

PG Diploma in Management

COURSE CURRICULUM

SEMESTER - 1

1ST Semester SUB CODE 101 – 110 [10 Courses]	SUB CODE	SUBJECTS	CREDIT POINTS
	PG 101	Management Principles	3
	PG 102	Sales & Marketing Management	3
	PG 103	Management Accounting	3
	PG 104	Organization Behaviour	3
	PG 105	Managerial Computing Practices & Application	3
	PG 106	Quantitative Methods	3
	PG 107	Managerial Economics	3
	PG 108	Business English	3
	PG 109	Financial Management	3
PG 110	Business Ethics	3	
TOTAL CREDIT POINTS			30

SEMESTER - 2

2ND Semester SUB CODE 201 – 210 [10 Courses]	SUB CODE	SUBJECTS	CREDIT POINTS
	PG 201	Ecology and Environment Management	3
	PG 202	Human Resource Management	3
	PG 203	Management Information System	3
	PG 204	Business and Government	3
	PG 205	Business Entrepreneurship	3
	PG 206	Operations Management	3
	PG 207	Project Management	3
	PG 208	Managerial Cost Accounting	3
	PG 209	Business Strategic Management	3
	PG 210	Materials Management	3
	TOTAL CREDIT POINTS		

SEMESTER – 3

[SPECIALISATION COURSE]

1. MARKETING SPECIALIZATION

3RD Semester SUB CODE 301 – 306 SPECIALIZATION PAPER	SUB CODE	SUBJECTS	CREDIT POINTS
	PGM 301	Sales and Distribution Management	3
	PGM 302	Advertising & Sales Promotion	3
	PGM 303	Marketing Research	3
	PGM 304	International Marketing	3
	PGM 305	Service Marketing	3
	PGM 306	Consumer Behaviour	3
	PGM 307	Logistic and Supply Chain Management	3
	PGM 308	Retail Management	3
	PGM 309	Event Marketing Management	3
	PGM 310	Strategic Marketing Management	3
	TOTAL CREDIT POINTS		

2. FINANCE SPECIALIZATION

3RD Semester SUB CODE 301 – 306 SPECIALIZATION PAPER	SUB CODE	SUBJECTS	CREDIT POINTS
	PGF 301	Corporate Financial Strategy	3
	PGF 302	Working Capital Management	3
	PGF 303	Investment Analysis & Portfolio Management	3
	PGF 304	Indian Financial System Management	3
	PGF 305	International Financial Management	3
	PGF 306	Management of Finance Services	3
	PGF 307	Bond Analysis	3
	PGF 308	Equity Analysis	3
	PGF 309	Mutual Fund Management	3
	PGF 310	Financial Derivative Management	3
	TOTAL CREDIT POINTS		

3. HRM SPECIALIZATION

3 RD Semester SUB CODE 301 – 306 SPECIALIZATION PAPER	SUB CODE	SUBJECTS	CREDIT POINTS
	PGH 301	Compensation Management	3
	PGH 302	Human Resource Planning	3
	PGH 303	Legal aspect of Human Resource	3
	PGH 304	Dynamics of Industrial Relations	3
	PGH 305	Training and Development	3
	PGH 306	Human Resource Development	3
	PGH 307	Performance Management	3
	PGH 308	International Human Resource Management	3
	PGH 309	Employment Administration	3
	PGH 310	Human Resource Information System	3
	TOTAL CREDIT POINTS		

4. SYSTEMS SPECIALIZATION

3 RD Semester SUB CODE 301 – 306 SPECIALIZATION PAPER	SUB CODE	SUBJECTS	CREDIT POINTS
	PGS 301	Database Management Systems	3
	PGS 302	E – Business	3
	PGS 303	Computer Aided Management	3
	PGS 304	Software Project Management	3
	PGS 305	System Analysis & Design	3
	PGS 306	Fundamentals of Networking	3
	PGS 307	Data Structure with C + +	3
	PGS 308	Operating System & System Programming	3
	PGS 309	Information Theory	3
	PGS 310	Software Engineering	3
	TOTAL CREDIT POINTS		

SEMESTER – 4

[2 Core papers 3 Electives]

4th Semester Three Compulsory Subjects SUB CODE 401 – 403 & Three Electives and Project	PG 401	Research Methodology	3
	PG 402	Operation Research	3
	PG 403	International Business Management	3
	PG 404 – 406	Elective Papers 3	9
	PG 407	Project Dissertation	3
	PG 408	Presentation	3
	PG 409	Project Viva Voce	3
	PG 410	Comprehensive Viva	3
		Total Credit Point	30
	(i) Finance Elective		
	PGEF 404	Insurance & Risk Management	3
	PGEF 405	Management of Bank Finance	3
	PGEF 406	Financial Engineering	3
	(ii) Marketing		
	PGEM 404	E-Marketing	3
	PGEM 405	Brand Equity Management	3
	PGEM 406	Banking & Insurance Management	3
	(iii) H R M		
	PGEH 404	Human Engineering	3
	PGEH 405	Organizational Dynamics & Intervention	3
	PGEH 406	Employee Retention Management	3
	(iv) SYSTEM		
	PGES 404	Computer Net Working	3
	PGES 405	Mobile Computing	3
	PGES 406	Artificial Intelligence and Pattern Recognition	3
		TOTAL CREDIT POINTS	30

SYLLABUS FOR PGDM PROGRAMME

FIRST SEMESTER

(Compulsory Course)

PG-101: Management Principles

1. **Nature of Management:** Concept – Management as a profession – Universality of management – effective management role.
2. **Development of Management Thought:** Schools of management thought - Classical and neo-classical system - Contingency approach – Situational approach – Taylor’s Contribution and Scientific Management – Contribution of Henry Fayol – Barnard and Social System – Herbert Simons Theory – Contribution of Peter Drucker – Contribution of Behavioural Scientist.
3. **Planning :** Concept - Process and types – Planning Premises – Planning Strategy - Decision making – Concept and process - Management By Objectives - Corporate Planning - Environment Analysis; Strategy Formulation.
4. **Organizing :** Concept, nature, process and significance – Organization Theory - Organization Structure - Authority and responsibility relationships - Centralization and decentralization - Departmentation – Dy Functional aspect of Organization – Organization Chart and Development.
5. **Staffing :** Fundamentals of staffing – Recruitment and Selection – Training and Development – Performance Appraisal – Staff Development Programmes.
6. **Directing :** Principles of Dorectopm – Motivation – Concept & Theories – (Maslow, Alderfer, Herzberg, MCllelland, Porter & Lawler, Vroom) - Financial and non-financial insensitive of Motivation –
7. **Leadership:** Leadership Theories – Leadership Styles – Communication – Type, process and barriers.
8. **Controlling :** Concept and process – Control System - Effective control system - Techniques of control – Budget and Budgetary Control – PERT/ CPM Control – Management Audit.
9. **Management of Change :** Concept - Nature and process of planned change - Resistance to change; Management in a changing environment.

Readings :

1. Wehrich and Koontz, et al : Essentials of Management; Tata McGraw Hill
2. Stoner J and Freeman RE : Management; Prentice-Hall
3. Daft, RL : Management, Thomson
4. V.S.P Rao & Hari Krishna : Management-Text & Cases,Excel Books
5. Ramaswami T; Principles of Mgmt., Himalaya Publishing
5. Chandan, JS : Management – Concepts and Strategies, Vikas Publishing
6. Robbins, SP : Management, Prentice Hall
7. E.M. Prasad : Management Principle

PG-102: Sales and Marketing Management

1. **Marketing mix , Concepts of Marketing and its evolution** : Elements of Marketing Mix - The 4 Ps and their sub- elements. Various concepts for marketing.
2. **Marketing system and its environment** : Major components of the Company's microenvironment and macro-environment.
3. **Market Segmentation, Targeting & Positioning** : Concepts of market segmentation and targeting, the need for and benefit of segmentation - Various bases for segmentation - Positioning STP Concept.
4. **Product & New Product Development:** Basic concepts of product classification - Product line product mix. Product Life Cycle - Strategies for different stages of PLC - New Product Development .
5. **Product Branding & Product Packaging** : Important branding terms - Purpose of branding - Branding strategies - Characteristics of good brand names - Basic purposes - Types of packages, - Primary, secondary, shipping packages.
6. **Pricing** : Procedure for Price Setting - Pricing methods - Modifying the price-promotional pricing - Discriminatory pricing - New product pricing - Product mix pricing - Initiating price changes.
7. **Marketing Channels** : Concept - Why marketing intermediaries are used ? - Different level channels - Types of channel flows - Channel design decisions. Tele shopping - Visual Shopping - Mails shopping through the Internet and self service stores.
8. **Promotion mix** : Concept - Major factors which influence the designing of an appropriate promotion mix - Major sales promotional tools.
9. **Sales Forecasting** : The basic concepts of demand - Importance of sales forecasting - Methods of sales forecasting.
10. **Sales Force Management & Salesmanship** : Qualities of a good salesman - Selection – Training - Compensation - Motivation and evaluation of salesman - Traditional and modern concepts of Salesmanship - Steps of the selling process.
11. **Marketing of Services:** Importance of services - Important characteristics of services - Marketing strategy for services.
12. **Strategic Market Planning** : SWOT Analysis - Corporate Strategy.

Readings :

1. Phillip Kotler : Marketing Management : Prentice Hall/ Pearson Education
2. W.J. Stanton : Fundamentals of Marketing : McGraw Hill
3. Palmer, Principles of marketing, OUP
4. Czinkota, Marketing Management, Vikas
5. B.K. Chatterjee, Marketing Management , Jaico

PG-103: Management Accounting

1. **Introduction of Management Accounting :** Scope and Coverage - Strategic aspect of Management Accounting – Place of Accountancy and Cost Accounting in Management Accounting.
2. **Accounting Principles :** Language of business – Doctrines – Basic Concepts – Periodicity of Accounts.
3. **Accounting Transactions :** Accounting Cycle - Journal; Rules of debit and credit - Compound journal entry - Opening entry - Relationship between journal and ledger - Rules regarding posting - Trial Balance - Sub division of journal and Ledger – Cash Book as journalized Ledger.
4. **Capital and Revenue :** Classification of Income - Classification of expenditure - Classification of receipts – Provisions and Reserves – Depreciation – Stock valuation.
5. **Final Accounts;** Manufacturing Account - Trading Account - Profit and Loss Account - Balance Sheet - Adjustment entries - Corporate Tax – Inflation Accounting.
6. **Company Accounts :** Issue of Shares- Forfeiture - Issue of Debenture – Redemption of Preference Shares and Debentures – Corporate Final A/c.
7. **Negotiable Instruments:** Bills Receivables – Bills Payable – Transactions entries – Maturity – discounting – Dishonour – Mutual accommodation – Noting charges.
8. **Ratio Analysis –** Liquidity Ratios - Leverage Ratios – Profitability Ratios – Activity Ratios. Classification, Location and Rectification - Suspense Account -Effect on Profit.
9. **Financial Statement Analysis:** Cash flow – Fund flow statement.
10. **Profit Planning :** Break even analysis – Cost volume profit analysis – Make or buy decision.
11. **Annual Report :** Statutory Provisions – Contents – Importance – Schedules – Charts – Analysis of Annual Reports of established Companies.

Readings :

1. R. Narayanaswamy : Financial Accounting, Prentice Hall
2. L. Chandwick : The Essence of Financial Accounting, Prentice Hall.
3. Ashok Banerjee : Financial Accounting, Excel Books
4. H. Chakraborty & S. Chakraborty : Management Accountancy, OUP.
5. S.K.Bhattacharya & John Dearden : Accounting for Management, Vikas
6. Basu and Das : Practice on Accounting, Rabindra Library
7. R.L. Gupta : advanced accountancy : Sutan Chand

PG-104: Organization Behaviour

1. **OB:** Meaning of OB - Importance of OB - Field of OB - Contributing Disciplines - Applications in Industry.
2. **Organization Theory** – Classical Theories (Scientific Management, Administrative Principles, Theory of Bureaucracy) - Human Relations Approach - Modern Theories (Systems Approach - Contingency Approach - Quantitative Approach - Behavioural Approach).
3. **Personality and Individual Differences** – Meaning of Personality, Determinants of Personality- Theories of Personality - Measurement of Personality - Development of Personality.
4. **The Process of Perception** – Process and Principles - Nature and Importance - Factors Influencing Perception - Perceptual Selectivity - Making Judgments - Social Perception.
5. **Learning** – Concepts and Principles - Theories of Learning – Types - Techniques of Administration – Reinforcement – Punishment - Learning about Self.
6. **Attitudes and Job Satisfaction** – Sources of Attitudes - Types of Attitudes - Attitudes and Consistency - Cognitive Dissonance Theory - Attitude Surveys.
7. **Work Motivation** – Approaches to Work Motivation - Theories of Motivation – Maslow’s Hierarchy of Need Theory - Alderfer’s ERG Theory - Herzberg’s Motivation-Hygiene Theory -McClelland’s Achievement – Motivation Theory - Vroom’s Expectancy Theory - Proter and Lawler Expectancy Model.
8. **Work Stress** – Understanding Stress - Potential Sources of Stress - Consequences of Stress -Managing Stress.
9. **Organizational Development** : Mission – Goals – Characteristics – Types - Structure & Design Organizational Environment.
10. **Organizational Culture:** Culture and its Characteristics - Types of Cultures - Western and Oriental Organization Cultures - Indian Organization Culture - Culture Change
11. **Group Behaviour** : Characteristics of Group - Types of Groups - Stages of Development - Group Behaviour - Group Decision-making - Organizational Politics – Managerial grid.
12. **Communication in Organization** : Purpose – Process - Channels and Networks – Barriers - Making Communication Effective - Transaction Approach.
13. **Leadership Styles** : Leadership Theories - Leadership Styles - Skills and Influence Processes - Leadership and Power - Examples of Effective Organizational Leadership in India.
14. **Conflict in Organization** : Sources of Conflict - Types of Conflict - Conflict Process - Conflict Resolution.

Readings :

1. S. P. Robbins : Organizational Behaviour, Prentice Hall,
2. Fred Luthans : Organizational Behaviour, McGraw Hill
3. J. W. Newstrom & K. Davis : Organizational Behaviour, McGraw Hill.
4. Archana Tyagi : Organizational Behaviour, Excell Books.
5. Madhukar Shukla : Understanding Organizations – Organizational Theory & Practice in India, Prentice Hall

PG-105 : Managerial Computing Practices & Application

Computer Fundamentals

1. **Computer Basics:** Data and Information processing – Role of Computer – Input / Output units – Computer memory – Processors – Logic Circuits.
2. **Computer Architecture:** Inter connection of units – Processor to memory communication – I/O to Processors – Interrupt structure – Bus architecture of P/C – Multi Programming – Processors features – Virtual memory.
3. **Introduction to I/O Organization:** CPU organization – Primary arithmetic – ALU – Control Logic – Software concept and terminology.
4. **Computer Language:** Need of computer language – Assembly Language – High Level Programming Language – Compiling High Level Language programme – Some High Level Language.
5. **Operating System :** Need of an operating system – Batch operating system – Multi programming operating system – Time sharing operating system – Personal computer operating system – UNIX operating system – Microkernel Based operating system – On line and Real time system.
6. **Computer General :** First Generation Computer - Second Generation – Third Generation – Fourth Generation – Fifth Generation – Moore’s law – Clarification of computers – Distributed Computer system.
7. **Voice and Data Communication :** Types of communication – Characteristics of commutation channel – Allocation of channel – Physical communication media – Public switched telephone network – Cellular communication system – ATM network..
8. **Computer Networks:** Internet and Worldwide web – Communication protocols – Local area network – Token Ring local area network – inter connecting network..
9. **Computer Graphics :** Computer graphics application – Display devices – Raster scan display processing – Input devices – Programmers model – Image acquisition and storage – Storage for pictures – Image acquisition with a digital camera .
10. **Multimedia Data acquisition and processing:** Capturing a moving image – Compressions of video data – MPEG compression standard – Acquiring and storing audio signals – Compressions of audits signals – Audio signal processing – Speech processing.

Readings :

1. V. Rajaraman : Fundamentals of Computers, Prentice-Hall.
2. S. K. Basandra : Computers Today, Galgotia Books.
3. J. Shelly & R. Hunt : Computer Studies, Wheeler Publishing.
4. Peter Norton : An Introduction to Computers, Tata McGraw- Hill.
5. Xavier : Introduction to Computers, New Age Publishers

PG-106: Quantitative Methods

1. **Basic Algebra:** - A. P. & G.P. Series – Logarithm – Quadratic Equation - Permutations and Combinations
2. **Determinant:** Properties of Determinant (statement only) - Simple Examples. Matrices: Sum, Product of Matrices, Inverse of a Matrix - Solution of a system of equations.
3. **Introduction to Coordinate Geometry (2D),** Straight lines, Circles and Parabola.
4. **Differential Calculus** - Functions, Limits and Continuity - Non trigonometric Derivatives – Partial Derivatives – Maximization and Minimization.
5. **Techniques of Integration** — Method of Substitution, Integration by Parts Definite Integral and Area under the Curve.
6. **Collection and Presentation of Data:** Tabular & Diagrammatic Presentation, Frequency Distribution.
7. **Measures of Central Tendency and Measure of Dispersion:** Mean – Median – Mode - Quartiles; Mean Deviation - Standard Deviation – Moments - Central Moments; Skewness & Kurtosis
8. **Correlation and Regression Analysis:** Scatter Diagram - Linear Correlation - Rank Correlation, Simple Regression Analysis.
9. **Theory of Probability :** Concepts – Methods – Conditional Probability – Baye’s Theorem - PDF and PMF
10. **Probability Distributions:** Binomial, Poisson & Normal Distributions and their Properties & Applications - Expectation and Variance of these Distributions.
11. **Sampling Distribution:** Simple Random Sampling - ratified Sample and their Applications – Standard Chi-square Distribution - Oddness of Fit- Z, T and F Distribution and their application.
12. **Index Number :** Concept – Construction – Types – Tests – Cost of Living Index.
13. **Time Series:** Concept – Components – Measurement of Trend – Methods of Trend Analysis – Mathematical Approach – Regression Equation – Smoothing Constant.

Readings :

1. P.C Tulsian, Quantitative Techniques, Pearson Education
2. Rao, Quantitative Techniques in Business, Jaico
3. Kothari, Quantitative Techniques, Vikas
4. S P Gupta & M.P. Gupta : Business Statistics : Sultan Chand & Sons
5. A.M Goon, M.K Gupta & B, Dasgupta : Basic Statistics : World Press.
6. N G Das : Statistical Methods : M Das & Co.

PG-107: Managerial Economics

1. **The Theory of Consumer Behaviour** – Utility function - Rate of commodity substitution - Maximization of utility - Demand functions - Price , Income and cross elasticity of demand, Indifference Curve Analysis - Substitution and income effects - Consumer's surplus .
2. **Theory of the Firm** : Production function - Cost functions.- Cost minimization model - Profit maximization model.
3. **Equilibrium Price - Output** : Perfect Competition - Assumption – Condition of equilibrium- Monopoly and Monopolistic Competition – Duopoly and Oligopoly – Discriminating monopoly
4. **Multi Market Equilibrium**: Pure exchange - Two-commodity exchange - Production and exchange - Market equilibrium - Multi market equilibrium - Monetary equilibrium - Stability of equilibrium.
5. **Macroeconomic Tools** : Basic Concepts of Aggregate consumption - Demand & Supply of Money – Rate of Interest - National Income - Concept – Measurement – Two Sector Model – Three Sector Model – Balance Budget Multiplier. Consumption Function – Saving function –Multiplier and Accelerator Theory.
6. **Money and Banking** : Money Market - Function of Central & Commercial Banks – Monetary Policy and Fiscal Policy – Central Budget - Deficit Budgeting – Public finance.
7. **Macroeconomic Setting** : The Business Cycle – Inflation – Inflationary gap – Process of inflation - Unemployment - Philips Curve – Growth models.
8. **International Economics** : Comparative Advantage Theory – Devaluation - Tariff and Quota - Concepts – BOP – Tariffs – Basics of Foreign Exchange - Purchasing Power Parity Theory – **Intary** Rate Parity Theory – Export Import theory and Practice.

Readings:

1. HL. Ahuja : Managerial Economics : S. Chand
2. Handerson & Quandl : Micro Economics
3. Dipankar Dasgupta : The Macroeconomy, OUP.
4. E. A. Diulio : Macroeconomic Theory, McGraw-Hill.

PG-108: Business Communication

1. **Principles of Communication:** Definition - Purpose - Process - Types.
2. **Verbal Communication:** Target group profile - Barriers of Communication – Listening – Feedback - Presentation Skills - Use of Aids - Public Speaking - Practice Presentation.
3. **Written Communication :** Stages of Writing - Composing Business Messages - Preparing Notes – Style – Punctuation - Using simple words - Proof Reading.
4. **Report Writing:** Report Planning, - Types of Reports - Developing an outline - Nature of Headings - Ordering of Points - Logical Sequencing – Graphs – Charts - Executive Summary - List of Illustration - Report Writing.
5. **Writing Business Memos** – Circulars – Notices – Memos - Agenda and Minutes - Maintaining a Diary - Resume/CV - Press Release.
6. **Self-Development and Communication :** Development of positive personal attitudes - SWOT analysis - Vote's model of interdependence - Whole communication.
7. **Practices in Business Communication:** Group discussions - Mock interviews – Seminars - Effective listening exercises - Individual and group presentations and reports writing - Principles of Effective Communication.
8. **Writing Skills :** Planning business messages - Rewriting and edition - The first draft - Reconstructing the final draft - Business letters and memo formats Appearance request letters - Good news and bad news letters - Persuasive letters - Sales letters - Collection letters - Office memorandum.
9. **Non-Verbal Communication :** Body languages meanings
10. **Effective Listening :** Principles of effective listening - Factors affecting listening exercises.
11. **Modern Forms of Communicating :** Fax - E-mail - Video conferencing; etc.

Readings :

1. Asha Kaul : Effective Business Communication, Prentice Hall.
2. S. Bahl : Business Communication Today, Response Books.
3. J. V. Vilanilam : More Effective Communication, Response Books.
4. J. A. Blundell & N. M. G. Middle: Career – English for the Business and Commercial World, Oxford University Press.
5. Alan Pease : Body Language, Sudha Publication.

