative Processing, National Agricultural Co-operative Marketing Federation (NAFED), National Co-operative Development Corporation (NCDC), Public Distribution system (PDS), Food corporation of India, Directorate of Marketing and Inspection (DMI), National Institute of Agricultural Marketing (NIAM), Self help Groups (SHG's).

**Unit VI : Agricultural Credit and Crop Insurance & Role of IT in Rural Marketing** - Agricultural Credit Policy, Institutional Agreements for Agricultural Credit, Crop Insurance, Agricultural Insurance. Infrastructure, Importance & Scope, Modern techniques for rural distribution. Case Study of ITC's -e-choupall Initiative

### **Suggested Readings**

1. Rural marketing – Rajagopal
2. New perspectives on rural marketing – Ramkishen Y
3. Rural Marketing in India – K S HabeebRahman (Himalaya Publishing)
4. Rural Marketing in India by R. V. Bedi, (Himalaya Publishing)
5. Integrated Rural Development – R. C. Arora (S. Chand & Co.)

# **GROUP B FINANCIAL MANAGEMENT**

## **SP03 : PCB4EB3 : FINANCIAL SERVICES MANAGEMENT**

**Unit-I: Financial System-** Financial markets [Money, Debt and Equity Markets]-structure, regulatory bodies- Role and functions-(RBI, IRDA, PFRDA and SEBI); Product features and uses (CP/CD, T bills, REPO, reverse REPO, dated securities, rated securities, equity shares) and participants – Role and functions (CCIL, FIMMDA, PDs, NSCCL, NSDL, CDSL. )

**Unit-II: Banking Services and Operations** -Definition of banks, Functions of Commercial Banks, Banking Structure in India, Role of RBI vis-a-vis other commercial banks, Introduction to Bank Deposits, Types of Deposit Accounts, Common guidelines of opening and operating accounts and KYC, Deposit Insurance, Principles of Lending and Loan Policy, Basics of Loan Appraisal, Credit decision-making and Review, Types of Advances- lien, pledge, hypothecation, mortgage, and charge, Management of Non Performing Assets; Bank Investment Policy, Statutory Reserve Requirements, Non-SLR Requirements, Concept of PLR, Base rate.

**Unit-III: Insurance Services** - Concept of insurance, principles of insurance, Traditional and Unit linked policies, individual and group policies, with profit and without profit policies, Different type of insurance products – whole life products, interest sensitive products, term assurance annuities, endowment, assurance. Medi-Claim and health insurance products - Different types of products available in the market, Salient features, Tax treatment General Insurance Products - Different types of products available in the market, Salient features.

**Unit IV: Underwriting, Premium, and Claims** –Insurance underwriting, underwriters Vs. Actuaries, factors to be considered in insurance underwriting, underwriting philosophy and guidelines, individual and group underwriting; risk analysis and evaluation, Classification of risks, methods of acceptance of risk, underwriting process, recent trends in underwriting; Claims

– introduction, types, claim procedure – maturity, death, Surrender and rider; Other precautions during settlement

**Unit V: Credit Rating Services** – Introduction, regulatory framework, SEBI Credit Rating Agencies Regulation, Credit rating agencies in India, Credit rating process and methodology, CAMEL model, Rating symbols and grades, Significance, advantages and Limitations of credit rating.

**Unit VI: Mutual Funds** –Organization Structure, Classification of Funds–Types of Funds–Equity Funds, Debt Funds, Liquid Funds, Balanced Funds, Monthly Income Plans, ETFs, Commodity Funds, Fund of Funds, Real-Estate Funds; Calculation of NAV; Systematic Investment Plans; Concept of Cost Averaging and Value Averaging; AMFI; AGNI. Recent developments in the Mutual Fund industry.

*NB: Numerical shall be based on Unit IV, and Unit VI only*

## Suggested Readings:

1. Strategic Financial Management – Dr. J.B. Gupta – Taxmanns, New Delhi
2. Financial Management – Rajiv Shrivastava , Anil Misra – Oxford Higher Education
3. Financial Management- Ravi Kishore, Taxmanns, New Delhi.
4. Financial Management: Problems and Solutions, Ravi Kishore, Taxmann, New Delhi
5. Financial Management – Theory & Practice by Prasanna Chandra, TMH Publishers 2004
6. Financial Management-I.M. Pandey, Vikas publishing house, New Delhi.
7. Options Futures and other Derivatives – John C.Hull, PHI-EEE, 2011<sup>th</sup>
8. Financial Institutions and Markets – L. M. Bhole – 4<sup>th</sup> Edition
9. Reference Material of NCFM from [www.nseindia.com](http://www.nseindia.com)
10. Reference Material of NISM Mutual Fund Module from [www.nseindia.com](http://www.nseindia.com)

## **SP04 : PCB4EB4:**

### **SECURITY ANALYSIS & PORTFOLIOMANAGEMENT**

**Unit I: Shares and their valuation** – Features of equity, Methods of valuation, Valuation of goodwill, valuation of shares- asset backing method, EPS method, Market value, Yield based methods, Fair value of shares, Dividend discount models- with constant dividend, with constant growth, multistage growth models. P/E based valuation.

**Unit II: Bond Valuation and Management** –Types Of Bonds - Dated Securities And Zero Coupon Bonds; Strips, Bond Risks – Systematic And Unsystematic; Yield, Current Yield, YTM, Yield To Call, Term Structure Of Interest Rates, Theories Of Term Structure - Yield Curve, Sensitivity Of Bond Prices, Convexity Tenure, Term To Maturity, Duration And Modified Duration, Bond Management Strategies.

**Unit III: Portfolio Theory** - Risk and return for one security, two security and portfolio. Efficient frontier, Investor utility, Capital Market theory - Background, risk free asset, the market portfolio; capital asset pricing Model, systematic and unsystematic risk, CML, SML; Arbitrage pricing theory – empirical test of APT, Sharpe's Single Index Model.

**Unit IV: Equity Portfolio Management** - Passive v/s. Active, Value v/s. Growth, Fundamental analysis - Concept, process, Economy analysis, sector analysis, company analysis; Tools and techniques of fundamental analysis, business cycle and industry analysis. Preparation of equity research report.

**Unit V: EMH and Technical Analysis** - Need, EMH-forms, tests and results, Implications of efficient capital markets; Dow Theory, Random walk Hypothesis, Indian Markets and Efficiency. **Technical Analysis** – Fundamental Principles; Charts – Line Charts, Bar Charts, Japanese Candlestick Chart; Trends – Reversal of Trend, Flat Trends, Chart Patterns/Price Patterns – Reversal Patterns, Continuation Patterns; Moving averages – Simple and Exponential; Momentum analysis/Relative Strength Index (RSI); Bollinger Bands. MACD

**Unit VI: Wealth Management** - Investor life cycle and investment goals, Investment options available and their comparison, Portfolio management process. Rule of 72, Rule of 69, Asset Allocation Strategies

– Integrated, Strategic, Tactical, Insured; Selecting appropriate allocation, Benjamin Graham's and Bogle's Strategic Asset Allocation Model, Jacob's 4 Step Program to developing a Model Portfolio, Evaluation of Portfolio performance - Treynor, Sharpe, Jensen, Sortino measure, Fama's Performance Measure, Fama's 3-Factor Model, Carhart's 4-Factor Model, Portfolio Style Evaluation and Portfolio Attribute Analysis. Strategies of Great Masters.

