

**MAULANA ABUL KALAM AZAD UNIVERSITY OF
TECHNOLOGY, WEST BENGAL**

MBA PROGRAMME(In-house)

Program Outcomes

1. Apply knowledge of management theories and practices to solve business problems.
2. Foster Analytical and critical thinking abilities for data-based decision making.
3. Ability to develop Value based Leadership ability.
4. Ability to understand, analyze and communicate global, economic, legal, and ethical aspects of business.
5. Ability to lead themselves and others in the achievement of organizational goals, contributing effectively to a team environment.

Program Specific Objective

1. To train graduates with management knowledge and skill and prepare them for managerial and leadership roles in various sectors of industry.
2. To equip students with analytical skills to undertake research and add to body of knowledge in domain of management.

Course

Two – Year full-time MBA course (Four – Semester).

Minimum number of class room contact teaching for MBA programme should be 96 credits (one credit equals 10 hours) and Internship / Project should be 06 credits i.e., Total $96 + 06 = 102$ credits.

Specialization: Students can opt for any two functional specializations (One Major Area and one Minor Area) from Marketing, Finance, HRM, Operations Management and Business Analytics.

Each Paper = 4 credits (40 contact hours), 6 Papers / Semester

Marks per paper: 100 (70 – University, 30 – Department)

Course Structure

□ Regular Course

Semester	Pa per	Credit (1=4 credit)	Contact Hrs. (1 = 10 hrs.)
I (C*)	6	2 4	24 0
II (C*)	6	2 4	24 0
III (2 C*+4 E**)	6	2 4	24 0
Internship/Project #	2	6	60
IV (6 E**)	6	2 4	24 0
Course Total	26	1 0 2	10 20

(# Project: Project Paper + Presentation +
Viva) (C*: CORE PAPERS/E**: ELECTIVE
PAPERS)

Total Credits:

Regular : 102

Session

July – December (Odd Semesters / 1st& 3rd)

January – June (Even semesters / 2nd& 4th)

Class / Day : 5 hrs / Day (5 days week)

Project Work : after 2ndSem Examination, June & July (8 Weeks)

Examination System (Semester – Wise)

Total Marks = 100 (University – 70, Department – 30)

Internal (College level) : Weightage : 30 (20-Class Test, 10-Presentation & Viva)

Paperwise Class Test = 2 Tests / every Six weeks

Average of 2 internal tests (2 components – Test, Presentation& Viva)

External (University Level) : 70 (20 = MCQ, 20 = Short Q, 30 = Analytical Q and Cases)

Semester Grade Point Average : SGPA

Yearly Grade Point Average: YGPA

Degree Grade Point Average : DGPA

Odd Semester (1st& 3rd) Examination : 1st Week of December

Even Semester (2nd& 4th) Examination : 1st Week of May

Project Marks (100) : Project Report (50), Presentation (30), Viva (20)

Passmarks : 40 per paper, 50% aggregate

Teaching Methodology

Lecture, Discussion, Presentation, Case Studies, Group Task, Assignments, Projects, Special Lectures by industry professionals.

Internship / Project

Six to Eight weeks Internship Project in industry. Students will be required to submit a Project Report on any area of Elective courses (**Finance, Marketing, HRM, Operations Management, Business Analytics**) under the Faculty guidance. The Project will be examined on Project Report, Presentation and Viva.

General Guidelines

- 1.This MBA curriculum will be applicable from the academic year 2018 – 19.
2. All rules and regulations regarding admission, examination, registration,migration and others shall be according to MAKAUT norms

Core Courses (Six / Semester)

CURRICULUM

Semester – I

MB – 101	Managerial Economics (Micro)
MB – 102	Organizational Behaviour
MB – 103	Business Communication
MB – 104	Legal and Business Environment (Micro and Macro)
MB – 105	Indian Ethos and Business Ethics
MB – 106	Quantitative Techniques

Semester – II

MB – 201	Indian Economy and Policy
MB – 202	Financial Reporting, Statements and Analysis
MB – 203	Marketing Management
MB – 204	Operations Management
MB – 205	Management Information System
MB – 206	Human Resource Management

Semester - III Core

Papers:

MB – 301	Entrepreneurship and Project Management
MB – 302	Corporate Strategy

Elective Papers: Two from any one Functional Area (Major) and two from a different Functional Area (Minor)

FM/ MM/HR/OM/BA/ MIS/ HCM– 301	
FM/ MM/HR/OM/BA/ MIS/ HCM – 302	
FM/ MM/HR/OM/BA/ MIS/ HCM – 303	
FM/ MM/HR/OM/BA/ MIS/ HCM – 304	
MB – 303	Internship Project and Viva Voce

Semester – IV

Elective Papers (Four from Major Functional Area and Two from Minor Functional area) **