PG-109: Financial Management

1. **Introduction** : Introduction to Financial Management - Goals of the firm - Financial Environments – Money Market.
2. **Time Value of Money** : Simple and Compound Interest Rates - Amortization - Computing more than once a year - Annuity Factor.
3. **Working Capital Management** : Concept – Working Capital Theory – Operating Cycle – Working Capital Requirement Assessment – Working Capital Planning & Financing – Working Capital Leverage – Recommendation of Tandon & Chore – Latest Guideline of RBI.
4. **Cash Management**: Motives for holding cash – Determining Cash Needs – Cash Budgets – Cash Management Tools – Basic Strategies – Techniques.
5. **Accounts Receivable Management** : Credit & Collection Policies - Analyzing the Credit Applicant - Credit References - Selecting optimum Credit period.
6. **Inventory Management** : Concept – Objective – Techniques – ABC Analysis – P & Q Analysis – EOQ Model.
7. **Capital Budgeting** : Concept & Process - Incremental Operating Cash Flows, Capital Budgeting Techniques - Traditional Approach – Pay Back Periods – Average Rate of Return – Discounted Cash Flow – NPV – IRR – PI - Problem of Project Risk - Total Project Risk - Capital Rationing - Decision Tree – Capital budgeting under risk and uncertainty.
8. **Cost of Capital** : Concept - Computation of Specific Cost of Capital for Equity – Preference Share - Debt - Retained Earnings - Weighted Average Cost of Capital – Factors affecting cost of Capital.
9. **Operating & Financial Leverage** : Operating Leverage - Financial Leverage - Total Leverage - Indifference Analysis in leverage study.
10. **Capital Structure Determination** : Concept of Capital Structure – Assumption - Theories of Capital Structure - N.I. Approach - NOI Approach - Traditional Approach - M-M Approach .
11. **Dividend Policy** : Passive Versus Active Dividend Policy - Factors influencing Dividend Policy - Dividend Stability - Stock Dividends and Stock splits - Dividend Theories like Gordons Model - Walters Model, M-M Approach and Residual Approach- Legal Consideration of Paying Dividends.
12. **Basics of Financial Derivatives**: - Futures – Forwards – Options – SWAPS – Concepts and Market Mechanism – Risk Management and financial derivatives.

Readings :-

1. Van Horne and Wachowicz : Fundamentals of Financial Management, Prentice Hall/ Pearson Education.
2. Brigham, Financial Mgmt, 10th Ed, Thomson Learning
3. Prasanna Chandra : Financial Management - Theory & Practice, Tata McGraw Hill.
4. Financial Management : Khan & Jain
5. I.M. Pandey : Financial Management, Vikas.
6. A Damodaran : Corporate Finance , Wiley.

PG-110 Business Ethics

1. **Values** : Importance - Sources of Value Systems - Types, Values - Loyalty and Ethical Behaviour - Values across Cultures.
2. **Business Ethics** : Nature - Characteristics and Needs - Ethical Practices in Management.
3. **Indian Values and Ethics** : Respect for Elders - Hierarchy and Status - Need for Security - Non-Violence – Cooperation - Simple Living high Thinking - Rights and Duties - Ethics in Work life - Holistic relationship between Man and Nature - Attitudes and Beliefs.
4. **The Ethical Value System** : Universalism – Utilitarianism - Distributive Justice - Social Contracts - Individual Freedom of Choice - Professional Codes.
5. **Culture and Ethics** : Ethical Values in different Cultures - Culture and Individual Ethics.
6. **Law and Ethics** : Relationship between Law and Ethics - Other Bodies in enforcing Ethical Business Behavior - Impact of Laws on Business Ethics.
7. **Social Responsibilities of Business** : Environmental Protection - Fair Trade Practices - Fulfilling all National obligations under various Laws - Safeguarding Health and well being of Customers.
8. **Ethics and Corporate Excellence** : Code of Ethics in Business Houses - Strategies of Organizational Culture Building - Total Quality - Customer Care - Care of the Employees as per Statutes - Objective and Optimistic Approach.

Readings

1. S. K. Chakraborty : Values and Ethics in Organisation, OUP
2. R. Roj : A study in Business Ethics, Himalaya Publishing.
3. A. N. Tripathi : Human Values, New Age International
4. L. T. Hosmer : The Ethics of Management, Universal Book.

SECOND SEMESTER **[Compulsory Course]**

PG-201: Ecology and Environment Management

1. **Eco System:** Structure of Eco system – Biotic Factor – Abiotic Factor – Human Factor – Matter – Energy – Life – Bio sphere, Litho sphere, Hydro sphere – Organic components – Cycling matter in eco system – Carbon, Phosphorous, Nitrogen.
2. **Sustainable Development:** Global environment – Loss of Bio-diversity – Strategic theme – Global atmospheric change – Global warming.
3. **Conservation and Preservation:** Natural eco system – Sustainable yield – Restoration – Conservation awareness – Methods of conservation & preservation.
4. **Fundamentals of Environment Management:** Definition, principles and scope - Types and components environment - Man-Environment relationship - Causes of environment destruction - Environmental ethics - Environment awareness programmes.
5. **Natural Resources – Awareness:** Eco-System – Atmosphere, Land, Water, Forest, Mines & Minerals – Wetland - Bio-diversity - Conservation of natural resources.
6. **Environmental Protection – Policies & Legislations :** National environmental policy -Environmental Legislations - International Conventions and Agreements - GATT/WTO and environment - State Pollution Control Board, Role of NGOs.
7. **Environmental Management System :** ISO – 14000 - Environment Audit - Eco-Friendly products (Ecomark) - Green Industry.
8. **Environmental Impact Assessment (EIM) :** EIM – Methods and tools - Appraisal and clearance for industry - Evaluation System.
9. **Air Pollution:** Structure of atmosphere – Sources and classification of air pollutants – Air clenching – Air quality control.
10. **Water Pollution :** Sources of water pollution – Dispersal source – Types of pollutants – Water quality standards – Euthropication control.
11. **Noise Pollution :** Sources of Noise – Noise mitigation – Methods controlling noise – Effects of noise.

Readings :

1. N.K Oberoi : Environmental Management, Excel Book
2. G.N. Pandey : Environmental Management - Vikas
3. K.M Agarwal & P.K. Sikdar Text Book of Environment Mac Millan
4. Law Canter : Environmental Impact Assessment – McGraw Hill

PG-202: Human Resource Management

1. **Human Resource Management** : Scope and coverage - Structure and functions of HR department - Role of HR manager.
2. **Human Resource Planning** : Supply and demand forecasting methods - Manpower inventory - Career planning - Succession planning - Personnel policy.
3. **Recruitment and Selection** : Process – Sources - Methods of selection - Interviewing method - Skills and errors.
4. **Human Resource Development** : Policy and Programmes - Assessment of HRD needs - HRD methods – Training and Non-Training.
5. **Performance Appraisal Systems** : Purpose – Methods - Appraisal instruments - Errors in appraisal - Appraisal interview.
6. **Compensation Management** : Concepts of wages - Components of wage - System of wage payment - Fixation of wages - Regulation of wage - Fringe benefits - Retirement benefit.
7. **Industrial Relations in India** : Parties - Management and Trade Unions - Industrial Disputes - Trends - Collective bargaining - Settlement machineries - Role of Government - Labour Policy in India.
8. **Worker’s Participation in Management** : Concept - Practices and Prospects in India - Quality Circles and other Small Group activities.
9. **Discipline Management** : Misconduct - Disciplinary action - Domestic enquiry - Grievance Handling and Personnel.

Readings :

1. V.S.P. Rao : Human Resource Management, Excel Books
2. Pattanayek, Human Resource Management, PHI
3. Dr. Anjali Ghanekar, Human Resource Management, EPH
4. D.K Bhattacharyya, Human Resource Management, Excel Books
5. C.V. Memoria & Gankar : Personnel Management

PG-203: Management Information System

1. **Introduction** : Concepts of information – Definition Dimensions (quality, value, age and cost) and importance - Formal and Informal Information.
2. **Concepts of Management and Organization Theory**: Levels of management - Hierarchy of management activity - Different types of decisions (structured and unstructured decisions) - Information requirements by level of management.
3. **Concepts of System**: Types of Systems (Deterministic and Probabilistic System - Close and Open System - Human-Machine Systems), subsystems - Information System as a System, Operating Elements of a Computer Based Information System (CBIS) - Evolution of CBIS - Scope of CBIS - Types of CBIS - Office Automation System (OAS) - Transaction Processing System (TPS) - Management Information System(MIS) - Decision Support System (DSS) - Executive Information System (EIS) - Knowledge based System (KBS) - Expert System.
4. **Decision Making** : Decision Making Process - Stages in Decision Making - Individual and Organizational Decision Making Models - Information System support for Decision Making Phases.
5. **Information System (MIS)** : Definition, Characteristics - Subsystem of MIS (Activity and Functional Subsystems) - MIS and Top Management
6. **Structure of MIS** : (Conceptual and Physical Structure) - MIS-Planning and Control - MIS Master Plan – Content and Description - Nolan Stage Model - Three Stage Model (by Bowman, -Davis and Wetherbe) of Planning Process – The Strategic Planning Stage - Organizational Information Requirements Analysis and Resource Allocation stage .
7. **Myths of MIS**: Pitfalls of MIS - Limitations of MIS - Development and Implementation of MIS System Development Life Cycle - Different Approaches (Waterfall, Prototyping - Evolutionary Approaches, Risk Based Approaches) - Data mining – Data warehousing.
8. **Decision Support System** : Definition - Relationship with MIS - Evolution of DSS - Characteristics – Classification – Objectives - Components - Functions and Development of DSS.
9. **Data base Management Systems** : Entity-Relationship diagram - Relational Database Concepts - Object Oriented Database Concepts.
10. **Artificial Intelligence for MIS problems**: Use of Expert systems - Use of Neural Networks.
11. **E-Commerce**: Supply – Chain Management - B-to-B, B-to-C transactions - Security issues - EDI - Format , International protocol etc.

Readings:

1. Gordon B Davis & Margrethe H Olson : Management Information Systems
2. K. C. Loudon & J. P. Loudon : Management Information Systems, Prentice Hall/ Pearson Education
3. OZ, Management Information System, Vikas
4. Jeffrey A Hopper, Mary B Prescott & Fred R Mcfadden : Modern Database Management, Pearson Education
5. Silberschalz, Korth & Sudarshan : Database System Concepts, McGraw Hill.

PG – 204 Business and Government

1. **Environment of Business** : Micro & Macro Environment of a Firm - Different Environmental factors, - Interface of Market & Non-Market factors
2. **Economic System** : Public Control of Business – Individualism – Collectivism - Capitalism, - Socialism - Mixed Economy – Features of India Economies .
3. **Constitutional Provision:** Right to trade – Centre list – State list – Concurrent List – Related fundamental rights.
4. **Role of Government:** Regulatory role of Govt – Promotional role of Govt – Controlling role of Govt. – Role of Govt as entrepreneur.
5. **Industrial Policy and Industrial License:** Industrial Policy resolution 1956 – Industrial (Development and Regulation) Act, 1951 – Industrial Licensing policies of 1970 and 1973 - The New Industrial Policy of July 1991.
6. **Economic Planning in India** : Features and Objectives - Planning Commission - Review of Five Year Plans - State Planning – Out line of latest plan – Target – Achievement – Drawbacks.
7. **International Economic Linkage** : IMR – IBRD – ADB - GATT, WTO, EXIM Policy – Impact on Indian Foreign Trade - Foreign Direct Investment.
8. **Parallel Economy in India** : Meaning - Magnitude and Consequences - Causes and Remedies - Govt. measures
9. **Labour Scenario** : Employment Policy - Structure of employment - Changing dimension of unemployment and employment
10. **Social Responsibility of Business** : Welfare - Health & Hygiene - Area development - Sports.
11. **Industry and Natural Environment** : Impact on Environment - Environment Policy - Green Industry.

Readings:

1. N. K. Sengupta : Government and Business, Vikas Publishing.
2. R. Datt & K.P.M. Sundaram : Indian Economy, S. Chand
3. D. Amarchand : Government and Business, Tata McGraw Hill.
4. N.K. Oberoi : Environment Management, Excell Books
5. Economic Survey, Govt of India (Latest Issue)

PG- 205: Business Entrepreneurship

1. **Entrepreneurship** : Meaning & Concept – Psychological & Social Factors – Conditions needed for entrepreneurship – Role of Government – Qualities of a Prospective Entrepreneur.
2. **Entrepreneurial Motivation**: McClelland's N-Ach Theory - Self-analysis – Personal Efficacy – Culture & Values – Risk-taking Behaviour – Technology Backup.
3. **Entrepreneurial Skills** : Creativity – Problem Solving – Decision Making – Communication – Leadership Quality.
4. **Information** : Assistance from different organizations in setting up a new venture – Technology Parks – Industrial Corporations – Directorate of Industries / Cottage and Small Scale Industries – SISI - Khadi & Village Industries Corporation / Board - DGS & DNSIC – Export & Import – How to apply for assistance ?– Procedure – Forms – Procedures for obtaining contract from Railways, Defense, P &T etc. - SIDBI.
5. **Laws** : Liabilities under the Factories Act – Shops & Establishment Act – Industrial Employment (Standing Orders) Act – Environment Protection Act – Sale of Goods Act – Maintenance & Submission of Statutory Records & Returns – Understanding Labour – Management relationship.
6. **Preparation of Project Report**: Product / Service Selection – Economic Viability and Market Feasibility – Requirements of Financial Institutions – Projected Financial Statement preparation.
7. **Concept Generation** : Brain storming – Consultancy – New product development – Market research.
8. **Fund Management** : Capital structure – Resource mobilization – Owned fund and loan fund – Sourcing or working capital – Margin money
9. **Project Report** : Market Research – Demand and supply analysis – Global scenario – Personnel management – Project viability report – Project appraisal.

Readings:

1. C B Gupta & Srinivasan : Entrepreneurship Development in India, Sultan Chand.
2. Sudipta Dutta : Family Business in India.
3. A Gupta : Indian Entrepreneurial Culture, New Age International.
4. Swedberg, Entrepreneur, OUP
5. Kaulgud, Entrepreneurship Mgmt, Vikas
6. B Berger (ed) : Culture of Entrepreneurship, Tata McGraw Hill
7. B K Birla : A Rare Legacy, Image Inc.
8. T R Saha : Financial Accounting for Managers, G J Book Society

PG-206: Operations Management

1. **Production Planning and Control** : Production system - Types of production - Re-planning and control functions - Relations with other departments - Efficiency of Production planning and control.
2. **Plant Location and Layout** : Choice and selection of Plant location - Plant design - Plant layout - Product layout and process layout - Criteria for a good layout.
3. **Plant Maintenance and Materials Handling** : Types of maintenance – Preventive, predictive and overhaul - Selection of good materials handling equipment - Methods of Materials handling.
4. **Product Planning**: Product Development – Product Design – Standardization – ISO 9000
5. **Work Study** : Method Study - Motion Study - Work measurement - Performance rating - Work sampling - Time Study.
6. **Inspection and Quality Control** : Types and criteria of inspection - Signature of quality control - Statistical quality control - Control Charts.
7. **Operations Management** : Operations scheduling - Job shop - Batch shop and Service Systems - PERT/CPM
8. **Inventory Planning and Control**: EOQ Models without shortage, with shortage, with price breaks - Effect of Quality Discount - ABC, FSN, VED classification - Inventory Control: Perpetual - Two-Bin and Periodic Inventory System - Material Requirements Planning (MRP) and Just In Time (JIT)
9. **Forecasting Technique** : Moving Average Method - Weighted Moving - Average Method - Exponential Smoothing (random , trend , seasonal).
10. **Subjective Techniques** : Delphi - Jury of Executive Opinion - Poll of Sales force - Opinion - Market survey - Modern tools and techniques.

Readings :

1. S. N. Chary : Production and Operations Management: Tata McGraw Hill.
2. Bedi, Production and Operations Management, OUP
3. N. G. Nair : Production and Operations Management:: Tata McGraw Hill
4. Morton, Production and Operations Management, Vikas
5. L.C. Jhamb, Production (Operations) Management, EPH

PG-207: Project Management

1. **Project Management** : Concept – Project Organization – Project Planning – Project Control – Human aspect – Pre-requisites for success.
2. **Project Planning** : Project Management scenario - Project Asset – Issues & problems - Gantt Chart & LOB - Network Analysis- PERT / CPM- Resource Monitoring & Control.
3. **Contract Management** : Principles of Project Contracts - Compilation of Project Contracts - Practical aspects of Contract - Legal aspects of Project Management - Global Tender - negotiations for Projects - Insurance for Projects.
4. **Project Buying** : Projects Procurement Process - Life–Cycle Costing - Project Cost Reduction methods - Project Stores - Organization & HRD issues - Computerization.
5. **Investment Feasibility Studies** : Managing Project Resources Flow - Project Feasibility Studies - Project Cost – Capital & Operating - Forecasting Income - Estimation of Investment & ROI, Project Evaluation - Financial Sources - Appraisal Process.
6. **Issues in Project Management** : Project Audit - Project Monitoring & MIS - Cost Control - Real Time Planning - Intangibles.
7. **Project Feasibility Study** : Demand Analysis – Technical Analysis – Financial Analysis.
8. **Risk Analysis** : Portfolio Theory – CAPM – APT Models – Project Risk Analysis – Project Portfolio Risk – Hedging of Risk.
9. **Social Cost Benefit Analysis**: Rationale – UMDO Approvals – Little – Mirrless Approach.
10. **Project Environment Management** : Criterios – ISO 14000 – Environmental Lawas.
11. **Allocation of Limited Capital** : Capital Rationing – Mathematical Approach.

Readings :

1. P Chandra : Projects : Planning Analysis : Selection Implementation & Review, Tata McGraw Hill.
2. P Gopalkrishnan & V E Ramamoorthy : Text Book of Project Management, McMillan
3. N Singh : Project Management & Control, Himalaya
4. B M Patel : Project Management, Vikas.
5. Suhani, Computer Aided Project Mgmt, OUP

PG-208: Managerial Cost Accounting

- 1. Introduction :** Managerial decision and cost accounting – Cost data required for management decision – Relationship of cost accounting with financial accounting and management accounting – Importance of cost management visavis general management – Basics of cost accounting – Cost classification from the management point of view – Prime cost – overhead cost – Factory cost – Cost of Production.
- 2. Cost Accounting fundamentals :** Elements of cost – Cost , Costing and cost accountancy defined – Total cost – Structuring of cost sheet – Costing Technique – costing system – Installation of costing system – Recent development in cost management – New manufacturing philosophy – Value chain – Kaizen costing – MRP – OPT – ERP – CRM – SCM – TOC – Activity band costing – Life cycle costing – Back flush costing :
- 3. Prime cost management :** Material cost defined – Pham identification of material cost – Valuation and pricing of material issues – Treatment of losses of Material – Waste, scrap, spoilage and defectives – Basis of labour cost – Labour Turnover – Methods of job time booking –Preparation of pay rock – Wage analysis – Overtime, Idle time and leave salary – Remuneration system – bonus system – Individual and group bonus
- 4. Overhead Cost Analysis :** Nature and classification of ahead – Allocation and appointment of ahead – Absorption and Departmentalization of ahead - Overhead absorption rates – Overhead cost control devices – Factory ahead – Administration overhead – selling and distribution overhead.
- 5. Costing system :** Basic principle of costing – Different methods of costing – Job costing – Procedure of job costing – Batch costing – Determination of economic Batch quantity – Contract costing – Process costing – Service costing – Operating costing .
- 6. Costing Technique I :** Marginal cost and marginal costing defined – Determination and presentation of marginal cost – Marginal cost Equation – Break –even analysis – P/V Ratio – BEP – Angle of incidence – Margin of safety – Break-even chart – Profit graph – Analysis of semi variable expenses.
- 7. Costing Technique II:** Standard costing – nature and scope of standard cost control – Establishment of standard – Accounting for standard cost – Analysis of variances – Computation of simple variance – Direct material cost variance – Direct wage variances – Variable overhead variance – Fixed overhead variance – Sales variance – Planning and operating variance.
- 8. Budget & Budgetary Control :** Budget and Budgetary control defined – Effective budgetary control – Budget as a technique of management decision – Preparation of master budget and functional budget – Budget committee – Classification of budget – Fixed Budget – Flexible budget – Zero based budget – Analytical tools of budgetary control.
- 9. Management decision based on Cost Accounting :** Cost Reduction – Value analysis – Uniform costing – Divisionalization and performance appraisal – Make or buy decision – Cost indifferent point location – Addition or deletion of department – Inclusive or exclusives of product – Profit planning – Replacement decisions – Investment decision – Pricing strategy decisions.
- 10. Cost Audit and management Audit :** Cost Audit – Nature and scope – Cost Audit in – Management audit – Definition and objective – Scope of management audit – Management audit process – Computerized audit.

Readings:

1. B.K. Blar : Cost Accounting methods and problems : Academic publishers
2. Charles T. Horngren , Srikanta M. Datar, George Foster : Cost Accounting – A Managerial emphasis : Prentice HallN K Prasad & A K Prasad : Cost & Management Accounting, Book Syndicate.
3. S P Jain & K. L Narang : Cost Accounting, Kalyani Publishers.
4. Banerjee : Cost Accounting, World Press
5. Nigam & Sharma: Cost Accounting, Himalaya
6. B. K. Bhar : Cost Accounting : Academic

PG-209: Business Strategic Management

1. **Strategic Management** : Objectives – Policies – Tools - Strategic management process – Strategic Management Models – Business Ethics and Strategic Management
2. **Strategy Formulation**: Business Vision and Mission – Components of Mission Statement – External Assessment and Internal Assessment – Internal Factor Evaluation.
3. **Environmental Scanning** : External Environment analysis - Organizational Environment analysis.
4. **Strategic Planning** : Corporate goal setting - Functional goal setting - Managerial goal setting - Positioning organization.
5. **Formulating Strategies** : Corporate level - Administrative / Executive level & Operating level - Developing functional strategies - Production / operations - Finance, Marketing, HR Materials - R & D, BCG Matrix - Portfolio Analysis.
6. **Implementation of Strategies** : Role of managers - Leadership - Strategic Control System & measurement.
7. **Strategic Actions** : Mergers - Acquisitions - Diversification.
8. **Strategy Evaluation** : Nature of Evaluation – Frame work – Balance Score Card – Contingency Planning – Auditing.
9. **Strategic Case Analysis**: Preparation and Presentation – Guidelines – Written and Oral Presentation -
10. **Case Studies of Reputed Organizations.**

Readings :

1. A Kazmi : Business Policy & Strategic Management, Tata McGraw Hill.
2. V S P Rao & V. Hari Krishna : Strategic Management , Excel Books.
3. Lomash, Business Policy & Strategic Mgmt, Vikas
4. Macmillan, Strategic Management,OUP
5. Bani P Banerjee : Corporate Strategies, OUP
6. P.K.Gupta, Corporate Strategic Management,EPH.