*NB: Numerical shall be based on Unit I, Unit II, Unit III, Unit V and Unit VI only.*

#### **Suggested Readings**

Investment Analysis and Portfolio Management by Prasanna Chandra, Tata McGraw Hill Publishers 1/E, 2002

1. Security Analysis and Portfolio Management, V.A. Avadhani, 2007, Himalaya Publishing House
2. Investment Science, David G. Luenberger, Oxford University Press.
3. Financial Management, R.P. Rustagi, Galgotia Publication House.

Investment – William Sharpe (PHI)

# SP05 : PCB4EB5 :

## Corporate Taxation

**Unit I: Definition of Income & Assesse**, Previous year, Assessment year, Gross total income, Total taxable income, Residential status, Agricultural income.

**Unit II: Distinction between capital and revenue receipts;** Income from Business & Profession (excluding professional income) Income from capital gains and income from other sources relating to company assessee only. **Income from capital gains** and income from other sources relating to company assessee only.

**Unit III: Income exempt from tax and Tax Planning -**, Tax rebates, Deductions relating to company assessee only. Set off & Carry forward of losses, TDS, Self assessment tax, Filing of return. Concept, Tax Planning with reference to setting up of new business, Financial management decisions & Employees remuneration.

**Unit IV: Introduction, Overview and Evolution of GST:** - Indirect tax structure in India, Introduction to Goods and Service Tax (GST) - Key Concepts, Phases of GST, GST Council, Taxes under GST, Cess  
**Registration under GST:** Threshold for Registration, Regular Tax Payer, Composition Tax Payer, Casual Taxable Person, Non-Resident Taxable Person, Unique Identification Number, Registration Number Format

**Unit V: Supply under GST and Valuation of Supply-** Place of Supply, Interstate Supply, Export of Service, Export of Goods, Import of Service, Import of Goods, Valuation of Supply (Numerical on valuation and calculation of tax)

**Input Tax Credit under GST & Returns:** Input tax credit process, Negative List for Input tax credit, Input Tax Credit Utilization and Input Tax Credit Reversal, Types of GST returns and their due dates, late filing, late fee and interest

**Unit VI: Custom Duty and Indirect Taxation:** Definitions of certain terms relating to the custom act, custom tariff act, Levy and types of custom duties, Indirect taxation applicable to few commodities levied by either Central or State Government

**Note:** 40% numerical questions and 60% theory questions will be asked

### Suggested Readings:

1. Ahuja, G. K. & Gupta, Ravi, Systematic Approach to Income Tax. Allahabad, Bharat Law House.
2. Datey V. S.: Indirect Taxes, Taxmann Publications, New Delhi
3. Bhagwati Prasad, Direct Taxes Law & Practice, WishwaPrakashan.
4. Kanga, J. B. and Palkhivala, N. A., Income Tax, Bombay, N. M. Tripathi.
5. Singhanian V. K., Singhanian Kapil, Singhanian Monica, : Direct Taxes Law and Practice, Taxmann Publications, New Delhi.
6. Systematic Approach to Indirect Tax- Kumar, Sanjeev
7. Text Book of Indirect Tax – Sinha P.K
8. Dr. VinodSinghanian, Taxman Publication, New Delhi
9. GirishAhuja & Ravi Gupta, Bharat Law House, New Delhi

Websites :Website of Custom Department, Website of Excise Department, Website of Sales Tax Department

**Group : C:Human Resource Management**  
**SP03: PCB4EC3 :**  
**Industrial Relations & Labour Regulations**

**Unit I: Industrial Relation & Democracy** - Definition and concept of industrial relation, basic facts, scope, aspects & ideologies of Industrial relations, Approaches to Industrial relations.

(A) COLLECTIVE BARGAINING, definition, importance, types, prerequisites of effective collective Bargaining & Collective Bargaining in India; (B) WORKERS PARTICIPATION: Concept & meaning, Aims & objective, Forms & levels of participation, conditions essential of working of the scheme.

**Unit II: Grievances & Disputes** - Nature & causes, settlement machinery, social obligations, Industrial Disputes, causes, remedial & prevention measures. Consequences of Industrial disputes on Industry & Society, Significance of Peace & Harmony to Industrial Productivity & progress.

**Unit III: Labour Welfare & Social Security Concept** - Meaning & scope, Labour welfare & welfare officer in Indian Industry, his role, perception, limitations, role performance, New challenges & expectations, Training of welfare officers; Aims of social security measures, methods of providing social security, benefits to workers-social assistance and social insurance, origin and growth of the idea of social security.

**Unit IV: Labour Legislations & ILO** - Nature, Scope, character growth & development of labour legislation In India, Legislation & the constitution of India; Constitution, working & impact of ILO on Labour Legislations in India, ILO convention & recommendations

**Unit V- Normative Labour Legislations** - Factories Act, 1948, Bombay shop & Establishment Act 1948, PULP Act 1971. **Wage Legislation** - Minimum wages Act, Payment Of wages Act 1936, Payment of Bonus Act 1965. **Industrial Relations Legislations** - Trade Union Act 1926, Industrial Employment standing order Act 1946, Bombay Industrial Relations Act, Industrial Dispute Act 1947. **Social Security Legislations** - Workmen's compensation Act, Employees state Insurance Act 1948, Provident Fund Act 1952 and Payment of Gratuity Act 1972.

**Unit VI: Functions & Working Of Offices Attached To Labour Ministry** - Directorate-General of Employment & Training; Labour Bureau; Welfare Commissioners; Various committee constitute by the Government of India (Ministry Of Labour).

**Suggested Readings**

1. Dynamics of Industrial Relations by Mamoria & Mamoria – Publisher: Himalaya Publishing House.
2. Industrial Jurisprudence & Labour Legislation by A.M. Sarma, 9 th revised edition – Publisher: Himalaya Publishing House
3. Labour Laws --- Taxman's
4. Essentials Publisher: of Himalaya Human Publishing Resource Management House. & Industrial Relations by P. Subbha Rao – Industrial Relations by C. S. Venkata Ratnam – Publisher: Oxford U

# SP04 : PCB4EC4:

## Global HRM Scenario & Practices

**Unit I: Introduction - Business Management of Global Companies** - Characteristics of global companies, Difference between domestic and global companies, H.R. strategy planning for global organizations, HRM approaches in global companies objectives and scope of international HRM, cultural and reality shock.

**Unit II: Comparative Employment Policy** - Concept, significance, convergence theory, Marxist theory, the cultural approach power Distance (PDI), Uncertainty avoidance (UAI), Individuality (INV), Masculinity (MASC).

**Unit III: Social Environment, Staffing and Compensation** - Concept, Social environment and HR practices, Staffing: International recruitment, selection, training and hiring policies, Staff retaining and motivating techniques, **International Compensation** - Principles of International Compensation, Methods and practices of International Compensation, International Compensation and employee satisfaction, case study.

**Unit IV: Cultural Literacy and HR Information System in Global Business** - Cultural awareness: essentials, advantages, cultural skills for co-operative advantages, HR information system: Concept, limitations and Uses, Designing of HRIS, Computerized skill inventories.

**Unit V: Developing Global Managers** - Global literate leader: concept, essential qualities, communication and interpersonal Relations, Training, Career development, succession planning, managerial stimulation's; case study.

