- 1) S N Maheshwari&Suneel K Maheshwari, Problems and Solutions in Advanced Accountancy—Vol. I and II, VIKAS PUBLISHING, 6/e
- 2) S.P. Jain and K.L.Narang, Cost and Management Accounting, KALYANI PUBLISHERS, 2014

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 9024	DECISION MODELLING	3-0-0	3	Mr. S Sarkar

TOTAL LECTURE HOURS: (3X12 = 36 HOURS)

Section 1: Introduction

Introduction: An Overview of Management Science and Quantitative Analysis Problem Solving and Decision Making, Quantitative Analysis and Decision Making, Management Science Techniques

2 classes

Section 2: Convex Optimization

Theories & definitions (Interior, closure, conjugate functions), Fracas Theorem, Weisterus theorem, duality theorems (both linear & non-linear),

10 classes

Section 3: LPP

Linear Programming: Assumptions, Graphical, Solution, Sensitivity Analysis, Computer Output, problems will include the followings VRP, TSP, Scheduling Problems, Data Envelopment Analysis, Network Optimization Models, The Minimal Spanning Tree Problem, The Maximal Flow Problem

10 classes

Section 4: Decision Theory

Fundamentals of Decision Theory and Analysis, Payoff tables and decision trees; Decision making with and without probabilities; Analytical Hierarchy Process, ANP, ** Markov Analysis, Risk and sensitivity analysis of decision-making, Waiting line systems

10 classes

Section 5: Non-classical Optimization Techniques

Development of C or JAVA code for solving problems using Genetic Algorithm, Evolutionary algorithm etc **5 classes**

TEXT BOOKS:

Convex Optimization Theory: Dimitri P Bertsekas

Optimization Techniques: Rao

REFERENCE BOOKS:

Operations Research: H. Taha Operations Research: Liberman

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 9025	SYSTEM DYNAMICS	3-0-0	3	Mr. S Sarkar

TOTAL HOURS = 3X12=36

Introduction

Introduction and Overview: Why are we here? What is System Dynamics and why do I care? **2 CLASSES**

System Dynamics Tools part 1

Reference modes, mapping and the grammar of causal links, The Details of Causal Loops, Practice with Causal Loop Diagrams, examples from Engineering as well as management problems

6 CLASSES

System Dynamics Tools Part 2A

Study of differential equations, Solutions of DE under various boundary conditions, concept of stability and instability

6 CLASSES

System Dynamics Tools Part 2B

Introduction to Stocks and Flows, Mapping the stock and flow structure of systems, Dynamics of stocks and flows, Linking feedback with stock and flow structure; First-order systems, Application of STELLA to Environmental Management Problems (population of species, prey-predator dynamics)

12 CLASSES

Growth Strategies:

Interactions of Operations, Strategy, and Human Resource Policy, The feedback structure of s-shaped growth, the diffusion and growth of new products, network externalities, and complementarities, Managing Hyper Growth: Lessons from People Express, understanding Instability

8 CLASSES

System Dynamics in Action:

The dynamics of service quality: cutting corners and working overtime, the dynamics of project management

- On time and under budget,

2 CLASSES

TEXT BOOKS:

SYSTEMS DYNAMICS BY P. K. J. MOHAPATRA

DIFFERENTIAL EQUATIONS WITH APPLICATIONS & HISTORICAL NOTES BY SIMMONS

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 9026	INVESTMENT AND PORTFOLIO MANAGEMENT	3-0-0	3	Dr. A Dutta

Introduction to various investment avenues and alternatives, Investment vs. gambling and speculation, Types of investors and avenues, New Issue market and Stock Exchanges, Trading mechanisms in stock exchange (2)

Efficient Market Hypothesis.

(2)

Equity Valuation: Macroeconomic Analysis Industry Analysis; Company Analysis; Valuation of Equity Shares (8)

Fixed Income Security Analysis: Bond Prices and Yield

(2)

Technical Analysis

(5)

Risk Vs Return

(1)

Markowitz Theory

(2)

Capital Market Theories: CAPM, CML, SML, Efficient frontier with Riskless lending and borrowing, Markowitz Model, Sharpe single index Model)Portfolio Risk & Return. (5)

Factor Models and Arbitrage Pricing Theory

(2)

Portfolio Management -Portfolio Evaluation and Behavioural Finance Portfolio revision, performance evaluation of portfolio, forecasting of portfolio performance (2)

Presentation

(4)

Total - 35

TEXT BOOKS:

- 1. Investment Analysis and portfolio Management- P Chandra TMH
- 2. Security Analysis and Portfolio Management Donald E. Fischer, Ronald J. Jordan

- 1. Value investing and Behavioral Finance, Parikh, TMH
- 2. Investment Management V.K. Bhalla S. Chand
- 3. Investment Management and Security Analysis D.K. Khatri Mcmilla

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER	
MS 9027	RISK MANAGEMENT	3-0-0	3	Dr. A Dutta	
				No of session	
Objectives of Ri	isk Management			(1)	
Risk Measureme	ent and Pooling			(2)	
Total Loss Distr	ribution			(1)	
Pooling and Div	versification			(1)	
Financial Risk N	Management, Insurance, Insurance Pricing			(4)	
Introduction to l	Derivatives			(2)	
Futures Markets	3			(2)	
Pricing of Forward	ards & Futures			(2)	
Option Markets				(1)	
Properties of Op	otion Prices			(2)	
Trading Strategi	ies involving options			(7)	
Option Binomia	l Pricing			(3)	
Options on Stoc	k Index, Currencies and Futures			(3)	
Management of	Market Risk			(1)	
Presentation				(3)	
				Total 35	
1. Options	TEXT BOOKS: 1. Options, Futures & Other Derivatives – John C. Hill 2. Derivative Securities – Jarrow & Turn bull				

REFERENCE BOOKS:

1. Futures & Options - Edwards & Maa

Financial Derivatives – Kolb
 Financial Derivatives – Redhead1

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 9028	OPTIMIZATION TECHNIQUES USING APPLICATION SOFTWARE	3-0-0	3	Dr. Gautam Bandyopadhyay

Unit1: Concept of Fuzzy Set with examples

[2L]

Unit2: GOAL PROGRAMMING a) Construction of Goal Programming Models b) Goal Programming Algorithms using Lingo software using different fuzzy techniques. [4L]

Unit3: Ranking of Performance Appraisal of different homogeneous sector using DEA techniques for different methods.

Using DEA Softwares.

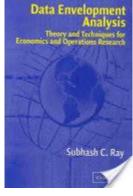
Unit4: Fuzzy Transportation problem using Lingo softwares.	[4L]
Unit5: Inventory problem in crisp and fuzzy state. Using Lingo software	[4L]
Unit6: Fuzzy Programming on MADM, AHP, ANP and MCDM	[6L]
Unit7: Fuzzy PERT and CPM	[5L]

TEXT BOOKS:

- $1. \ \ Fuzzy \ Set \ Theory \underline{\hspace{1.5cm}} and \ Its \ Applications \ | \ Hans-J\"urgen \ Zimmermann \ \ springer$
- 2. Performance Measurement with Fuzzy Data Envelopment Analysis, Authors: Ali Emrouznejad and Madjid Tavana

REFERENCE BOOKS:

1. Data Envelopment Analysis: Theory and Techniques for Economics and Operations Research



Subhash C. Ray

Cambridge University Press, 07-Jun-2004 - Business & Economics

2. L. A. ZADAH Fuzzy SETS

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 9029	COMPUTER NETWORK AND INFORMATION SECURITY	3-0-0	3	

- 1. Definition of communication, Data communication, Data communication model, Data transmission modes, Transmission media, Communication protocol, Roles of communication protocol, OSI and TCP/IP models, Analog and digital data communication, Communication processors, Asynchronous and synchronous transmission, Multiplexing. [5]
- 2. Networking, network topologies, LAN, MAN, WAN, Switching techniques, Network management requirements, Network management system, Control & monitoring.
- 3. Client server computing, Application, Middleware, Intranet, Extranet, Evolution of internet, Addressing in internet IP & domains, ISP, Types of connectivity, Evolution of WWW, Basic features, WWW browsers, WWW servers, HTTP & URL, Email, FTP, SMTP.
- 4. Importance of communication standards, Standards & regulations, Standard setting organizations. [4]
- 5. Network security, Security goals, Attacks, Security services and mechanisms. [6]

[6]

- 6. Cryptography, Steganography, Data encryption Standards.
- 7. Message integrity and message authentication, Digital signature, Entity authentication.

TEXT BOOKS:

- 1. A. S. Tanenbaum, *Computer Networks*, Prentice Hall PTR. (Latest edition)
- 2. <u>W. Stallings</u>, *Cryptography and Network Security: Principles and Practice*, Pearson India.(Latest edition)

REFERENCE BOOKS:

1. W.Stallings, *Data and Computer communications*, Pearson Prentice Hall. (Latest edition)

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 9030	Globalization and International monetary economics	3-0-0	3	Prof. M Roy

- **1. Balance of Payments:** Components of Balance of Payments, Balance of Payments Disequilibrium, Foreign trade multiplier.