PG-210: Materials Management

1. **Materials Management** : Need - Scope and advantages - Materials requirement planning (MRP – I, MRP – II & ERP) and Budgeting.
2. **Purchase Management** : Purchase policy - Systems - Procedures - Vendor Selection - Negotiation - Vendor Development & Evaluation - Make or Buy decision - Legal aspects of Purchasing.
3. **Stores Management** : Stores Systems and Procedures - Stores Accounting & Verification, Disposal of Surplus and Scrap.
4. **Inventory Control** : ABC Analysis - VED Analysis - EOQ models - Fast moving - Slow moving and non – Moving items - Just-in-Time (JIT) - Kanban System - Maximum and Minimum Levels - Perpetual Inventory System - Selective Inventory Control.
5. **Integrated Materials Management & Evaluation** : MIS for Materials Management - Criteria for evaluation - Inventory – Turnover Ratio.
6. **Material Handling Equipment** : Concept – Rules of material handling – Factors for selection of material handling device – Material handling equipments – Hand barrow – Wheel barrow – Sack truck – Hand trolley – Lift – Fork – Pallets – Cranes – Power driven truck –Hand stacker – Pulley blocks – Monorail – Power driven equipments – Conveyors – Ramps.
7. **Statistical Quality Control** : Control chart for variables and attributes – Central line – Control limits – Central chart for mean, S. D. range, Fraction defectives – Lack of control – Pie–Chart – Sampling and sample test of chemical stores
8. **Warehouse Management** : Documentation – Insurance – Demurrage – Release documents – Security and safety measures - Logistic selection
9. **Material Transport Management** : Feature analysis – Value analysis – Schedule of delivery – Selection of mode of transport – In-transit Insurance – Documents required - Precautions.
10. **Material Shipment Management** : Export import formalities – Documentation – Packaging of materials – Delivery procedure – Freight factors – Other factors
11. **Material Waste Control**: Phases of waste – Types of waste – Environmental factors – Chemical hazards – Preventive measures- Accounting treatment.

Readings :

1. P.Gopalakrishnan & M. Sundaresan : Materials Management - An Integrated Approach, TMH
2. A.K. Dutta : Materials Management, Prentice Hall of India.
3. N.K.Nair : Purchase & Materials Management, Vikas
4. B.K. Roy Chowdhury : Management of Materials, Sultan Chand.
5. L.C. Jhumb, Modernization of Materials Management,EPH

THIRD SEMESTER
(Specialization Course)

1. MARKETING SPECIALIZATION

PGM 301 Sales and Distribution Management

1. **Sales Management:** Concept - Nature & scope - Personal Selling & Sales Management – Sales-Vs-Marketing - Sales force – Pre-requisite of a sales executive.
2. **Sales Organization :** Purpose - Structuring - Sales organization chart – Line function – Staff function – Position of sales executive in the organization.
3. **Sales Force:** Manpower Planning –Recruitment – Selection – Induction - Sales training – Compensation – Retention of sales personnel – Turnover analysis - Sales Training - ACMEE model – Product orientation – Target orientation – Attitudinal change – Transaction approaches.
4. **Sales Forecast:** Concept – Importance – Factors affecting sales forecast – Process of sales forecasting – Various methods – Advantage and disadvantage of each method – Sales budget - Selling Process - Concept- Pre-approach – Approach - Presentation - Handling objection, Closing - Following up.
5. **Channel of Distributions:** Concept – Players – Functions of channel distribution –Types of Channels of Distributions – Effectiveness of Distribution Channel – Role of supply Chain Management.
6. **Wholesaler:** Definition – Characteristics – Classification – Functions services rendered by wholesalers – Existence crisis in future
7. **Retail Distribution :** Concept – Services rendered by Retailer – Essentials of Retail trade – Forms of Retail trade – Departmental stores – Multiple chain stores – Super market – Retail shop – Multiplex – Shopping mall
8. **Channel Design Decisions:** Objectives & constraints - Channel alternatives - Identification - Evaluation – Design of Marketing Channel – Design of Channel intermediaries.
9. **Physical Distribution & Logistics:** Definition – Goals - Function – Processing – Warehousing - Inventory & Transportation – Decision area – Classification of Decision areas – Physical Distribution Problems and application of Operation Research..

Readings :

1. Cundiff, Still & Govoni : Sales Management – Decision, Strategies & Cases – PHI.
3. S.L. Gupta : Sales & Distribution Management - Excel Books.
4. Sahadev, Sales & Distribution Management , OUP
5. Sahu, Sales Management & salesmanship, Vikas

PGM 302 Advertising & Sales Promotion

1. **Advertising & Marketing Process** : Definitions from marketing & communication points of view - Objectives - Relationship of advertising with other promotional mixes - DAGMAR approach - Advertising budget - Fixed and variable budget.
2. **Various Forms of Advertising** : National – Retail –Cooperative – Trade - Industrial – Financial – Corporate - Public services - Political - Primary & selective demands ad Push and pull- ad.
3. **Advertising : Curse or Catalyst** : Criticisms on economic & social grounds - Role of Advertising Standard Council of India (ASCI) - Advertisement planning - Advertising campaign planning.
4. **Business of Advertising (Client, Agency)** : Duties & responsibilities of Advertising Manager - Agency structure - Agency compensation - Selection of Agency - Client Agency relationship - Evaluation of advertising effectiveness.
5. **Media & Media Planning** : Broad features of print – Audio - Audio visual - Outdoor and other media - Steps involved in the media planning process.
6. **Copy & Creativity Theories** : USP & Brand image - Pre-writing considerations & Advertising appeal - Headlines - Body copy - Slogan copy for audio medium - Copy for TV - Layout – Creation & techniques for obtaining readership.
7. **Consumer Behaviour and Advertising** : Cognitive psychology - Social and cultural influence on consumer behaviour - Learning Theory - Product and Brand image - Communication process - Communication models.
8. **Sales Promotion** : Definition - Reasons for rapid growth of Sales Promotion - Objectives of Sales Promotion - Classification of Sales Promotion - Consumer, Trade, Sales Force / Promotion.
9. **Types and Techniques of Sales Promotion** : Monetary (price deal, bonus, rebate, refund, trade allowance etc.) - Non-monetary (Premiums – Direct and indirect, coupons samples, contest and sweepstakes, continuity plan, exchange offers etc.) – Techniques – Display - Trade Fair – Exhibition - Event sponsorship etc.
10. **Sales Promotion Budget** : Different methods - Percentage of sales - Units of sales - Competitive parity - Objective accomplishment - Profit maximization etc.

Readings :

1. Benlch, : Advertising & Sales promotion, TMH
2. Manendra Mohan : Advertising Management - Concept & Cases, Tata McGraw Hill.
3. Chunawala, Advertising and Sales promotion Mgmt., Himalaya
4. Choudhury, Elliot & Toop : Successful Sales Promotion, Orient Longman.
5. M.V. Kulkarni, Advertising Management, EPH

PGM 303 Marketing Research

1. **Marketing Research** : Introduction - Definition of MR - Application, Evaluations - Emerging issues – Market Research and Marketing Research – Importance – Marketing Research for new product development – Marketing Research as strategic tool.
2. **Marketing Research Process**: Information need – Research objective – Research design – Research methodology – Hypothesis building.
3. **Research Design** : Exploratory studies (secondary sources of data, pilot surveys, focus groups, case histories) - Descriptive studies (product research, promotion research, pricing research, distribution research) - Causal studies (types of causation, inferring causal relationships, natural & controlled experiments).
4. **Questionnaires Design**: Language – Scale of measurement – Types of questionnaire - Reliability and validity.
5. **Information Collection from respondents : Modes of information collection** : Communication & observation. - Communication methods : Interviews – types of interviews - Structures direct - unstructured direct - Indirect methods. - Interview media : Personal interviews - Telephone & mail interviews. - Observation methods - Panels of data collection - Questionnaire construction & pre-testing. - Qualitative research - Projective techniques – word association / sentence competition - Thematic apperception - Third person technique.
6. **Sampling** : Sample planning - Population definition - Sample frame - Sampling frame - Census vs. sample - Types of sampling - Probability sampling techniques - Simple random sampling - Systematic random sampling - Stratified sampling - Cluster sampling - Area sampling. Non-probability sampling techniques - Convenience sampling - Quota sampling - Judgment sampling - Snowball sampling.
7. **Measurement & Scaling** : Types of scales – Nominal - Ordinal – Interval - Ratio scales. Attitude measurement methods - Variability methods (paired comparison, ranking, rating, ordered category sorting) - Quantitative judgment methods - Verbal – Numerical - Graphical scales - Factorization - Constant sum method - Semantic differential scale - Liker scale.
8. **Analysis of Data** : Compilation - Tabulation & classification of data - Analytical techniques – Univariate analysis - Hypothesis testing - Bivariate analysis (regression) - Overview of some multivariate analysis techniques like cluster analysis - Multi-dimensional scaling - Factor analysis - Conjoint analysis - Research Report Preparation - Basics – Client’s need – Contents – Statutory requirement.
9. **Application of Marketing Research** : Advertising Research - Product research - Sales analysis & forecasting - Segmentation studies – Retail Market Research – Event Marketing Research.
10. **International Marketing Research** : Framework – Marketing Environment – Govt. Environment – Legal Environment – Economic Environment – Structural Environment – Informational and Technological Environment – Internet and Computer Application.

Readings :

1. Neelamegham, Marketing in India, Vikas
2. Naresh K Malhotra : Marketing Research ,Pearson
3. G C Beri : Marketing Research, Tata McGraw Hill.
4. S L Gupta : Marketing Research, Excel Book.
5. Sunanda Easwaran : Marketing Research : OUP

PGM 304 International Marketing

1. **International Marketing:** Definition - Concept and setting - Domestic vs. International Marketing. The Dynamics of World Market - Concept of global marketing - Identifying global needs - Satisfying needs - Coordinating activities and recognizing constraints - Environment of International Marketing - Economic – Cultural - Politico – Legal.
2. **Trade Theories :** Basis of international trade - Principles of absolute and relative advantage - Factor endowment theory.
3. **International Institutions :** World Bank - IMF - UNCTAD – WTO – EEC - ADB – SAPTA - NAFTA - Free Trade Zones - Common Markets.
4. **International Product Policy :** New product policy - International product life cycle - Product line policies - Branding - Packaging & labeling.
5. **Distribution :** Methods of entry into foreign markets - Foreign market channels and global logistics.
6. **Pricing Strategies :** Factors in International pricing - Alternative pricing strategies - Terms of sales and payment - Letter of credit - Line of credit - Forfeiting.
7. **Foreign Exchange :** Concept of Spot rate - Forward rate - Arbitrage - Translation – A brief introduction to FERA & FEMA – Foreign Exchange Rate Exposures – Management of risk – Modern Approaching.
8. **Procedure of Foreign Trade:** Process of exporting and importing – Balance of Trade – Balance of payment – Barriers of Foreign Trade – Impact of globalizations.
9. **Foreign Trade Documentation:** Certificate of origin - Bill of lading - Mates receipts – Export and Import Policy – Excise clearance – Warehousing practice – International standards.
10. **International Marketing of Services:** Information services - Medical & hospitality services - Outsourcing of business process – Knowledge process outsourcing – Legal Frame work.

Readings :

1. V Terpestra & R Sarathy : International Marketing, Harcourt College Publishers.
2. Subhash C Jain : International Marketing, Asian Books Pvt. Ltd.
3. Lalit M Johri : International Marketing - Strategies for Success.
4. Vasudeva P K : International Marketing , Excel Books.
5. M.V.Kulkarni. International Marketing Mgmt., EPH
6. Rakesh Mohan Joshi : International Marketing : Oxford

PGM-305: Service Marketing

1. **Service Marketing** : Concept of service – Service characteristics – Service expectation – Service Product – Service location – Pricing for services – Promoting services – Service process – People and service.
2. **Service Marketing Organization:** Six market model – Market analysis and segmentation – Service strategy – Focusing and positioning - Structural alternatives.
3. **Service Design** : Introduction – Design methodology- The service Design and management model – overview of model stages – Blueprinting – Building a service blueprint – Benefits of service blueprinting – Service Mapping - Service Failures – Design elements – Quality function deployment.
4. **Service Quality:** Impact of service quality – Approaches to service quality – The ten original dimensions of service quality – A model of service quality – Eservice gaps - Prescriptions for closing service gaps – Quality traps.
5. **Service Employees and Internal Marketing** : Flexible firm – Service jobs as relationships – Cycles of failure – Cycle of mediocrity – Cycle of success – Degrees of employee involvement – Motivating empowered employees – Service cultures.
6. **Service Mix** : Role of service mix – Railways – Postal and courier – Fire control – Civil aviation – Electricity – Telecommunications – Health care – Tourism – Hotel – Travel – Consultancy – Education – Insurance – Personal care – Professional institutions – Advertising agency – Banking – Entertainment – Web marketing – Green marketing.
7. **Customer Management and Service Guarantees** : Customer service – Management process – Creating the petals of the flower of service – Factors shaping the customer service function – Customer participation – The customer mix – Principles of complaint management – Problem impact tree analysis – Abusive customers – Matching service delivery and promises – Managing service promises – Costs and benefits – Service guarantees – Designing customer service systems & audits – External versus internal marketing.
8. **Relationship Marketing** : Importance & implementation in Service Marketing - Levels of relationship bond.
9. **Integrated Gap Model** : Customer gap - Provider gap (gap 1 to gap 4) identification and closing of the gaps.
10. **International Marketing of Services:** What is a transnational strategy ? – Why service firms choose to operate internationally – Elements of global transnational strategy – International branding and advertising – How the nature of the process affects the opportunities for globalization? – Industry globalization drivers – Modes of internationalization – Transnational strategy for supplementary services – Problems connected with marketing – Services internationally – Trade in services – The 10-p model of global strategic management.

Readings :-

1. Apte, Service Marketing, OUP
1. V.A. Zeithaml & M J Bitner : Service Marketing, Tata McGraw Hill.
2. Ravi Shanker, Service Marketing, Excel
3. Hellen Woodruffe : Service Marketing, McMillan (India) Ltd.
4. B. Balaji : Services Marketing and Management : S. Chand & Company
5. P.K. Gupta, Service Marketing, EPH
6. Gobind Apte : Service Marketing : Oxford

PGM-306: Consumer Behaviour

1. **Consumer Behavioural Science:** Consumer behaviour defined – Consumer and Customer field of consumer behaviour - Applications in marketing – Consumer Research.
2. **Consumer Perception :** Sensory systems - Exposure - Attention – Interpretation – Selective exposure – Perceptual Blocking – Interpretation of stimuli – Price perception – Consumers right perception – Subliminal perception.
3. **Consumer Learning & Memory :** Process - Theories – Behavioral & cognitive learning – Stimulus - Conditioning – Re-enforcement – Sensory memory – Memory process – Persuasion – Social judgment theory.
4. **Consumer Motivation :** Process - Involvement of consumers - Different theories of motivation from marketing point of view – Frustration and defense mechanism – Motive arousal – Systems of need – Motivation Research.
5. **Consumer Personality & Lifestyle :** Perspective of self - Consumption and self concept - Gender roles - Psychographics – Psycho analytic theory – Neo Freudian Theory – Trait Theory – Behaviour – Emotion – Emotion in Advertising .
6. **Consumer Attitudes :** Power of attitude - Forming attitude - Different models - Attitudes to product behaviour – Multi-attribute models and attitude change – Katz functional Theory – Cognitive Dissonance Theory –Attribution Theory
7. **Individual Decision Making:** Problem – Recognition - Information search - Evaluation of alternatives – Consumer and cultural influences - Social class influences – Symbols of status – Social Class categories – Social Class categories in India.
8. **Group Influence & Opinion Leadership :** Reference group – Membership Groups – Aspiration Group - Word of mouth - Opinion leadership – Informational influence – Comparative Influence – Normative influence – Application of reference Group influences.
9. **Consumer Decision Process :** Women & children as decision makers – Situational Variables of decision process – Problem recognition – Information Search – Evaluation of alternatives and selection – Outlet selection and purchase – Post purchase action
10. **Models of Consumer Behaviour :** Behavioural Aspects of Organization.- Organizational buyer behaviour – Organizational buyer decisions process - Conflict Model - Nicosia Model - Machine Model, Howard - Sheth Open System - EKB Model.

Readings :

1. Kazmi & Batra : Consumer Behaviour, Excel Books.
2. Loudon & Della Bitta : Consumer Behaviour , TMH
3. Blackwell, Consumer Behaviour, Vikas
4. Shiffman & Kanuk : Consumer Behaviour, Pearson Education

PGM 307 Logistic and Supply Chain Management

1. **Logistic** : Definitions – Business activities coverage – Logistics Renaissance – Logistic decision areas - Transpirations – Selecting Transportations logistic Multi model Solutions – Wave housing – Logistic Information system.
2. **Logistic Strategy** : Owning versus outsourcing – Measuring logistic performance – Landed Cost – Logistic decision models – Weighted centre of gravity method – Optimization models – Assignment model.
3. **Logistic Network Configuration** : Introduction – Data collection – Data aggregation – Future demand – Model and data Validation – Solutions technique – Heuristic model – Simulation model – Network configuration.
4. **Supply Chain Management** : Operations Management and supply Chain Management – Concept – Upstream & Down stream – Elements of Business- Strategies – Contoured Value – Four performance dimension – Trade off among performance dimensions – Core competence in Supply Chain.
5. **Business Process** : Mapping Business process - Measuring process performance – Reducing cycle time – Bench marking – Strategies for business process improvement – Measuring Quality
6. **Supply Chain Integration** : Push , Pull, Push-pull systems – Demand driven strategies – Internet on Supply Chain Strategies – Distribution strategies – Centralized vs decentralized – Control – Central versus local facilities .
7. **Strategic Alliances** : Framework – Third party Logistic – Relative supplier relation ship – Distributor integration – Types of integration – Issues in distributor integration.
8. **Customer Value and Supply Chain** : Distribution of customer value – Conformance to requirement – Product selection – Price and brand – Value added service – Relationship and experience – Strategic pricing – Revenue management .
9. **International Issues** : Global market force – Technological forces – Global Cost forces – Political and Economic forces – Risk and advantage of International Supply Chain – Regarding difference in logistics.
10. **Decision Support Systems** : Introduction – Global Supply Chain Information Technology decision support system – Interpretation of data – Analytical tools – Presentation tools – Selecting a Supply Chain DSS.

Readings:

Darid Simchi – Levi, PI

PGM 308 Retail Management

1. **Domain of Retailing** : Retailing defined – Retailing Development – Utilities of retailing – History of retailing – Retail Management process – Frame work of retailing – Indian Retail Industry.
2. **Relationship in Retailing** : Value and the value chain – Retailer relationship – Relationship building – Technology and relationships in retailing – Ethics – Social Responsibility in retailing – Electronic banking – customer and supplies interaction – Ethical performance and Responsibility – Consumerism.
3. **Shopping and Shopper** : Concept of Shopping - Shopping process – Shopping behaviour – Demo of Indian Shoppers – Psychological profile of Indian Shoppers – Value and life style of shoppers – Media graphics of Indian Shoppers – Behaviour – Based Segmentation – Attitude & Orientation based segmentation – Shopping pattern in India.
4. **Delivering Value through Retail format** : Classification of format – Ownership based – Independent – Chains – Franchising – Leased Department – Consumer Co-operative – Food oriented retails – None based Retails – Vending mechanism and other retailing formats – Value based model of format chain.
5. **Deciding Location** : Process of deciding – Location – Trading area analysis – Factor of selection – Geographical area – Competitions – Shopper profile – Analyzing the site – Store type and site – Isolated store records of estimating demand.
6. **Category Management** : Factors affecting the growth of Category Management – Category Management Process – Roles of category – Category strategies – Managing category mix – Category Assessment and Feedback.
7. **Supply Chain Management** : Factors for successful Supply Chain Management – Derives of SCM – SCM and Competitive advantage – Framework for SCM – Supply chain business process.
8. **Retail Buying** : Organizational buying – Retailer buying behavioural Models of buying behaviour – Becoming a buyer.
9. **Store Layout & Design** : Objective of layout and design – Elements of Store layout – Planning and circulations – Stores front and entrance – Merchandise display – Materials and finishes – Lighting – Music – graphics.
10. **Managing a Retail Business** : Retail organization and HRM - Setting up a retail organization – Organizational patterns in retailing – HRM in Retailing.

READINGS :

1. P. K. Sinha & other : Managing Retailing : Oxford University Press.
2. Ghetan Bajaj, Rajnish Tull and Nidhi V. Srivastava : Retail Management : Oxford

PGM 309 Event Marketing Management

- 1. Introduction :** Events defined - Comprehensive new definitions – Event Management – Events marketing – 5 C's of events – Event designing – Events as a marketing Communication tool.
- 2. Event as Marketing Tool :**Diverse marketing needs – Brand building – Focusing the target market – Implementation of marketing Plan – Marketing Research – Relationship building – Better deals with media – Events and the economy – Advantages offered by events.
- 3. Key Elements of Events :** Event infrastructure – Core concept – Core people – Core talent – Core structure – Target audience – Clients – Event organizers – Venue – Media.
- 4. Event Market :** Concept of market in Events – Segmentation and targeting of markets for events – Positioning in events – Event property – Branding in events – Repositioning of events.
- 5. Product in Events :** Benefit level – Event Hierarchy – Categories – Competitive event – Artistic expression – Cultural Celebrations – Charitable events –Special business events – Retail Events – Reach-interactions matrix – Event variations.
- 6. Pricing in Events :** Risk rating – Pricing objectives – Local Legislations and tax payers – Feed back from the market – Skills required – Internal System and overheads – Discounting Technique – Check list for pricing events.
- 7. Promotion in Events :** Networking Components – Print Media – Radio – Television – Internal Cable Network – Outdoor Media – Direct Marketing – Public Relations – Merchandising – In-venue publicity.
- 8. Event Management :**Pre-event activities - Owning event activities – Post event activities – Planning – Organizing – Staffing - Leading and Co-ordinating – Controlling – Event Management Information System.
- 9. Strategic Event Management Planning :** Setting objective – Strategic market plan – Environmental Assessment – Competitive Assessment – Business Potential Assessment – Problem analysis – Opportunity & Resource Analysis – Strategic alternative for growth – PREP Model – Risk Between Matrix.
- 10. Evaluation of Event Performance :** Basic evaluation process – Measuring performance – Control Research – formative evaluation – Objective evaluation – Summative evaluation – Correcting deviations – Critical evaluation points.

Readings :-

1. S.S.Gaur and S.V.Sagger : Event Marketing & Management – Vikas Publishing House Private Ltd.

PGM 310 Strategic Marketing Management

- 1. Environment of Strategic Business Marketing:** Business market Vs Consumer goods market – Cross financial relationship - Characteristics of business market – Internet and the Supply Chain – Business Marketing strategy.
- 2. Diverse Mix of Organizational Buyer :** Commercial enterprises - Its unique Characteristics – Government unique characteristics – Institutional market – Unique characteristics of market – Centered organization.
- 3. Organizational Buying Behaviour :** Organizational buying process – Forces shaping organizational buying behaviour – Environmental forces – Organizational forces – Organizational positioning of purchasing – Group forces – Individual forces.
- 4. Customer Relationship Management Strategies for Business Market :** Relationship market – Types – Value adding exchanges – Nature of relationships – Strategic choices – Buyer – Seller connector – Information exchange – Operational linkage – Legal Bonds – Cooperative norms – Managing Buyer – Seller relationship.
- 5. E-Commerce Strategies for Business Market :** Defining E-commerce – Key elements shaping E-Commerce – Strategic role of E-Commerce – Crafting and E-Commerce – Internet strategy implementation – Internet product – Channel consideration – Internet on pricing strategy – Internet & Customer Communication.
- 6. Supply Chain Management:** A tool for competitive advantage – Management approach – Strategic role of logistics – Calculating logistic costs – Business to business logistical management.
- 7. Assessing Market Opportunity :** Business market segmentation – Organizational demand analysis – Business marketing Planning – Business marketing strategies for global market – Managing products for business market.
- 8. Innovation and NPD :** Management of innovation – Managing Technology – New Product Development Process – Determinants of new product performance and timeliness- Determinants of product success – Fast -paced Product development.
- 9. Pricing Strategy for Business Market :**Meaning of price in business market – Industrial pricing process – Price objectives – Demand determinants – Cost determinants – Competitions – Pricing across the product life cycle - Pricing new product – Responding to Price attacks by competitors - Competitive bidding – Strategies for competitive bidding.
- 10. Control of Business Marketing Strategies :** Balanced score Card – Strategy map – Marketing control process – Control at various levels – Strategic Control – Annual Plan control – Efficiency and effectiveness control – Profitability Control – Feed forward Control – Implementation of Business marketing Strategy.