**Unit VI: HRM in Europe Japan And America** - Background of Europe, the institutions of the European Community (E.C.): the council of ministers, the commission, the court of justice, the parliament, the social charter, E.C. legislation procedure, case study; Japan's Employee management: Introduction, lifetime employment, characteristics, importance, limitations, the seniority wage system, relevance of Japanese Management in Indian Context, case study.

### Suggested Readings:

1. Strategic Human Resource Management by RANDALL S. SCHULER and SUSAN E JACKSON Publisher: Blackwell Publishing,
2. [Human Resource Champions](#) by Dave Ulrich, Publisher: Harvard Business School Press.
3. International Human Resource Management by Randall Schuler & Dennis Briscoe, (Routledge Global Human Resource Management Series
4. International Human Resource Management by Monir Tayeb, Publisher: Oxford University Press.
5. [Corporate HRD](#) by Biswajeet Pattanayak, Publisher: Excel Books

## **SP05 : PCB4EC5:**

### **Human Resource Development Strategies and Systems**

**Unit I: Comparative Study of Various HR Disciplines:** Comparative study of Human Resource Development, Human Resource Management, Human Capital Management and Personnel Management, case studies.

**Unit II: H.R.D. Culture and Strategies** - HRD culture and practices, Subculture, subsystem, problem, Strategies for adapting changes in external environment, propagation of culture through HRD, Case studies.

**Unit III: HR Information System (HRIS)** - Objectives, Concept, significance, limitations, steps in HRIS, Process and application in HRIS, Study of HRIS models.

**Unit IV: HR System Design** - HR System Design: Principles and Practices, Machinery and Subsystems of HR system Design, HRD intervention.

**Unit V: HRD in India & Skill Enhancement Techniques** - Recent Scenario and Changes, HRD Barriers in India, Case study. Total Quality Management (TQM), Knowledge Management, H.R. Restructuring, Reengineering, Quality Circles.

**Unit VI : H.R. Accounting, Research And Audit** - HR accounting and Audit: Need, significance and techniques, HR Valuation, H.R. Research process: Importance and difficulties in HR research.

#### **Suggested Readings**

1. Human Resource and Personnel Management, by K Aswathappa, Publisher: Mc-Graw Hill.
2. Strategic Human Resource Management, by Tanuja Agrawal, Publisher: Oxford University Press.
3. Personnel and Human Resource Management: Text and Cases, By P. Subba Rao, Publisher: Himalaya Publishing House.
4. [Knowledge Management and the Role of HR](#) by Chris Harman, Publisher: FT Prentice Hall
5. [HR Interventions in the Global Competitive Regime: Strategies for Leadership](#) by Charles Xavier, C.S. Adhikary and Ramana Murty, Publisher: Excel Books

**Elective**  
**Group D Information Technology Management**  
**SP03 : PCB4ED3 :**  
**SOFTWARE ENGINEERING & MANAGEMENT**

**Unit – I: Introduction:** The Software Engineering Discipline–Evolution And Impact; Programs Vs. Software Products; Why Should Software Engineering; Emergence Of Software Engineering: Early Computer Programming, High-level Language Programming, Control Flow-based Design, Data Structure-oriented Design, Data Flow-oriented Design, Object-oriented Design; Software Life Cycle Models; Classical Waterfall Model; Iterative Waterfall Model; Prototyping Model; Evolutionary Model; Spiral Model

**Unit – II: Software Project Management;** Responsibilities Of A Software Project Manager; Project Planning; Materials For Project Size Estimation: Lines Of Code (LOC), Function Point Metric; Project Estimation Techniques: Empirical Estimation Techniques, Heuristic Techniques, Analytical Estimation Techniques; Empirical Estimation Techniques: Expert Judgment Technique, Delphi Cost Estimation; Cocomo – A Heirostoc Estimation Technique: Basic Cocomo Model, Staffing Level Estimation: Norden’s Work, Putnam’s Work Risk Management: Risk Identification, Risk Assessment, Risk Containment

**Unit – III: Classical Analysis And Design Of Software** Requirements Gathering And Analysis; Software Requirements Specification (SRS): Contents Of The Srs Document, Functional Requirements, Traceability , Characteristics Of A Good Srs Document; Software Design; Cohesion And Coupling, Classification Of Cohesiveness, Classification Of Coupling; Software Design Approaches: Function-oriented Design, Object-oriented Design; Function-oriented Software Design; Overview Of SA/SD Methodology; Structured Analysis; Data Flow Diagrams (DFDs): Primitive Symbols Used For Constructing DFDs, Some Important Concepts Associated With Designing DFDs; Structured Design: Flow Chart Vs. Structure Chart, Transformation Of A DFD Model Into A Structure Chart;

**Unit – IV: Object Oriented Software Analysis And Design -** Object Modelling Using UML; Unified Modelling Language (UML): UML Diagrams Use Case Model: Representation Of Use Cases, Use Case Packaging; Class Diagrams; Interaction Diagrams; Activity Diagrams; State Chart Diagram Object-oriented Software Development; Design Patterns

**Unit – V: Software Quality -** Software Reliability And Quality Management: Software Reliability: Reliability Metrics, Statistical Testing; Software Quality; Software Quality Management System: Evolution Of Quality System; SEI Capability Maturity Model: Comparison Between ISO 9000 Certification And SEI /CMM; Six Sigma

**Unit – VI: Software Testing** - Coding: Coding Standards And Guidelines; Code Review:CodeWalk-throughs, Code Inspection; Testing: Verification Vs. Validation, Design Of Test Cases; Unit Testing; Blackbox Testing; White-box Testing; Debugging; Integration Testing; System Testing: Performance Testing; Software testing fundamentals-Testing-related terminology like Errors, Bugs, Defect, Objectives of the testing, Test techniques, Testing types, Defect Analysis and Defect reports, Overview of Testing Tool „Winrunner“.

**Suggested Readings:**

1. Software Engineering - A Practitioner's Approach by Roget Pressman
2. System Analysis and Design by Elias Awad
3. Software Engineering (7th Edition) (International Computer Science Series) by Ian Sommerville
4. The Engineering of Software: A Technical Guide for the Individual by Dick Hamlet and Joe Maybee
5. Schaum's Outline of Software Engineering by David Gustafson

## **SP04 : PCB4ED4:**

# **Enterprise Resource Planning**

**Unit I: Introduction to ERP** - Concepts: Enterprise System, Resource Planning, Enterprise Potential, Total Enterprise Solution, ERP-II. History & Evolution of ERP, Benefits of ERP, Critical Success Factors for ERP. Estimation Procedures - System Evaluation, RFI, FRS, RFP, Evaluation Components, Build / Buy Decisions.

**Unit II: ERP Life Cycle** - ERP Project, Stages of Project Life Cycle, System Requirements for ERP Implementation, Pre-Implementation, Implementation And Post-Implementation, ERP Product Life Cycle, Risks in ERP / SAP Implementation. ERP Architecture - Client Server, Distributed, Web Enabled.

**Unit III: Product Selection** - ERP Market, Market share of various Companies: Oracle E-Business Suite, SAP R/3, PeopleSoft, Baan, JD Edwards One World and IFS, Vendor Comparison, Market Analysis, ERP Packages for SME. Project Management - Scope, Skill-sets, Teams, Leaders, Consultants, Vendors etc, Change Management in ERP, Need / Value / Strategy / Layers / Standards of System Integration.