 [4]
- 2. **Policies for Internal and External Balance: Policies to** maintain Internal and External Balance, Fiscal monetary policies for Internal Balance, Effects of Fiscal and Monetary Policies on External Balance, Devaluation. [10]
- 3. **International Monetary System**: The Bretton Woods System, Breakdown of the Bretton Woods System and emergence Floating system [6]
- 4. **Foreign Exchange**: Functions of foreign exchange market, Determination of Exchange rates, Foreign Exchange Management Act. [6]
- International Liquidity and Reserves: Composition of International Reserves, India's Reserve Management, IMF and International Liquidity. [6]
- 6. **International Banking and Eurocurrency Market**: International Banking, Eurocurrency market. [4]

- 1. Carbaugh, Robert J. "International Economics, Thomson Southern Western." *Caves, Frankel and Jones* (2002), *World Trade and Payments* 9 (2004).
- 2. Krugman, Paul R. *International economics: Theory and policy, 8/E.* Pearson Education India, 2008.

- 1. Epstein, Gerald A., ed. *Financialization and the world economy*. Edward Elgar Publishing, 2005.
- 2. Frenkel, Jacob A., and Harry G. Johnson. *The Monetary Approach to the Balance of Payments (Collected Works of Harry Johnson)*. Vol. 7. Routledge, 2013

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 9031	MANAGERIAL PSYCHOLOGY	3-0-0	3	Dr. D Pal

Thinking: Concept, Relevance in workplace; <u>Critical Thinking</u> – Characteristics, Process, Structures, Elements, Reasoning Types, fallacies, Standards, Strategies for increasing it in managerial decisions, Different Critical Thinking Tools- Concept and application; <u>Creative Thinking</u>- Concept, Types, Stages, Lateral Thinking Techniques, Thinking styles, Conditions of creativity, organizational programs & strategies in stimulating creativity; Barriers to creativity; Problem-solving Demand.

Individual decision-making: Nature, Process, Types, Factors, Individual decision-making styles, models and their applications, Errors; Techniques to improve decision-making.

Executive Intelligence: nature, model; interpersonal acumen and executive potential; application. [10]

Module 2:

Time Management: Concept, Notion of generations; Time management matrix, Process, Strategies of managing time.

Management of employees' occupational problems: Counterproductive Behaviours-Forms, Absence (forms, nature, techniques to deal with them); Employee Discipline (Administration, Management, Indian legal perspectives). [8]

Module 3:

Interpersonal Behaviour at Work: Concept, Foundations; Management of Boundaries at Work, FIRO-B framework-Interpersonal needs & styles, Benefits.

Employee Engagement: Concept, nature, types, levels, drivers, models, measurement, application in organizations.

Performance counseling: Basic concept, Relation with performance feedback, Process, Principles, Purpose; Employee counseling-Types, Skills, intervention; Emotional Freedom Technique. [10]

Module 4:

Assertiveness Training: Nature of Assertiveness Behaviour, Personality; Assertiveness Training-Objectives, Guidelines, Assertive Rights; problems; techniques of developing assertive behaviour.

Transactional Analysis: Concept, Origins, Ego-states, Transaction-types, Life positions, Transaction Styles, Strokes, Psychological Games, Benefits & Pitfalls of Transactional Analysis, application in organizations.

[7]

Note: Case studies will be discussed.

TEXT BOOKS:

1. Leavitt and Bahrami (1988). Managerial Psychology: Managing Behaviour in Organizations. University of Chicago Press.

- 1. Mckenna, E.F. (2006). Business Psychology and Organizational Behaviour: A Student's Handbook. Psychology Press.
- 2. Matthewman, L., Rose, A. & Hetherington, A. (2009). Work Psychology. Oxford University Press.

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 9032	DYNAMICS OF ORGANIZATIONAL EFFECTIVENESS	3-0-0	3	Dr. D Pal

Organizational Effectiveness: Concept, nature, dimensions, criteria, approaches, application.

Groups: Concept, Types of groups, Group Dynamics (context, structure, social processes, effectiveness), Models, Group effectiveness, Group Performance factors (composition, size, roles, norms, status, cohesiveness), Social Facilitation, Social Loafing, Intergroup Dynamics.

Teams: Background, Characteristics, Properties, Significance & benefits; Types; Self-Managed Work teams, High-performance Teams, Aspects of Team Composition; Employee Involvement, Team-reward systems, Effective Teams, Determinants of Team Performance; Top level teams in organizations.

Team Building: Basic concept; Significance, team-building activities- Classification, Types, Process and techniques of building a team, Skill assessment, Behavioural Integration, Team charter, Approaches to Team building, Manager's role, Team building in virtual teams, Transactive Memory Systems. [10]

Module 2:

Conflict and its resolution: Nature, Diagnosing conflict, Causes and Consequences of conflict in organizations, forms across levels; Resolving Intrapersonal and Interpersonal Conflict; conflict management techniques (Negotiation, Mediation, Arbitration), strategies and styles.

Group decision-making: Concept, Group Vs Individual Decision-making, process; limits; Different Group-decision techniques; Computer-based approaches.

Organizational Culture: Concept, Forms & Types (Double S Cube), Levels (Schein's)- Artifacts (Types), Values, Assumptions; Functions, Theories, Organizational Socialization-Process, Assessment Tools; Changing organizational culture-Interventions, challenges. [12]

Module 3:

<u>Organizational Learning</u>: concept, Knowledge- Types, characteristics, Disciplines of OL, Single & Double Loop, Building an organization's Learning Capability, facilitating factors, Modes of Learning. <u>Learning Organization</u>: Concept, Characteristics, Forms, Core activities; Empowerment, Personal Networks, Strategies to promote the concepts in organizations.

Competency driven organizations: Notion, Characteristics, Categories, Uses in organizations, organizational competency models; detailed process for building competency model; application of competency based HRM system.

[7]

Module 4:

Cross-cultural management: International HRM- issues, Culture, Ethnocentrism, Hofstede's study, Project GLOBE, Global HR Policies, Preparing, managing Expatriates-Foreign Assignment Cycle, Cultural intelligence, Cross-cultural training, implications.

Organizational roles: Nature; Mapping Role Systems, Effectiveness through role, Role-Focused intervention in organizations. [6]

Note: Case studies will be discussed.

TEXT BOOKS:

1. Gibson, J.L., Ivancevich, J.M., Konopaske, R. (2013). *Organizations: Behaviour, Structure, Processes*. New Delhi: McGraw Hill Education.

- 1. Tolbert, P.S. & Hall, R. H. (2010) *Organizations: Structures, Processes, and Outcomes*. New Delhi: PHI Learning.
- 2. Aldrich, H.E. & Ruef, M. (2006). Organizations Evolving. Sage Publications.

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 9033	HR SELECTION AND RECRUITMENT	3-0-0	3	Dr. N Banerjee

- Introduction to Selection and Recruitment: What is recruitment, Purpose of recruitment, Recruitment process, What is selection, Developing a selection program, Constraints in developing a selection program.
- Job Analysis in HR Selection: Need for job analysis, Work oriented and worker oriented job analysis,
 Job analysis methods.
- Reliability and Validity in Selection measures: Fundamentals of measurement, Role of measurement in HR selection, Concept of reliability, True score and error score, Source of error, Methods of estimating reliability, Problems of reliability estimates, Factors influencing the reliability of a measure, Concept of validity, Methods of estimating validity.
- 4. Selection Decision making: Types of selection decision errors, Methods for collecting predictor information from job applicants, Methods for combining predictor information, Approaches for making selection decision.

 [4]
- 5. Application forms/blanks and Selection Interviews: Purpose, Inappropriate questions, Resumes, CV and Biodata, Information Distortions, Reference Checks, Purpose of selection interviews, Factors influencing interviewer's decision making, Types of selection interviews. [4]
- 6. Selection Tests: Purpose, Ability tests, Physical Ability Tests, Personality tests, Integrity tests, Drug tests, Graphology. [6]
- 7. Outsourcing: Concept, Reasons for outsourcing, Types of outsourcing, HR outsourcing, Areas of concern with outsourcing. [4]
- 8. Job Performance: Relation of job performance with HR selection, Types of job performance measures, Job performance and Compensation policies. [4]

1. G. Roberts, *Recruitment and Selection*, Chartered Institute of Personnel & Development. (*Latest edition*)

REFERENCE BOOKS:

1. R.Compton, B.Morrissey, & A.Nankervis, *Effective Recruitment and Selection Practices*, CCH Australia. (*Latest edition*)

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 9034	Environmental Marketing	3-0-0	3	Prof. M Roy

- 1. Introduction and Background: Environmental and social problems in marketing
- 2. Motivation and type of greening.
- 3. Economics Market Failure and Sustainable Entrepreneurship Environmental and social entrepreneurship Introduction to Natural Capitalism
- 4. Strategy Frameworks: Natural Capitalism & SBSM Sustainable Business Strategy Matrix
- 5. Green Marketing Leveraging the Value of Sustainable Business: Adding and protecting profit margin from sustainability.
- 6. Green Marketing tools.
- 7. Categorization of environmental customers.
- 8. Design and redesign pricing
- 9. Logistics and reverse logistics
- 10. Promotion and alliances.

- 1. Fuller. B., Sustainable marketing, Sage publications
- 2. Charter and Polomsky,. Green marketing: A global perspective to greening marketing practices

- 1. Ottman, Green marketing: Opportunities for innovation.
- 2. Hoffman A. Competitive environmental strategy

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 9035	Banking Management	3-0-0	3	Dr. A Ghosh

- 1. INDIAN FINANCIAL SYSTEM Nature and evolution, Role of financial system in economic development, Indian Financial system-Structure; (Financial markets, instruments, regulators and intermediaries) **(4)**
- 2. BANKING SYSTEM IN INDIA Origin, nature and structure, Types of Banks and their Functions, Scheduled banks, Commercial banks, Public sector banks, private sector banks (Old and new generation banks), co-operative Banks, RRBs, Local area banks, NBFCs, Mutually aided co-operative societies1.