Readings :

1. Michael D. Dutta & Thomas W. Speh – THOMSON, SOUTH WESTHRN : Business Marketing Managerial – A strategic view.
2. Philips Kotler : Marketing Management

2. FINANCE SPECIALIZATION

PGF 301 Corporate Financial Strategy

1. **Quantitative Finance:** Time value of money risk Theories – Capital Structure Theories – Cost of Capital – Portfolio Maximization – Dividend Theories – CVP Theory – Other Theories– Mathematical deduction.
2. **Principle of Finance:** Investment principle – Financing Principle – Dividend Principles – Objectives & Tools of Corporate Finance – Stock price maximization & Agency cost – Limits of Corporate Finance.
3. **Understanding Financial Statements:** Basic accounting statement – Asset measurement & valuation – Measuring Financing mix- Measuring earnings & profitability – Measuring risk & return related issues.
4. **Investment Analysis:** Estimating hurdle rate – Estimating earnings & cash flows – Investment decision rules – Investment with inflation & exchange rate risk – Investment returns & corporate strategies.
5. **Financing Decision:** Equity financing options – Debt financing options – Financing mix – Optimal financing mix – Different approaches – Pay back – Spin off - Divestitures – Capital Structure Theories.
6. **Dividend Decision:** Dividend Policy – Dividend Theories – Analysis of cash return to stockholders – Beyond cash dividends.
7. **Acquisition & Mergers:** Process of acquisition- Steps in acquisition & merger – Sources of value – Ownership restructuring – Leveraged by outs - .
8. **Lease Financing :** Types – Hire purchase – Cash flow - Consequences of financial lease – Evaluation of financial lease – Govt. policy implications.
9. **Options Applications in Corporate Finance:** Black school model – Option pricing – Delay options – Payoff on the options to expand – Valuation on options to abandoned - Valuation of equity as an option – Option pricing in capital structure and dividend policy decision.
10. **Corporate Taxation:** Direct Tax – Legal framework - Computation of taxes – Indirect Tax – CST- VAT – Customs Act – Central Excise.

Readings :

1. Corporate Finance: Theory and Practice – A. Damodaram John wiley & sons , Inc.
2. Financial Management : M. Y. Khan and P.K. Jain : Tata Mcgraw-Hill Publishing company Ltd , New Delhi
3. Fundamentals of Financial Management: James C. Vanhorne, John M. Wachowicz Junior Prentice –Hall International , Inc
4. Iyenger, A C Sampat, Allahabad : Law of Income Tax, Bharat Law House 1981.
5. Kanga J B & Palkhivala N A – Bombay - Vol. 1-3 : B N Tripathi : Income Tax .
6. Ranina – 2nd Edn. New Delhi : Corporate Taxation A Hand Book, Oriental Law House, 1985.

PGF-302: Working Capital Management

1. **Working Capital Management** : Concept of Working Capital - Kinds of Working Capital - Factors affecting Working Capital - Components of Working Capital - Sources of Working Capital Finance.
2. **Working Capital Theories** : Hedging approach – Conservative approaches – Trade off approach – Determining the financing mix.- Working Capital component analysis – Working Capital duration analysis.
3. **Working Capital Planning** : Need for working Capital – Operating cycle theory – Cash Concept of operating cycle – Alternative approach – System approach – Techno financial approach – Control mechanism – Changes in working capital – Assessment of working capital requirement.
4. **Financing and Control** : Source of finance – Trade credit - Bank Credit – Short term borrowing – Long term borrowing – Principles of lending – Methods of lending – Tandon Committees recommendation – Chore Group
5. **Forecasting Of Working Capital** : Forecast of Working Capital for single shift and double shift.
6. **Cash Management** : Motives for Holding Cash and Marketable Securities - Cash Management Concept & Objectives - Managing Cash flows - Accelerating Cash inflows(using collection centers like Bore System) - Controlling Disbursements – Cash Budgeting - Forecasting Cash Flow - Cash Flow Statement - Determining Optimum Cash Balance through Baumol Model, Beranck Model, Miller – Orr Model - Stone Model.
7. **Receivable Management** : Goals of Credit Management- Optimum - Receivable Policy - Marginal Analysis - Credit Analysis - Determining Optimum Credit Period.
8. **Inventory Management** : Need to hold Inventory - Objectives of Inventory Management – Inventory Valuation Methods - Perpetual Inventory Management through Stores Ledger and Bin Card – Economic Order Quantity (EOQ) - Re-Order Point - Safety stock - ABC Analysis - XYZ Analysis - FNSD Analysis.
9. **Working Capital & Banking Policy In India** : Concept of Working Capital & Banking Policy - Sources of Working Capital Finance from Bank - Various Committee Reports - Working Capital Finance (Dehejia Committee,Tandon Committee - Chore Committee - Maratha Committee, Chakravarty Committee).
10. **Working Capital Management Extension** : Working Capital leverage – Cash budget simulation – Discriminate analysis and customer classification – Cut-off point – JIT system – Bar coding.

Readings :

1. Bhalla, V.K. : Working Capital Management, Text and Cases, 4thed. Delhi Anmol, 2001.
2. Hampton J.J and C.L. Wagner: Working Capital Management, John Wiley & Sons, 1989.
3. Working Capital Management : Strategies & Techniques, Bhattacharya H – Prentice Hall.
4. Chandran P : Financial Management, Tata McGraw Hill

PGF 303 Security Analysis & Portfolio Management

1. **Security Analysis** : Concept of Securities - Objectives of Security Analysis - Types of Securities - Securities market – Participants in Securities market – Stock Investment - Book Building -
2. **Valuation of Securities** : Bond Valuation Theories - Bond price – Bond Yields – Risk in Bond - Security Credit Rating – Equity Valuation – Dividend Discount model – Two stage growth model – H-Model – Fundamental analysis – Technical analysis.
3. **Stock Market** : Concept - Types – Functions – Listing – Different Stock Exchange in India - Market Index – Role of SEBI – Compositions and functions of BSE, NSE & NSDL – OTCEL – Trading & Settlement – Stock Market index.
4. **Risk & Return** : Concepts of Risk & Return – Clarification of Risk - Diversification of Risk – Efficient Market Theory – Measurement of Return – Historical and expected – Measurement of Risk – Historical and expected – Risk and Normal Distributions.
5. **Portfolio Management** : Concept of Portfolio - Composition of Portfolio Management - Objectives of Portfolio Management. Portfolio process – Controlling risk less and Risky securities – Portfolio Risk.
6. **Portfolio Choice : Utility Theory** : Utility function and Indifference curve – Concave utility function and risk – Uncertain outcomes – Insurance and expected return .
7. **Portfolio Theory** : Optimum Portfolio Selection Problem - Markowitz Portfolio Theory - Mean Variance Criteria (MVC) - Portfolio Selection - Efficient Frontier - Short Selling – Leverage Portfolio.
8. **Portfolio Models** : Sharps Single Index Model – Characteristics lines – Market and non market risk and Return – Portfolio characteristic lines – Construction of optimal portfolio.
9. **Capital Asset Pricing Model** : Assumptions – Capital market line – Security market line – Relationship between SML and CML – Inputs required for application of CAPM – Standard Capital Asset Pricing model – Mon standard CAPM.
10. **Factor Models:** Single factor model – Multifactor models – Arbitrage Pricing Theory model – Assumptions – Derivatives of arbitrage pricing Theory – Practical application of APT.
11. **Investment & Portfolio Strategies** : Portfolio Investment Process - Corporate Investment & Portfolio - Portfolio Management in India - Portfolio Consultancy - National & International Portfolio mixes.

Readings :

1. Bhalla, V K , Investment Management : Security Analysis and Portfolio Management, New Delhi, S, Chand, 2001.
2. P. Pandian, Security Analysis & Portfolio Management, Vikas
3. P. Chandra, Investment Analysis & Portfolio Mgmt.,TMH
4. Reilly,Investment Analysis & Portfolio Mgmt., SPD/TL

PGF 304 Indian Financial System Management

1. **Financial System:** Evolution – Functions – Structure – Financial intermediaries – Financial markets- Financial assets / instruments – Over view of Indian financial system.
2. **Regulatory Frame Work:** Company law regulation – Security contract (Regulation) Act – Recognition of stock Exchange – SEBI Act – Power and function of SEBI – Security appellate Tribunal - Ombudsman buyback of securities.
3. **Primary Market Organization:** Merchant bankers - Under writers – Brokers – Code of conduct for merchant bankers – Code of conduct for underwrites – Code of conduct for portfolio managers.
4. **Activities of Primary Market :** Pricing of issues – Issuing advertisement – Issue of debt instruments – Book building – Green shoe options – Preferential issues – OTCEI issues – Qualified institutional placement.
5. **Secondary Market Organization :** Stock Broking – Custodial service – Depository system – Securities lending scheme .
6. **Capital Market Instruments:** Equity shares – Preference Share – Debentures, Bonds and notes – Innovative debt – Instrument – Financial derivatives – Derivatives of the derivatives – Features - Types and evaluation of each.
7. **Money Market :** Features – Role of RBI – Exchange control authority – Call money market – Commercial Bill market – T-bills market – Commercial papers markets – Certificate of deposits market .
8. **Stock Market Trading :** Normal trading – Derivatives trading – Wholesale debt market – Capital market (Equities) – Trading of Govt securities – Secondary market for corporate debt securities.
9. **Derivative Trading :** Types – Forwards – Features – Options – Trading system – Clearing and settlement – Clearing entities – Clearing mechanism – Settlement mechanism – Risk management .
10. **Financial Intermediaries:** Management of Bank funds – Non Banking financial companies – Mutual funds – Insurance organization.
11. **Foreign Capital Market :** Foreign collaboration – Foreign direct investment – Indian direct Investment abroad – External commercial borrowings – Euro issue – Indian depository receipts – Foreign institutional investors – Offshore funds – Overseas Venture capital investment.

Readings:

1. M.Y. Khan : Indian Financial system : T Mc GH
2. Prof. Anil Agashe : Capital markets and financial services : Everest
3. V.K. Bhatta : Management of Financial services : Anmol
4. Smith , Paul F : Economics of Financial institutions and markets : home wood .

PGF 305 International Financial Management

1. **International Financial Environment** : International Finance defined - Emergence of MNC - Domestic Financial Management & International Financial Management - Balance of Payments (BOP) : Meaning & Concept, Principles of BOP Accounting, BOP Categories - 'Deficit' & 'Surplus' in BOP - Official Reserves - Importance of BOP as a source of international flow of fund.
2. **International Financial System** : Development of International Monetary System - Bretton Woods Conference and afterwards - Exchange Rate Regime - Systems at present - International Monetary Fund (IMF) - European Monetary System (EMS) - Economic & Monetary Union (EMU) - International Financial Centres - Sources of funds - Long term and short term sources including GDRs, ADRs, IDRs - Euro Bonds - Euro Loans - Repose - NIFs, - CPs - Development Banks - ECGCI.
3. **Foreign Exchange Market** : Foreign Exchange Market - Organization - Participants - Functions - Settlement - Spot market - Forward market - Quotations in the FEM - Bid and Ask - Spread - Cross Rate - Currency Arbitrage - Forwards & Futures - Different types of Currency Options .
4. **Exchange Rate Theories** : Evolution of exchange rate Theories - Mint Parity Theory - Purchasing Power Parity Theory - Interest Rate Parity Theory - Buy and Exchange Rate - Methods of forecasting exchange Rate .
5. **Foreign Exchange Rate Risk** : Two dimensions of Foreign Exchange Risk - Exposures - Transaction exposure - Translation exposure - Economic exposures - Evaluation of Foreign Exchange Rate exposure - Internal technique of hedging - External techniques of covering ERR - Money Market Hedge - Forward Market Hedge etc.
6. **Interest Rate Risk** : Importance of IRR - Measurement of interest Rate Risk - Interest Rate Risk Management - Interest Rate Futures - Covering Risk - Option - Swaps - Political Risk - Management of political risk - Types - Evaluation .
7. **Foreign Investment Analysis** : International Portfolio Investment : Concept - Benefits - Foreign Investment Theories - Current Assets Management particularly Cash Management - Foreign Direct Investment (FDI) : Theories of FDI - Strategy of FDI - Capital Budgeting for MNCs - Cost of Capital - Sensitivity Analysis - M & A - Cross border M & A and valuation.
8. **Financial Swaps** : Types - Motivation - Applications - Valuation of Swaps - Evolution of Swaps markets - Further innovations - Cross currency Swaps - Swaps in Index.
9. **International Trade Finance** : Trade relationship - Trade Dilemma - Benefits of the system - Elements of export - Import Transaction - International Trade Risk - Letter of Credit - Drafts - Bill of lading - Trade financing alternative - Forfeiting - Counter Trade - ECGCI.
10. **International Accounting and Taxation**: Globalized concept of Accounting - Foreign Financial Statement Analysis - Bases of International Tax system - Types of taxes - Double taxation Relief - Double tax avoidance.

Readings :

1. Apte, PG : International Financial Management, Tata McGraw Hill.
2. Shapiro, A.C : Multinational Financial Management, Prentice Hall of India.
3. Sharan, V : Multinational Financial Management, Prentice Hall of India.
4. P. K. Jain , J. Peyrad , S.S. Yadav : International Financial Management : Macmillan India
5. Thomas J. O'Brien : International Finance : Oxford
6. Rajiv Srivastava : Financial management : Oxford

PGF-306: Management of Financial Services

1. **Introduction to Financial Services** : Concepts of Financial Services - Objectives - Importance - Nature - Scope – organization of Financial Service Industry – Recent development of Financial service.
2. **Financial Liberalization**: Financial system – In-transition – Regulation of Financial Market – International Regulatory Frame work – Geographical anatomy of financial service – Corporate geography of financial service – Deregulation of Indian Financial system.
3. **Cash Management Service** : Cash Management for corporate entity – Types of cash management service – Advisory service to client – Shift to Web enabled services – Internal and corporate banking strategy – Evolving role of cash management .
4. **Credit Card Service** : Types of credit card – T & E cards – In-store cards – Bank credit cards – International credit card system – Futures of credit card system.
5. **Stock Exchange Operations** : Concept of Stock Exchange - Functions - History of Stock Exchange in India - Middlemen in Stock Exchange – Security trading – Dealing and Organization – Demat and Remat technique.
6. **Mutual Funds Service**: Concept - Types - Nature – NAV – Trends in Indian Mutual Fund Market - SEBI & Mutual Fund – Mutual Fund Schemes – Asset Management company .
7. **Merchant Banking Service**: Concept - Types - Functions - Trends in Merchant Banking in India - SEBI & Merchant Banking – Merchant banking service as NBFC – Venture capital service
8. **Credit Rating Service** : Concept - Functions - Different Credit Rating Agencies - Popular Symbols - SEBI & Credit Rating – CRISIL – ICRA – Other Agency services.
9. **Depository Services** : Concept of Depository - Function - Pros & Cons - Functioning - Role of NSDL, CSDL - SEBI, RBI & Depository.
10. **Leasing Service** : Concept of Leasing – Types of leasing – Operating lease – Leverage lease – Risk in leasing - Johnson leasing Approach .
11. **Regulatory Authority of Financial Services** : RBI Act - SEBI Act in relation to Financial Services - Investors Protections – Tax Evasion & Financial Services.

Readings :

1. Bhalla, V.K : Management of Financial Services, Anmol, New Delhi 2001.
2. Gordan, E and K Natrajan : Emerging Scenario of Financial Services, Himalaya
3. Kim, Suk & Kim, Seung : Global Corporate Finance - Text and Cases, 2nd ed.
4. Saha, T R and Mondal A : Indian Financial System & Financial Market Operation, New Central Book Agency (P) Ltd.,

PGF 307 Bond Analysis

1. **Introduction** : Concept - Classification of Bonds – Fixed Income Securities – Debt Markets – Treasury auctions and selling mechanisms – World Scenario.
2. **Organization of Debt Market** : Different forms – Key players in Debt market – Repo markets – Regulatory issues in Debt market – Listed derivatives market – Dealer derivative market.
3. **Bond Analysis** : Computing yields – Risk and Debt Securities – Internal Rate Theory and Bond pricing – Bond prices and spot rates.
4. **Duration** : Definition – Derivation – Main properties and uses - Practical problems – Duration at work – Directional Duration – Macaulay duration.
5. **Convexity** – Definition - Derivation – Main properties and uses – Importance of Convexity in Bond Management.
6. **Immunization** – General theories – Application – Immunization of Bond Portfolio – Horizon matching – Contingent immunization.
7. **Bond Arbitrage Pricing** : Discrete and Continuous Price – Arbitrage Pricing theory relevant to Bonds.
8. **Yield Curve Analysis** : Business Cycle and Yield Curve – Terms Structure Analysis – Forward Rates of Interest - Hypothesis of Terms Structure – Hypothesis of term structure.
9. **Yield Curve Derivatives** : Calibration Model – Model of Credit Risk.
10. **Inflation Indexed Debt Market** : Design of TIPS – Real Yields – Nominal Yields etc – Inflation Risk Premium – Yields of Tips – Duration of Tips – Cash flows.
11. **Bond Portfolio** : Techniques – Matching Funding – Horizon Funding – Indexation – Portfolio Insurance – Options Pricing Theory – Pricing by Replication – No-arbitrage Restrictions – Monte Carlo Simulation – Trading strategies.
12. **Bond Derivatives** : Bond Options Pricing Theory – Treasury Futures Contract – Euro Dollar Futures & SWAPS – Motivation of derivatives – Derivatives & Risk management.

Readings :

1. Bond Pricing and Portfolio Analysis by Oliver de La Grande : Prentice Hall of India Pvt. Ltd
2. Fixed Income markets and their Derivatives – Suresh Sundaresan South Western
3. Modern Portfolio Theory & Investment analysis – Elton Gruber : Willey

PGF 308 Equity Analysis

1. **Equity Share:** Concepts – Variants of definitions – Evolution of Equity as source of Capital – Features in general - Role in business – Classification – Features of growth sharing – Income and speculative share.
2. **Sweat Equity :** History - Reasons for issuance of Sweat Equity – Beneficiaries of Sweat Equity – Accounting treatment - Sweat Equity as a technique of HRM.
3. **Equity Market :** Primary and Secondary market – Stock Exchanges – Bombay Stock Exchange – National Stock Exchanges – Calcutta Stock Exchange – Trading mechanism – Floor trading and screen based trading .
4. **Equity Market Index :** Stock market Index – Composition of stock market – Important stock indices – Difference between Stock Indices – Computation of BSE Sensitive Index – Recent Trade Analysis of Market Index.
5. **Equity Valuation :** Basics of valuation – Divided approach – Zero Growth model – Constant Growth model – Variable Growth model – Two Stage Growth model – Three Phase growth model –H-model – Earning approach – White Beck Kishor model – CAPM approach .
6. **Equity Risk and Return:** Determination of Return – Historical Return – Expected Return – Risk – Clarification unsystematic risk and Systematic risk – Measurement of risk – Variance – Characteristic Regression Line – ‘ β ’ analysis – Modern tools and techniques.
7. **Intrinsic Value of Equity:** Concept – Economic analysis – Industry analysis – Company analysis – Objective of Fundamental Analysis.
8. **Technical Analysis :** Equity price movement - Determination of trend – Assumptions of Technical Analysis – Evolution –Primary Trend – Secondary Trend – Minor Trends – Indicators – Methods charts – Comparative study between Fundamental analysis and Technical analysis.
9. **Equity Derivatives:** Equity Index features – Equity options – Debt equity Swaps – Hedging With Equity options.
10. **Equity Portfolio Management:** Risk and Returns – Trade off – Markowitz model – CAPM – APT – Single factor model – Application.

Readings:

1. P. Chandra : Valuation of Equity share s in India : Sultan Chand
2. Donald E. Fischer & Ronald J.Jordan : Security Analysis and Portfolio Management : PHI.
3. Damodaran : Corporate Finance (2/e) : Willey.
4. Harris : Trading and Exchange : ONP.
5. Luenberger : Investment Science : ONP.

PGF 309 Mutual Fund Management

1. **History of Mutual Funds :** Introduction – Meaning – Fund Unit vs- Share – Origin of the Fund – Origin of the Fund in India – Types / Classification of Funds – Importance of Mutual Funds – Accounting and Disclosures by Mutual Fund schemes – Funds available in India – Risks in Mutual Funds – Net Asset Value
2. **Conceptual Frame Work :** Concept of Mutual Fund – Classification – Theoretical Frame Work - Majors of Investment performance – Heuriksson Morton Model.
3. **Regulatory Frame Work :** Historical prospective of Mutual Fund Regulation – Present system of regulation – Contribution of Asset Management Company - Appointment of Custodian – Launching of Mutual Fund Scheme – Growth of Mutual Fund Industry in India - Growth of Indian Mutual Fund Industry – Monolithic Phase – Boradan Base of Industry – Emergence of a complete market .
4. **Structure and Operation of the Fund :** Regularity structure of Mutual Funds – Functions of AMC, Custodian, Registrar & Transfer Agent, Trust & Trustee and Sponsor – RBI Guidelines – UTI Guidelines – SEBI (Mutual Funds) Regulations , 1996 - New Regulations , 1999 – Association of Mutual Funds Industry (AMFI)
5. **Performance of Mutual Fund:** Return and Risk of sample scheme – Shaper Ratio – Treynor Ratio – Jensen Differential majors – Appraisal Ratio
6. **Financial Market and Mutual Funds :** An Overview of the Indian Financial Market – Role of Mutual Funds in the Financial Market – Benefits of Mutual Funds in Developed Countries.
7. **Growth of Mutual Funds :** Phases of Development – Structure of Indian Mutual Funds – Types of Mutual Fund Schemes – Growth and Operational highlights – Indian offshore Funds – Implications of Money Market Mutual Funds for India – Performance of Indian Mutual Funds.
8. **Mutual Fund Marketing:** Marketing Plan for a Mutual Fund – Marketing Unit Trusts and Investment Trusts in the UK – Marketing Mutual Funds in the USA – Marketing Investment Trusts in Japan – Market Analysis for Mutual Funds – The Scope of the Market for Mutual Funds

Readings:

1. Bansal & Agarwal – Mutual Funds Management and Working , Deep & Deep Publication
2. Amit Singh Sisodiya – Mutual Fund Industry in India , The ICFAI University Press
3. E Mrudula & Priya Raju – Mutual Fund Industry in India , The ICFAI University Press
4. Daryab Singh – Mutual Funds in India , Rajat publications
5. H Sadhak - Mutual Funds in India , Sage Publication

PGF 310 Financial Derivative Management

1. **Financial Derivatives** : Definition – Feature – Classification - History of derivative markets – Uses – Myths of derivatives – Terminologies.
2. **Futures Contract** : Features – Types – Operators – Trading mechanism – Pricing of Futures – Classifications - Hedging Strategy.
3. **Forwards Contract** : Concept – Features – Market players – Trading mechanism – Pricing – Hedging strategy – Comparative study of futures and forwards.
4. **Options Contract** : Basic concept - Evolution – Option valuation – Option position – Put option – Call option – Other classification – Role of option in Capital market.
5. **Option Pricing Models** – Mechanics of option market – Properties of stock option – Trading strategies involving options – Binomial option Pricing Model – Black Schole’s Option Pricing Model.
6. **Option Strategies** : Straps – Strips – Straddle – Strangle – Spread – Pay off matrix
7. **Option for Risk Management:** Greeks – Theta – Rho – Vega – Delta – Gama – Application in BS Model – Applicability in Indian Stock Market
8. **SWAPS** : Concept – Features – Interest Rate Swaps – Currency Swaps – Commodity Swaps – Equity Index Swaps
9. **SWAPS for Management of Risk** : Use of default Swaps – Use of Currency Swaps – Use of Equity Swaps – Use of Index Swaps – Use of Drift Swaps.
10. **Pricing of Swaps:** Pricing of Interest Swaps – Pricing of Currency Swaps – Pricing of Commodity Swaps – Pricing of Equity Swaps – Pricing of Drift Swaps.
11. **Advance Topics:** Value at Risk – Exotics – Credit Derivatives – Event Derivatives – Recent Developments.