**Unit IV: ERP Modules I** - Finance (FICO), Sales and Distribution (S&D)-Features, Benefits and Overall Functionality

**Unit V: ERP Modules II** - HRM, CRM and ABAP- Features, Benefits and Overall Functionality

**Unit VI: ERP Market** - Reasons for high demand of ERP, Emerging Standards, Managing Change in ERP; Role of ERP in Industries like: Automotive, Process, Capital Goods, Project Engineering and Pharmaceuticals, Best Business Practices. ERP Cases - TISCO, Mahindra & Mahindra, HLL, L & T, Escorts, Electrolux, BPCL.

### **Suggested Readings:**

1. Textbook of Enterprise Resource Planning: Jaiswal / Vanapalli, McMillan
2. Concepts in Enterprise Resource Planning by Joseph Brady, Ellen Monk, and Bret Wagner
3. From Underdogs to Tigers: The Rise and Growth of the Software Industry in Brazil, China, India, Ireland, and Israel by Ashish Arora and Alfonso Gambardella
4. Countdown 2000, Leon Alexix, TATA McGraw Hill

# SP05 : PCB4ED5: Innovations in IT

**Unit I: IT Enabled Services (ITeS): Outsourcing** - India as Ideal Destination, India Outsourcing History, Outsourcing Writing to India, Call Centers in India, Multilingual Call Centers, Voice/Non-Voice ITeS (BPO Services), HIPAA Compliance in India, Outsourcing Engineering Services, Radiology and Intellectual Property to India. BPO: BPO Concept, Offshoring, Nearshoring, Homeshoring, Medical / Legal Transcription, Back-Office Accounting, Insurance Claims, Credit Card Processing, BPO in India, BPO Security, BPO in India - Legal Issues.

**Unit II: Networking Technology and Systems (NeTS)** - Next Generation Multi-service Networks, Future INternet Design (FIND), IP Telephony (IPT): IPT Components, Soft Phones, Wireless IP Phones, Voice Gateways, Inter-cluster Call, Telco Signaling Protocols, VoIP, VoIP Protocols, Large-Scale IPT and Voice-Mail Network: Voice Network Architecture, Overview: Network Planning and Designing.

**Unit III: Communication Technologies-I & II** - Next Generation Mobile Networks, Heterogeneous Networks, Ad-Hoc & Sensor Networks, Wireless Networks: WiFi, WiMax, Cellular, 3G/4G. Mobility Management and Mobile Computing, Technology Convergence: GSM/CDMA/TDMA, Quality of Service Issues, Network Security and Privacy, Grid Computing and Clustering, Mobile TV, MMIT.

**Unit IV: Web Applications and Services-I & II**- Internet Services and Applications, Web Services, Internet Computing, E-Learning, Middleware, Web Information Systems. Web Based Software, Semantic Web, Agent-Oriented Computing, E-Business, E-Commerce & E-Government, Ontology Engineering, Portal Technologies.

**Unit V: Computing and Information Systems** - Advanced Computer Architectures, Virtual Reality, Databases & Data Mining, Agile Information Systems, AI & DSS, High Performance & Cluster Computing, Real-Time and Embedded Systems, Information Systems Integration, Geographical Information Systems, Business Process Modeling.

**Unit VI: IT Trends** - Biometrics, Fuzzy Logic & Neural Networks, Organic Growth, Audio/Visuals: mp3, mpeg and IPOD, General Outline of IT Act 2000, Case Studies: Mobile Industry Market Players: Nokia, Motorola, Sony-Ericson, Samsung and LG. GIS: Google Earth, E-Learning: Zee TV, E-Governance: Andhra Pradesh, Gadgets: Apple Store, Networking: Cisco.

## Suggested Readings:

1. Offshore Ready: Strategies to Plan & Profit from Offshore IT-enabled Services by Stuart Morstead
2. Networking Infrastructure for Pervasive Computing: Enabling Technologies and Systems by Debashis Saha, Amitava Mukherjee, and Somprakash Bandyopadhyay
3. Introduction to Mobile Communications: Technology, Services, Markets (Informa Telecoms & Media) by Tony Wakefield, Dave McNally, David Bowler, and Alan Mayne
4. iPod & iTunes: The Missing Manual, Fourth Edition by Jude Biersdorfer
5. Developing Web Services for Web Applications: A Guided Tour for Rational Application Developer and WebSphere Application Server (IBM Illustrated Guide Series) by Colette Burrus and Stephanie Parki

# **GROUP E HEALTHCARE MANAGEMENT**

## **SP03 : PCB4EE3 :**

### **Health Systems Management**

**Unit I:** Systems analysis and systems dynamics in health care. Health systems: Characteristics, Planning methodologies, Goals and functions.

**Unit II:** Quantitative foundations of health services management.

**Unit III:** Health Systems research: Uses and applications; Evaluation methodologies for monitoring the performance and needs in health services, Operational planning and management Issues in health care. Health care decision making for mega problems: Approaches.

**Unit IV:** Contemporary trends in health care; Health Manpower policy.

**Unit V:** Planning and management. Management of Costs; Health care Budgeting; Cost Containment.

**Unit VI:** Project Management in Health care.

### **Suggested Readings**

1. Ferrer, H P. ed. "The Health Services Administration Research and Management", 1972. Butterworths, London
2. Hodgetts, R M and Cascio, D M. "Modern Health Care Administration", 1983. Academic Press, New York
3. Hornby, P. etc. "Guidelines for Health Manpower Planning", 1981. WHO, Geneva
4. "National Conference on Evaluation of Primary Health Care Programmes", 1980. ICMR, New Deihl.
5. Wortman P M. ad "Methods for Evaluating Health Services". 1981. Sage, London.

## **SP04 : PCB4EE4:**

# **Health and Hospital Information Systems**

**Unit I:** Concept of Health; Health Care and Hospitals, Indian Health Care System.

**Unit II:** Government- Health Care Interface; Hospital as a Subsystem of Health Care System. Hospital Functions; Hospital Organization, Classification of Hospitals; Components of a Hospital System; Changing Role of Hospital Administration; Need for Managerial Functional Specialists.

**Unit III:** Decision making in Hospitals, Understanding Decision making Process; Drawbacks of Hospital Communication System; Need for Systems approach to Hospital; Concepts of Computers and Communication Technology. Database Concepts, Networks and Communication; Types of Networks, Network Topologies, Information Technology in Hospitals; Information System Concepts, Types of Information Systems. Hospital Information System; Systems Analysis and Design of Hospital Information Systems; Design Considerations; Development Approaches.

**Unit IV:** Issues and Challenges of Hospital Management. Implementation Strategies; Functionality of Computerized Hospital Information Systems.

**Unit V:** Merits and Demerits of CHIS, Trends in HIS.

**Unit VI:** HIS as a Control System; Resource Utilization & Control in Hospitals.

### **Suggested Readings**

1. Lele, R D Computers in Medicine, Tata McGraw Hill Publishing Co. Ltd, New Delhi. 1988.
2. Panko, Raymond R Business Data Communications., Prentice Hall Inc. London. 1997.
3. Hospital Information Systems - The Next Generation, Velde, Rudi Van de Springer Verlag, 1992
4. Health Information In India, Central Bureau of Health Intelligence, Ministry of Health & Family Welfare, Govt. Of India, New Delhi. .
5. Awad, Elias M..Systems Analysis & Design, Prentice Hall of India, New Delhi. 1990

## **SP05 : PCB4EE5:**

# **Health Communication: Development and Dissemination**

**Unit I:** An overview of many substantive areas of study within health communication like interpersonal communication, inter-cultural communication, mass media health images, communication campaigns, alternative medicine, health ethics.