RBI-the Central Bank- Structure, Role and Functions of RBI

(5)

(2)

- 3. SOURCES AND USES OF FUNDS IN BANKS Basic structure of Bank Balance sheet
- Credit policy of RBI, significance of credit policy for Banks, Exposure Norms, and 4. CREDIT POLICY Delegation of Powers. Credit culture
- 5. LENDING ACTIVITIES Principles of lending, various credit products/ Facilities, Credit Appraisal,-Credit rating/ Credit scoring chart. Automated Credit appraisal mechanisms
- 6. PRIORITY SECTOR LENDING Classification and Definition, Rural Credit Delivery mechanism-Commercial Banks/ RRBs/ LABs/Co-operative institutions. (3)
- 7. RURAL BANKING AND MICRO FINANCE Microfinance, Financial inclusion, NABARD. **(2)**
- 8. SME FINANCING Micro, Small, Medium enterprises- definition and classification, Working capital assessment- Nayak committee recommendations, Appraisal, monitoring, institutional / infrastructural support and nursing of sick industries, SIDBI.
- 9. RETAIL BANKING Basics of retail banking Products and services, Deposit products, Personal, Consumer, Housing loans, Educational loans, Plastic money, Gold Loans etc. **(5)**
- 10. CORPORATE BANKING Nature of corporate banking and recent developments, multiple banking arrangement, Consortium finance and loan syndication, Infrastructure finance. **(3)**
- 11. MERCHANT BANKING Management of Public issues: Reasons for going public, and eligibility norms, Offer document and regulatory frame work for public issues (SEBI norms), marketing of issues and post issue activities.
- 12. EMERGING TRENDS IN BANKING Banking in India- Issues and Challenges for the Future **(1)**

TEXT BOOKS:

- (1) Banking Principles and Practices by Mr. M.N. Gopinath. (Snow White).
- (2) Commercial Banking: B. E. Gup and J. W. Kolari. (Wiley India).

- (3) Financial Institutions and Markets: L. M Bhole (Tata-Mcgraw India).
- (4) Indian Financial System: B. Pathak (Pearson India).
- Additional reference study materials are from RBI.

SEMESTER IV [MBA]

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 4001	STRATEGIC MANAGEMENT	4-0-0	4	Dr. N Banerjee & Dr. A Ghosh

- Introduction to Strategic Management: Concept of strategy, Organizations and strategies, Evolution of strategic management, Strategic management process, Strategic Intent, Vision, Mission, Values, Goals, Objectives, Policy.
- Analysis of Internal Environment: Challenges of analyzing the internal environment, Resources and capabilities, Value chain analysis, Core competencies and competitive advantage, Criteria for sustainable competitive advantage.
- Analysis of External Environment: Purpose, Macroeconomic environments, PESTLE, Porter's model,
 TOWS matrix, Scenario analysis, Industry analysis.
- Competitive Rivalry and Dynamics: Concept and types of competition, Competitive dynamics,
 Competitive rivalry, Drivers of competitive behaviour, Model of competitive rivalry, Competitive analysis, Inter firm rivalry, Outcomes of competitive rivalry.
- 5. Levels of Strategy: Business level strategy, Purpose of business level strategy, Serving customers, Types of business level strategy, Corporate level strategy, Purpose of corporate level strategy, Types of corporate level strategy.

 [5]
- 6. Implementation of strategy: Structural implementation, Behavioural implementation, Functional and Operational implementation. [5]
- 7. Strategic Evaluation and Control: Importance of strategic evaluation, Strategy Evaluation framework, Criteria for Strategy Evaluation, Barriers in evaluation, Types of strategic control, Evaluation techniques for strategic control. [5]

TEXT BOOKS:

- **1.** A. Kazmi, *Strategic Management and Business Policy*, McGraw Hill Education. (*Latest edition*)
- **2.** A.A. Thompson & A.J.Strickland, Strategic Management: Concepts and Cases, McGraw-Hill. (*Latest edition*)

REFERENCE BOOKS:

M.A.Carpenter, W.G.Sanders, & P.Salwan, *Concepts and Cases: Strategic Management*, Pearson. (Latest edition)

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER	
MS 4002	BUSINESS LAW AND CORPORATE TAXATION	4-0-0	4	Dr A Dey	
Details				Lecture Hours	
1. Business Lav	V				
1.1 Indian Con					
	nts of a valid contract, classifications of contr	act		(1)	
	tance, Capacity of parties to contract			(2)	
Free consent, Co				(2)	
	ct, Agreement declared void, Performance of	contract		(1)	
Discharge of co				(1)	
	reach of contract			(1)	
	ts: Indemnity, Guarantee, Bailment and pledg	ge		(1)	
1.2 Sale of Goo	,				
	entracts of sale, Goods and their classification				
	perty in goods, Performance of the contract	of sales,	Right and du	*	
purchase agreen				(1)	
1.3 Company La					
<u> </u>	Meaning, characteristics and kinds, Lifting the corporate veil (1)				
	d incorporation, Memorandum of Associatio				
	ectrine of ultravires—consequences of ultravires			(1)	
	ociation and it's content, Alteration of Artic			•	
	and Article of Association, Rule of construc			(1)	
	por Management, Prospectus- its content, Rec	•			
	ry restrictions, Kinds of share capital, Debt Ir	nstruments	S	(1)	
_	Instrument Act,1881	mata Dil	11 of anabone	a and abassas Halden and	
	egotiable instruments, Features, Promissory				
	ue course, Crossing of a cheque, Types of	crossing,	negonation,	_	
_	negotiable instrument. (1) 1.5 The Consumer Protection Act, 1986				
	•	stical und	orstanding of	Consumar and Consumar	
	salient features, Important Definitions, Pracair Trade Practice, Restrictive Trade Practice,				
•	etition Act, 2002	, Officialic	e reuressar ii	idenifiery. (1)	
	nitions and main provisions.			(1)	
*	n Exchange Management Act, 2000			(1)	
	nitions and main provisions.			(1)	
	•			(1)	
1.8 The Information Technology Act, 2000 Objective, Definitions and main provisions.				(1)	
1.9 The Factories Act, 1948					
	nitions and main provisions.			(1)	
1.10 Miscellane	•			(1)	
	rief concept of the following Acts:				
	of Gratuity Act The Payment of Wages Act				
ii) The Payment					
	d Misc. Provision Act			(2)	
2. Corpor	rate Taxation				

2.1 Direct Tax

2.1.1 Dagic concents Important Definitions	(2)
2.1.1 Basic concepts, Important Definitions	(2)
2.1.2 Explanation of income	(2)
2.1.3 Exempted Incomes	(1)
2.1.4 Residential status and tax incidence	(2)
2.1.5 Heads of Income, Gross Total Income (GTI), Exemptions and Deductions, Taxable	Income (TI),
Tax rates and calculation of tax	(2)
2.1.6 Taxation of individuals, Partnership, LL.P, Companies, Trust, Minimum Alternativ	e Tax (MAT)
	(5)
2.1.7 Tax Deducted at Sources: Important Provisions and Implications	(2)
2.1.8 Assessment Procedure: Basic Concepts	(1)
2.1.9 Tax Planning relating to Individual, Companies and Business Entities	(2)
2.2 Indirect Tax	
2.2.1 Central Excise: Basis of chargeability of Duties of Central Excise - Goods,	Manufacture,
Classification and Valuation of Excisable Goods, CENVAT Credit Mechanism	(1)
2.2.2 Customs Laws: Levy of Customs Duties, Types of Customs Duty leviable, Tariff Cl	assification &
Exemptions, Valuation of Imported and Exported goods	(1)
2.2.3 Service Tax: Concept and basis ideas, negative list	(1)
Central Sales Tax and VAT: Concept and basis ideas	
Tota	1:45

- 1) N. D. Kapoor, Elements of Mercantile Law, 34/e
- 2) V. K. Singhania and K. Singhania, Direct Taxes Law and Practice, TAXAAMNN'S, Updated by the prevailing Finance Act
- 3) V. S. Datey, Indirect Taxes- Law & Practice, TAXAAMNN'S, Updated by the prevailing Finance Act

- 1) S. S. Gulshan, Business Law, 4/e
- 2) M. Singhania and V. K. Singhania, Students Guide to Income Tax, TAXAAMNN'S, Updated by the prevailing Finance Act

DEPARTMENTAL ELECTIVE [SEMESTER IV]

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 9050	Economic Analysis for sustainable Industrialization	3-0-0	3	Prof. M Roy

- 1. Challenges for sustainable Industrialization: Current Industrialization Model, Major shortcomings of the present industrialization; Path of Sustainable industrialization (4)
- 2. Quantitative Methods and their use in economic dynamics; Extreme values and Optimization; Efficiency and Competitive Markets; Benefit-Cost Analysis (6)
- 3. Market failure: Public Bads and Externalities; Optimal Provision of Public Goods and Bads; Pricing Public Goods and Bads; Externalities; The Coase theorem: policy Significance; Pigovian fees: Single polluter; Multiple polluter: The Equi marginal Principle; Fees versus subsidies: Short and long run. (10)
- 4. Imperfect competition: Monopolist in the goods market, Emission fees and Marketable permits: Marketable Ambient Permits, Comparative Regulatory Analysis; Economy wide Effects of Environmental regulations: Productivity growth and its measurement, Green National Accounting. (10)
- 5. Environmental Demand Theory; Prices and Marginal Willingness to Pay; Measuring Demand: Ordinary versus Compensated Demand, The Expenditure Function, Welfare effects of a price Change; Hedonic Price Methods (10)
- 6. Corporate Strategy and Direction, Functional and Structural implications of implementing environmental strategies and their integration in Management Operation. (5)