FM/ MM/HR/OM/BA/ MIS/ HCM – 401

FM/ MM/HR/OM/BA/ MIS/ HCM – 402

FM/ MM/HR/OM/BA/ MIS/ HCM – 40

FM/ MM/HR/OM/BA/ MIS/ HCM – 404

FM/ MM/HR/OM/BA/ MIS/ HCM – 405

FM/ MM/HR/OM/BA/ MIS/ HCM – 406

****The Major and Minor Functional areas will be same as chosen in the 3rd Semester.**

Elective Papers for Third Semester

Functional Specialization (3rd Semester)

MARKETING		OPERATIONS	
MM 301	B2B MARKETING	OM 301	SUPPLY CHAIN & LOGISTICS MANAGEMENT
MM 302	DIGITAL & SOCIAL MEDIA MARKETING	OM 302	OPERATIONS STRATEGY
MM 303	IMC/ PROMOTION STRATEGY	OM 303	QUALITY TOOLKIT FOR MANAGERS
MM 304	MARKETING RESEARCH	OM 304	PRICING & REVENUE MANAGEMENT

FINANCE		HUMAN RESOURCE	
FM 301	TAXATION	HR 301	TEAM DYNAMICS AT WORK
FM 302	PROJECT APPRAISAL & FINANCE	HR 302	HR METRICS AND ANALYTICS
FM 303	BEHAVIORAL FINANCE	HR 303	CROSS CULTURAL MANAGEMENT
FM 304	CORPORATE FINANCE	HR 304	ORGANIZATIONAL DESIGN

MIS		BUSINESS ANALYTICS	
MIS 301	RELATIONAL DATABASE MANAGEMENT SYSTEM	BA 301	MODELING TECHNIQUES
MIS 302	E-COMMERCE & DIGITAL MARKETS	BA 302	APPLICATION OF ANALYTICS IN BUSINESS
MIS 303	MANAGING SOFTWARE PROJECTS	BA303	BUSINESS FORECASTING
MIS 304	SYSTEM ANALYSIS AND DESIGN	BA 304	DATA SCIENCE USING R

HEALTHCARE MANAGEMENT	
HCM 301	CONCEPT OF HEALTH AND DISEASE
HCM 302	HOSPITAL SUPPORT SERVICES
HCM 303	QUALITY ASSURANCE IN HEALTHCARE
HCM 304	PLANNING AND ORGANISING OF HOSPITALS

Elective Papers for Fourth Semester

Functional Specialization (4th Semester)

MARKETING		OPERATIONS	
MM 401	CONSUMER BEHAVIOUR	OM 401	SALES & OPERATIONS PLANNING
MM 402	RETAIL MANAGEMENT	OM 402	BEHAVIORAL OPERATIONS MANAGEMENT
MM 403	SALES & DISTRIBUTION MANAGEMENT	OM 403	OPERATIONS RESEARCH APPLICATIONS
MM 404	SERVICE MARKETING	OM 404	SUPPLY CHAIN ANALYTICS
MM 405	PRODUCT & BRAND MANAGEMENT	OM 405	MANAGEMENT OF MANUFACTURING SYSTEM
MM 406	INTERNATIONAL MARKETING	OM 406	SOURCING MANAGEMENT
FINANCE		HUMAN RESOURCE	
FM 401	INVESTMENT ANALYSIS & PORTFOLIO MANAGEMENT	HR 401	MANPOWER PLANNING RECRUITMENT & SELECTION
FM 402	MANAGING BANKS & FINANCIAL INSTITUTIONS	HR 402	EMPLOYEE RELATIONS&LABOUR LAWS
FM 403	MERGERS, ACQUISITION & CORPORATE RESTRUCTURING	HR 403	COMPENSATION & BENEFITS MANAGEMENT
FM 404	FINANCIAL DERIVATIVES	HR 404	PERFORMANCE MANAGEMENT SYSTEMS
FM 405	INTERNATIONAL FINANCE	HR 405	STRATEGIC HRM
FM 406	FINANCIAL MARKETS & SERVICES	HR 406	INTERNATIONAL HRM
MIS		BUSINESS ANALYTICS	
MIS 401	DATA WAREHOUSING	BA 401	DATA VISUALIZATION FOR MANAGERS
MIS 402	MANAGING DIGITAL PLATFORMS	BA 402	BIG DATA TECHNOLOGY

MIS 403	STRATEGIC MANAGEMENT FOR IT	BA 403	STATISTICS FOR BUSINESS ANALYTICS
MIS 404	BUSINESS DECISIONS USING ADVANCED EXCEL	BA 404	DATA MINING
MIS 405	MANAGEMENT OF INFORMATION TECHNOLOGY	BA 405	DATA ANALYTICS USING PYTHON
MIS 406	MANAGING DIGITAL INNOVATION & TRANSFORMATION	BA 406	OPTIMIZATION TECHNIQUES
HEALTHCARE MANAGEMENT			
HCM 401	EFFECTIVE COMMUNICATION IN HEALTH SECTOR		
HCM 402	MARKETING IN HOSPITALS & HEALTHCARE ORGANIZATIONS		
HCM 403	HR INTERVENTIONS IN HEALTHCARE SECTOR		
HCM 404	FINANCIAL MANAGEMENT IN HEALTHCARE SECTOR		
HCM 405	CONCEPT OF COMMUNITY HEALTH & EPIDEMIOLOGY		
HCM 406	LEGAL ASPECT OF HEALTHCARE ADMINISTRATION		