Readings :

1. Derivatives : Valuation and Risk Management by David A. Dubofsky & Thomas W. Miller, Jr. OUP.
- 2.. Options, Futures and other derivatives by John C. Hull, PHI

3. HRM SPECIALIZATION

PGH 301 Compensation Management

1. **Introduction** : Compensation defined – Types of Compensation – Significance – Elements of Compensation – Principles of determination of Compensation.
2. **Compensation and Reward Management** : Compensation and Rewards – Determination – Approaches– Pay for Performance Approach – New Developments – Equity
3. **Rewards and Incentives** : Determinants of incentives – Incentive Payments – Wage incentives – Types of Wage incentive plans – Halsey Plan – Rowaas Plan – Beandux Point Plan – Emersion Plan – Tayler’s Plan – Merric’s Plan – Gnallt Plan – Profit Sharing Plan.
4. **Non-monetary incentives** : Terminologies – Special features of fringe benefits – History of growth – Coverage Administration of benefits and services.
5. **Concept of Wage** : Minimum Wage - Fair Wage - Living Wage - Need based minimum Wage - Wage Policy.
6. **Wage & Salary Administration** : Wage / Salary, Real Wage, Components of Wages - Basic - Dearness Allowances - House Rent Allowances - City Compensatory Allowance - Other Allowances, Factors influencing Wage / Salary - Wage differentials - Wage Fixation - Planning & Control of Wages.
7. **Dearness Allowance** : Methods of DA Payment - Consumer Price Index - Neutralization.
8. **Productivity & Wages** : Productivity Bargaining - Incentive Payments - Productivity Linked Bonus, Incentives Individual & Group Incentives.
9. **Employee Benefits**: Statutory & Voluntary Benefits - Retirement Benefits – Provident Fund – Gratuity - Pension.
10. **Legal Framework** : Payment of Wages Act – Workmen’s Compensation Act – Gratuity Act – Bonus Act – Equal Remuneration Act – Other provision of related Acts and Rules.

Readings :

1. A K Dasgupta : A Theory of Wage Policy, OUP
2. Pramod Verma : Labour Economics & Industrial Relations, Tata McGraw Hill.
3. G L Raynolds : Labour Economics & Labour Relations, Prentice Hall.
4. A M Sarma : Understanding Wage System , Himalaya.
5. Tanuja Agarwal : Strategic Human Resource Management : Oxford University Press.
6. C.B.Mamaria & S.V.Gaakn : Personnel Management : Text and cases : 26th/e : Himalay

PGH-302: Human Resource Planning

1. **Human Resource Planning** : HRP defined – Need for HRP – Benefits – Responsibility – Points to consider – HR plan components – Short range analysis – Long range analysis
2. **Basics in HR Planning** : Macro Level Scenario of HRP - Concepts & Process of HRP - Considerations – Technology - Finance - Product Demand – HR inventory – Elements of Inventory – Data mining – Data analysis.
3. **Methods & Techniques** : Demand Forecasting - Managerial Estimates - Trend Analysis - Markov Analysis - Utilization Analysis - Work Study - Job Analysis - Supply Forecasting - Inventory Analysis - Wastage Analysis - Balancing Supply & Demand - Issues of Shortage & Surplus.
4. **Human Resource Information System (HRIS):** HRIS defined – HRIS- Vs–MIS - Need for HRIS - Advantage of HRIS - Uses of HRIS Designing of HRIS – Computerized HRIS-Basics of MIS – Application of MIS to HRIS.
5. **Job Analysis & Job Evaluation** : Job Analysis – Concepts, - Process, Job description - Job Specification - Uses - Limitations - Job Evaluation – Concepts - Methods – Limitations Relationship of Job analysis and Job evaluation for HRP.
6. **Measurement of HR Planning:** HR Audit – Need of HR – Present practice – Objective of HRA – Valuation methods and model – Benefits of HRA – HRA in India – Human resource Audit – Objectives – Areas of HR Audit – Benefits Accruing from HR audit – Human resource research – Characteristics – Methods of Human Resource Audit.
7. **HR Plan - Implementation Strategies** : Recruitment - Redeployment - Redundancy - Retention, Productivity Plan - Training Plan - Career Plan - Succession Plan - Compensation Plan.
8. **Human Resource Mobility:** Promotion defines – Promotion Policy – Career Planning – Demotions – Transfer – Separation – Employee Turnover – Exit interview – Retention strategy – Absenteeism – Causes of absenteeism – Controlling Measures
9. **Human Resource Documentation** : Significance of records and reports – Records – Essential of good records – Reports – Essentials of good reports – Personnel audit – The Audit report – Personnel research procedure – Sources of Research information – Responsibility of Research .
10. **Strategic Human Resource Planning** : Emergence of strategic perspective – HR and Business policy – 4 level Model – Strategic Business policy – Nature of HRP policy – Cost and HRP strategy – Speed and HRP policy . Planning as the applications of mine strategies – Assessment of strategic HR planning.

Readings :

1. D J Bell : Planning Corporate Manpower
2. J W Walker : Human Resource Planning, MGH
3. Ramswamy, Managing Human Resource, OUP
4. Pinnington, Introduction to HRM, OUP
5. J. Bramham, Human Resource Planning, University Press
6. Job Evaluation : ILO

PGH 303 : Legal Aspect of Human Resource

1. **Evolution of Labour Laws :** Law define – Sources of law – Sources of commercial law – Sources of labour laws – Evaluation of labour laws – Industrial society and labour laws – Labour laws recommending authorities – Functions of ILO.
2. **Constitution of India :** Preamble – Constitutional frame work – Concurrent list – State list – Central list – Fundamental rights – Writ jurisdiction – Special writ jurisdiction – Labour court and tribunals – Principles of natural justice.
3. **Laws Regulating Establishment :** Factories Act , 1948 - – Preliminary inspecting staff – Safety – Hazard process – Welfare – Working hours – Annual leave with wages Panel provisions –Mines Act, 1952 – Concepts – Provisions relating to health , welfare, etc. – Annual leave with wages – Penal provisions - Plantations Labour Act, 1951 – Overview – Major differences .
4. **Laws Relating to Remuneration-I :** Payment of Wages Act, 1936 – Definition – Wage period – Admissible deduction – Prescribe authorities – Maintenance of registration and documents – Claims Penal provisions – Appeal provision – Procedure of trial.
5. **Laws Relating to Remuneration-II :** Minimum Wages Act, 1948 – Concepts – Advisory board – Payment of minimum rates of wages – Documents and records – Power of Govt. – Penal Provisions - Payment of Bonus Act, 1965 – Calculation of bonus – Payment of bonus – Time limit of payment of bonus – Power of Govt. - Equal Remuneration Act, 1976 – Payment remuneration at equal rates – Miscellaneous.
6. **Laws Relating to Industrial Relations-I :** Industrial Disputes Act, 1947 – Preliminary – Authorities under the act – Notice of change – Reference of disputes – Power of duties and authorities – Strikes and lockouts – Lay of and retrenchment – Penalties and fare labour practices .
7. **Laws Relating to Industrial Relations-II :** Industrial Employment (Standing Orders) Act, 1946 – Interpretation - Draft standing orders – Certification of standing orders – Appeals – Posting of standing orders - Model standing orders – Penal provisions.
8. **Laws Relating to Industrial Relations-III :** Trade Unions Act, 1926 – Registration of Trade Union – Right of liabilities Registered Trade Union – Regulation – Penalty and procedure.
9. **Laws Relating to Social Security-I :** Workmen’s Compensation Act, 1923 – Preliminary – workmen’s compensation – Commissions – Rules – Penal provisions- Employees’ State Insurance Act. 1948 - Preliminary – Corporation – Standing Committee – Medical Benefit council – Finance and audit – Contribution – benefits – Transitory provision – Adjudications – Penalties –
10. **Laws Relating to Social Security-II :** Employees’ Provident Funds & Misc. Provisions Act, 1952 – Preliminary – Application to establishment – Central Board – Employees pension scheme – Provident Funds – Appellate tribunal – Recovery officer – Inspections – Penal provisions - Maternity Benefit Act, 1961 - Payment of Gratuity Act, 1972.

Readings:

1. N. D. Kapoor : Mercantile Law including Industrial Law, Sultan Chand.
2. P. P. S. Gogna : A Textbook of Business Law, S. Chand & Co.
3. M. S. Pandit & S. Pandit : Business Law, Himalaya Publishing.
4. P L Malik : Industrial Law, Lucknow Eastern Book
5. D. K. Basu : Shorter Constitution of India

PGH 304 : Industrial Relations & Trade Union Management

1. **Industrial Relations** : Concept - Approaches to IR - Parties to IR - System Model of IR.
2. **Industrial Worker in India** : Rise of Industrial Workers - Profile of Industrial Workers in India - Problems of Industrial Workers (absenteeism, commitment, work ethics).
3. **Trade Unionism in India** : Origin - Growth - Structure & Management of Trade Unions – Registration - Recognitions - Leadership - Trade Unionisms - Employer’s Organizations in India - Managerial Associations.
4. **Industrial Relations in India** : Labour Policy in Five Year Plans - Tripartism - Role of Government & State - Role of Management - Role of Trade Unions.
5. **Industrial Disputes** : Causes - Types - Trends and settlement of disputes (internal options, third party machinery).
6. **Grievance & Grievance Handling**: Sources of Grievances – Grievance redressal machinery – Procedure in organized & unorganized sector – Essence of model grievance procedure.
7. **Collective Bargaining** : Theories – Perquisites - Process, Negotiating skills and strategies - Agreement – Content - Validity - Implementation - Productivity – Bargaining - Growth of collective bargaining in India
8. **Workers’ Participation in Management** : Concept - Purpose & practices in other countries - Workers’ participation Schemes in India – Works Committee - Joint Management Council - Worker – Director - Shop Council & Joint Council – WPM - EPM - Problems & Prospects in India - Quality Circles – Concept & Practices in India.
9. **Labour Welfare & Industrial Relations** : Concept - Purpose - Statutory & non- statutory provisions - ILO Conventions and its application in India - Workers’ Education Programmes in India.
10. **Employee Discipline**: Meaning – Types - Misconduct - Disciplinary Action - Domestic Enquiry - Grievance Handling.
11. **Rationalization, Modernization, Automation & Industrial Relations** – Case Studies.

Readings :

1. M Marchington : Managing Industrial Relations, McGraw Hill
2. Sinha, Industrial Relations, Pearson Education
3. Arun Monappa : Industrial Relations, Tata McGraw Hill.
4. 4. Report of the National Commission on Labour : Govt. of India.
5. 5. E A Ramaswamy : Managing Human Resources, Oxford University Press.
6. B.D. Singh, Industrial Relations, Excel Books
7. N.G Nair & L. Nair : Personnel Management & Industrial Relations, S.Chand
8. Mamoria & Mamoria : Dynamics of Industrial relation , Himalaya

PGH 305 : Training and Development

1. **Organizational Change & Development** : Concept - History - Organizational Change - Process - Lewins Model - Organizational Life-Cycle - Values and Assumption of O.D.
2. **Operational Components of OD** : Diagnostic Components - Action Component - Process - Management Component.
3. **Characteristics & Foundation of OD Process** : On-going interactive process - Form of Applied BS - Strategy of changing - Systems approach - Approach to planned change - Experience based - Goal Setting & Planning - Focus on work teams.
4. **OD & Action Research** : Process – Approach - Use of action research on OD.
5. **OD Interventions** : Nature of OD interventions - The OD Cube - Major families of OD interventions – Dimensions - Individual - Group & Task–Process.
6. **Team Interventions** : Teams and work groups - Team building interventions - Diagnostic meeting - Team building meeting - Role analysis technique - Role negotiation techniques - Gestalt orientation to team building - inter-group interventions.
7. **Personal, Interpersonal & Group Process Interventions** : Process Consultation - Third party intervention - Sensitivity training - Transactional Analysis - Career Planning Interventions.
8. **Comprehensive Interventions** : Confrontation meeting - Survey feedback - Four System Management - Grid - Contingency approach.
9. **Structural Interventions** : Job design, MBO - QWL - Socio - Technical Systems - Physical setting - Conditions for OD - Re-engineering.
10. **Issues in OD** : OD facilitators role - OD Consultant - Consultant – Client relationship - Problems in OD Interventions - Resistance – Individual & organizational - Research in OD.

Readings :-

1. W.L. French & C H Bell : Organization Development , Prentice Hall of India/Pearson Education.
2. S P Robbins : Organizational Behaviour, Prentice Hall of India
3. S S Khemka : Organizational Behaviour, S. Chand.
4. Udai Pareek : Understanding Organizational Behaviour , OUP
5. J.S Chandan: Organizational Behaviour,Vikas
6. D . Hellriegel , J.W. Slocum & R W. Woodman : Organizational Behaviour,
7. C.V. Mamoria & Gankar : Personnel Management

PGH 306 : Human Resource Development

1. **Human Resource Development** : Meaning - Scope and purpose - HRD Process - Techniques of Assessment of HRD Needs - Organizational Analysis - Task Analysis - Individual Analysis.
2. **Strategic Perspective of HRD**: Significance of HRD – human Resource for competitive advantage – Business strategy and HRD – HR and business policy linkage – HRD and lifecycle of organization – HRD and organizational performance
3. **Strategies of HRD** : Organizational Development - Individual Development - Team Development - Organizational Culture Building .
4. **HRD in Process & Manufacturing Industry**: Company profile – Strategic response – Strategic HRD system – Strategic HRD practices and facilitator – Relationship between strategic responses and strategic HRD system.
5. **Individual Development through Training** : Designing Training Programme - On-the-job - Off-the-job - Methods – Lecture - Case Analysis - Role Play - Games - Exercises - Role of Trainer - MDPs - Out Bound Training.
6. **Evaluation of Training** : Need – Principles – Criteria - Technique of evaluation - Impediments to effective training - Improving effectiveness of training.
7. **Individual Development through Non-Training** : Job Redesign Programme - Job Enlargement, Job Enrichment - Job Rotation - Suggestion Schemes - Career Planning, Counseling.
8. **Team Development Programme** : Methods and Schemes - Role of Staff & Line Managers in HRD - Quality Circle - Kaizen - Autonomous Small Group Activities.
9. **HRD in Service Industry** : Service Industries – Bank as a service Industry – Profile of Bank – Strategic Response – Strategic HRD system – Relationship between SHRD practice and SHRD facilitator in and SHRD in Bank
10. **HRD – Experiments in India** : Cases in Public Sector & in Private Sector Enterprises.
11. **HRD Experiments in other Countries**:

Readings :

1. Udai Pareek & T V Rao : Designing & Managing Human Resource Systems, Oxford & TBH.
2. Dessler, Human Resource management, Pearson Education
3. T V Rao : Readings in HRD, Oxford & IBH.
4. D M Silvera : Human Resource Development – The Indian Experience.
5. R L Desimone, J M Werner & D M Harris : Human Resource Development, Thomson

PGH 307 : Performance Management

1. **Introduction :** Definition of Performance Management – Theoretical foundation - Theories – Learning theories – Performance Management Contribution – Aims and Roles – Characteristics of ideal PM system – Integration with other activities.
2. **Performance Management Process :** Pre-requisites – Performance planning – Performance executives – Performance assessment - Performance review – Performance renewal.
3. **System Implementations :** Determinants of Performance – Performance dimensions – Trait approach – Behaviour approach – Result Approach.
4. **Performance Information :** Appraisal forms – Characteristics – Overall rating – Appraisal period - supervisors – Peers – Sub-ordinates – Self-customer – Model of rate motivation.
5. **Reward Based Performance Management :** Significance of reward – Theoretical foundation of reward based PM – Factors influencing reward system – Intervention and Drivers – Non monetary reward.
6. **Career Based Performance Management:** Career strategy in PM – Significance – Theoretical foundation – Strategy – Intervention and Drivers.
7. **Team based Performance Management :** Team work in PM - Theoretical foundation of team work – Team based work by objective - Strategy – Intervention and Drivers.
8. **Culture Based Performance Management:** Organization culture – Significance of organizational culture – Theoretical foundation of organizational culture – Strategy - Intervention and Drivers.
9. **Measure Based Performance Management :** Concept – Significance - Theoretical foundation – Strategy approach.
10. **Competency Based Performance Management:** Competency management - Significance - Theoretical foundation – Lessons of competency framework - Strategy - Intervention and Drivers.
11. **Leadership Based Performance Management:** Concept - Theoretical foundation – Lessons of leadership theories – Skilled incompetence leadership – Somatic markers – Strategic approach.

Readings :

1. Herman Agninis : Performance Management : Pearson Education.
2. Srinivas R. Kandula : Performance Management – strategies : Intervension Drivers : Prentice Hall
3. D. Ghose : The Complete guide to Performance Appraisal : Ny, Amacon.
4. D. Goel : Appraisal & Compensation Management : A modern appraisal
5. A. S. Kohli : Performance Management : Oxford

PGH 308 : International Human Resource Management

1. **Introduction and Overview** : Concept – Global market – Essential factors influencing International HRM – ILU – WTU – Employee interest organization – Global Perspective of IHRM .
2. **Cultural Foundation of IHRM** : Understanding culture – Major models of National culture – Seven cultural dimension – Cultural convergence versus Divergence – **Careats** on culture and global work force management.
3. **Changes and Challenges in Global Labour Market** : Introduction – Globalization – Technological Advancement – Changes in labour force Demographics – Domestic migration – Off-shore sourcing – Global work force management challenges -
4. **Key role of International HRM** : Knowledge Transfer – Leadership Training and Development strategic control needs – Competitive strategic for more – Global cost leadership strategy - Structuring for optimal global performance – Linking HRM Practices – Paradigm shift of International HRM.
5. **International Human Resource Planning** : Concept of Human Resource Planning – Work demand – Environmental scanning – Cross national cooperation and competition – Job design – **Acternate** forms of International work arrangement – HR Planning for the global successive planning.
6. **Global Staffing** : General factors affecting global staffing – More Business strategy – Ethnocentric Appraisals – **Polycabric** Appraisal – Region centric appraisal – Geocentric appraisal – Socio cultural consideration – Global recruitment of Human Resources – Methods – Global selections.
7. **Global workforce Training and Development** : Strategic role of training and development - Fundamental concepts and principles – Sensitivity to cross – Cultural differences - Systems approval – Expatriate Training considerations – In-house training considerations –
8. **International Assignment Management** : Expatriate – Preparation – Pre-departure preparation phase-foreign experience phase – Repatriates phase – Women expatriates – Impetrates – New and flexible international assignments.
9. **International Performance Management**: Performance Management Process - For global performance Management – Upstream & Down stream concepts - Planning and implementing global Performance Appraisal – Sources of Performance Appraisal input – Frequency of Performance Appraisal – Customization of Performance appraisal – Performance Appraisal for expatriates.
10. **Compensation for Global Work Force** : Concept – Compensation on a global scale – Paying for performance – Influence of culture – Total reward system – Key compensation consideration for expatriates, In and Ten.
11. **International Employee Relation**: Current ER issues – Influence of MNC and issue on global ER – MNC Practice for effective global ER – Health and Safety – Employment involvement and debt – Open communication and grievance process – Employee termination and displacement – Labour union in global employee relation.

Readings :

1. Charles M.Vance & Yougsun Paik : Managing a global work force : Prentice Hall
2. C.R.Grear : Strategic Human Resource Management : Prentice Hall
3. Phewis, A.Jhoroahill and M.Saundes : Employee Relations: understanding the Employment Relationship : Prentice Hall.
4. C.Hendry : Human Resource strategies for international growth : London, Routledge.

PGH 309 : Employment Administration

1. **Employment:** Policy & Programmes for Managers & Workers – Employment defined – Classification of employment – Casual – Bodhli - Temporary – On probation – Substantive – Confirmation – Human Resource Requisition – External influence on Staffing – Internal influence on Staffing.
2. **Bio-data Sheet:** Potentiality Analysis - Attributes Analysis - Man Analysis - XVZ Theory – Treatment of misemployment period – Credentials – Notice period –Last Pay drawn – Present job profile – Cause of Leave –Salary expected – Load bearing capacity.
3. **Interview:** Preparation - Types – Structure – Stress – Evaluation – Preparation for an interview – Skill test – Personality Test – Psychometric Test – Selection outcome –Strategic Recruitment and Selection – Hiring Consideration of BPO.
4. **Appointment:** Prerequisite - Reference Survey - Medical Test - Contents of Appointment Letter - Induction Programming, In Job Training – Job profile – Compensation package – Service conditions – Teams of employment – Probation – Confirmation.
5. **Training & Executive Development:** Need for training - Creation of desire for training - Learning Theories - Training Programmes - Methods - Evaluation - MDP & EDP – Components Pedagogical approach management game - T –Training - Grid Training – TA Training.
6. **Performance Appraisal:** Purpose - Approaches - Valuation Process – Techniques - Traditional Methods - Modern Methods – MBO - Ethics of Appraisal - 360⁰ Appraisal - Formatting – Uses of performance appraisal – Horizontal mobility – Vertical mobility
7. **Special Provision for Employment :** Reservation Rules - Employment of Women & Dependents - Employment of Land Oustees. – Provisions of factories Ac – provisions of industrial employment (standing orders) Act – Conduct of conduct – employment of contract labour- Change of terms of employment.
8. **Managing Career :** Contemporary notions – Career Planning, Development & Management – Career Stages – Career planning – Career Development - Career Management System – mentor Relationship – Work life Integration.
9. **Promotion, Transfer and Specialization :** Nature and Significance of promotion – Key issues in Promotion – Mechanics and Systems of Promotion – Demotion – Transfer defined – Transfer Policy – Elements in a Transfer Programme – Specialization – Lay-Off – Discharge – VRS – Outplacement – Retention.
10. **Stress and Health Management:** Concept of stress – Causes of stress – Effects of stress – Burn out – Rest ... - Stress Management – Band on Indian Philosophy – Techniques of Stress management – Health Management – Safely Measures – Occupational Health.