TEXT BOOKS:

- 1. Nick Hanley, J.F. Shogren and Ben White, Environmental Economics in Theory and Practice
- 2. F. Cairneross, Green, Inc.-A guide to Business and Environment

- 1. Frank Feats and Rod Barrette, Integration Pollution Management
- 2. Hunter and Catherine Johnson, Environmental Management System-Principles and Practices

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 9051	STRATEGIC MARKETING AND RURAL MARKETING	3-0-0	3	Dr. N Banerjee & Dr. K Mandal

- 1. Introduction to Marketing Strategy: Marketing management and strategic marketing, Relation between corporate, business-unit and marketing planning, Elements in marketing strategy, Analyses of customers, competitors, market and environment, Different portfolio models, Product-market matrix, Evaluation of a company's existing products using various portfolio models, Allocation of resources to products at different life cycle stages, Segmentation in consumer markets and industrial markets, Effective segmentation bases, Different positioning approaches, Development and selection of a strategic position.
- 2. Marketing Mix and Strategic Brand Management: Product scope strategy, Product mix, Product overlapping and price competitiveness, Brand identification strategy, Different approaches in calculating brand equity, Brand extensions, Developing communication objectives in line with overall corporate objectives, Characteristics of each communication tool, Resource allocation to different types of communication tools based on overall objectives, Designing, implementation, and evaluation of marketing communication plan, Factors influencing price for a new or existing product, Different pricing strategies, Price leadership and price war, Strategic issues in channel design and channel management, Channel structure for consumer products and industrial products, Establishing channel control through channel selection and performance standards, Channel conflict management.

[8]

- 4. Marketing Strategy Evaluation: Strategic marketing audit, Selecting performance criteria and measures, Determining information needs and analysis, Evaluating performance. [6]
- 5. A comprehensive idea of rural marketing and its benefit in relation to Indian environment. Constrain and challenges of rural marketing in India. Understanding methodology for executing marketing research activities in rural area [7]
- 6. Developing a marketing strategy for Indian rural markets employing segmentation, targeting, positioning principles. Understanding 4Ps namely product, prices and place (in rural context

[7]

TEXT BOOKS:

- 1. R.A. Kerin & R.A. Peterson, *Strategic Marketing Problems*, Prentice Hall. (Latest edition)
- 2. Pradeep Kashyap, Rural marketing, Pearson Education 2nd edition

- 1. R.J. Hamper, *The Ultimate Guide to Strategic Marketing: Real World Methods for Developing Successful Long term Marketing Plans*, McGraw Hill. (Latest edition)
- 2. Velayudhan; S. Kumar; Rural Marketing Targeting the non-urban consumers, response Books, New Delhi

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 9052	SERVICE MARKETING AND RETAIL MARKETING	3-0-0	3	Dr. N Banerjee

- Introduction to Services Marketing: Concept of service, Growing importance of the service sector, Services vs Goods, Broad categories of services, Services marketing mix, Managing Consumer Behavior.
- Service Quality: Customer expectation and perception, SERVQUAL model of service quality, Zone of tolerance, Adequate and desired level of service, Factors affecting customer expectation and perception, Measurement of service quality, Delivery of high quality service. [4]
- Demand and Supply Management in Services: Challenges due to various levels of demands and service capacities, Measures to respond to the changes in demand and supply, Creating a balance between supply and demand, Queues, Types of queues, Problems associated with queues and their solutions.
- 4. People, Promotion, Price, and Distribution: Role of People in Services, Advertising and sales promotion in services, Different types of pricing in services, Role of distribution in services. [3]
- 5. Physical Evidence of Service: Problems of intangible nature of services, Elements of physical evidence, Contribution of physical evidence to the service. [3]
- Complaint Handling and Service Recovery: Response to a service failure, Why do customers complain, Expectations of customers from the complaint process, Service recovery paradox, Effective Service Recovery, Service guarantee, Abusive and Opportunistic customers.
- 7. Introduction to Retailing: Concept of retailing, Retail functions, Social and economic significance of retailing, Relationships among retailers and their suppliers, Relationship Retailing, Strategic Planning in Retailing.

 [4]
- 8. Retailing formats: Retail stores on the basis of ownership, Retail stores on the basis of merchandise offered, Non store based retail stores. [4]
- 9. Trading Area Analysis and Retail Store Design: Benefits of trading area analysis, Geographic Information Systems, Size of trading area, Trading Area Analysis Models, Principles of Store Design, Elements of Store, Types of store layouts.
- 10. Category Management and Operations Management in Retailing: Category Management Process, Common roles of categories, Category tactics, Category assessment, Operations blueprint, Tactics for maximizing retail personnel productivity, HR management, Store maintenance, Credit management, Inventory management, Energy management, Store renovation, Store security, Outsourcing, Crisis management.
 [4]

- 1. V.Zeithaml, M.J.Bitner, D.D.Gremler & A.Pandit, Services Marketing, Mcgraw Hill Education. (Latest edition)
- 2. M.Levy, B.Weitz & A.Pandit, Retailing Management, Mcgraw Hill Education. (Latest edition)

- 1. K.D.J.Hoffman & E.G.Bateson, Essential of Service Marketing: Concepts Strategies and Cases, Thomson South Western.
- 2. B.Berman, J.R.Evans & M.Mathur, *Retail Management: A Strategic Approach*, Pearson India. (*Latest edition*)

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 9053	SALES AND DISTRIBUTION MANAGEMENT	3-0-0	3	Dr. K Mandal

1. BASIC UNDERSTANDING OF SELLING FUNCTION AND SALES MANAGEMENT: Steps of selling with special emphasis to organizational selling, Industrial selling and channel selling, Prospecting:- Identification of customer and sources for customer generation, Qualifying:- Prioritization of customer using different techniques, Pre approaching:- Required information and how can it be collected, Approaching:- Selling theories in relation to buyer seller dyad and other relevant issues of approaching, Sales Presentation:- Different types of sales presentation —A comparative analysis, Objection handling:- Methods for handling and overcoming objections, Trial close & final close:- Buying signal, closing techniques. [12LH]

2. SALES FORECASTING- Techniques

[2LH]

3. SALES TERRITORY FORMATION: Concept & Methods.

[2LH]

- 4. SALES HR FUNCTION: Sales force sizing, recruitment, different types of recruitment, Selection steps of selection, training, sales training types, Motivation of the sales force, Performance approval of the sales force, Sales quota and compensation. [7LH]
- 5. SALES AUDITING: Sales analysis, cost and profitability analysis.

[3LH]

6. DISTRIBUTION CHANNEL MANAGEMENT: Activity of different channel partner, selection criteria of Distribution channel Partner, Managing channel members` behavior, Channel context, Channel power, Channel influence & Channel strategies, Channel conflict. [9LH]

TEXT BOOKS:

- 1. Richard R. Still & Edward W. Cundiff, Govoni: Sales Management. Prentice Hall.
- **2.** Krishna K Havaldar & Vasant M Cavale : *Sales & distribution Management* . Tata McGraw-Hill

- 1. Pingali Venugopal: Sales and Distribution Management: An Indian Perspective. SAGE Publication.
- 2. Tapan Panda and S Sahadev: Sales & Distribution Management. Oxford University Press.
- 3. Dalrymple, Corn and Decarlo: Sales management. John Wiley and sons.

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER		
MS 9054	FORECASTING IN FINANCE	3-0-0	3	Dr. A Dutta		
Introduction to	time series analysis (autocorrelations, AF	els, etc.)	(4)			
Exponential Sn	noothing for Forecasting			(2)		
Exponential Sn	noothing for Trend and Seasonality			(2)		
Regression				(2)		
The efficient market hypothesis				(2)		
Forecasting financial market volatility (ARCH/GARCH, etc)				(4)		
Spurious regressions and co integration				(4)		
Modelling financial market correlations (multivariate GARCH				(4)		
Univariate density forecasting (models, methods for evaluating forecasts)			ecasts)	(4)		
Measures of dependence and multivariate density forecasting				(4)		
Realized volati	lity and realized correlation			(3)		
			Total 1	Hours - 35		

- 1. Bodie, Zvi, Alex Kane and Alan J. Marcus, 2004, Investments, Sixth Edition. McGraw-Hill, U.S.A.
- 2. Brooks, Chris, 2002, Introductory Econometrics for Finance. Cambridge University Press, Cambridge.

- 1. Christoersen, P.F. Elements of Financial Risk Management. (Academic Press, London, 2003)
- 2. Diebold, Francis X., 2004, Elements of Forecasting, Third Edition, South-Western.