MAKAUT/MBA/1ST SEM

MB 101: MANAGERIAL ECONOMICS (MICRO)

On completion of the course, the student will be able to

CO 1	Identify the basics of Managerial economics
CO 2	Analyze the core concepts of Economics which are necessary for managers
CO 3	Classify different economic goals of managers
CO 4	Classify alternative market structures for corresponding managerial decision making
CO 5	Estimate the prices under different situations of an economy

MODULE I

1. Introduction to Managerial Economics

[2L]

- (a) Basic problems of an economic system
- (b) Goals of managerial decision making
- (c) Resource allocation using PPC

2. Demand Analysis

[10 L]

- A. Demand Functions - Law of Demand, Explaining the law of demand, Violations of the Law of Demand, Shifts in Demand; Elasticity of Demand: Price Elasticity (at a point and over and interval), Factors affecting price elasticity, Price elasticity and Change in Total Revenue, AR, MR and Price elasticity, Range of Values of Price Elasticity; Income Elasticity, Inferior, Superior and Normal goods, Income Elasticity and Share in Total Expenditure; Cross-Price Elasticity, Substitutes and Complements
- B. Indifference curves, budget line and consumer equilibrium
- C. Introduction to methods of demand estimation (concepts only)

3. Production and Cost Analysis

[14L]

- A. Production Function, Short Run and Long Run, Production with One Variable Input, Total Product, Average and Marginal Products, Law of Variable proportions, Relationship between TP, AP and MP.
- B. Short Run Costs of Production, Fixed and Variable Costs, Short Run Total, Average and

Marginal Cost and Relationship between them, Short Run Cost Curves, Relationship between AVC, MC, AP and MP; Long run cost curves, Relationship between LAC and SAC, Economies of Scale and Scope.

- C. Production with Two Variable Inputs, Isoquants – Characteristics, Marginal Rate of Technical Substitution, Laws of Returns to Scale, Isocost Curves, * # Finding the Optimal Combination of Inputs, Production of a given output at Minimum Cost, Production of Maximum Output with a given level of Cost, Expansion Path, Finding the Long Run Cost Schedules from the Production Function,
- D. Law of supply, elasticity of supply, market equilibrium, changes in equilibrium.

MODULE II

4. Alternate Goals of Managerial Firms

[2 L]

- (A) Profit maximization
- (B) Revenue maximization
- (C) Managerial utility maximization

5. Managerial Decision Making under Alternative Market Structures

[6 L]

- A. Characteristics of Perfect Competition, #Profit Maximization in Competitive Markets, Output Decision in the Short Run, Shut Down Point, Short Run Supply for the Firm and Industry; Output Decision in the Long Run, Break Even Point, Long Run Supply for the Perfectly Competitive Industry
- B. Price and output decision under different market structure – Monopoly, Monopolistic Competition, Oligopoly – cartel, price leadership.

6. Pricing Decisions

[6 L]

- A. Price Discrimination under Monopoly, Transfer Pricing.
- B. Market Failure
- C. Game theory & Asymmetric information

Suggested Readings:

1. Damodaran, Suma – Managerial Economics – Oxford University Press
2. Lipsey & Chrystal – Economics – Oxford University Press
3. Peterson & Lewis – Managerial Economics – Pearson Education.
4. Pindyck and Rubinfeld - Micro Economics – Pearson Education
5. H.L. Ahuza- Managerial Economics, S. Chand
6. D.N. Dwivedi- Managerial Economics, Prentice Hall.

MB: 102 ORGANIZATIONAL BEHAVIOUR

CO1	Develop the concepts of various components including structure & design of Organization
CO2	Interpret individual behaviour in the organizational settings.
CO3	Discuss various work motivation and leadership principles for managing employees behaviour in the organization
CO4	Elaborate the complexities associated with management of individual behaviour in the organization
CO5	Interpret the complexities of group behaviour in the organization

Module I

A. **OB – Overview** – Meaning of OB, Importance of OB, Field of OB, Contributing Disciplines, Applications in Industry. [2L]

B. **Personality**– Meaning of Personality, Determinants of Personality, Theories of Personality, Measurement of Personality, Development of Personality [6L]

C. **Perception** – Process and Principles, Nature and Importance, Factors Influencing, Perception, Perceptual Selectivity, Social Perception, Fundamentals of Decision making.