References :

1. R.S.Darivedi : A Text Book of Human Resource Management.
2. Pramod Verma : Labour Economics & Industrial Relations, Tata McGraw Hill.
3. Srivastava, Industrial Relation & Labour Laws, Vikas
4. C.S. Venkata Ratnam & B K Srivastava : Personnel Management & Industrial Relations, Tata McGraw Hill.
5. Tanuja Agarwala : Strategic – Human Resource Management : OUP.

PGH 310 : Human Resource Information System

1. **Conceptual Framework** : HRIS defined – HRIS- Vs-MIS - Need for HRIS - Advantage of HRIS - Uses of HRIS Designing of HRIS – Computerized HRIS-Basics of MIS – Application of MIS to HRIS.
2. **System Related Function** : Data and Information - Data required for HRIS - Collection of data - Screening and scanning of data – Format designing- Sub-function wise design - Stages of collection of data- Data storage - Administration of data.
3. **System Based HRP** : HRP defined – Human Resource Planning process – HR inventory – HR forecasting – Management judgment - Work study method – Ratio Trend Analysis - Delphi Method - Flow models - Mathematical model - System designing for each model - Programming and data storing – Data control- Flow chart.
4. **System Based Job Analysis and Design** : Review of concepts - Process designing – Process of Job analysis - Designing of computer - Based Questionnaire - Concept of job design - Techniques of job design - Work simplification - Job Rotation – Job enlargement – Job enhancement – Programming for storage of data.
5. **Talent Acquisition** : Meaning and definition – Storage of Bio data in software– Matching of job requirement with qualification and experience – Process of Short listing –Comparison of results of interview – Format designing – Preparation of merit list – Reference check – Formatting of Appointment Letter – Flow chart for updating the data.
6. **SHRD System** : Alignment between strategic responses of organization and SHRD System- Theory and Practice – Merger, Acquisition and Take over and SHRD System – Diversification of SHRD System-Strategic Management of decline and SHRD System – Process related strategic Resources and SHRD System – Bench marking and SHRD System – R&D Strategies and SHRD system – Matrix and SHRD System.
7. **Job Evaluation & Wage Structuring** : Job evaluation defined – Job evaluation and wage structuring – Programming of steps of Job evaluation – Computer aided designing of different methods of job evaluation – Portfolios of elements of wages - Determination of Dearness allowance – MIS and CLI – Wage determination on points basis – Software for Input and Output Analysis - Storage of relevant data.
8. **Potential Analysis**: Performance and Potentiality defined - Designing of Performance Appraisal - Process of Performance Appraisal – Methods – Computer based Rating Scale – MBO – 360 degree Appraisal - Computer based BARS instrument – Conversion of qualitative assessment to quantitative one – Potential Evaluation – Computerized Analysis of factors to test potential – Ranking of employees for Promotion - Job rotation, and Transfer on the basis of Potential analysis through HRIS.
9. **Employee Empowerment** : Empowerment defined – Approaches to empowerment – Reforms of empowerment - Empowered Team – Life Stages of an empowered group – Data requirement for empowerment designing – Formatting the data collection process – Analysis of data – Removal of Biasness – Matching through system analysis and computerized data analysis, the result with career planning and successive planning.
10. **Reporting System** : Level of decision making – Corporate level – Middle management level – Execution Level – Contents of HRIS according to Level – Development of Computerized formats for Skill test – Potential analysis Vs – Performance Appraisal – Maintenance of Discipline – Wage Structuring – Grievance Handling – Collective bargaining – Dispute settlement - Promotion and Transfer – Empowerment – Executive development – Misc. Propose Computer based Human Resource Auditing – Computer based HR Accounting.

Readings :

1. Alastair Evans : Computerized Personal System.: A Basic Guide : IPM London.
2. S. Chandrasekhar : Computerized HRI s, Oxford and IBH.
3. S. S. Khanka : Human Resource Management : S.Chand
4. Srinivas R. Jaandula : Strategic Human Resource Development : PHI.
5. Chandler, A. : Strategy and Structure : MIT Press.

4. SYSTEMS SPECIALIZATION

PGS-301: Data Base Management Systems

1. **Basic Concepts** : Introduction – Objectives – Database Environment – Working of simple centralized database system – Traditional file systems Vs modern Database Management systems – Database Administrator (DBA) – Database Designers (DBD) – End Users - System analysts and application programmers – DBMS system designers and implementers – Tool developers – Advantages of using DBMS .
2. **Database Application** : Three-Schemas Architectures – Data independence – DBMS Languages – DDL – Data Manipulation Languages (DMLS) – DBMS interfaces – DBMS Components- Data manager – Query processor – DDL compiler – Run-time data base processor – Pre-compiler- Database system utilities.
3. **Record Storage and Querying** : Secondary storage device – File organization – Organization of records in files – Indexing and hashing Techniques : Primary index - Clustering index – Secondary index – Multilevel indexes – B+ Tree Index files – B- Tree Index files – Sorting – Section operation – Transformation of relational expressions – Choice of evaluation plans.
4. **Entity–Relationship Model** : Conceptual Data model for database design – ER Model - Different types of attributes – relationships, Roles and Structural constraints – Degree of relationship type – Constraints on Relationship types – Update operation on Relations – Relational algebra – Select operation – Project operation – Set Theoretic operations – join operation - Relational Calculus : Tuple Relational calculus – Domain relational calculus
5. **SQL** : Back ground – Basic structure – Set Operations – Aggregate Functions – Null Values - Data retrieval statement – Multi table queries – Nested queries – Multiple Row nested queries – Exists clause- Complex queries – Modification of the Database – Joined Relations – Data Manipulation language – Create Table statement – Embedded SQL – Dynamic SQL .
6. **Relational–Database Design**: Information Design Guide lines for relational DB – Normal forms based on primary keys – Second Normal form – Third Normal form (3NF) – - Functional Dependencies – Decomposition - Boyce Codd Normal Form (BCNF) – Fourth Normal Form (\$NF) – More normal forms – Overall Database Design process.
7. **Object–Based Databases and XML**: Object-Oriented Data bases –Need for complex data types – Object-Oriented Data Model – object-Oriented Languages – Persistent programming Languages – Persistent C++ systems – Persistent Java systems – Object-Relational Databases – Querying with complex types – Functions and procedures – Object-oriented Vs-Object-relational –XML: Background – Structure of XML Data – XML document schema – Querying and transformation – ZML Applications.
8. **Transaction Management**: Concept – Implementation of atomicity and Durability – Serializability – Recoverability – Implementation of Isolation – Concurrency Control – Lock based Protocol – Timestamp-based protocols – Deadlock Handling – Insert and Delete operations – Recovery System – Recovery and Atomicity – Shadow paging – Recovery with concurrent transactions.
9. **Database System Architecture**: Centralized and Client – Server architectures – Server system Architectures – Parallel systems – Distributed systems – network types- Distributed transactions – distributed query processing – Intraquery Parallelism – Intraoperation Parallelism.

Reference :

1. Elmasri, Navathe : Fundamentals of Database System, Pearson Education.
2. Silberschatz, Korth, Sudarshan : Database System Concepts, McGraw Hill International.
3. Date : An Introduction to Database System, Pearson Education.
4. Leon & Leon, Data Base Management System, Vikas
5. Hopper, Prescott, Mc fadden : Modern Database Management, Pearson Education.
6. Molina, Ullman, Widom : Database System , Pearson Education.
7. Schaum's Outline Series : Funamentals of Relational Databases, Tata McGraw Hill.

PGS-302: E-Business

1. **Electronic Commerce** : Overview - Definitions - Advantages & Disadvantages of E-Commerce - Threats of E-Commerce - Managerial Prospective - Rules & Regulations For Controlling E-Commerce - Risk of E-Commerce : Overview - Security for E-Commerce - Security Standards - Firewall - Cryptography - Key Management - Password Systems - Digital certificates - Digital signatures.
2. **Technologies** : Relationship Between E-Commerce & Networking - Different Types of Networking For E-Commerce, Internet, Intranet & Extranet - Protocols - ISO - OSI - TCP / IP - IP Addressing - Client-Server - Web-Server Architecture - Infrastructure Requirement For E-Commerce - EDI Systems - Intelligent Systems.
3. **Business Models of E-commerce** : Model Based On Transaction Type - Model Based On Transaction Party - B2B, B2C, C2B, C2C, E-Governance.
4. **E-Strategy** : Overview - Strategic Methods for developing E-commerce.
5. **Four C's** : (Convergence, Collaborative Computing, Content Management & Call Centre).
Convergence : Technological Advances in Convergence - Types, Convergence and its implications - Convergence & Electronic Commerce. Collaborative Computing : Collaborative product development - Contract as per CAD - Simultaneous Collaboration - Security . Content Management : Definition of content - Authoring Tools & Content Management - Content - partnership - Repositories - Convergence - Providers - Web Traffic & Traffic Management - Content Marketing. Call Centre : Definition - Need - Tasks Handled - Mode of Operation - Equipment - Strength & Weaknesses of Call Centre - Customer Premises Equipment (CPE).
6. **Wireless Application Protocol** : Definition - Hand Held Devices - Mobility & Commerce - Mobile Computing - Wireless Web - Web Security.
7. **Supply Chain Management** : E-logistics - Supply Chain Portal - Supply Chain Planning Tools (SCP Tools) - Supply Chain Execution (SCE) - SCE - Framework - Internet's effect on Supply Chain Power
8. **E-Payment Mechanism** : Payment through card system - E-Cheque, E-Cash, E-Payment Threats & Protections.
9. **E-Marketing** : E-Marketing defined - Its importance - Benefits of e-marketing - E-marketing quiver - Blogging - Guide to SEO - PPC - Affiliate marketing - Viral Marketing - Online marketing - E-marketing vs traditional marketing - Modern trend.
10. **Electronic Data Interchange (EDI)** : Meaning - Benefits - Concepts - Application - EDI Model - Protocols (UN EDI FACT / GTDI - ANSI X - 12) - Data Encryption (DES / RSA).

Reference :

1. Kalakotia, Whinston : Frontiers of Electronic Commerce , Pearson Education.
2. Bhaskar Bharat : Electronic Commerce - Technologies & Applications.TMH
3. Murthy : E-Commerce , Himalaya Publishing.
4. E-Commerce : Strategy Technologies & Applications, Tata McGraw Hill.
5. Krishnamurthy, E-Commerce Mgmt, Vikas

PGS-303: Computer Aided Management

1. **Management Support Systems** : Overview.
2. **Data Warehousing** : Access – Analysis - Mining & Visualization.
3. **Data Reviewing** : Concepts & Applications.
4. **Collaborative Computing Technologies** : Group Support System - Technologies.
5. **Enterprise Decision Support Systems** : Concepts - Definitions - EIS - Organizational DSS - Supply & Value Chains & Decision Support.
6. **Knowledge Management** :Concept - Development Methods Technologies & Tools - Electronic Document Management.
7. **Knowledge - Based Decision Support** : Artificial Intelligence (AI) - Concept - Definition - AI Vs Natural Intelligence. - Expert System - Concept - Structure - Working Benefits & Limitations - Knowledge Acquisition & Validation - Scope - Methods - Validation, Verification, Analyzing, Coding, Documenting & Diagramming. - Knowledge Representation - Inference Techniques - Intelligence System Development. - Fuzzy Logic - Genetic Algorithm
8. **Neural Computing** : Fundamentals - Types of Neural Networks - Neural Network Application - Development - Architecture - Learning Algorithms - Neural Network Software & Hardware - Benefits & Limitations of Neural Networks.
9. **Grid Computing** : Overview.
10. **Implementing & Integrating Management Support Systems** : Issues - Strategies - Generic Models - Integrating EIS - DSS, ES & Global Integration.

Readings :

1. Turban, Aronson : Decision Support System & Intelligent System, Pearson.
2. Dan W. Palterson : Introduction to Artificial Intelligence & Expert System, PHI.
3. Elaine Rich & Kevin Knight : Artificial Intelligence, Tata McGraw Hill.
4. Stamatioys V Kartalopoulos : Understanding Neural Networks & Fuzzy Logic – Basic Concepts & Application, PHI.

PGS-304: Software Project Management

1. **Introduction to Software Processes and Metrics, problems:** Goals and requirements of Software Development.
2. **Software Process Models :** Waterfall Model - Prototyping Model - The RAD Model - Evolutionary Software Process Model (the Incremental Model) - Spiral Model - WIN Spiral Model - Concurrent Development Model - Component Based Methods - The Formal Methods Model & fourth Generation Techniques - Process Technology - Product & Process.
3. **Software Project Planning :** Project Process Groups (Initiating, Planning, Executing , Controlling and Closing Processes) - Planning Activities – Schedule Development - Resource Planning - Cost estimating / Budgeting - Quality Planning - Human Resource Planning - Communication Planning - Risk Management Planning - Procurement Planning Developing on Information Technology - Project Management Methodology - Software Project Management Plan (SPMP) - Changing Control on Information Technology Projects.
4. **Project Scope Management :** Definition - Project Initiation – Strategic planning & project selection - Project Charters - The scope statement - Work Breakdown Structure - Approaches (using guidelines, the Analogy Approach - Top–Down & bottom–up Approaches) - Scope Verification and Scope change Control.
5. **Project Time Management :** Project Schedule - Project Network Diagrams (AOA or ADM, PDM) - Activity duration Estimating - Gantt Charts - Critical Path method - PERT.
6. **Project Cost Management :** Importance - Basic Principles - Cost Estimating (Types) - Techniques and Tools - Problems with Cost Estimates - Cost Control - Earned Value Management Estimation Techniques - COCOMO (Basic, Intermediate & complete COCOMO Model) - Halstead’s Software Science - Putnam Model - Jensen Model.
7. **Quality Management :** Quality Planning - Assurance & Control, Leadership - Cost of Quality, Organizational Influences - Work Place factors & Quality - Maturity Models.
8. **Project Human Resource Management :** Managing People (Motivation Theories, Influences & power, Improving Effectiveness) - Organizational Planning - Staff Acquisition & Term Development.
9. **Project Communication Management :** Importance - Communication Planning - Information Distribution - Performance Reporting - Administrative Closure - Project Procurement Management - Importance - Planning - Solicitation Planning - Solicitation - Contract Administration & Close Out. - Using Project Management Tool - MS Project 2000 / 2003
10. **Disaster Recovery Planning & Risk Management :** Importance - Risk Management Planning - Sources of Risk - Risk Identification - Qualitative & Quantitative Risk - Risk Response Planning - Risk Monitoring & Control.

Readings :

1. Basic of Software Project Management : NIIT, PHI
2. Software Project Management : Hughes & Cotterell, TMH
3. Pressman : Software Engineering, McGraw Hill
4. Behforooz, Software Engg. Fundamentals, OUP
5. Rajib Mall : Fundamentals of Software Engineering, PHI.

PGS-305: System Analysis and Design

1. **Overview of Systems Analysis & Design** : Business Systems Concepts - Systems Development life Cycle - Project Selection - Feasibility Analysis – Design – Implementation - Testing & Evaluation.
2. **Systems Development Life Cycle** : Need – Feasibility study – Analysis – Design – Implementation – Post implementation maintained – Planning and control – System success – Prototyping.
3. **Roll of Systems Analyst** : Definition – Historical prospective – Early years – OR efforts – Role of analyst – Change Agent – Investigator and monitor – Behavioral issues – Conflict resolution – Para-professional – Technical writer .
4. **System Planning and Initial Investigation**: Bases for planning – Dimension – Needs identification – Project initiation – Information gathering – Tools of structure analysis – Data flow diagram – Data dictionary – Feasibility study – Identification of specific system.
5. **Process and Stages of Systems Design** : Logical and physical design – Design methodologies – Structure design – Form driven methodology – The IPO charts – Structure walk through – Processing controls and data validation – Audit trial – Documentation control.
6. **System Requirement Specification & Analysis** : Fact finding techniques - Data-flow Diagrams, - Data dictionaries - Process organization & interactions - Decision analysis - Standards (IEEE/ ISO) - Modeling System Requirements using ‘USE CASES’Data Modeling & Analysis.
7. **Detailed Design Modularization** : Module Specification - File Design - Systems Development involving Data Bases Database Design - Output Design - Input Design - User Interface Design.
8. **Object Modeling** : Object Structure - Object Features - Classes & Objects - Key Concepts of Object Oriented approach - Object Representation methods - Object Status - State Diagram - Modeling behaviour in object Modeling - Use cases - Object Oriented Analysis - Modeling & Design using UML - Event Face Diagram & Event Flow Diagram.
9. **System Control & Quality Assurance** : Design Objectives reliability & maintenance - Software Design & documentation tools - Top–down, bottom–up and variants - Units and integration testing, testing practices and plans - System Controls - Audit Trails - CASE Tools.
10. **Hardware & Software Selection** : Hardware acquisition - Memory – Process – Peripherals – Benchmarking - Vendor selection - Software selection – Operating system - Languages - Language Processes - Performance & acceptance criteria.

Readings :

1. Senn : Analysis & Design of Information Systems, McGraw Hill International.
2. Igor Hawrysz Kiewycs : Systems Analysis & Design, PHI
3. Hoffer : Modern System Analysis & Design, Pearson Education.
4. Kendall : System Analysis & Design, Pearson.
5. Elias M. Awad : System Analysis and Design : Galgetia Publications (P) Ltd

PGS-306: Fundamentals of Networking

1. **Communications** : Concepts of data transmission - Signal encoding - Modulation methods - Synchronization - Multiplexing and Concentration - Coding method - Cryptography.
2. **Network** : Communication system architecture – OSI reference model - Topology types - Selections – Design - Local Area Networks (LAN) - CSMA / CD - Token bus token ring techniques - Link Level Control (LLC) protocols – HDLS - Analysis of protocols & performance - Concepts in network layer - Switching techniques - Routing methods.
3. **Reference Model** : OSI Reference model – TCP / IP reference Model – Example networks – Network standardization .
4. **Distributed Processing Potential:** Client Server Computing - Introduction to distributed database - Internet - Internet Protocols - IP addressing (IP4 + IP6) - Internet computing – Session – Presentation and Application Layer functions - Network Security & Privacy : Overview - Purpose - Spamming - Cryptography - Authentication and firewall.
5. **Mobile Computing** : Introduction to mobile technology - Wireless Application Protocols & other protocols – Network Application – Email – FTP – Gopher – Veronica – IRC – Cryptography – DES – PEM – XML Security.
6. **Data Communications** : Theoretical basis – Fourier analysis – Band limited signals – Max data rate of channel – Data transmission modes – Switching – Multiplexing – Frequency Division Multiplexing – Wavelength – Division Multiplexing – Time Division Multiplexing.
7. **Integrated Services Digital Network:** Network architecture – ISDN rate interface – ISDN Reference Point – ISDN Protocol architecture – Signaling – Application of ISDN.
8. **Data Link Layer** : Transmission control protocols – HDLC – Multiple access protocols – Alopha – CSMA – IEEE standards – Wireless LAN – Protocol Stack – Frame Structure – Services.
9. **Net work and Transport Layer** : Design issues of Network layer – Types of Routine Algorithms – Distance Vector – Link-state algorithms – Path vector protocol – Design issues of Transport layer – Transport layer protocol – TCP protocol – UDP Protocols.
10. **Network Layer in Internet** : IP Addressing – Subnets – IP protocols - ICMP – ARP – Inverse ARP – RARP – Routing protocol – RIP – OSPF – BGP.

Readings :

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

PGS 307 Data Structure with C + +

1. **Introduction** : Time and Space analysis of Algorithms - Order Notations. Linear Data Structures – Sequential representations - Arrays and Lists, Stacks, Queues and Dequeues, strings, Application.
2. **Date Structure** : Linear Data Structures - Link Representation - Linear linked lists - Circularly linked lists - Doubly linked lists, application.
3. **Recursion** : Design of recursive algorithms, Tail Recursion, When not to use recursion, Removal of recursion.
4. **Non-linear Data Structure:** Trees - Binary Trees, Traversals and Threads, Binary Search Trees, Insertion and Deletion algorithms, Height-balanced and weight-balanced trees, B-trees, B+ -trees, Application of trees; Graphs - Representations, Breadth-first and Depth-first Search.
5. **Hashing** : Hashing Functions - Collision Resolution Techniques -.
6. **Sorting** : Sorting and Searching Algorithms ; Bubble sort - Selection Sort, Insertion Sort – Quick sort - Merge Sort - Heap sort and Radix Sort.
7. **File Structures** : Sequential and Direct Access. Relative Files - Indexed Files - B+ tree as index. Multi-indexed Files - Inverted Files - Hashed Files.
8. Software Engineering and computer Programmeing – Designing Software – Software Reliability – Abstract Data types , Classes and objects – Efficiency – Lists – Stacks , Queues – Tables – Trees - Graphs

Readings :

1. Data Structures and Algorithms – O.G. Kakde and U.A. Deshpande, ISTE/EXCEL BOOKS
2. Aho Alfred V., Hopperoft John E., Ullman Jeffrey D., “Data Structures and Algorithms”, Addison Wesley
3. Drozdek A –Data Structures and Algorithms
4. Pujari A.K. – Data Mining & Techniques, Universities Press
5. Ajay Agarwal- Data Structure Through C, Cyber Tech
6. Radhaganesan,P -C and Data Structures-Scitech Publications
7. Heileman :Data structures algorithms &OOP Tata McGraw Hill
8. M.Radhakrishnan and V.Srinivasan, Data Structures Using C – ISTE/EXCEL BOOKS
9. Tannenbaum, PHI Data Structure Using C & C++,
10. A. Michael Berman : Data Structures Via c++ : Oxford

PGS 308 Operating System & System Programming

1. **Operating Systems** : Importance of OS - Basic concepts and terminology - Types of OS - Deferent views - journey of a command execution - Design and implementation of OS.
2. **Process**: Concept and views - OS view of processes - OS services for process management - Scheduling algorithms - Performance evaluation - Interposes communication and synchronization - Mutual exclusion – Semaphores - Hardware support for mutual exclusion - Queuing implementation of semaphores - Classical problem of concurrent programming.
3. **Critical Region and Conditional Critical Region**: Monitors – Messages - Deadlocks.
4. **Resource Manager**: File management - Processor management - Device management.
5. **Memory Management** : Paging – Swapping - Page replacement algorithm - Design issues for paging system – Segmentation - Scheduling algorithm and performance evaluation Security and protection - Policies and mechanism – Authentication Protection and access control - Formal models of protection – Cryptography -Worms and viruses.
6. **In-process Communication**: File systems - Security and protection mechanism - Input/output systems - Processes and processors in distributed system - Performance measurement - Monitoring and evaluation.
7. **Multiprocessor System**: Classification and types - OS functions and requirements - Introduction to parallel computing - Multiprocessor interconnection synchronization - Distributes OS – Rationales - Algorithms for distributed processing - Introduction to compilers – Assemblers - Loaders & linkers - Introduction to OS - OS services and kernel - Multiprogramming and time sharing - Processor scheduling.
8. **Performance Measurement and Monitoring** : Measures - Evaluation techniques – Bottlenecks and saturation - Feedback loops - Introduction to Unix OS.