**Unit II:** Use of least three artifacts (such as pamphlets, print ads, video, etc.) analyses the rhetoric of a successful or an unsuccessful health communication campaign such as AIDS awareness, smoking cessation.

**Unit III:** Plan, deliver & evaluate health information & disease prevention campaigns, advocate for health policy initiatives & manages health care delivery systems

**Unit IV:** Healthy campaign or develop a television programme/Health literacy & strategies dissemination in areas of public health emerging from research in hearing, balance, smell, taste, voice, speech or language and materials that make complex disease issues more understandable to public e.g. materials to accompany genetic counseling in areas of inherited disorders.

**Unit V:** Organising for better Health Care Management; Collective Employee Participation; Bargaining; Rewards and Punishments.

**Unit VI:** Role of mass media in Parenting education , Dimension of health Care Communication

### **Suggested Readings**

1. Payers, Lynn. Medicine & Culture - New York: Henry Holt & Company 1996.
2. Du Pre, Athena, Communicating about Health: Current issues & Perspective. Mountain view LA: May field publishing Company, 2000.
3. Health Communication. New Jersey School of Public Health, 1998.
4. Role of Mass Media in Parenting Education, 1997. Harvard School of Public Health Centre for Health Communication.
5. Text book of Preventive & Social Medicine, 2000.

# **Group F International Business Management**

## **SP03: PCB4EF3 :**

### **International Marketing.**

**Unit I:** Globalisation And International Business–Concepts And Features Of Globalisation And International Business, Transformation Of International Business Due To Globalisation

**Unit II:** International Marketing–Basic Concepts, Difference Between International Trade And International Marketing, Relevance Of Marketing Mix (7p’s) In International Marketing

**Unit III:** International Marketing Environment–Study Of Environmental Factors, Analysis And Identification Of Target Markets.

**Unit IV:** Product Design And Development For Global Markets, Adaptation And Product Positioning, Technology Issues, Competitiveness Of Products

**Unit V:** Marketing Strategies Of Multinational Corporations , Global Outlook, Local Orientation, Promotional And Pricing Strategies, For International Markets.

**Unit VI:** Entry And Operating Decision In International Markets, Agency Arrangements, International Distribution, Setting Marketing Setup Abroad, Collaborations, Joint Ventures, Mergers, Acquisitions For Global Expansion, Home & Host Country Approach,

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#### **Suggested Readings**

**International Marketing – Rathor & Jani, Himalaya Publishing**

**International Marketing – Rajagopal, Vikas Publishing House International**

**Marketing – Varshney & Bhattacharya, Sultan Chand & Sons**

## **SP04 : PCB4EF4:**

# **International Finance & Human Resource Management**

### **Unit I: International Financial Markets, And Instruments -Indian Legal System**

Governing The International Financial Markets & Supporting The International Trade, Special Reference Eu, Origin And Development Of Euro Currency Markets, Importance And Features Of Euro Markets , Equity And Debt Instruments In Euro Markets

### **Unit II: Long Term And Short Term Fund Sources In International Financial Markets -**

Features Of Euro Bonds, Syndicated Credit, Equity,, Euro Notes, Euro Commercial Paper.,

### **Unit III: International Finance -Contemporary Issues And Challenges**

Currency Risks, Currency Fluctuations, Domestic Interest Rates Affecting International Trade Libor/Mibor. Transfer Pricing, Derivatives, International Accounting And Taxation, Transfer Pricing, Tax Treaties, Oecd.

### **Unit IV: International Human Resource Management, Concept, Need And Importance**

In Global Operations.

### **Unit V: International Human Resource Management –Strategy And Practices -**

Organisational Structure Decision, Orientation Of Policies And Procedures, Cross Cultural Issues .

### **Unit VI: International Human Resource Management Functions -Recruitment,**

Selection, Training, Placement And Compensation Of Expatriates And Local Staff Of Foreign Branches.

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### **Suggested Readings**

**International Business – Subba Rao, Himalaya Publications**

**International Business – R.M. Joshi, Oxford University Press International**

**Financial Management – V. Sharan Prentice Hall India Textbook Of**

**International Hrm – S.C. Gupta , Macmillan Publishers India**

## **SP05 : PCB4EF5:**

# **India's Foreign Trade Policy & International Economic Organizations**

**Unit I:** India's Foreign Trade in the Global Context, Structure and Equilibrium of India's Balance of Payments

**Unit II:** Recent Trends in India's foreign trade; Directional Pattern; Major export commodities- Thrust area commodities- their trend, problems and prospects; Major competitors; Major Import Commodity Group

**Unit III:** Trade Control in India; Foreign Trade (Development and Regulation) Act, Import and Export Control Orders; Import and Export Licensing System; Exchange Control in India; Blanket Permit System.

**Unit IV:** Import Substitution and Export Promotion Policies; Export Incentives; Financial and Fiscal; Deferred Payment System and the Role of EXIM Bank of India; Export Credit Insurance;

**Unit V:** International Economic Organisation and Development Diplomacy; International Organisations as international institutions; International Monetary Fund (IMF).

**Unit VI:** World Bank Group-International Bank For Reconstruction and Development (IBRD), International Development Agency (IDA), International Finance Corporation (IFC), Multilateral Investment Guarantee Agency (MIGA); General Agreement on Tariffs and Trade (GATT); World Trade Organisation (WTO), United Nations Conference on Trade and Development (UNCTAD) ; International Labour Organisation (ILO).

### **Suggested Readings**

1. Bhalla, V.K. International Business Environment and Management. 8<sup>th</sup> ed., Delhi, Anmol, 2001.
2. Bhashyam, S. Export Promotion in India: The Institutional Infrastructure, Commonwealth Pub., Delhi, 1988
3. Khanna, Sri Ram Export Marketing in India's New Manufacturers, University of Delhi, Delhi, 1986
4. Jain, S.K. Export Performance and Export Marketing Strategies, Commonwealth Pub., Delhi, 1988.
5. Nayyar, Deepak India's Export and Export Policies in the 1960s. Cambridge University Press, 1976.
6. Bhalla, V.K. International Monetary Cooperation, Delhi, Anmol, 1992.
7. Hunt, Diana Economic Theories of Development; An Analysis of Competing Paradigms, Hemel Hempstead; Harvester Wheatsheaf, 1989.
8. Keohane, Robert O. International Institutions and State Power; Essays in International Relations Theory Boulder; Westview, 1989.
9. Krasner, Stephen D. Structural Conflict; The Third World Against Global Liberalism, Berkeley, University of California Press, 1985.
10. Simai, Mihaly The Future of Global Governance, Washington, D.C; United States Institute of Peace Process, 1994.

# **Group G Operation Management**

## **SP03 : PCB4EG3 :**

### **Production and Materials Management**

**Unit I: Introduction to Materials Management** - Operating environment, Supply chain concept, What is material management?, Supply chain metrics

**Unit 2: Production Planning System and Master Scheduling** –Manufacturing Planning and Control System, Sales and Operations Planning, MRP, ERP, Making the Production Plan, Developing a MPS, Production Planning, Master Scheduling and Sales

**Unit 3: Capacity Management and Production Activity Control** - Definition, Capacity Planning, Capacity Requirements Planning, Capacity Available, Capacity Required, Scheduling Orders, Making the plan, Load Leveling, Scheduling Bottlenecks, Theory of constraints

**Unit 4: Order Quantity and Independent demand Ordering System** – EOQ and its variations, Quantity Discount, Fixed Period and Fixed Quantity Ordering Systems, Order Point System, Safety Stocks, Determination of Service Levels, Periodic Review System, Dependent Demand Ordering System, Kanban system.