[4 L]

D. 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, McGregor’s Theory X & Y, Vroom’s Expectancy Theory, Porter Lawler Expectancy Model [6L]

E. Attitudes and Job Satisfaction – Sources of Attitudes, Types of Attitudes, Attitudes and Consistency, Cognitive Dissonance Theory, Attitude Surveys. [2L]

MODULE –II

F. Organization - Mission, Goals, Characteristics, Types, Organizational Theory- Classical Theories: Scientific Management, Administrative Principals, Bureaucracy, Human Relation Approach, Modern Theories: System Approach, Contingency Approach, Quantitative Approach, Behavioral Approach, Managing Organizational Culture. [6L]

G. Group Behavior - Characteristics of Group, Types of Groups, Stages of Development, Group Decision-making, difference work group and work team, Why work Teams, Work team in Organization, Team Building, Organizational Politics. [4L]

H. Leadership - Leadership Theories, Leadership Styles, Skills and influence process, Leadership and power, Examples of Effective Organizational Leadership in India, Cases on Leadership, Success stories of today’s Global and Indian leaders. [4L]

I. Conflict in Organization - Sources of Conflict, Types of Conflict, Conflict Process, Johari Window, Conflict Resolution, Cases on Conflict Resolution. [2L]

J. Organizational Change - Meaning and Nature of Organizational Change, Types of Organizational Change, Forces that acts as stimulant to change. Resistance to change, How to overcome resistance to change, Approaches to managing Organizational Change, Kurt Lewin’s three Step model, Action research model, Kotter’s eight step model. [4L]

Suggested Readings:

1. Robbins, S.P. Judge, T.A. & Sanghi, S.: Organizational Behaviour, Pearson
2. Luthans, Fred: Organizational Behaviour, McGraw Hill

3. Newstrom J.W. & Devis K.: Organizational Behaviour, McGraw Hill
4. Aswathappa ,K : Organisational Behaviour ,Himalaya Publishing House
5. Shukla, Madhukar : Understanding Organizations – Organizational Theory & Practice in India, Prentice Hall
6. Sekharan, Uma: Organisational Behaviour , The Mc Graw –Hill Companies

MB 103: BUSINESS COMMUNICATION

On Completion of the course, the students will be able to

CO1	Explain the purpose of business communication
CO2	Illustrate the stages of writing different documents relevant to business communication
CO3	Discuss different aspects of internal communication of a business organization
CO4	Develop different important concepts of external communication
CO5	Organize different ways of handling business information

Module I:

1. Principles of Communication – Definition, Purposes, Types, Process, Models and Barriers [2L]
2. Verbal and Non Verbal Communication – Presentation Skills (Planning and Preparation/ Using Visual Aids/ Delivery), Individual and Team Presentations, Public Speaking, Listening and Feedback, Body Language [4L+6 P]
3. Written Communication – Stages of Writing, Composing Business Messages, Preparing Notes, Style, Punctuation, Using simple words, Proof Reading. [4L]
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. [4L]

Module II:

5. Internal Communication – Circulars, Notices, Memos, Agenda and Minutes [4L + 2P]
6. External Communication – Resume/CV, Using Facsimiles (Fax), Electronic Mail, Handling Mail [4 L]

7. Writing Business Letters – Formats, Styles Types – Request, Enquiry, Placing Order, Instruction, Action, Complaint, Adjustment, Sales, Reference, Good News & Bad News, Acknowledgement [2L + 4P]
8. Handling Business Information – Annual Report, House Magazine, Press Release, Press Report [2 L + 2P]

Suggested Readings:

1. Monipally: Business Communication, Tata McGraw Hill
2. Business Communication Essentials (6th Edition) by Courtland L. Bovee & John V. Thill, Pearson
3. Business English: A Complete Guide for All Business and Professional Communications by Prem P. Bhalla; UBS Publishers
4. The Effective Presentation: Talk your way to success by Asha Kaul; SAGE
5. Madhukar: Business Communications; Vikas Publishing House
6. Senguin J: Business Communication; Allied Publishers

MB 104: LEGAL AND BUSINESS ENVIRONMENT
(MICRO& MACRO)

On Completion of the course, the students will be able to

CO1	List the legal terms commonly used in business
CO2	Select various legal alternatives
CO3	Develop concept of business contracting
CO4	Evalauate the methodology of settlement of commercial disputes

CO5	Identify few economic indices and how they effect business
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Module I: Legal Environment