Readings :

1. Operating Systems, Galvin & Silverschatz, John Wiley
2. Operating Systems, Milenkovic, TMH
3. Modern Operating System, 2nd Ed, Tannenbaum, PHI
4. Systems Programming & Operating Systems, Dhamdhere, TMH
5. Systems Programming, Donovan, TMH
6. Guide to Operating Systems, Palmer,VIKAS
7. Operating Systems,Prasad,Scitech
8. Operating System ,P.Bhatt, PHI

PGS 309 Information Theory

1. **Basics of iufa machine Theory** :Data & Information – Traditional file environment – Data base modern approach – DBMS – Logical data models – Data ware houses – Tele communication and Network – Internet – Intranet and Extranet
2. **Sources** - Memory less and Markov – Information – Entropy - Extended Source - Shannon's noiseless source.
3. **Coding Systems**: Coding theorem - Source coding - Mutual Information - Channel Capacity - Block Coding - Convolution coding - Majority logic decoding - Majority decoding algorithm - Coding gains and performance.
4. **Channel System**: BSC and other channels - Shannon's Channel Capacity Theorem - Channel Coding .
5. **Intelligent system**: Artificial intelligence – Expert system – Other intelligent system – Intelligent Agsl – Virtual reality – Ethical and global issues of intelligent system .
6. **Strategic Information System** : strategic advantage and Information Technology – porter's competitive forces model and IT – Strategic informative system – Business process Re-engineering .
7. **Information system Development**: Information System Planning – Traditional system Devt Life cycle (SDLC) – Alternative methods for system development – Building internet and internet applications.
8. **Data Warehousing** : Concepts defined – Multidimensional data model – OLAP Operation – Warehouse scheme – Data warehousing architecture – Warehouse server – Meta data – OLAP engine – Data warehouse Back and process.
9. **Data mining** : Definitions – KDD-Vs-Data mining – DBMS-Vs-DM – DM Technology – Other mining problems – Issues and challenges in DM – DM application areas.
10. **Web Mining** : Web mining defined – Web control mining – Web structure mining – Web usage mining – Tex mining – Unstructured.

Readings :

- 1) Taub Schilling : Digital Communication Technique
- 2) J. Das : Digital Communication Technique
- 3) Rodey Colen : Digital Communication Technique
- 4) Turban Raiuer Potter: Introduction to Information Technology – Willey
- 5) Arun K Pujari : Data Mining Technique : University press

PGS 310 : Software Engineering

1. **Introduction to Software Engineering:** Software life cycles - Different models-
2. **The Product and the Process :** Software – Software Characteristics – Software Applications - Software Myths – Process – Software Process – Software Process Models – Linear Sequential Model – Prototyping Model – incremental Model – Spiral Model – RAD model – Fourth Generation Techniques
3. **Project Management Concept :** Objectives – Management spectrum – Coordination and communication issues – Product – Software process and project metrics – Measures, Metrics, and Indicators – Metrics in the process and Project domains – Software measurement – metrics for software quality – Measuring Quality – Defect Removal Efficiency.
4. **Software Project planning :** Observation and estimation – Project planning Objectives – Software Scope – Resources – Software project estimation - COCOMO – Decomposition techniques – Empirical estimation models – The make / Buy decision – Risk analysis and management – Software risks – Risk identification – Risk projection – Risk Refinement – Risk Mitigation, Monitoring, and management project scheduling and Tracking – Defining a Task set for the software project – Selecting software engineering Tasks – Defining a task Network – Earned value analysis – Error tracking –Project plan
5. **Software Quality Assurance & Configuration Management :** Quality concepts – Quality movement – - Test planning - reporting and bug fixing - - Software reliability – Software configuration management – SCM process – Identification of objects in software configuration – Version control – Change Control – Configuration Audit – SCM standards .
6. **System Engineering and Analysis Concepts and Principles** Computer based system – System Engineering Hierarchy – Requirements engineering – Requirements analysis – Requirements Elicitation for software – Analysis Principles – Software Prototyping .
7. **Structured System Design:** Design process – Design Principles – Design concepts – Effective Modular design – Design Heuristics for effective modularity - User interface design – Golden rules - Component –Level design – Structure programming -- Data Oriented Analysis and Design Object Oriented Analysis & Design - Development methodologies - Computer Aided Software Engineering (CASE) tool - Object Oriented modeling.
8. **Software Testing Techniques :** Software testing fundamentals- Software testing techniques and strategies – White–Box testing – Basis path testing – Controlling structure testing – Black-box testing – Test automation, regression testing - Testing for specialized environments, Architectures, and applications
9. **Technical Metrics for Software:** Software Quality - Framework for Technical software Metrics – Metrics for analysis model – Metrics for the Design model – Metrics for source code - Software maintenance - Software Complexity & Reliability
10. **Object Oriented Concepts and Principles:** Object oriented concept – Identifying the elements of an object model – Management of object-oriented software projects – Object oriented analysis – Domain analysis – Generic components of the OO analysis model – OOA process – Object-Behaviour Model

Readings :

1. Software Engineering, Rogers G. Pressman, MH
2. Software Engineering, Pankaj Jalote, PHI
3. Software Engineering: Principles & Practice, Van Vliet, SPD/JOHN WILEY
4. Software Engineering, K.K.Aggarwal & Yogesh Singh, New Age International
5. Software Testing Fundamentals: Methods& Metrics, Marmie Hutcheson, And Wiley Dreamtech

FOURTH SEMESTER

(Compulsory Course)

PG-401: Research Methodology

1. **Nature of Social Research** : Definition of Research – Objective of Social Research – Basic Assumptions
2. **Foundations** : Variables – Hypothesis - Types of Data - Unit of analysis - Components of a study - Problem Formulation - Concept mapping - Literature Review.
3. **Methods and Techniques of Research** : Methods of Study – Case Study - Assessment Study- Inter Disciplinary Study -
4. **Methods of Data Collection** : Sampling methods - Advantages and Disadvantages - Sampling Errors - Methods of Data collections and limitations – Questionnaire – Interviewing - Case study – Observation – Measurement - Survey research - Scaling.
5. **Data Analysis and Interpretation** : Methods – Qualitative and Quantitative – Statistical Tools - Data Presentation - Hypothesis Testing – PCA - Factor Analysis - Classification and Discriminate Analysis
6. **Report Writing:** Contents and Coverage, Objectives (What to do) - Methodology (How to do) - Findings (data & interpretation) - Rationale of the study and Application - Conclusion and Recommendation - Preparation of a Pilot Project based on assignment.
7. **Structure of Research Report** : Introduction – Organization Profile – Identification of Problems – Formulation of Hypothesis – Review of Literature – Research Methodology – Questionnaire – Recommendations and Conclusion.
8. **Presentation of Report** : Use of Power points and Overhead Projector - Model Presentation - Practical.

Readings:

1. W. M. K. Trochim : Research methods, Biztantra.
2. D. K. Bhattacharya : Research methodology, Excel books.
3. Greentull, Research for marketing, Phi
4. Saunder, Research methods for business students, Pearson education
5. Zikmund, Business research methods, 7th ed, Thomson learning
6. C. R. Kothari : Research methodology – methods and techniques, Wiley
7. A. N. Sadhu & a. Singh : Research methodology for social sciences, Sterling.

PG-402 : Operation Research

1. **Linear Programming:** Construction of LP Models - Graphical LP Solution - Simplex Method- Charnes' Big – M-Method - Duality.
2. **Transportation :** Transportation Algorithm- North-west Corner Rule - List cost method - Vogel's approximation method - Optimality test
3. **Assignment :** Hungarian Method for the Solution of Assignment Problem - Traveling Salesman Problem.
4. **Decision Analysis:** Decision Making under Certainty - Decision Making under Risk and Uncertainty – Decision Tree Analysis.
5. **Game Theory:** Maximin & Minimax Principle - Principle of Dominance – Solution of Mixed Strategy – Linear Programming Method - Construction of Game Theory Models - Solution of two-person zero sum games.
6. **Queuing Theory:** M/M/I: ∞ / FIFO Queues and Application - M/M/I: N / FIFO Queues and their Applications.
7. **Simulation Models:** Construction of Simulation Models - Monte Carlo Method of Simulation - Generation of Random numbers from Discrete Distributions.
8. **Sequencing:** Sequencing Problem - Processing in jobs through two machines and processing in jobs through three machines.
9. **Network Analysis:** Construction of network - Critical Path Method (CPM) - Programme Evaluation and Review Technique (PERT)- Concept of Slack and Float
10. **Replacement Models:** Replacement of Capital Equipment that Deteriorates with Time - Without considering Time Value of Money and With Time Value of Money - Replacement of Items that fail suddenly - Group Replacement - Individual vs Group Replacement.

Readings:

1. Taha, H.A. : Operations Research - An Introduction, Prentice Hall / Pearson Education
2. Panneersavam, Operations research, PHI
3. Kothari, Operations Research, Vikas
4. Sharma, J.K. : Fundamentals of Operations Research, Macmillian

PG-403 : International Business Management

1. **International Business Environment:** Globalization – History of globalization – Dimensions of globalization – World Trade Organization – GAT – WTO and Trade Liberalization – WTO & Intellectual Property Right.
2. **International Trade:** Trade Theories – Theory of Mercantilism – Theory of Absolute advantage – Theory of Comparative advantage – Hechscher-Ohline Theory - Leontif Paradox – Product Life cycle Theory – Porters Diamond Theory.
3. **Foreign Direct Investment :** Concepts and types – Theories of FDI - Knickers Bo cles’s Theory – Vernois Theory – Dunning Theory – Horizontal and Vertical FDI – Determinants of FDI – FDI and developing Country – Recent Trades in FDI.
4. **International Finance:** Exchange Rate Theories – Exchange Rate Systems – Role of IMF – Foreign Exchange market – Role of IMF – Foreign Exchange market – Structure of Foreign market – Direct and Indirect Quotations – Trade Finance.
5. **Exchange Rate Risk:** Transaction Exposure Translation exposure – Economic Exposure – Evaluation of Transaction, Transaction and Economic exposure – Internal exposure management – Hedging – External Risk management techniques.
6. **International Marketing :** Tips of international marketing – Problems of managing international marketing channel – Major players in the marketing – Types of exports – Pricing strategies – Export sales contract.
7. **International Human Resource Management :** Staffing Policy – Ethno-centric – Polycentric – Geocentric approaches – Strategic IHRM – Expatriate Workforce – New age HR strategy : Global outsourcing – International migration.
8. **Export – Import Management :** Export – Import Procedure – Code number – Export promotion councils – Export – Import documents – Pre shipment Inspections – Export Import Finance – Letter of credit – BOP
9. **Foreign Trade : Structure & Trend :** Gross Country comparison – Export performance – trends in Imports – Impact of Chinese Imports – Cheaper ness of Chinese goods – Global service industry – Emergence of Biotechnology – SWOT analysis – Special economic zone.
10. **Global strategic management of MNC: Role** of strategy – Choice of strategy – Entry strategy – Global market entry strategy – exporting – Contractual agreement – Strategic International Alliances – Joint venture – Consortia – Turnkey Project – Subsidiary – Globe – Hex model.

Readings:

1. Justin Paul : International Business : PHI (3e)
2. Alan Branch : Export Practice and Management :Thomson
3. B.J. Punnett and David Ricks : International Business : Blakwell
4. David John and Lee Ragebaugh : International Bausiness : Pearson Education
5. Mukherjee, Neela : World Trade Organisation and Indian’s Trade Policy in Service : Vikash Publishing House

FINANCE ELECTIVE

PGEF-404 : Insurance and Risk Management

1. **Introductions to Insurance:** Insurance defined – purpose and need – Benefits of Insurance – Functions of Insurance – Importance – Principles of Insurance - Nature of Insurance contract – Fundamentals of insurability. - Insurance –Vs-wagering contract – Clarification of insurance.
2. **Insurance Industry in India :** Paradigm drift – Long term collaborations – financial service conglomerates – History of Insurance in India – Insurance sector reforms – private plays in the market – Present secures.
3. **Insurance Pricing :** Insurance cost and fair premium – Expected claim cost – Bonus – Malus system – Timing of claim payment – Administration cost – Profit loading – Capital stocks and under writing cycles – Price regulations – Concept checks
4. **Life Insurance:** Financial mechanics of life Insurance Building Blocks – Tests of Insurance Policies – Essential features of Life Insurance – Advantages of Life insurance – Types of Life Insurance Places – Special Places.
5. **General Insurance :** Fire Insurance – Types of Fire polices – Settlement of claim : Marine Insurance – Scope – Fundamental Principles of Marine Insurance – Marine Insurance Policies – Automobile Insurance – Taxonomy of motor Vehicle – Types of Motor Vehicle Insurance Policies : Health Insurance – Types of Health Insurance –Health Insurance Schemes in India.
6. **Risk and its Management:** Different meaning – Types of risk faced in Business and by individual – Risk management process – Risk management methods – Individual risk management and cost of risk – Measuring the cost of risk.
7. **Risk Identification and Measurement:** Premium Risk exposures – Individual risk exposure – Measurement – probability distribution – Diversification of risk – Insurability of Risk – Risk aversion and risk management.
8. **Alternative Risk Transfer: Description of ART – Loss sensitive contract – Finite Risk contracts – Multi-trigger Insurance Policy – Contingent Financing arrangement – Shuttered Debut Instrument – Analytical tools used in corporate Risk management.**
9. **Liability Risk Management:** Risk shifting through limited liability – Moral hazard problem – Liability for actions of employees and other parties – Harmless and Indemnity Agreements – Claims management and Administration.
10. **Legal Frame Work:** Indian Contract Act (relevant portion) – Consumer Protection Act – General Insurance Business (Nationalization)Act – Life Corporation Act - Insurance Regulatory and Development Authority Act - Insurance Act.

Readings :

1. Tripathy and Pane : Insurance Theory and Practice : PHI
2. J. Sethi & Bhatia : Elements of Banking and Insurance : PHI
3. Scott E. Harrington : Gregoy R. Niehaus, Risk Management and Insurance : TMc H

PGEF-405 : Management of Bank Finance

1. **Introduction** : Banking defined – Evolution of modern banking – Banking in Europe – Banking in England – banking in America – Banking in India – Near Banks – Evolution of bank assets – Evolution of Bank liabilities – Inter Bank deposits – Evolution of Bank activities – Regulatory obstacle. - Brief history – Business of Banking – Banks customer relationship – Bank deposits – Loans and Advance – Structure of commercial banks – Public sector Banks – Private Sector Bank – Rural Banks – Co-operative Banks.
2. **Banking Industry**: History of banking industry – Three key factors – Economics of scale between banks – Advantages of consolidation and branch banking – Movement towards state Banking – International Banking – Multinational banking – Offshore Banking.
3. **Bank Safety and Regulation**: Prudential Regulation – Liquidity crises – Back runs and banking panics – Banking industry structure and stability – New methods of managing liquidity and Risk – private solution of liquidity crises – Clearing house association – Private guarantee – A lender of last resort – Discount window – Consequence of tighter regulation.
4. **Indian Banking System** : Structure of Indian Banking system – RBI – Objective and function of RBI – Commercial Banks – Scheduled , Non scheduled and licensed banks – public sector banks – Private sector Banks – Local banks – Foreign banks – Regional Rural Banks – Co-operative Banks.
5. **Banking Sector in India** : Corporate Banking – Features – Services – Retail Banking : feature, Origin - International Banking – Rural banking – Non Banking financial intermediaries – Insurance companies – Mutual funds – Merchant Banking.
6. **Electronic Banking** : Meaning of e-banking – Automated teller machine – Internet banking – Electronic clearing service (ECS) – Electronic Funds Transfer (EFT) – Tele Banking – Electronic Cheques – credit cards – Debit card – Smart Card – Risk in e-Banking -
7. **Electronic Banking** : Meaning of Electronic Banking – Automated Teller Machine – Internet Banking - Electronic Clearing Service – Electronic Funds Transfer – Tele banking – Electronic cheque – Credit cards – Debit cards – Smart card – Risks in Electronic Banking.
8. **Loans and Advances and Deposits** : Principle of Sound Lending – Methods of granting advances – secured advances – Mode of creating charges – Lien – Pledge in Hypothecations – Assignment – Mortgage – Deposits – Banking sector Reforms – NPA – Risk Management – Banking Legislation.
9. **Priority Sector Lending** : Rationale of Priority Sector – Different Segments of Priority Sector advances – Agriculture – Small Scale – Entrepreneurship – Education – Housing – Software – Venture Capital – Export Import Finance – Exim Banks.
10. **Annual Report** : Ingredients – Balance Sheet of Commercial Banks – Liabilities and Assets of a Bank – Audit report – Internal audit – Statutory Audit – RBI Audit.

Readings :

1. Jyotsna Sethi & Nishwan Bhatia : Elements of Banking and Insurance : PHI.
2. Chatterjee, Arun : Bank Lending : Law Practice and Recovery : Skyklark
3. Hefferman, Shelag : Modern Banking : John Wiley.
4. Meir Kohn : Financial Institutions and Markets : OUP.
5. O'Brien : International Finance (2e) : OUP.

PGEF-406 : Financial Engineering

1. **Introduction** : Financial Engineering defined – Financial Engineering and algebraic algorithms – Prerequisites of Financial Engineering – Economic activity based cost approach – Funding strategies and structure – Futuristic Securitizations.
2. **Mathematics for Financial Engineering** : Simple & Compound interest – Summation of AP and GP series – Annuity and amortization - Discounting technique – Matrix – Straight line derivation (Gradient method) – AM and GM – Standard deviation – Correlation and Regression – probability Distribution – Normal Distribution – Sampling distribution – Test of significance – Simple derivative , Partial derivatives – Maximization & Minimization – Integration by parts – Integration by substitution – Finite integral.
3. **Mathematical Valuation Approach** : Mathematical approach to equity valuation – Determination of cost of equity – Growth models and multi period model – bond valuation – Conventional flow and non-conventional flow – Determination of cost of preference share and cost of retained earning.
4. **Mathematical Financing Mix structure** : Derivation of formula for DOL, DFL, and DCL – Breakeven analysis – NI approach – NOI approach – M.M. approach – Riders – Determination of optimal capital structure – Trade off approach – Break even exchange ratio.
5. **Quantitative Investment Decision** : Capital budgeting decision – Relationship of PB and IRR – Calculation of IRR and NPV – Features of NPV method – Risk analysis of capital investment – Sensitivity analysis – Simulation method – Investment decision under uncertainty
6. **Mathematical Approach to Dividend Decision** : Derivation of Walter Model – Derivation of Gordon Model – Derivation of M-M model – Variants of the Models – Tax adjustment – Pricing of shares – Probabilistic Approach.
7. **Portfolio Management** : Reduction of Risk – Measurement of Risk – Correlation structure of security returns – Determination of Beta co-efficient – Technique for determination of efficient frontier – SML & CML – Markowitz Theory – APT Model – CAPM model – Derivation and applications – Riders and limitations.
8. **Working Capital Management** : Quantitive approach – Determination of duration – working Capital Component Analysis – Determination of Operating Cycle – Working capital leverage – Current Asset Management – EOQ model derivation – Derivation of Production Run Model – Probabilistic inventory model – Derivation of cash management model – Derivation of credit period – Discriminant Analysis .
9. **International Finance** : Foreign Exchange Theories - Purchasing Power Parity Theory – Interest Rate Parity Theory – Algebraic Treatment of operating exposure – Imports exposure – Financial swaps and zero coupon pricing and yield curve – Risk Return Analysis of Equity Investment – Efficient portfolio –A two country CAPM.
10. **Derivatives Management**: Pricing mechanism of futures - Pricing of forwards contracts. – Option pricing techniques – Binomial model – Black-scholes Model – Mathematics of Greeks – Pricing Currency Swaps - Computation of VaR – Valuation of Exotic options.

Readings :

1. P.G. Apte : International Financial Management : Tata Mcgraw Hill
2. Edwin J. Elton & Martin J Grlber : Modern Portfolio Theory and Investment analysis :John Willey
3. P. Chandra : Financial Management : Theory and Practice.
4. J.R.Varma : Derivatives and Risk Management : Tata McGraw Hill.
5. Prasanna Chandra : Investment Analysis and Portfolio Management : TMH.

Marketing Elective

PGEM-404 : E-Marketing

1. **Conceptual Frame :** E-Marketing defined – Its importance – Benefits of e-marketing – E-marketing quiver – Blogging – Guide to SEO – PPC – Affiliate marketing – Viral Marketing – Online marketing - E-marketing vs traditional marketing – Modern trend.
2. **Marketing Fundamentals :** Environment – Competition - Consumer behaviour – Market segmentation – Targeting – Positioning – Impact of globalization – Open market economy – Changes in marketing strategy.
3. **4Ps of Marketing :** Product – Product design – Product quality – Product positioning - Price – Traditional approach – Modern approach – Impact of changed market condition on product pricing – Degree of competition due to globalization - Promotion – Change in advertising Theory – Change in slogans – Family flame ad - Place – Change of geographical area – National market – International market.
4. **Marketing strategy :** Digital marketing Opportunities - E-Paradigm - Internet Networking - Enterprise Middleware - Right Enterprise Applications - Operational challenges - Web sales and marketing - Web services - ASP and other financial choices - Real-time Analytic - Frontline Access – Miscellaneous - Emerging opportunities.
5. **Technology Revolution:** Digital Revolutions – Meta market – M-commerce – Online Middleman – B2B to C2C – Pure click-V-Brick and click – On line adds and promotes – Customer service live and one line.
6. **Managing information:** Wal-Mart – Computer technology and sales reporting system – Data bases, data ware houses and data mining – on line focus groups – Product testing & surveys - Cyber dialogue – New marketing opportunities – Biotech – Virtual reality – Meta mediaries – Internet.
7. **Mass Customers ions:** Interactive on line system – Height tech products – Need product concepts testing – Service provides – Self-service Technologies – Customer empowerment Technologies.
8. **Desktop Marketing :** Use of software – Internet pricing – Hybrid marketing channel – Extreme retailing – Improvement of productivity through internet – Brand asset management through e-mail.