**Unit 5: Purchasing** - Introduction, Establishing Specifications and Functional Specification Description, Selecting Suppliers, Price Determination, Impact of Material Requirement planning on purchasing, Expansion of purchasing into supply chain management and its organizational implications

**Unit 6: JIT Manufacturing and Lean Production** - JIT Philosophy, JIT Environment, Manufacturing Planning and control in JIT Environment, Lean Production, Difference between Kanban, JIT and Lean?

#### **Suggested Reading:**

1. Introduction to Materials Management-J.R. Tony Arnold, Stephen Chapman, Pearson Education 6<sup>th</sup> Edition
2. Procurement-Principles and Management, Baily, 10<sup>th</sup> Edition, Pearson
3. Purchasing and Materials Management, Gopalakrishnan, McGraw-Hill
4. Purchasing and Materials Management, Anand Kumar Mishra, D K Publishers and Distributors
5. Purchasing and Materials Management, K.C. Jain, S. Chand

# **SP04 : PCB4EG4:**

## **Project Management**

**Unit 1: Introduction, Structures and Frameworks of Project Management** - Introduction of the project, Historical Perspective, Definition, Current Issues, Relationship between general Management and Project Management, Project Management Knowledge Base, Project Model, 4 phase of project management, 7-S of Project Management, The project environment, Complexities of project,

**Unit 2: Strategy, Project Management and Project Definition** - Why Strategy, Organizational Strategy and Projects, Project Management as a strategic capability, Resource Coordination, Project and organizational goals, project performance measurement, Developing the concept, Scope Management, Project Process, Work Breakdown Structure, Process Mapping, Establishing Check Points, Stakeholder Management

**Unit 3: Time Planning and Critical Chain Project Management** - The Process, Gantt Charts, Estimating, Activity on Arrow and Critical Path Analysis, Activity on Node Diagrams, Activity on Arrow vs Activity on Node, Scheduling, Computer Assisted Project Planning, Fast Track Projects

**Unit 4: Cost and Quality Planning** - Cost Planning, Cost Estimating, Cost Build up, Cost Budget, Quality Planning Process, Quality Conformance and quality performance planning

**Unit 5: Plan Analysis and Risk Management** - Analyzing Time Plan, Analyzing Cost Plan, Analyzing Quality Plan, Risk Management, Risk Quantification Technique

**Unit 6: Project Organization: Structure and Teams** - Role of team, Pure Project Organization, Matrix Management, Structure Selection, Team Work, Life Cycle of Team, Managing personalities in a team, Effective Team Work

### **Suggested Readings:**

- Project Management, Maylor 3<sup>rd</sup> Edition,
- Project Management: Achieving Competitive Advantage & MS Project, Pinto (Publisher)
- Project Management, Meredith, Mantek, 7<sup>th</sup> Edition, Wiley India
- Project Management and Control, Narendra Singh, Himalaya Publishing House
- Project Management; Strategic Decision and Implementation, David Cleland, McGraw-Hill

# SP05 : PCB4EG5:

## Operations Management

**Unit I: Introduction** - Introduction to Operations Management and Productivity, Operations and Competitiveness, Operation Strategy, Operation decision making tools, Facilities Layout, Facility Location Models.

**Unit II: Quality Management** - Introduction to Quality Management, Statistical Process Control, Acceptance Sampling, Application of quality in operation management.

**Unit III: Inventory Management , Planning and scheduling** - Nature , concept of Independent Demand Inventory Management, Dependent Demand Inventory Management -- MRP , Just-In-Time Systems. Aggregate Planning, Resource Planning, Linear Programming.

**Unit IV: Lean Production** - Project Scheduling, Waiting Line Analysis for service improvement, Introduction to Lean Production.

**Unit V: Modern Manufacturing Systems** - Flexible Manufacturing System, Production Planning and Control. Computer Integrated Manufacturing Systems (CIMS), Advanced Production Inventory Management Systems (APIMS).

**Unit VI: Human Resource** - Introduction, Job Design and Work Measurement, Project Management.

### Suggested Readings

1. Operations Management - by SLACK & LEWIS, Michael Lewis, Nigel Slack
2. [Operations Management](#) - by Klaus Bellmann
3. [Strategy Maps](#) - by Robert S. Kaplan, David P. Norton
4. [Operations Management](#) - Russell & Taylor
5. Production / Operations Management – S.N.Chary

# **GROUP H**

## **BANKING & FINANCIAL SERVICES MANAGEMENT**

### **SP03 : PCB4EH3:**

## **Laws and Regulations to Banking**

**Unit I:** RBI Act, BR Act, NI Act, FERA, FEMA, Laws relating to NRI Accounts.

**Unit II:** Clearing House for settlement between banks; Transfer of funds between different places including places in foreign countries.

**Unit III:** Laws relating to gross real Time Settlement System. Universal Banking, Core Banking Services, International Standard Practices for Bankers

**Unit IV:** Foreign Bills, Export Finance, Laws pertaining to settlement of Export Bills. Laws relating to shipment, letter of credit and Operation of UCPDC 500.

**Unit V:** NASTRO and VASTRO accounts SWIFT, CHIPS, CHAPS, FEDWIRE.

**Unit VI:** Cyber Laws as applicable to Banks; Various other laws relating to Banking transactions and procedures. Know Your Customer; Bankers relation with customers; Need for better services; Consumer Protection Act 1986 as applicable to banking transactions.

### **Suggested Readings**

1. Law & Practice Relating to Author: M.R. Umarji, Securitisation of Financial Assets & Publishers: Taxmann Allied Services, Enforcement of Security Interest. New Delhi
2. Practical Approach to Securitisation and Reconstruction of Financial and Enforcement of Security Management in Banks/FIs by B.C. Kohli, Taxmann Allied Services, Delhi.
3. S.K. Krishnamurthi Aiyar's law relating to Negotiable Instruments Act, by S.K. Savaria, Universal Law Publishing Co.
4. User's Manual on foreign exchange Management Act, 1999 by R.R. Beedu, Snowwhite.
5. Banking Regulation Act 1949
6. Reserve Bank of India Act, 1935.

## **SP04 : PCB4EH4:**

### **Basics of Financial Accounting for Bankers**

**Unit I: Basics of Business Accounts-** Calculation of Simple Interest, Bank Discount, Compound Interest, Ordinary Annuities, Other Annuities, Amortization and Sinking Funds; Bonds, Calculation of YTM, Duration, Bond Pricing, Premium and Discount.

**Unit II: Subsidiary Books-** Maintenance of Cash/Subsidiary Books and Ledger Record Keeping Basics, Account Categories, Debit and Credit Concepts, Account and Columnar Accounting Mechanics, Journalizing - Writing Cash Books, etc.

**Unit III: Reconciliation of Statements-** Bank Reconciliation Statement, Trial Balance, Adjusting and Closing Entries; Capital & Revenue Expenditure/Depreciation/Inventory Valuation/Bills of exchange/Consignment/Joint Venture.