1. **Legal Aspects of Business** - Society, State and Law, Enforceability of Law, Mercantile Law. [2L]
2. **Indian Contract Act, 1872** – Contract defined, Elements of valid contract, Classification of contracts, Offer and acceptance, Consideration, Capacity to contracts, Free consent, Legality of object and consideration, Illegal agreements, Termination of contracts, Breach of contract, Indemnity and guarantee, Laws of agency [6L]
3. **Sale of Goods Act, 1930** – Classification of goods, Conditions & Warranties, Passing of ownership rights, Rights of an unpaid seller, Remedies for breach of Contract of Sale of Goods. [4L]
4. **Negotiable Instruments Act, 1881** – Definition and characteristics of different types of negotiable instruments, Parties to a negotiable instrument and their capacity, Dishonour of cheques, Discharge from Liability, Crossing of cheques, Bank drafts and Banker’s cheques. [4L]
5. **Companies Act, 1956** – Nature and kinds of companies, Formation, Memorandum, Articles, Prospectus, Capital – shares, debentures, borrowing powers, minimum subscription, Appointment of Directors; Winding up of companies (Including Amendments) [6L]
6. **Consumer Protection Act, 1986** – Salient features and objectives of the Consumer Protection Act, 1986, Different Consumer redressal Forums, Composition and jurisdiction of district, state and National forum, Mode of complaints, Procedures for disposal of complaints, Penalty. [4L]
7. **Intellectual Property Right-** Laws relating to Patents (Patent Act, 1970), Trademarks (Trademark Act, 1999), Copyright (Copyright Act, 1957), Geographical Indications (Registration & Protection) Act, 1999 [4L]

Module II: Business Environment

8. **Economic Indicators** – Consumer Price Index, Interest Rate, Inflation Rate and its impact on Business, Business Risk [4L]

9. **Intellectual Property Regime** (WTO Guidelines) [2L]

10. **Legislation for Anti competitive and Unfair Trade Practice** – Objectives of MRTP Act, 1969, Objectives of Competition Act, 2002, Monopolistic Trade Practice, Anti competitive Agreement, MRTP vs Competition Act [4L]

Suggested Readings:

1. Sen & Mitra: Commercial law; World Press
2. Pathak: Legal Aspect of Business, TMH
3. Das & Ghosh: Business Regulatory Framework: Ocean Publication, Delhi
4. Pillai & Bagavathi: Business law, S. Chand
5. Dutt & Sundaram: Economic Environment of Business, S. Chand
6. Misra, S. K & Puri, D. K.: Economic Environment of Business, Himalaya Publishing

MB 105: INDIAN ETHOS AND BUSINESS ETHICS

On Completion of the course, the students will be able to

CO1	Assess the relationship between ethics and business and relate the subsequent theories of justice and economics across different cultural traditions.
CO2	Examine the relationship between ethics, morals and values in the workplace
CO3	Analyze and understand various ethical philosophies to explain how they contribute to current management practices.
CO4	Apply understanding of ethics of real–world contexts.
CO5	Assess the importance of building moral goals in business and devising effective ways to fulfil it.

Module – I: Indian Ethos

1. **History & Relevance**; Principles, practiced by Indian Companies; Role of Indian Ethos (Management lessons from Vedas, Mahabharata, Bible, Quran, Arthashastra,) Indian Heritage in Business. Ethics Vs Ethos, Indian Vs Western Management; Work ethos and values for Indian Managers [6L]
2. **Relevance of Value-based Management in Global change-** - impact of Values on stake holders; Trans-cultural human values ; Secular - Vs Spiritual values; value system in work culture [4 L]
3. **Stress Management**, - meditation for mental health, yoga [2 L]
4. **Contemporary Approaches to Leadership** – Joint Hindu Family business; Leadership qualities of Karta [2 L]
5. **Indian systems of learning-** Gurukul system of learning, advantages – disadvantages of Karma, Importance of Karma to managers , Nishkama Karma- laws of Karma ; Law of creation- Law of humility- Law of growth – Law of Responsibility- Law of connection – Corporate Karma Leadership [6 L]

Module - II: Business Ethics

6. **Understanding Business Ethics** – Ethical Values, Myths and Ambiguity, Ethical Codes, Ethical Principles in Business; Theories of Ethics, Absolutism vs. Relativism [6 L]
7. **Approaches to Business Ethics:** Teleological Approach, The Deontological Approach , Kohlberg’s Six Stages Of Moral Development (CMD) [4 L]
8. **Managing Ethical Dilemma:** Characteristics, Ethical Decision Making, Ethical Reasoning, The Dilemma Resolution Process; Ethical Dilemmas In Different Business Areas Of Finance, Marketing, HRM and International Business [4 L]
9. **Ethical Culture in Organizations** – Developing Code of Culture in Organization, Ethical and Value-Based Leadership. Role of Scriptures in Understanding Ethics, Ethics in Business, Strategies of Organizational Culture Building, Ethical Indian Wisdom and Indian Approaches towards Business Ethics. [6 L]

Suggested Readings

1. Beteille, Andre - Society and Politics in India, OUP
2. Chakraborty, S. K. - Values and Ethics for Organisations, OUP
3. Fernando, A.C. - Business Ethics - An Indian Perspective, Pearson
4. Gupta, Dipankar - Social Stratification, OUP.
5. Srinivas, M. N.- Social Structure and Caste and Other Essays, OUP.
6. Sandhya, N- Indian Society, Vrindya Publication