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 9056	Sustainable Development	3-0-0	3	Prof. M Roy

- From Malthus to Sustainable Development: Population, Resources, Environment and Sustainability. [4]
- 2. Challenges of Sustainable Development: Factors governing Sustainable Development, Linkage among Sustainable Development, Environment, and Poverty, Determinants of Sustainable Development.[6]
- **3. Global Environmental Issues:** Valuation of natural services. [4]
- 4. **Sustainable Development Indicators:** Statistical procedures, Emissions, Diffusion, and Impact Model, Use of principal Component Analysis. [6]
- 5. **Environmental Assessment:** National Environmental policy Act of 1969, Environmental Impact Assessment, Project Categories Based on Environmental Impacts. [6]
- 6. **Environmental Management: Trends and Policies:** Environmental Impact Assessment, Achievements in Environmental Management. [2]
- 7. **The economics of Sustainability:** Evolution of Economic Thinking about the Environment and the role of Different Economic Factors, Concepts of Welfare, Public Goods, Common Property and Private Goods. [2]
- 8. Sustainability: Externalities, Valuation and Time Externalities: Valuation, Approaches to Valuation, Economics Assessment of Sustainable Projects, Categories of Costs, Economic life of a project.

 [4]
- 9. Sustainable Development: Crisis, Conflict and Compromise [2]

- 1. A.K. Jha, Sustainable Development: Concept And Strategies, Adhyayan Publisher, 2004
- 2. Jha, Abhas Kumar, and Jennifer E. Duyne. *Safer homes, stronger communities: a handbook for reconstructing after natural disasters.* World Bank Publications, 2010.

- 1. A Guide to the Global Environment, World resources, 1998-1999; New York Oxford University Press 1999.
- 2. Laszlo Chris. The sustainable company: How to Create lasting Value Through Social and Environmental Performance. Washington: Island Press 2003.

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 9057	SELECTED ASPECTS OF MACRO ECONOMY AND THEIR APPLICATION I BUSINESS STRATEGIES	3-0-0	3	Prof. M Roy

- 1. Macroeconomic concepts for strategy, national income, trade cycle, inflation, monetary policies, fiscal policies, theory of employment, consumption function, investment function, multiplier accelerator, economic planning [8]
- 2. Profit analysis: Profit theory, Profit policy, Profit planning and forecasting [6]
- 3. Investment analysis: need, space and forms of capital budgeting, Evaluation of capital investment decisions, Limitations of capital budgeting, cost of capital. [6]
- 4. Managerial technique to apply macro economic theory: Linear programming, I/O analysis, game theory, Risk analysis and uncertainty analysis [8]
- 5. Strategic positioning for competitive advantage: Value creation and value chain, resource and capability, sustaining competitive advantage, sustainability and creative disruption, evolutionary economics and dynamic capabilities, [4]
- 6. Case Study [2]

- 1. Manqiw, Macro economy
- 2. Abel Af, Macro economy

- 1. Dornbusch, R., S. Fischer, and R. Startz: Macroeconomics, Eight edition, TMH, 2002
- 2. Froyen, R T.: Macroeconomics: Theories and policies, Sixth edition, PHI-1996

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 9058	MERGER AND ACQUISITIONS	3-0-0	3	Dr. A De

Details Lecture Hours

1. Corporate Restructuring

Different forms of Corporate Restructuring and strategies involved:- Expansion & Diversification (ex.: Merger, Take-over, Strategic Alliance, Joint Venture, Franchising, Reverse Merger, etc.), Divestment (ex. Spin-off, Sell-off, Leveraged Buyout, Management Buyout, Liquidation, etc.), Other forms of Corporate Restructuring (ex. Share Buyback, Equity Carve-out, etc.)

(5)

2. Types and Motives of Merger

Merger types and categories (ex. Horizontal Merger, Vertical Merger, Conglomerate Merger, Hostile Merger, Friendly Merger, Bailout Merger, etc.), Motives of Merger (ex. Strategic Motives, Financial Motives, Organizational Motives)

(4)

3. Business Valuation

Market Value Method, Intrinsic Value Method, Valuation of Goodwill, Free Cash Flow Method with and without growth, Adjusted Present Value Method, Inflation Adjusted Present Value Method, Different methods of determining Terminal Values (6)

4. Maximum Purchase Consideration

Minimum and maximum Exchange Ratio, Different aspects of calculating Purchase Consideration, Minimum and maximum Purchase Consideration (4)

5. Evaluation of Merger Proposals

Different aspects of Evaluation of Merger Proposals, factors to be considered while evaluation a Merger Proposal (4)

6. Preventive Measures in Takeover

Different strategies for thwarting Hostile Takeover Bid (ex. Poison Pills, White Square Defence, Greenmail, Capital Restructuring, Shark Repellents, Pac-men Defence, etc.) (2)

7. Steps of Merger

Amalgamation Scheme, Legal Aspect of Merger, Accounting for Amalgamation (Accounting Standard-14), Mandatory and recommended steps of Merger (2)

8. Post-merger Issues

Issues relating to Post-merger, Challenges in Post-merger Integration

(2)

9. SEBI's Guidelines Relating to Merger & Take-over

Brief understanding of the SEBI's guidelines to 'Substantial Acquisition of Shares and Takeover' (2)

10. Case Study Analysis (4)

Total- 35

TEXT BOOKS:

- 1) Patrick A. Gaughan, Mergers, Acquisitions and Corporate Restructurings, WILEY, 5/e
- 2) Ravi M. Kishore, Financial Management, TAXAAMNN'S, 7/e

- 1) I. M. Pandey, Financial Management, VIKAS PUBLISHING HOUSE PVT. LTD., 9/e
- 2) M. Y. Khan & P. K. Jain, Financial Management: Text, Problems and Cases, TATA MCGRAW-HILL, 5/e
- 3) Enrique R. Arzac, Valuation for Mergers, Buyouts and Restructuring, WILEY, 2/e

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 9059	CORPORATE FINANCE	3-0-0	3	Dr. A De
Details				Lecture Hours

1. Arrangement of Funds and Cash Flow Analysis

Cash Flow Analysis emphasizing on its importance & utility, Arrangement of funds for Capital Expenditure.

2. Business Valuation

Methods of Business Valuation&Strategic Finance

(4)

3. Capital Budgeting

Capital Budget; Advanced Risk Analysis Methods & Risk Management techniques in capital expenditure. (6)

4. Capital Structure

Capital Structure Theories & planning the Capital structure.

(3)

5. Leverage

Operating Leverage, Financial Leverage, and Combined Leverage.

(2)

6. Dividend Policy

Dividend Policy: it's overview & practical aspects

(2)

7. Working Capital Management

Operating cycle & Working Capital financing Mechanism. Advanced Cash Management Models.

(3)

8. Forecasting

Financial Forecasting Techniques & components of Project Costs, Inflation Adjusted Forecasting

(5)

9. Leasing

Operating Lease and Finance Lease with reference to Accounting Standard 19: Accounting for Leases

(2)

10. Financial Market

Sources of Finance; Capital Market and Money Market Instruments.

(2) (3)

11. Case Study Analysis

Total - 35

TEXT BOOKS:

- 1) Ravi M. Kishore, Financial Management, TAXAAMNN'S, 7/e
- 2) Prasanna Chandra, Projects: Planning, Analysis, Selection, Financing, Implementation and Review, TATA MCGRAW HILL EDUCATION PRIVATE LIMITED. 7/e

- 1) I. M. Pandey, Financial Management, VIKAS PUBLISHING HOUSE PVT. LTD., 9/e
- 2) D. S. Rawat, Student's Guide to Accounting Standards, TAXAAMNN'S, 28/e

SUBJECT CODE	SUBJECT	L-T- P	CREDIT	DEVELOPER
MS 9060	ADVANCE PRODUCTION PLANNING & INVENTORY CONTROL	3-0-0	3	Mr. S Sarkar

TOTAL LECTURE HOURS: (3X12 = 36 HOURS)

Section-1: Operations Strategy & Managing Change with a Quality Perspective

Introduction – Basic Definition of Production system, Brief on various types of systems, Competitive Advantage Models, Various strategies of OM, (2 lectures)

Section-2: Demand Forecasting

Introduction to forecasting, Time Series, Application of Exponential Smoothing, Double Exponential Smoothing, Seasonality models, ARIMA models, forecasting using SPSS, EVIEWS, FORECASTING OF INNOVATIVE GOODS, STYLE GOODS and rules of forecasting for A, B and C class items

(8 lectures)

Section-3: Inventory Control Systems

Study of various Inventory Control Systems, identification of various cost components, Choosing appropriate systems for A, B and C class items, exchange curve, news vendor model, single & multi-period probabilistic models, Derivation and application of EOQ, EPQ models, MEOQ models under various situations, (8 lectures)

Section-4: Capacity Planning

Study of Resource Requirement Planning, Rough cut capacity planning, capacity requirement planning, short terms capacity planning with real life problems (5 lectures)

Section-5: Study of various production systems

Job shop system, MRP system, JIT system, synchronous manufacturing system, opt rules & problems of flow balance, (5 lectures)

Section-6: Production Planning

Aggregate planning & application of various linear & nonlinear models to a case (3 lectures)

Section-7: Operations scheduling & control

Loading, Sequencing and Scheduling using advanced optimization techniques & heuristics, application of Queuing models (5 lectures)

TEXT BOOKS:

- 1. Modern Production / Operations Management by Buffa & Sarin
- 2. **Production Planning & Control:** by P Chandra

REFERENCE BOOKS:

1. Production Planning & Operations Management: Bedi

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 9061	MAINTENANCE MANAGEMENT	3-0-0	3	Mr. S Sarkar

TOTAL LECTURE HOURS: (3X12 = 36 HOURS)

Section 1: Basic Maintenance Concepts

Introduction, objective & scope, necessity, importance, types, functions (2 classes)