**Unit IV: Special Accounts –** Leasing and Hire Purchase Company Accounts, Accounts of Non-Trading Concerns – Receipts and Payments.

**Unit V: Final Accounts-** Balance Sheet Structure, Accounts, Categories, Assets, Liabilities and Net Worth Components/Partnership Accounts, Partner's Fixed Capital Accounts, Current Accounts, Loan Accounts, Treatment of Intangible like Goodwill etc. Final Accounts of Banking Companies, Accounting in a computerized environment, Methods, Procedures.

**Unit VI: Norms of Corporate Governance in Banking -** Preparation of statement of accounts as per the revised norms in the globalized context, Submission of Returns to RBI and Government Authorities as per the Legal Provision of various Acts. CG reporting Study of recent annual reports of public and private sector banks

### **Suggested Readings**

1. Taxmann's risk based internal audit in banks by D.P. Gupta & R.k. Gupta, Taxmann.
2. Options, Futures and Other Derivatives, John C. Hull Prentice-Hall of India, 2006. (With CD)
3. Management Accounting & Financial Management by Shri K. Ganesan et al, IIBF, Mumbai.
4. Finance of International Trade by Paul Cowdell et al., A.I.T.B.S Publishers
5. [Inflation Accounting in a Developing Economy: A Study of India](#) by L. S. Porwal and N. Mishra
6. [Financial Accounting for Bankers \(Edge Development Group Credit Skills\)](#)

# SP05 : PCB4EH5: Portfolio Management

**Unit I: An Overview-** Nature and Scope of Investment Decisions Components of Investment Risk.

**Unit II: Securities Market in India & Valuation of Securities** as per the prescribed norms and the problems related to it..Organisation and Functioning of Credit Rating Agencies; Regulation of Services.

**Unit III: Analysis for Equity Investment – I & II-** Economy and Industry Analysis, Company Level Analysis. Technical Analysis, Efficient Market Hypothesis Case

**Unit IV : Portfolio & Capital Market Theory-** Portfolio Analysis, Portfolio Selection. Concept of capital market theory, Portfolio Revision.

**Unit V: Institutional and Managed Portfolio-** Performance Evaluation of Managed Portfolios, investment Companies., Mutual Funds, UTI, LIC, ICICI and Private Sector MF's.

**Unit VI: Treasury Management-** Concept and Methods adopted Problems and Resolution.

## Suggested Readings

1. RISK MANAGEMENT: Publishers Macmillan India Limited, 2/10 Ansari Road, Daryaganj, New Delhi - 110 002.
2. Forex Management and Business Strategy by Deepak Tandon, Skylark Publications, New Delhi – 1 –paper V
3. Financial Risk Manual: Prospect by John Holliwell, Pearson Education. paper-V
4. Portfolio construction, management & protection by Robert A. Strong, Thomson Asia Pte
5. Financial Institutions Management: a risk management approach by Anthony Saunders & Matrica Millon Cornett, McGraw Hill. – Paper V
6. Foreign exchange international finance risk management by A.V. Rajwade, Academy Business Studies
7. Credit Risk Management by Arundeepsingh and N.S. Toor, Skylark Publications
8. [Quantitative Equity Portfolio Management \(McGraw-Hill Library of Investment and Finance\)](#) by Ludwig B Chincarini and Daehwan Kim
9. [Investment Analysis and Portfolio Management](#) by Frank K. Reilly

# **Group : I AGRI-BUSINESS MANAGEMENT**

## **SP03 : PCB4EI3 :**

### **Floriculture, Biotech and Foodprocessing Units**

**Unit 1: Management of Floriculture and Landscaping:** Recent advances in floriculture industry; evolution of new cultivars and production technology of ornamental plants; commercial cultivation of flower crops: rose, gladiolus, tuberose, marigold, aster, carnation, ciliun chrysanthemum special techniques for forcing of dehydration of flowers; response of flowers to environmental conditions; landscape gardening; style of gardening,

**Unit 2 Flower Management: An aesthetic and Socio-** aesthetic newly developed towns and cities,; use of plants in flower production, extraction, purification and storage of essential oils and perfumes; post harvest changes in cut flowers, storage and packing of cut flowers determining optimum time harvesting of flowers for export and home use.

**Unit 3: Management of Biotech Industries:** Agricultural needs & application of biotechnology for agricultural uses and benefits; tissue culture, disease surveillance and diagnostics industries bioprocess engineering and quality products and productivity based industries, their structure, quality parameters, marketing, Intellectual Property Rights bio-diversity concepts and social and legal implications.

**Unit 4: Food Technology :** Present status of food industry in India; organisational structure of agro industry; major dimensions of agro based industries; risk management; unit operations of food industry; deteriorative factors and their control; laws and regulation related to food industry; quality management in food industry-quality standards and ISO:

**Unit 5: Processing Management:** Principles of food preservation and processing; preservation through temperature reduction, water removal, radiation, heat processing, fermentation and use of preservatives, technology of extrusion, solvent extraction, refining and hydrogenation; processing of dairy products; cereals milling; pulse milling; oil seeds crushing; processing of fruits and vegetable; confectionery; tea and coffee processing; food additive and toxicology; protection of food during storage, and transportation; packaging distribution of food products.

**Unit 6: Fruit Production & Post-Harvest Management:** Present status of fruit industry in India and emerging scenario; major fruit growing zones, management of fruit production technology for domestic and global market; post harvest handling technology harvesting, pre-cooling, grading, packing, storage and transportation for cooling, grading, packing, storage and transportation, pre and post harvest management for quality and shelf life; fruit processing industry; international trade in fruits problems and prospects and global marketing of fruits, and government policy, incentives *domestic and global trade*.

## **Suggested Readings**

1. [vFood Processing and Preservation/NeelamKhetarpaul](#)
2. [Modern Technology of Food Processing and Agro Based Industries](#)
3. [Fruit Production : Problems and Solutions/R.R. Sharma](#)
4. [Post-Harvest Management of Horticultural Crops/edited by M.A. Mir, G.M. Beigh, HafizaAhsan, QaziNissar Ahmad, H.R. Naik and Abdul Hamid Rather](#)
5. [Emerging Trends in Post Harvest Processing and Utilization of Plant Foods/NeelamKhetarpaul, R.B. Grewal, SudeshJood and Umaid Singh](#)
6. [Post Harvest Technology of Vegetables/ManoranjanKalia](#)
7. [Food Processing/VikasAhlluwalia](#)

## **SP04 : PCB4EI4:**

### **Financial Management for Agri Business**

**Unit I:** Introduction to financial management, objectives functions, interface of financial management with other functional areas; preparation of financial statements- balance sheet, income statement, funds flow statement, cash flow statement

**Unit II :** financial statement analysis- ratio analysis, time series analysis common size analysis, du-Pont-analysis, difficulties associated financial statement analysis, leverage-concept of leverage, operating leverage, financial total leverage, financial leverage and risk, relationship between risk and return., profit analysis, monitoring costs and sales through variance analysis.

**Unit III :** financial forecasting -sale forecast, preparations of Proforma balance sheet and income statement, growth and external funds requirements. Capital structure- introduction, factors affecting capital structure, features of an optimal capital structure, capital structure theories; sources of long term finance capital-equity capital and preference capital, debenture, term loans and deferred credit and hire purchase.