MB 106: QUANTITATIVE TECHNIQUES

On Completion of the course, the students will be able to

CO1	Explain basic concepts of operations planning
CO2	Classify Manufacturing systems
CO3	Apply the concepts of inventory management in given situations
CO4	Analyze the factors in plant location and layout decisions

CO5	Discuss the issues involved plant maintenance
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Module I:

1. **Linear Programming:** Formulating maximization/minimization problems, Graphical solution, Simplex method, Artificial Variables – Big M – Method, Special cases of LP, Duality of LP and its interpretation, Post Optimality/Sensitivity Analysis, Applications of LP. [6L]
2. **Transportation Problems:** Introduction - Mathematical formulation of transportation problem - the Transportation method for finding initial solutions-North West Corner Method - Least Cost Method - Vogel's Approximation method - test for optimality - steps of MODI method-loops in transportation table - Degeneracy. [6L]
3. **Assignment Problems:** Introduction - Mathematical statement of the problem-Hungarian method of solution - Maximization case in assignment problem—unbalanced assignment problem - restrictions on assignment - Travelling salesman problem. [4L]
4. **Theory of Games:** Introduction - Two person zero sum games - Pure strategies - games with saddle points - rules to determine saddle points - mixed strategies - Game without saddle points - the rules of dominance - Methods of solution for games without saddle points—algebraic methods, graphical methods. [4L]

Module II:

5. **Basic Statistics:** Basic Concept (Variables, Population v/s Sample, Central tendency, Dispersion, data Visualization, Simple Correlation and Regression. [4L]
6. **Probability & Distribution:** Probability – Introduction, Rules of Probability, Conditional Probability (Baye's Theorem), Random Variables, Discrete and Continuous Distributions (Binomial, Poisson and Normal), Sampling – Types and Distribution. [6L]
7. **Theory of Estimation:** Estimation – estimation problems, standard error, margin of error, confidence error, confidence interval, characteristics of estimators, consistency unbiasedness, sufficiency and efficiency, most sufficient estimators. Point Estimation and Interval Estimation. [4L]
8. **Statistical Inference:** Hypothesis Testing, Parametric Test – Z, F, t test, ANOVA, Non Parametric Test – Chi square test (goodness of fit, independence of attributes) Spearman's Rank Correlation Coefficient. [6L]

Software Packages to be used in illustrating the above methods

Suggested Readings

1. Statistics by Wayne L. Winston
2. Business Statistics by GC Berry
3. Business Statistics, Problems & Solutions by JK Sharma
4. Operations Research by A Ravindran, Don T Philips and James J Solberg..
5. Operations Research by V K Kapoor
6. Operations Research by S K Kalavathy

MB 201: INDIAN ECONOMY AND POLICY

On Completion of the course the students will be able to

CO1	Identify the basic macro issues of an economy
CO2	Elaborate different indicators of Indian economy
CO3	Analyze different economic reforms of Indian economy
CO4	Classify the core economic policies
CO5	Apply the knowledge of economic policy studying the trade policy reform of India

MODULE I

1. Circular Flow of Income

National Income Accounting –terms and concepts, three methods of measuring GDP/GNP
(3L)

2. Theory of Income Determination

Simple Keynesian model: Aggregate demand – Aggregate supply method, Savings-investment method

Concepts of multiplier: Autonomous expenditure multiplier, introducing the Government, Government expenditure multiplier, Tax Rate Multiplier, Balanced Budget Multiplier, Open economy - Export and import multipliers.

Paradox of Thrift, Crowding out effect, Business cycle – phases and stabilization (6L)

3. Introduction of Money and Asset Market

IS-LM model, Fiscal policy and monetary policy using IS-LM (4L)

4. Inflation and Unemployment

Concepts of inflation – demand pull and cost push, Stabilization policies

Introduction to Philips curve as relation between inflation and unemployment. (3L)

5. Introduction to Foreign Trade & International Linkages

Concepts of Balance of Payments

Alternative exchange rate systems – fixed, flexible and managed float

Comparative Advantage as basis for trade;

Tariff and non-tariff barriers (4L)

MODULE II

6. Indian Economy - An Overview

Evolution of Indian economy since independence

Liberalization of Indian economy since 1991 (4L)

7. New Industrial Policy

LPG model, New Industrial Policy (1991) (4L)

8. Banking and Capital Market Reforms

Banking structure in India, Composition
of Indian Capital market,

SEBI and Capital Market Reforms (4L)

9. Monetary and Fiscal Policy Reforms

Composition of Indian money market Components
and Instruments of Monetary policy

Concepts and Management of Deficits (4L)

10. Trade Policy Reforms

Major components of trade policy reforms Idea
of FEMA, NITI AYOOG role and function
Current and capital account convertibility.