Readings:

1. P. Kotler : Beyond 2000; Key concepts for marketing success ; Pearson Education
2. Warrn J. Keegan : Global marketing management (7/e): Pearson Education
3. Judy Stracess, Adel El-Ausary, Raymond fros'l' E-marketing ; Pearson Education
4. Gary L. Lilies, Arivind Rangaswamy; Marketing Engineering ; Computer assited marketing analysis and Marketing (2/e); Pearson Education

PGEM-405: Brand Equity Management

1. **Introduction** : Brand defined – Brand name – Brand Mark – Branding – Trade mark – Kinds of Brands – Family brand – Individual brand – Brand image vs product image – Brand testing.
2. **Brand Buildings:** Problems of brand managers – Major Paradigms of Brand building – Brand buildings and advertisement – Integrated Marketing communication in brand – building – self gratification through brand imagery - Problems of some men.
3. **Brand Equity** : Classification of Brand equity – Brand Extension – Brand identity – Power munemonity – Service Quality as core of a brand – Cult brand – Valuing Brand – Financial Brand.
4. **Building Brand Strategy:** Brand Power- Brand communication – Approval to brand building- Psychology of Branding – Service quality & power building – Building Media Brand- Surfer to a customer- Building tech brand.
5. **Brand Extension Strategies:** Consumer’s perception – Blend Optimism – Criticizing extension – Winning through Brand extension – Extending brands in Indian market – Role of Brand Association.
6. **Media Brands:** Process and Approach of Buildings – Media brands – Audio visual Brand buildings – Brand building efforts in magazines – Brand building efforts in News papers – Comparative study of Media Brands in nationalized companies.
7. **Stores Brand:** Stores brand and retail marketing – Makers of Store brands – Store brands – B-national Brands – Strategic issues.
8. **Brands in Educational Industry** : Facets – Process – Anatomy of a brand – Types – Branding in Indian Education Market – Features – Brand Plans - Alumni centre – Brand Royalty – 99 T 99 M Brand – ‘B’ School Brand.
9. **Brand Building on Web:** Concept – Key factors – 8 is of on line branding – Process of on line branding – Fire Brands – Customer Expectations Profile – High Tech Brands – Customer based brand – Equity Approach – Brand awareness – Brand image – Brand attributes – Brand benefits – Brand altitude.
10. **Product Setting and Brand Strategy:** Product and product mix – Product line decision – Brand decisions – Building brand identity – Brand Equity – Branding challenges – Brand name decisions – Brand building tools - Brand strategy decisions – Brand Asset Management – Brand auditing and Reposing – Packaging and labeling.

Readings :

1. Tapan K Panda : Building Brands in the India Market : Excel Books.
2. Lehman, Donald R and Winer Russel’ s : Product Management TMGtt.
3. Philip Kotter : Marketing Management : Pearson Educations.
4. Huodore Levitt : The Marketing mode : NICQH.

PGEM-406: Banking and Insurance Management

1. **Introduction to Banking Business** : Brief history – Business of Banking – Banks customer relationship – Bank deposits – Loans and Advance – Structure of commercial banks – Public sector Banks – Private Sector Bank – Rural Banks – Co-operative Banks .
2. **Electronic Banking** : Meaning of Electronic Banking – Automated Teller Machine – Internet Banking - Electronic Clearing Service – Electronic Funds Transfer – Pele banking – Electronic cheque – Credit cards – Debit cards – Smart card – Risks in Electronic Banking.
3. **Loans and Advances and Deposits** : Principle of Sound Lending – Methods of granting advances – secured advances – Mode of creating changes – Lien – Pledge in Hypothecations–Assignment–Mortgage – Deposits – Banking sector Reforms – NPA – Risk Management – Banking Legislation.
4. **Priority Sector Lending** : Rahonale of Priority Sector – Different Segments of Priority Sector advances – Agriculture – Small Scale – Entrepreneurship – Education – Housing – Software – Venture Capital – Export Import Finance – Exim Banks.
5. **Annual Report** : Ingredients – Balance Sheet of Commercial Banks – Liabilities and Assets of a Bank – Audit report – Internal audit – Statutory Audit – RBI Audit.
6. **Introduction to Insurance:** Benefits of Insurance – Principles of Insurance – Nature of Insurance Contract – Types – Fundamental of Insurances – Assurance and Insurance – Gambling and Insurance – Classification of Insurance
7. **Life Insurance:** Essential features – Advantages – Types of Life Insurance Plans – Whole Life Plan – Assurance Plan – Children Plan – Plans for handicapped dependents – Money back Plans – Other Special Plans.
8. **General Insurance** : Fire Insurance – Marine Insurance – Motor vehicle Insurance – Health Insurance – Miscellaneous Insurance – Property Insurance – Culture Insurance – Engineering Insurance – Reinsurance.
9. **Policy Servicing and Claims Settlement** : Insurance documents – Nominations and Assignment – Alterations – Revival – Policy Loans – Surrender Value and paid up value – Issue of duplicate Policy Claims Settlement in Life Insurance – Claim settlement of Rural Insurance – Major players in Insurance Industry.
10. **Legal Frame Work** : Indian Contract Act. (Relevant pattern) Protection Act – General Insurance Business (Nationalization) Act – Life Insurance corporation Act – The Insurance Regulatory and Development Authority Act – The Insurance Act.

Readings :

1. Harington & Niehaus : Risk Management and Insurance : Tata Megrad Hill.
2. Jyotsna Sethi & Nishwan Bhatia : Elements of Banking and Insurance : PHI.
3. Chatterjee, Arun : Bank Lending : Law, Practice and Recovery : Skylark Publication.
4. Fredrickse Cr. Crane : Insurance Principles and Practice : John Wiley.
5. Hefferman, Shelag : Modern Banking : John Wiley
6. Crafton P.K. : Fundamentals of Insurance : Himalayn

H R M ELECTIVE

PGEH-404: Human Engineering

1. **Introduction** : Human Engineering defined – Human Engineering and ergonomics – Human Engineering and Industrial Engineering – Scope of Human Engineering – Importance of Human Engineering – Limitations of Human Engineering – Techniques and principles of Human Engineering .
2. **Measurement of Human Efforts:** Predetermined time standard – Time study – Method time measurement – Development of MTM – Reach – Move – Turn – Application of Pressure – Grasp – Position – Disengage – Relay load – Eye Times– Foot motion – Leg motion - Side step – Turn Body – MTM application procedure – Limiting Motion.
3. **Work Factor System** : Development and Test of work factor system – Terminologies – Four major variables – Work factor – Work factor notation – Standard elements of work factor – Work factor standard element pre position – Standard element assemble – Work factor standard mental process – Right and left hand analysis – Work factor and standard data.
4. **Human Effectiveness Principle** : Meaningful work – Meaningful labour dichotomy – The role of theory – Inter personal competence – Meaningful goals – Helpful systems – Human factors engineering Approach – systems Development cycle – Display design and selection – Control design and selection.
5. **Human Productivity and Work Design** : Ergonomics in industry – physical effort analysis – Measurement of Physical work – effects of environment on performance – Psycho – motor tasks – Visual inspection takes – Work place design.
6. **Learning Curve:** Thresh hold learning – Re-inforcement learning – Computation of time at a given cycle number – Calculation of average time – Prediction of training and turnover cost.
7. **Maternal Handling Activity** : Definition of material handling – Organizing material handling activity – Principles – Facility layout – Problem analysis procedures – Material handling system – System design procedure – Systems analysis procedure – Flow chart- Packaging– Packaging functions –Material handling equipment.
8. **Work Simplification:** Philosophy of move simplification – Work simplification pattern – The plan of actions – Activity sampling – Motion study – Value engineering – Applied work management – Administrative and control procedure.
9. **Analysis of Wastage:** Cohort analysis – Census analysis – Comparisons – Complements – Model for the wastage process – prediction of wastage – Measurement of wastages.

Readings:

1. HB Maynard : Industrial Engineering , Hand Book : MCGH
2. David J. Bartholomew and Andrew Forbes : Statistical Technique for manpower planning : John Wiley & sons
3. S. Vajda : Mathematics of manpower planning : John Wiely and sons.

PGEH-405: Organizational Dynamics & Intervention

1. **Field of Organization Development:** OD defined – History of OD – Laboratory Training Stem - Survey Research – Action Research – Social Technical and socio-clinical stem – Changing context – Second Generation OD – Extent application – OD values and assumptions – Value study. .
2. **Theory of OD :** Foundations of organization development – Models and theories of planned change – Systems theory – participation and empowerment – Teams and Team Work – Parallel learning structure – Normative - Behavioral science.
3. **Managing OD process:** Diagnose – Action component; OD intervention - Programme Management component – Action Research: a process and an approach – varieties of action Research.
4. **Power, Politics, and OD:** Power defined and explored – Theories about the sources of social power – Organizational politics defined – Role of power and politics in OD – Planned change - Power and politics.
5. **Research on Organization Development:** Assuring the effects of OD – Issues and problems – politic Dept in Research on OD – The Future and OD – Changing Environment – Fundamental Strengths of OD – OD's Future.
6. **OD Intervention :** An overview – Clarifying OD interventions – Team Intervention – Strategic units of Organizations – Broad Team Building interventions – Formal Group Diagnostic meeting – Formal Group team buildings – Process consultation interventions – A gestalt approach to team building – techniques and experiences.
7. **Inter group of third Party peace making interventions:** Inter group team building interventions – Third party peace making interventions – Organization mirror interventions – Partnering – Dynamics of techniques of interventions.
8. **Comprehensive OD Interventions :** Whole system in the room – Search conferences- Bechard's confrontation meeting – Real time strategic change – Stream analysis – Survey feed back – System – Grid OD – Scheinis cultural analysis – Performance system – Trans organizational Development.
9. **Structural Intervention :** Socio-technical system – Self-managed team – Work design – MBO and appraisal – Quality circle – Quality structure – Physical settings and OD – Total Quality Management – Re-engineering – Self design strategy – Selected structural interventions.
10. **Consultant-Client Relationship:** Client system defined – Trust issue – Nature of Consultants expertise – Diagnosis and appropriate interventions – Depth of intervention – Consultant as a model – Consultant team as a microcosm – Ethical standards in OD – Implications of OD for the client.

Readings :

1. Wendell L. French & Cecil H. Bellgr organization Development : Behavioural Science Interventions for organizations inrpovement : PHI
2. Chris Argyris : Intervention Theory and method : Wesley
3. Aclcorn : Orgnaisational dynamics and intervention : Tools for changing the work place : PHI
4. Kandula : Strategic Human Resource Devt : PHI

PGEH-406: Employee Retention Management

1. **Introduction:** Employee defined – Classification of employees – Job profile of the employees – Indian Labour market – Labour economies – Job market – Globalization and Job market – Extension of job opportunities.
2. **Employment Economics :** Keynesian Theory of Full employment – Accelerator and Multiplier theory – Application of game Theory in employment – Investment–Vs-employment – Elasticity of employment – unemployment problems in India – Effect of retention on unemployment – Wage structure – impact of inflation – Standard of living – impact of real wage and money wage.
3. **Applicability of Demand & Supply Theory :** Technological advancement – Industrial growth – Demand for skilled and professional manpower – Need of multi skilled human resource – Dearth category of highly professional technocrats – Supply position of professionally in dearth category – Cost of training – lack of opportunity to create trained personnel – Disequilibrium position – Stochastic equilibrium.
4. **Employment Condition:** Terms of employment – Compensation package – Competitive wage & Fringe benefits – Working hours – Job hazards – working condition – Job profile – Reporting system – Hierarchy of responsibility – Accountability without authority – Political interference .
5. **Hire and Fire Theory :** Fear psychologies – productivity – Unrealistic target – Lack of infrastructure – Job security – Assurance of wage payment – Non-compliance of employment terms – Misrecognition of difficulties – Irrational criticism – Megalomaniac attitude of management for misemployment – Effects of hire and fire Theory.
6. **Human Values and Ethics :** Concepts defined – Erosion in Human values – Deterioration of employee morale – Low productivity – Low devotion – Lack of efficiency – Non-availability of devoted and motivated workers – Faculty training – Biased attitude of employer – Nepotism and favoritism – Discriminatory decision of employer – Correct practices – Unfair labour practice.
7. **Identification of Traits at entry Level :** Traits of separation inherent – Identification of such factors at the entry level – Analysis of family back ground – Antecedents verification – analysis of psychological stability – Psychometric Test – Analysis of attitudinal problems.
8. **Application of Motivational Theories :** Theories review – Technique of Application – System designing – Internal audits – Regular evaluation – Corrective measures – Regular interaction – Identification of cause of non-action – Cause of slow action – Personal relationship building – individual care – Responsibility auditing – Exposure to management decision – Leadership analysis – Application of grape vine Theory – Brain storming session – Carrot and stick Theory – Personal problem caring.
9. **Vertical Mobility :** Mobility as a factor of retention - Horizontal mobility – Vertical mobility – Job rotation – Publication of sound promotion policy – Transfer policy – Transparency in performance appraisal – Thrust on MBO – Management by walking – Determination of factors for promotion, Transfer and job change.
10. **Value Added Approach:** Recognition of talent – Reward for performance – Grievance handling – Participative management.

Readings :

1. Tanuja Agarwala : Strategic Human Resource Management : OUP.
2. R.S.Dwivedi : A Text Book Of Human Resource Management : Vikas.
3. Kossek E.E.and R.N.Block : Managing Human Resource in 21st century : Thomson Learning.
4. Hol beche : Aligning Human Resource and Brians Strategy : Oxford.
5. Pramod Verma : Labour Economics and Industrial Relatioin : TMH.

SYSTEM ELECTIVE

PGES-404: Computer Networking

1. **Overview of data communication and Networking:** Introduction - Data communications - components - Data representation(ASCII,ISO etc. - Direction of data flow (simplex, half duplex, full duplex);
2. **Networks:** Distributed processing - Network criteria physical structure (type of connection, Topology), categories of network (LAN, MAN,WAN);
3. **Internet:** Brief history - Internet today - Protocols and standards - Reference models - OSI reference model - TCP/IP reference model - Their comparative study.
4. **Physical level:** Overview of data(analog & digital) - Signal (analog & digital) - Transmission (analog & digital)& transmission media (guided & non-guided) - TDM, FDM, WDM - Circuit switching: time division & space division switch - TDM bus - Telephone network;
5. **Data link layer:** Types of errors - Framing(character and bit stuffing) - Error detection & correction methods - Flow control – Protocols - Stop & wait ARQ - Go-Back- N ARQ - Selective repeat ARQ – HDLC - Medium access sub layer - Point to point protocol – LCP – NCP – FDDI - Token bus - Token ring – Reservation – Polling - Concentration;
6. **Multiple access protocols:** Pure ALOHA - Slotted ALOHA – CSMA - CSMA/CD – FDMA – TDMA – CDMA - Traditional Ethernet - Fast Ethernet - Syllabus of M.Sc. in Information Science Institute of Engineering & Management Network layer Internetworking & devices – Repeaters – Hubs – Bridges – Switches – Router – Gateway.
7. **Addressing :** Internet address – Class full address – Subnetting - Routing - Techniques - Static vs. dynamic routing - Routing table for classful address - Routing algorithms - Shortest path algorithm – Flooding - Distance vector routing - Link state routing – Protocols – ARP – RARP – IP – ICMP - IPV6 - Uni-cast and multicast routing protocols.
8. **Transport layer:** Process to process delivery – UDP – TCP - Congestion control algorithm - Leaky bucket algorithm - Token bucket algorithm - Choke packets - Quality of service - Techniques to improve Layer
9. **Application layer:** DNS – SMTP – SNMP – FTP - HTTP & WWW;
10. **Security:** Cryptography - User authentication Security protocols in internet – Firewalls - Modern topics ISDN services & ATM - DSL technology - Cable modem – Wireless LAN - IEEE 802.11; Introduction to blue-tooth - VLAN's, Cellular telephony & Satellite network.

Readings :

1. B. A. Forouzan – “Data Communications and Networking (3rd Ed.) “ – TMH
2. S. Tanenbaum – “Computer Networks (4th Ed.)” – Pearson Education/PHI
3. W. Stallings – “Data and Computer Communications (5th Ed.)” – PHI/ Pearson Education
4. Zheng & Akhtar, Network for Computer Scientists & Engineers, OUP
5. Black, Data & Computer Communication, PHI
6. Miller, data Communication & Network, Vikas

PGES-405: Mobile Computing

1. **Introduction to Personal Communications Services (PCS):** PCS Architecture, Mobility Management, Networks Signaling - Global System for Mobile Communication (GSM) - System overview - GSM Architecture, Network signaling.
2. **General Packet Radio Services (GPRS):** GPRS Architecture, GPRS Network Nodes. Mobile Data Communication: WLANs (Wireless LANs) IEEE 802.11 standard, Mobile IP.
3. **Wireless Application Protocol (WAP):**The Mobile Internet standard, WAP Gateway and Protocols, wireless mark up Languages (WML).
4. **Wireless Local Loop (WLL):** Introduction to WLL Architecture, wireless Local Loop Technologies. Third Generation (3G) Mobile Services: Introduction to International Mobile Telecommunications 2000 (IMT 2000) vision, - Wideband Code Division Multiple Access (W-CDMA), and CDMA 2000, Quality of services in 3G - Wireless datagram protocol - Wireless transport layer security - Wireless transaction protocol - Wireless session protocol - Wireless application environment - Wireless telephony L application
5. **Global Mobile Satellite Systems;** Case studies of the IRIDIUM and GLOBALSTAR systems. Wireless Enterprise Networks: Introduction to Virtual Networks, Blue tooth technology, Blue tooth Protocols. Server-side programming in Java, Pervasive web application architecture, Device independent example application
6. **Mobile Transport Layer :** Traditional TCP, Indirect TCP, Snooping TCP, Mobile TCP, Fast retransmit/fast recovery, Transmission /time-out freezing, Selective retransmission, Transaction oriented TCP - Mobile IP Network Layer – Mobile Transport Layer – Databases – Data Dissemination and Broadcasting Systems – Data synchronization in Mobile Computing Systems
7. **Data Dissemination:** Communications asymmetry, classification of new data delivery mechanisms, push-based mechanisms, pull-based mechanisms, hybrid mechanisms, selective tuning (indexing) techniques. Adaptation Disconnected operation Mobile agents Publishing & Accessing Data in Air: Pull and push based data delivery models, data dissemination by broadcast, broadcast disks, directory service in air, energy efficient indexing scheme for push based data delivery.
8. **File System Support for Mobility:** Distributed file sharing for mobility support - Coda and other storage manager for mobility support Mobility - Handoff, types of handoffs - Location management - HLR-VLR scheme, hierarchical scheme, predictive location management schemes - Mobile IP, cellular IP - Mobile Agents Computing - Security and fault tolerance - Transaction processing in Mobile computing environment.
9. **Mobile Ad hoc Networks (MANETs):** Overview - Properties of a MANET - Spectrum of MANET applications - Routing and various routing algorithms - Security in MANETs. Mobility at the transport layer in the Internet - Mobility at the application layer in the Internet - Mobile ad hoc networks (MANET) - Routing in MANET - Location in ubiquitous computing environments Server and Management
10. **Mobile Application Languages:** XML , Java, j2ME, and Java Card – Mobile Operating systems – Java programs for Mobile Computing _ Wireless markup language, WML script.

Readings :

1. P. Nicopolitidis , "Wireless Networks", John Wiley
2. J. Schiller, Pearson :“Mobile Communication”,
3. Raj Kamal : Mobile Computing : OUP
4. Raj Pandya : “Mobile and Personal Communication systems and services”, , Prentice Hall
5. Mark Ciampa, Thomson learning, : “Designing and Implementing wireless LANs”, Vikas
6. Ray Rischpater, : “Wireless Web Development”, Springer Publishing,
7. Sandeep Singhal, :“The Wireless Application Protocol”, Pearson .
8. P.Stavronlakis :“Third Generation Mobile Telecommunication systems”, Springer

PGES-406: Artificial Intelligence and Pattern Recognition

1. **What is Artificial Intelligence:** The AI Problems – The Underlying Assumption – The Level of the Model – Criteria for Success - Defining the Problem as a State Space Search – Production Systems – Problem Characteristics – Production System Characteristics.
2. **Heuristic Search Techniques:** Generate-and-Test – Hill Climbing – Best-First search – Problem Reduction – Constraint Satisfaction – Means-Ends Analysis.
3. **Knowledge Representation :** Representations and Mappings – Approaches to Knowledge Representation – Issues in Knowledge Representation – The frame Problem – Representing Simple Facts in Logic – Representing Instance and Isa Relationships – Computable Functions and Predicates – Resolution – Natural Deduction – Procedural versus Declarative Knowledge – Logic Programming – Forward versus Backward Reasoning – Matching – Control Knowledge.
4. **Statistical Reasoning :** Probability and Bayes' Theorem – Certainty Factors and Rule-Based Systems – Bayesian Networks – Dempster-Shafer Theory – Fuzzy Logic – Weak Slot-and-Filler Structures – Semantic Nets – Frames – Conceptual Dependency – Scripts – CYC – Syntactic-Semantic Spectrum of Representation – Logic and Slot-and-Filler Structures – Other Representational Techniques.
5. **Game Playing :** Overview – The Minimax Search Procedure – Adding Alpha-Beta Cutoffs – Additional Refinements – Iterative Deepening ; Planning : Overview – An Example Domain ; The Blocks World – Components of a Planning System – Goal Stack Planning – Nonlinear planning Using Constraint Posting – Hierarchical Planning – Reactive Systems.
6. **Understanding :** What is Understanding? – What Makes Understanding Hard? – Understanding as Constraint Satisfaction; Natural Language Processing: Introduction – Syntactic Processing – Semantic Analysis – Discourse and Pragmatic Processing; Parallel and Distributed AI – Psychological Modeling – Parallelism in Reasoning Systems – Distributed Reasoning Systems.
7. **Learning to Recognize Pattern:** Inductive learning – Decision tree – Building a decision tree – Classification of decision trees – Building multiple decision tree – Decision tree extensive – Pruning decision tree – Windowing of training sets.
8. **Obtaining Prules by Evaluation :** Iterative refinement - Fitness of an Antecedents – Binary Representation – Reproduction , mutation and crossover – Evolutionary procedure for prules – Modification in the evolutionary procedure.
9. **Baye's Classification :** Naïve Baye's with Binary attributes – Continuous attribute values – Nearest neighbor classification – Multilayer Neural Nets – Neurodes – Modeling an AND gate – Modeling an XOR gate – Commonly used Neuret Architecture – Training multilayer neuronets by back propagation .
10. **Linear Classification :** Training a linear classifier – The Two – Class ease– Higher dimensional attribute space – Cross validation – attribute selection – procedure – Clustering – Agglomerative – Hierarchical clustering – K-means clustering – Non-numeric attributes
11. **Syntactic Pattern Recognition:** Strings and grammars chousky normal form – Stochastic grammers – optical character recognition – Recognition without preprocessing – Removing risk – Skeleton to nisation – Recognizing words.

Readings :

1. Elaine Rich & Kevin Knight : Artificial Intelligence , 2nd Edition, Tata McGraw-Hill Publishing
2. Chapman, D. 1987: Artificial Intelligence
3. Ballard, D.H. 1984, Parameter nets. Artificial Intelligence
4. Beal, D.F. 1990, A generalized quiescence search algorithm, Artificial Intelligence
5. Brady, M. 1985, Artificial intelligence and robotics, artificial Intelligence
6. N.P.Padhy, “ Artificial Intelligence & Intelligent Systems