**Unit IV:** Working capital, determinants of the size of working capital the composition of working capital; managing working capital conservative vs. aggressive policies, static vs. dynamic view of working capital, operating cycle, approach to working capital, inventory management, receivable management and cash management and cash management, dividend decision, financing of working capital-accruals, trade credit, provisions, short term bank finance, public deposits, commercial paper, factoring, regulation of bank credit.

**Unit V:** Capital expenditure decisions- process of capital budgeting, basic principles in estimating costs and benefits of investments, appraisal criteria -pay back period, average rate of return; net present value, benefit cost ratio, internal rate of return, annual capital charge.

**Unit VI :** Agri-business financing system in India -(a) Financial markets, money and capital markets (b) regional and all India financial institutions: commercial banks, regional rural banks, NABARD, AFC, Cooperatives' (NCDC and other institutes) Agro-Industries (Corporation, IDBI, IFCI, ICICI, SFCs, SIDCs, (c) investment institution: LIC, GIC, mutual funds, commercial bank, non banking financial companies.

## **Suggested Readings**

1. [Financial Management- Theory and Practice, 6th Ed.,- Prasanna Chandra](#)
2. Financial Management- Theory and Practice, Khan & Jain
3. [Economics of India Catalogue](#)
4. [Dictionary of Agribusiness Management/L.L. Somani](#)
5. [Micro-Enterprise Promotion in Agriculture : Indian Imperatives and Global Perspective/J.P. Sharma, C.B. Singh, MeenakshiChaudhary and Rashmi Singh](#)
6. [NABARD and Rural Transformation/N. Lalitha and R. Dayanandan](#)
7. [Agricultural Credit and NABARD/Tapan Kumar Shandilya and Umesh Prasad](#)

## **SP05 : PCB4EI5: Trends in Agri Business**

**Unit I:** Agriculture Development in South Asia; Trends in India: Land Development Banks, Crop Loans ; Productivity of Credit; [Three „R“s of Credit](#); [Regional Rural Bank](#); Co-operative Banks: State Cooperative Banks, District Central Cooperative Bank, Village Cooperative Credit Society;

**Unit II:** Insurance: Crop Insurance, Cattle Insurance and Life Insurance; Microfinance: History of social banking, relationship with poverty alleviation; Concept of Micro-Credit; Trends in Organic Farming in India

**Unit III:** [NABARD](#): Establishment, Capital and Management, Operations, Resources;

**Unit IV:** Rural Marketing, Agri-Input Marketing, Supply Chain Management, International Trade in Agri -Commodities,

**Unit V:** Agri-Entrepreneurship, Role of NGO's in Agri-Business Management, Rural Research Methods, Procurement Management, Agribusiness Risk Management, Emerging Issues in Agribusiness and Food Industry, Commodity Futures, Agriculture Project Management; Contract Farming,

**Unit VI:** Sectoral Studies: Organized Retail, Banking and Finance, Agri-Input Supply, Food Processing; Company Profiles: Standard Chartered, Reliance, Aditya Birla Retail, Nestle, Cognizant, Godrej Agrovet,

### **Suggested Readings**

1. Trends in Organic Farming in India/edited by S.S. Purohit and Dushyant Gehlot. Jodhpur, Agrobios, 2006
2. [Crop Insurance in India : An Analysis](#)
3. Agricultural Development in South Asia: A Comparative Study in the Green Revolution Experiences/Jasbir Singh. 1997
4. [Rural Banking and Over Dues Management/edited by A. Ranga Reddy](#)
5. [Condition of Indian Peasantry/G.S. Bhalla](#)
6. [Microfinance Systems : Designing Quality Financial Services for the Poor/Graham A.N. Wright](#)
7. [Attacking Poverty with Microcredit/edited by Salehuddin Ahmed and M.A. Hakim](#)

At the end of first year, students have to undergo two months of internship in agribusiness or food companies. In addition, two weeks field-stay in rural area to get hands-on experience of the sector

## **Group : J Power Management**

**SP03 : PCB4EJ3 :**

### **ENERGY SYSTEMS PLANNING**

**Unit I :**Energy, economy and environment interaction,environmentalrepercussions and the economic structure, Criteria for economic growth.

**Unit II :**Energy Models: - Econometric models, Techno-economicmodels.Energy analysis using input-output models

**Unit III :** Models for energy policy: - Introduction, Systems perspectiveonenergy.

**Unit IV:** Data base requirements and survey of energy requirements atNational,Regional and Settlement level.

**Unit V :**Energy planning process at National, Regional and Settlement level.

**Unit VI :**Energy planning for Industries and Agriculture.

### **Suggested Readings**

1. Renewable energy by A.K.N. Reddy and Johanson, Earth Scan Publication
2. Tata Energy Research Institute Journals
3. Energy and Economic development: What Next : Jyoti Parikh
4. Energy and energy resource management by Mahajan, Agnihotri, Atparia. Deep and Deep publication P.Ltd.
5. Energy consumption in India (Pattern & Determinants) by Raikhy and Singh, Deep and Deep publication P.Ltd.

## **SP04 : PCB4EJ4 :**

# **POWER PRICING & POWERPURCHASE AGREEMENTS**

**Unit I** :Present energy pricing scenario in India and world, Coal Pricing,Gaspricing, Oil pricing, history of energy pricing mechanism- Indian and world.

**Unit II** :Basic theory of energy pricing models, pricing undervariousenvironments, cost and supply analysis, price and output determination.

**Unit III** :Types of electricity, Tariff structure- fixed tariff, availability basedtariff,time of the day tariff, long term tariff, etc., Regulatory frame work and aspects of tariff setting.

**Unit IV** :Requirements of PPA, Risk and responsibilities in a powerpurchaseagreement, Desirable principles of power purchase agreements.

**Unit V** :Assessment of Tariff levels Scope of the PPA, Articles and schedules ofamodel PPA Definition and interpretation of terms of a model PPA.

**Unit VI** :Negotiating Power purchase agreements PPA- Financial and legalissues,Drafting of a model PPA.

### **Suggested Readings**

1. Document of CERC-2000 CERC Publisher.
2. Managerial economics by GS Gupta, Tata McGraw Hill publishing Co. Ltd.
3. Energy pricing in India by Herrysarkar and Gopal K. Kadekoli-publisher- United National Development Program & Economic commission for Pacific and Asia.

## **SP05 : PCB4EJ5:**

### **Power Environment Interface**

**Unit I** :Environment polices and regulatory framework, Global perspectiveandenvironmental guidelines. Regulatory framework and acts, Interface with govt. regulating agencies, public, academic and research institutions, ISO 14000;

**Unit II** :Environmental concerns Greenhouse effect, Water pollution, Ecologicalimbalance, Deforestation ,

**Unit III** :Environmental impact assessment, Investment decisionsconcerningenvironmental protection, Environmental economics

**Unit IV** :Thermal Environmental Interface: Pollutant in power plant, particulateandgaseous pollutants, thermal pollution , solid gas pollution,

**Unit V** :strategies to control pollutants from coal based power plantspollutioncontrol methods, Ash handling and utilization;

**Unit VI** :Hydro Environment Interface: Submergence, soil erosion, loss of floraandfauna, Riverine ecology, Social impact Landscape , Resettlement and rehabilitation.

### **Suggested Readings**

1. Energy: Dolittle , Matrix publisher.
2. Energy and Environment: McGraw Hill.
3. Energy and Environment: Carter, Drandis Universal Press.
4. Air Pollution control: Ressamo, McGraw Hill.
5. Protecting our Environment: McGlannan, silson company