(4L)

Suggested Readings:

1. Principles of Macroeconomics - SoumyenSikdar, (OUP)
2. Managerial Economics - Suma Damodaran, (OUP)
3. Macroeconomics – Dornbusch , Fischer &Startz (PHI)
4. Economic Environment of Business: S.K. Mishra and V.K. Puri,
5. Indian Economy: Datt & Sundharam,
6. Indian Economy since Independence, Uma Kapilaed.

MB 202: FINANCIAL REPORTING, STATEMENT AND ANALYSIS

On Completion of the course the students will be able to

CO1	Summarize different accounting procedures and standards
CO2	Explain the concepts of financial accounting and accounting standards..
CO3	Develop the skills of students to record financial transactions in different forms of books of accounts.
CO4	Classify management accounting concepts with the cost accounting concepts
CO5	Make use of the interpretation of financial statements for managerial decisions

MODULE I

1. **Basic Financial Accounting Concept:** Meaning and Scope of Accounting -Definition of accounting-classification of accounting- GAAP- Accounting Concepts and Conventions – Accounting Equation

(2L)

2. **Preparation Of Books Of Accounts:** Event-Transaction- Accounting Cycle – Golden Rule- Journal-Ledger-Trial Balance-Final Account (10L)
3. **Basic Cost Accounting Concept-** Cost Concept-Cost Unit- Technique of Costing- Method of Costing- Cost center- Cost Unit- Cost Sheet preparation and Interpretation. (4L)
4. **Introduction to Accounting Standard:** Introduction to Indian GAAP and IndAS- Introduction to IFRS and IAS- Comparative Analysis of Indian GAAP and IndAS. (4L)

MODULE II

5. **Preparation Of Financial Statement:** Trading Account-Profit & Loss Account - Balance Sheet (As per Schedule VI, old & new) with Adjustment Entries - Preparation and Interpretation of Annual Report -Corporate Social Responsibility – Human Resource Accounting-Value Added Statement (10L)
6. **Financial Statement Analysis:** Comparative Statement- Common Size Statement- Trend Analysis- Ratio Analysis-Fund Flow Statement - Cash Flow Statement. (10L)

Suggested Readings:

1. M. Hanif & A. Mukherjee : Financial Accounting. McGraw Hill
2. S. K. Paul: Financial Accounting, New Central book Agency
3. S. P. Jain & K. L. Narang: Cost and Management Accounting. Kalyani Publication
4. P. M. Rao: Financial Statement Analysis and Reporting. PHI
5. T. P. Ghosh, N. Ankarnath, K. J. Mehta & Y. A. Alkafazi: Understanding IFRS Fundamentals, Wiley
6. Tulsian & Tulsian: Corporate Financial Reporting, S. Chand

MB 203: MARKETING MANAGEMENT

On Completion of the course the students will be able to

CO1	Analyze the importance of the customer/consumer in the context of business, the growth of and the role played by Marketing Management as one of the functional areas of modern business organizations in order to achieve overall business objectives.
CO2	Access the role played by the various dynamic actors and factors in the firm's micro and macro-environment and how marketing as a function will have to respond to the ever-changing external environment.
CO3	Apply the various concepts in relation to the 4 verticals within Marketing, namely the Product, Price, Promotion and Place in order to arrive at balanced marketing decisions.
CO4	Formulate marketing strategies pertaining to the aforesaid verticals at different stages in the life-cycle of goods/services in order to arrive at important functional level decisions that are aligned with corporate goals.

MODULE I

1. **Introduction:** Definitions of marketing; Core Concept of Marketing – need, want, demand, offering and branding, value and satisfaction, Evolution of marketing concepts (orientations); Marketing Mix – 4Ps and 4Cs. [2 L]
2. **Marketing Environment:** Major components of Internal Environment, the micro-environment and macro-environment; SWOT Analysis, PEST Analysis [2 L]

3. **Strategy and Planning:** Concept of SBU, Choice of Corporate level Strategy; BCG matrix, Product-Market Grid, Porter's Five Force Model for Industry Analysis. [4 L]
4. **Market Segmentation, Targeting and Positioning (STP):** Concepts of market segmentation: Various bases for segmentation: Geographic, Demographic, Psychographic (VALS-II) and Behavioural; Targeting: Mass marketing, Segment Marketing, Niche Marketing, Micro Marketing and Customization; Concept of Differentiation and Positioning. [4 L]
5. **Consumer Behaviour and Marketing Research:** A framework of consumer decision making process, overview of major factors influencing consumer behavior; marketing research: Role in decision making, Steps and process of Marketing Research, B2B Marketing. [4 L]