Section 2: Reliability

Basic probability definitions, parallel & series system concepts, cut set & path set methods to derive reliability, Reliability and Maintainability of a system, Availability performance

(12 classes)

Section 3: Preventive Maintenance

Objectives, procedure, advantage, limitation, planned maintenance, application, repair cycle, classification of production equipment, maintenance techniques (eg. Condition monitoring), Maintenance planning and Control, Maintenance documentation (7 classes)

Section 4: Corrective Maintenance

Objectives, procedure, advantage, limitation, Maintenance documentation (5 classes)

Section 5: economic analysis

Direct corrective maintenance cost, Indirect corrective maintenance cost, preventive maintenance cost, maintenance efficiency measurement, Life Cycle Costs (LCC) (3classes)

Section 6: Total Productive Maintenance

Six sigma, DMAIC, Lean thinking, TPM, TPQM, Computer applications, Examples from Industry (7 classes)

TEXT BOOKS:

Strategies for Excellence in Maintenance Management: By J. Campbell,

REFERENCE BOOKS:

Building Maintenance Management: By Lee,

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 9062	FINANCIAL SERVICES AND MARKETS	3-0-0	3	Dr. A Dutta

An introduction to Financial Services: Meaning, Nature, Classification **(1)** Mutual Funds Mutual funds: concepts and objectives - functions and portfolio classificationquidelines for mutual funds - working of public and private mutual funds in India Leasing and Hire purchase leasing-types of leases - leasing vs. borrowing, Financial evaluation of lease (4) Factoring services factoring, forfeiting- bill discounting (2) (2)

Credit Rating

Venture Capital **(1)**

New issue market, stock market, Methods of floating new issues, players in the new issue market, Advantages of primary market, stock exchange - Constitution, Control, Function, Listing of securities, Trading mechanism, Equity, Debentures, Bonds, Warrants, ADRs and GDRs, Primary Equity Markets. (8)

Money Markets, Call Money, Commercial Bills, Treasury Bills, Commercial Papers, Certificate of Deposits. **(2)**

Derivatives market-Future/ Option/ swap

(7)

Project presentation (4)

Total-35

TEXT BOOKS:

- 1. G.S.Batra Financial Services & Market.
- 2. Meir Khan Financial Institutions and Markets, Oxford Press.
- 3. I M.Bhole, Financial Institutions and Market, TATA McGraw Hill
- 4. Financial services M Y Khan

REFERENCE BOOKS:

- 1. Websites of BSE and NSE
- 2. Financial Markets and Services Gordon / Natarajan HPH

Financial Services and Markets – P. Pandian – Vikash

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 9063	International Finance	3-0-0	3	Dr. A Ghosh

- 1. Global macroeconomic environment Macroeconomic environment, recent trends and developments, theoretical basis for trade. [2]
- 2. Global macroeconomic environment Impact of global macroeconomic environment on TNCs [2]
- 3. international Finance and Financial liquidity Concepts of international finance, sources, International liquidity, problem of inadequacy [2]
- 4. Development of International Monetary System Problem of liquidity, need for an International Monetary System, Gold standards, Fixed system, floating system to present time. [4]
- 5. Multinational Financial Institutions IMF, World bank (IBRD, IFC, MIGA) structure and functioning.
- 6. Balance of payments Importance and structure of BOP, Indian BOP situation and disequilibrium in BOP [2]
- 7. Determining and forecasting Foreign exchange rates Determination of exchange rates, factors affecting exchange rates, forecasting exchange rates. Foreign exchange, market in world and Asia pacific. [4]
- 8. Transaction and Operating ExposureTransaction and Operating Exposure: forward and future hedges, hedging strategies. [3]
- 9. Translation exposure Measuring Translation exposure.
- 10. International parity theories Interest rate parity, Purchasing power parity, Forward rates and futures spot rate parity. [3]

[1]

[2]

- 11. Financing global operation Selected determinants of equity costs, Raising global equity- GDR, ADR issues, Euro banking, Euro bonds, [4]
- 12. Investments in global operations FDI, advantages and disadvantages of FDI flows, Reasons for expansion of international business, Policies of FDI. [2]
- 13 FDI in India FDI trend and progress in India.

TEXT BOOKS:

- (1) International Financial Management: Jeff Madura
- (2) International Finance: Maurice D Levi (Rutledge)

- (1) International Financial Management: Sathey-Rose-Allen-Weston (Wiley India).
- (2) Multinational Financial Management: Alan Shapiro (Wiley)
- (3) Additional reference study materials are from IMF, World Bank, RBI etc.

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 9064	ONLINE BRANDING AND ADVERTISNG	3-0-0	3	Dr. N Banerjee

- 1. Online Marketing: Key terms and concepts, What is online marketing, Online marketing environment, Online marketing mix, Online marketing strategy, Developing a digital marketing strategy.

 [4]
- 2. Web Development and Design: Key terms and concepts, Web design, Web development, Steps for developing a website. [4]
- 3. Branding and Advertising Concepts: Brand meaning, Brand positioning, Designing brands, Branding for differentiation, Traditional brand metrics, Meaning of advertising, Advertising objectives, Advertising functions, Building brands through effective advertising. [4]
- 4. Online branding: How internet has changed branding, Assessing how existing brands can be transferred online, Dimensions of brand transferability, Brands and online brand building, Online brand investment, Measuring online branding, Keys to sustaining brands over time, Online brand presence and enhancement, Future trend in online branding. [5]
- 5. Search Engine Optimization: Understanding SEO, Paid search, Search engine friendly website structure, Link popularity, Benefits and challenges. [4]
- 6. Search Advertising: Advertising in search, The elements of a search advertising, Advantages and challenges of search advertising, Targeting options, Bidding and ranking for search advertising, Tracking, Planning and setting up a search advertising campaign. [4]
- 7. Online Advertising: History of online advertising, Online advertising objectives, Advantages and challenges of online advertising, Types of display advertising, Payment models for display advertising, Effective online advertising, Targeting and optimizing, Creative options, Tracking, Measuring effective online advertising, Advertising servers and advertising networks, The future of online advertising.
- 8. Social media: Content and engagement, Branding in social media, Advertising in social media, Social media risks and challenges. [5]

- 1. W.A. Hanson & K.Kalyanam, *Internet Marketing & e-commerce*, Thomson. (*Latest edition*)
- 2. R.Gay, A.Charlesworth, & R.Esen, *Online Marketing- A Customer led Approach*, Oxford University Press. (*Latest edition*)

- 1. A.Ries & L.Ries, The 11 Immutable laws of Internet Branding, Profile Books. (Latest edition)
- 2. S.Armstrong, Advertisng on the Internet, Viva Books Pvt. Ltd. (Latest edition)

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 9065	Strategic Implementation and Business Transformation	3-0-0	3	Prof. M Roy

	strategic positioning for competitive advantage	[2]

- 2. Technology evolution, Technology adoption, Customer needs, product development and strategy in network industry.
- 3. Competitive advantage in Hi-Tech industry, Collaboration strategy, Strategic human resource management of technical professionals, strategy and structure for technology strategy. [6]
- 4. Planning and Preparing for Change and Implementation [2]
- 5. Systems Approach to Implementation
- 6. Strategy implementation in changing business environment. [6]

[2]

- 7. Implementation Issues in Complex System.
- [4] 8. People Issues in Implementation- Individual, the ultimate differentiator vs Culture, the ultimate
- integrator. [2]
- 9. Enabled technologies of World Wide Web (WWW), Strategic approach to managing knowledge, estrategy and knowledge management. [4]
- 10. Strategy and the general manager. [2]

TEXT BOOKS:

- 1. Making Strategy Work: Leading Effective Execution and Change by Lawrence G. Hrebiniak Pearson Education, 2005.
- 2. Mascarenhas, Oswald AJ. Business transformation strategies: The strategic leader as innovation manager. SAGE Publications India, 2011.

- 1. Organizational Architecture, by David Nadler, Marc Gerstein and Robert Shaw, Jossey-Bass: San Francisco. 1992.
- 2. Organizing for the Future: The new logic for managing complex organizations, by Jay Galbraith and Edward Lawler, Jossey-Bass, 1993.

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 9066	ORGANIZATIONAL LEADERSHIP, POWER & POLITICS	3-0-0	3	Dr. D Pal

The Nature of Leadership: Concept, Background; Key elements; leadership for today's organization.

Management & Leadership: Paradigm shift, Comparison of Management and Leadership with examples, Evolution of Leadership.

Leadership skills & styles: Nature; Research on Leadership Traits and Skills, Measurement of traits, skills, Managerial motivation, Competencies, Executive Derailment, Skills and effectiveness, Leader Decision-making styles, Leadership styles and emotional intelligence. [5]

Module 2:

Theoretical & research perspectives on Leadership:

- The Trait approach & the Behavioural approaches (Lewin's classification, 3 classical studies, Leadership Grid, concept of a High-High Leader, Individualized Leadership).
- The Contingency approaches (Fiedler's Contingency Model, Hersey & Blanchard's Situational Theory, Path-goal Theory, Vroom-Jago Contingency Model, Substitutes for Leadership).
- Charismatic, Transformational & Transactional Leadership
- The Emergent Leadership perspectives (Full range leadership theory, Shared leadership, Strategic Leadership, Value-based leadership, Covey's Principle-centered leadership, Moral leadership, Servant leadership, Authentic leadership, Level 5 leadership, Spiritual leadership, Indian perspective)

Implications of theories in organizations.

[15]

Module 3:

Leadership Development Program: Need, Action-Observation-Reflection Model, Leadership Training Programs, Designing & Impact of Leadership Development Programs through GAPS Analysis.

Changing Behaviour: Need and rationale; Designing & executing Individual Development Plan, Coaching-Types, Process & Mentoring- detailed Process.

Women & Leadership: Paradigm shift, Present status in organizations, Factors, Strategies to foster women leadership in organizations, Research perspectives. [8]

Module 4:

Leadership Power: Concept, Sources of Leader power in organizations, French & Raven's Bases of Power with guidelines to implement, Responses to the use of power.

Influence tactics & Political Behaviour in organizations: Concept, Influence- Attempts, Behaviour Processes, Outcomes; Organizational politics- Concept, Tactics, Drivers, Relation to Performance Appraisal. [7] Note: Case studies will be discussed.

TEXT BOOKS:

1. Yukl, G. (2011) Leadership in Organizations. Pearson Education Inc.

- 1. Miner, J.B. (2005) Organizational Behaviour 1: Essential Theories of Motivation & Leadership. Prentice Hall.
- 2. Storey, John. (2010). *Leadership in Organizations: Current Issues and Key Trends*. Taylor & Francis Ltd.

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 9067	POSITIVE ORGANIZATIONAL BEHAVIOUR AND VALUES IN MANAGEMENT	3-0-0	3	Dr. D Pal

Positive Organizational Behaviour: Concept, Relationship with Positive Psychology; POB Constructs (Theoretical background, Empirical Research, Process, Applications of each in the workplace).

Psychological Capital: Concept, Background, Research on PsyCap; Development of PsyCap, Management of PsyCap States, PsyCap Intervention Model, application. [6]

Module 2:

Occupational Health and Work Productivity: Attributes of healthy, productive work; Healthy individuals, Healthy Organizations; Occupational Health- Models and their applications, Significance of Communication Competence.

Positive Dimensions at Work: Positive Emotions-Concept, Antecedents, Multiple-Level perspective in organizations; Workplace Happiness & Subjective Wellbeing: Concept, Background, Theoretical frameworks, Research, implications in workplace

Thriving in Organizations: Concept, Antecedents, Outcomes of thriving at work; characteristics of thriving organizations. [12]

Module 3:

Values in Management: Concept, Type, Formation of Values; Values and Behaviour; Organizational values in Indian context; Value-system of Indian managers; Relevance of values in organizations.

Value-based Management: Perspectives of values (Western & Eastern management); Values & economic prosperity- Indian insights, Holistics for Human Values, Management by Values Programmes- Concept and Practice.

Module 4:

Wisdom Based Management: Concept, Practices; Value foundations of Wisdom Leadership; Wisdom Worker, Implementation of Wisdom based management in organization.

Quality of Worklife and Managerial Effectiveness: Human values for TQM-nature; Work Ethics & Ethics in Work- Life Goals or Purusharthas, The Theory of Guna Dynamics- The S-R-T Model; Karma-Yoga, Nishkam Karma, Sakam Karma and their managerial implications. [9]

Note: Case studies will be discussed.

TEXT BOOKS:

- 1. Nelson, D.L. & Cooper, C.L. (Eds.), (2007). Positive Organizational Behaviour. Sage Publications.
- 2. Chakraborty, S.K. (2005). The Management and Ethics Omnibus. Oxford University Press.

- 1. Snyder, C.R. & Lopez, S.J. (Eds.), (2002). Handbook of Positive Psychology. Oxford University Press.
- 2. Chakraborty, S.K. (2003) Managerial Effectiveness and Quality of Worklife : Indian Insights, Tata McGraw Hill Publishing Co. Ltd.

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 9068	MANAGING TRANSITIONS: ORGANIZATIONAL CHANGE AND DEVELOPMENT	3-0-0	3	Dr. D Pal

- 1. Organizational Change: Concept, Nature: General perspectives, Premises of change, Types of continuity, Requisites of change, Productivity dip, Paradox of planned organizational change.
- 2. Forces of change: Categorization and types of External, Internal sets of forces, Forces' impact on elements of organizations (System perspective) in details.
- 3. Types of organizational change: Characteristics and examples of different types of changes, implementation. [5]

Module 2:

- 4. Models of Change: Top-Down & Bottom-up approaches; Process-based, Content-based and Integrative Models in details with managerial implications.
- 5. Organization Structure & Change: Forces shaping organizations, Significance of Structural Change, Symptoms of Structural Deficiency, Structural factors affecting change, Restructuring-steps, Basic approaches to Redesign, Structural Strategic Interventions with examples.
- 6. Organizational Culture & Change: Concept, Background, Research perspectives; Parameters of Cultural Change, Strategies in dealing with cultural change, Steps of Cultural change, Developing a new corporate culture with examples.

 [9]

Module 3:

Assessment of Organizational Readiness to change: Conceptual Framework; Assessing organizational propensity to change- Elements & Techniques, Transformation Planning, Managing Human Resources, DICE framework and its implementation.

Change Management Programs: Theory E & Theory O, Managing change- a step focused perspective with examples, HR's role, Role of Transition Management Group, Stream Analysis and Impact Analysis - Process & application.

Management of emotional response to change: Nature and Phases of emotional experience in response to changes, Causes behind resistance to changes; Strategies for reducing Individual & Organizational resistances to change.

[12]

Module 4:

Organizational Development: Concept, Characteristics, Goals & Values of OD, Emergence & evolution of OD A model of OD: stages/phases in details, OD cycle, Organizational Transformation & OD

OD Practitioner: Role, External & Internal Practitioner, OD Practitioner styles, Intervention Process, Forming the Practitioner – Client Relationship-Operating ground rules, Problems.

OD Interventions: Classification, Types: Sensitivity Training, Survey Feedback, Grid Training, Process-Consultation, Role Analysis Technique, Interdependency Exercise, Role Negotiation Technique, Responsibility Charting, Visioning, Organizational Mirror, Appreciative Inquiry, Behaviour Modeling; Evaluating OD Interventions.

Note: Case studies will be discussed.

TEXT BOOKS:

- 1. Palmer,I., Dunford, R., Akin, G.(2006) *Managing Organizational Change: A Multiple Perspectives Approach*. Tata McGraw Hill
- 2. French, W., Bell, C., Zawacki, R. (2005) *Organization Development & Transformation: Managing Effective Change*. Tata McGraw Hill.

- 1. Cameron, Esther. (2009). Making Sense of Change Management. Kogan Page.
- 2. Poole & Scott.(2004) Handbook of Organizational Change and Innovation. Oxford University Press.

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 9069	TRAINING AND DEVELOPMENT	3-0-0	3	Dr. N Banerjee

- 1. Introduction to Employee Training and Development: What is training, Nature and Scope of training and development, Concept of development, Designing effective training programs, Factors influencing training and development needs.

 [3]
- 2. Strategic Training: Evolution of training, Strategic training, Training needs in different strategies.

[3]

- 3. Needs Assessment: Necessity of training needs assessment, Participants in training needs assessment, Training needs assessment process, Training needs assessment and Training process design, Competency models. [3]
- 4. Learning Theories: What is learning, Learning theories, Learning programs. [3]
- 5. Transfer of Training: Training design, Work environment characteristics influencing transfer of training, Facilitation of Transfer with Focus on Organization Intervention. [4]
- 6. Training Evaluation: Reasons for evaluating training, Outcomes of training programs, Evaluation practices, Evaluation designs, Determining ROI, Measuring human capital. [4]
- 7. Training Methods: Traditional methods, Modern methods, Use of technology in training. [4]
- 8. Employee Development; Approaches to employee development, Development planning process, Strategies for providing development. [4]
- 9. Career Management: Model of career development, Career management systems, Role of employees, managers, HRM, and company in career management, Challenges in career management.

[3]

10. Special Issues in Employee Training and Development: Cross cultural preparation, Managing work force diversity, Legal issues, Succession planning, Training and pay systems, Joint union management programs.

[4]

TEXT BOOKS:

- 1. P.N.Blanchard & J.W.Thacker, *Effectiveness Training Systems, Strategies and Practices*, Pearson Education. (*Latest edition*)
- 2. <u>B. N. O'Connor</u>, <u>M. Bronner</u>, & <u>C. Delaney</u>, *Training for Organizations*, Thompson Learning Press. (*Latest edition*)

- 1. A.Landale, *Training and Development A Complete Handbook*, Infinity Books. (*Latest edition*)
- 2. U.Pareek, Training Instruments for Human Resource Development, TMH. (Latest edition)

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 9070	Marketing in International Environment	3-0-0	3	Prof. M Roy

Understanding Emerging Markets in International environment: The New Global challengers: Newly Internationalizing MNEs from emerging markets, Estimating the potential of Emerging Markets, Risks and Challenges of doing business in emerging markets. [6]

Strategies for doing business in emerging markets, Catering to Economic Development needs of emerging markets and Developing economies, [4]

Global Market opportunity Assessment: Estimating Market demand in emerging markets, Select of foreign Business Partner, Estimate Company sales potential, Evolutionary stage Model of outsourcing and global sourcing strategy

[6]

Entering and operating in International markets: Global marketing strategy, Standardization and Adaptation of the International Marketing Program, Global branding and Product development, [5]

Managing Pricing under varying currency conditions, Managing International Price Escalation, Transfer Pricing, Grey Market activity [6]

International Advertising, International Promotional Activities, International Distribution Ethical Dimension in marketing in international environment [6]

TEXT BOOKS:

- 1. Keegan, Warren J., Global marketing management
- 2. Kotler, Philip, Marketing Management

- 1. Terpestra Vern and Ravi Sarthy, International Marketing
- 2. Caterio and Graham, International Marketing

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 9071	Quantitative Marketing	3-0-0	3	Dr. K Mandal

- 1. Science and Quantitative analysis of marketing, Complexity of marketing decision, Decision support and theoretical marketing models. [4 Hours]
- 2. Consumer Behavior models- Foundation and nature. A five stages model of consumer behavior including models of perception evaluation and attitude & preference formation. Markov and other models of brand switching. [8 Hours]
- 3. Organization buying models like Sheth Model, Webster-wind Model and Choffray Lilien Model, Bargaining models. [8 Hours]
- 3. A Microeconomic view of pricing, Price discrimination models along with its application. [4 hours]
- 5. Distribution problem and strategy. Market selection, Number of outlet site selection, Store size and characteristics decision. Sales force sizing and sales territory designing.

 [7 Hours]
- 6. Effects of Advertising, Various Advertising-related models.

[4 Hours]

TEXT BOOKS:

1. Lilien, Kotler, Moorthy .*Marketing Models*. PHI Learning Private Limited-New Delhi

REFERENCE BOOKS:

1. Gary Lilien & Arvind Rangswamy. *Marketing Engineering: Computer-assisted Marketing Analysis and Planning*.

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 9072	Human Resource Development and Knowledge Management	3-0-0	3	Prof. M Roy

- 1. Fundamentals of Human Resource Development: Global perspectives of HRD, Developing and HRD strategy, Implication for practice of a strategic approach to HRD. [6]
- 2. Operational Role of HRD: Role and theory of learning, Designing Learning and Development interventions, Evaluations, Managing the HRD wheel, Design options for HRD, HRD and Business ethics. [8]
- 3. Understanding Knowledge Managing Knowledge Management, Cross functions in KM, Business relevance of KM, KM cycles, challenges for implementing KM cycle. [6]
- 4. Issues and challenges in KM, Designing KM strategy, KM tools, KM risk plan, KM Metrices and KM Audit, KM and web2.0 [4]
- KM and cloud Computing, KM in Development sector, Technology and knowledge management, Business mapping, KM process tool, The Fusion of Process and Knowledge Management.
- 6. Case studies [4]

- 1. Chaudhary, Harish Chandra. *Knowledge Management For Competitive Advantage*. Excel Books India, 2005.
- 2. Gilley, Jerry W., Steven A. Eggland, and Ann Maycunich Gilley. *Principles of human resource development*. Basic Books, 2002.

- **1.** Swanson, Richard A., and Elwood F. Holton. *Foundations of human resource development*. Berrett-Koehler Publishers, 2001.
- **2.** DeSimone, Randy L., Jon M. Werner, and David M. Harris. "Human resource development." (2002).

Non-Departmental Core Subject

[MCA 1st SEMESTER]

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 1006	STATISTICAL MEHTODS & NUMERICAL TECHNIQUE	3-1-0	4	Mr. S Sarkar

Total number of classes required: 4x12 = 48 hours

General introduction, General experimental and statistics terms such as: independent variable, dependent variable, classes of data (nominal, ordinal, interval, ratio), Descriptive statistics, inferential statistics, Exploratory statistics, Numerical Analysis & various types of Errors

3 classes

Section 1: Graphing data

Presenting Data in Tables and Charts, Stem-and-leaf, Histogram, Bar charts, pie charts and scatter diagrams, box plot

3 classes

Section 2: Numerical Descriptive Measures

Mean, median, mode, Range, variance, standard deviation and coefficient of variation, Chebyshev and Empirical Rule, Correlation coefficients (Pearson, Spearman, Kendall, Inter-Intra), Contingency tables, Regression analysis (with various types of variables, error calculation)

Section 3: Basic Probability

Basic probability concepts and definitions, important theorems, Bayes' Theorem, applications 3 classes

Section 4: Some Probability Distributions

Basic nature of probability functions, Binomial, Hyper-geometric, Poisson, Uniform, Exponential, Normal Distribution and Other Continuous Distributions 2 classes

Section 5: Generation of important distributions

Distribution due to addition, division etc of several random variables, Erlang, Chi-square, Student's t, F-distribution,

3 classes

Section 6: moments & their nature

Moments, Moment generating function, Characteristics function, central limit theorem, few important theorems from large number theory 3 classes

Section 7: Sampling Technique & Estimation Theory

Simple random Sampling, distributions, confidence intervals,

3 classes

Section 8: Hypothesis testing, Comparison of Means, ANOVA

One Sample Test of Hypothesis, null and alternative hypotheses, Type I and Type II errors, Two Sample Tests, Two population means: independent sampling, related samples, Two population variances, Analysis of Variance, Wilcoxon rank sum test, Kruskal-Wallis rank test, 5 classes

Section 9: Application of Numerical Analysis

Difference with finite element methods, Various models of root finding, convergence analysis, Gauss Jordon method for linear solution, Determination of values of definite integrals, derivation of functions from forward & backward method, ...

16 classes

TEXT BOOKS:

- 1. STATISTICS VOL 1 & 2 by GUNGUPTA, DASGUPTA
- 2. NUMERICAL ANALYSIS BY ATKINSON

REFERENCE BOOKS:

1. PROBABILITY, STATISTICS BY JAS BISNAB

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS 1008	Financial Management	3-1-0	4	Dr. A Ghosh

- 1. Financial Accounting: Basic concepts of accounting, income statement, Balance sheet. [5]
- 2. Financial Statement Analysis: Ratio Analysis, Common size analysis, comparative analysis, trend analysis. [6]
- 3. CVP analysis with decision making: Cost-volume-profit analysis with ratios, BEP analysis, MS.

[5]

- 4. Financial Forecasting: Sales Forecast, Preparation of Proforma income statement and balance sheet, Growth and External fund Requirement [5]
- 5. Capital Budgeting Decisions: Cost of capital, Time value of Money, discounting and non-discounting methods (NPV, IRR analysis). [5]
- 6. Leverage: Measuring and Analysing leverage, Operational, Financial and Total Leverage

[5]

- 7. Capital Structure Policy: Business, financial and market risk, total risk, Determinants of capital structure, Approaches to estimating target capital structure, variables in capital structure, ROE ROI Analysis, EBIT EPS analysis
- 8. Sources of Long-Term Finance: Equity Capital and Preference Capital, Debenture Capital, Term Loans and Deferred Credit, Leasing and Hire-Purchase. (Capital Market) [3]
- 9. Raising Long-Term Finance: Venture Capital, Initial Public Offering, Public Issue by listed companies, Rights Issue, Preferential allotment, Private placement, Term Loans. (Capital Market) [3] 8. Presentation / Case study

TEXT BOOKS:

- 1. Pandey, I. M., Financial Management, Vikas Pub., New Delhi.
- 2. Khan, M.Y. and Jain, P.K., Financial management, Tata McGraw Hill.

- 1. Prasanna Chandra, Financial Management, Theory and Practice, Tata McGraw Hill.
- 2. Cases in Financial Management- I. M. Pandey

[MCA 3rd SEMESTER]

SUBJECT CODE	SUBJECT	L-T-P	CREDIT	DEVELOPER
MS3005	OPTIMIZATION TECHNIQUE	3-1-0	4	Dr. G Bandyopadhyay

- 1. LINEAR PROGRAMMING- a) Formulation of LP Models b) Graphical LP Solution c) Simplex Method d) Artificial Variables Big M Method and Two-phase Method e) Duality, Sensitivity Analysis, Shadow Price and their economic interpretation Software package to be used in (b), (c), (d) and (e) above. [12L]
- 2. TRANSPORTATION, TRANSHIPMENT AND ASSIGNMENT MODELS -a) Construction of Transportation, Transshipment and Assignment Models b) The Transportation Algorithm c) The Hungarian Method for the Assignment Problem d) The Transshipment problem Software package to be used for implementing the algorithms.
- 3. GOAL PROGRAMMING -a) Construction of Goal Programming Models b) Goal Programming Algorithms [5L]
- 4. INTEGER LINEAR PROGRAMMING -a) ILP Algorithms Branch and Bound, Cutting Plane Algorithm [5L]
- 5. DECISION ANALYSIS -a) Decision Making under Certainty Analytic Hierarchy Process b) Decision Making under Risk and Uncertainty [4L]
- 6. MARKOV PROCESSES AND MARKOV CHAINS -a) State transition diagrams b) Calculation of the state of the system at any time period c) Calculation of the long-run system state (both for systems with and without absorbing states): Fundamental Matrix and associated calculations. Application models to be discussed in detail [5L]
- 7. QUEUEING MODELS-a) M/M/1 Queues and applications b) M/M/c and M/M/c/k Queues and their applications [4L]
- 8. SIMULATION MODELS (Use of package) -a) Construction of Simulation Models b) Generation of Random numbers from discrete distributions Application models to be discussed in detail. [4L]

TEXT BOOKS:

- 1. Kasana, H.S. & Kumar, K.D. Introductory Operations Research; Springer
- 2. Hillier, F.S. and Lieberman, G.J.: Operations Research (8th edition),

- 1. Taha, H.A.: Operations Research An Introduction (8th edition), Prentice Hall/Pearson Education
- 2. Winston, Wayne L. Operations Research: Applications and Algorithms (4th edition); Thomson Learning.