MODULE II

6. **Product:** Product Classification, Service – characteristics and expanded service mix elements; Product Levels, Product Mix, Product Line Management, Product Life Cycle: concept and types, New Product Development. [6 L]
7. **Branding and Packaging:** Purpose of branding; Brand equity; Branding strategies; Purpose of Packaging; Types of Packaging – primary, secondary, shipping packages. [3 L]
8. **Pricing:** Procedure for price setting; Pricing objectives; Cost and Demand consideration; Pricing Methods, Pricing Strategies. [3 L]
9. **Marketing Channels:** Channel flows and functions; Channel design decisions; Wholesaling and Retailing, Concept of Supply Chain Management and Logistics Management, Channel Conflict Management [5 L]

10. **Promotion:** Elements of Promotion Mix (Advertising, Sales Promotion, Personal Selling, Direct Marketing, Publicity & PR), 5M model of Advertising, Concept of Digital Marketing; Overview of Selling Process [5 L]
11. **Basic concepts of market potential:** Sales potential/ Market Share and Sales forecast; Methods of Sales forecasting. [2 L]

Suggested Reading:

1. Kotler, P., Keller, K., Koshy, A. & Jha, M. - Marketing Management; Pearson
2. Ramaswamy & Namakumari - Marketing Management; McMillan
3. Saxena, R. - Marketing Management; TMH
4. Kurtz, David L, Boone , Louis E - Principles of Marketing; Thomson
5. Keith Blois – Text Book of Marketing; Oxford University Press
6. Etzel, M.J., Walker, B.W. & W.J. Stanton - Marketing; TMH

MB 204: OPERATIONS MANAGEMENT

On completion of this course, the students will be able to

CO1	Understand production and the development of operations
CO2	Explain the different aspects of Operation Management: Manufacturing, Service and Project Management in the value addition process.
CO3	Understand the purchasing strategy and inventory management
CO4	Apply the short term planning process through Planning Techniques, Production Planning, and Shop Floor scheduling.
CO5	Analyze the Quality Systems for proactive system development to prevent defects and control process defects.

MODULE I

- 1. Introduction to Production and Operations Management:** Difference between Manufacturing and Service Operations; Product Process Matrix capacity planning- Responsibilities of Production Manager; Production as a Coordination Function; Production Cycle, Production Planning & Control Concept. (4L)
- 2. Characteristics of Manufacturing Systems:** Classification of Manufacturing Systems with Examples; Differences between Intermittent and Continuous Production (2L)
- 3. Plant Location:** Need for a Good Plant Location; Factors influencing Plant Location – Tangible and Intangible Factors; Economic Survey of Site Selection (2L)
- 4. Plant Layout:** Need for a Good Plant Layout; Characteristics of a Good Layout; Costs associated with Plant Layout; Process Layout vs. Product Layout; Optimization in a Process Layout and Product Layout; Designing Product and Process Layout; Assembly Line Balancing – Concept and Problems; Cellular Manufacturing Concept (6L)
- 5. Maintenance Management:** Types of Maintenance – Breakdown and Preventive Maintenance; Total Productive Maintenance (TPM) (3L)

MODULE II

- 6. Purchase Management:** Purchasing Procedure; Value Analysis; Vendor Selection; Negotiation; Make or Buy decision (2L)
- 7. Inventory Management:** Classification of inventory items – ABC, FSN, VED classification; Introduction to EOQ and EBQ; MRP – Concept, inputs and outputs, benefits, examples; Deterministic demand model–EOQ- Continuous and Periodic review Inventory models; Master Production Schedule and MRP; Concepts of MRP II, JIT and ERP (6L)
- 8. Inspection & Quality Control:** Types of Inspection; Statistical Quality Control – Acceptance Sampling and Control Charts
- 9. Scheduling:** Sequencing – Definition and Assumptions; Sequencing of n jobs on a single machine – Shortest Processing Time, Longest Processing Time, Earliest Due Date and First Come First Serve basis; Sequencing of 2 jobs on 2 machines – Gantt Charts, Limitations of Gantt Charts; Sequencing of n jobs on 2 and 3 machines – Johnson's Rule; Introduction to Project Management – CPM and PERT, Identification and Importance of the Critical Path (6L)
- 10. Work Study:** Definition and its Importance; Basic Procedure in Performing a Work Study; Method

Study –Objectives and Procedure; Work Measurement–Objectives and Procedure; Concepts of Performance Rating, Basic Time, Allowances and Standard Time (4L)

Suggested Readings:

1. Chary, S.N. – Production and Operations Management; TMH
2. Panneerselvam, R. – Production and Operations Management, PHI
3. Bedi, K. – Production and Operations Management; Oxford University Press
4. Chase, Jacobs, Aquilano and Agarwal – Operations Management for Competitive Advantage; TMH
5. Buffa, E. S. and Sarin, R.K. – Modern Production / Operations Management; John Wiley
6. Collier, Evans and Ganguly – Operations Management; Cengage Learning

MB - 206: HUMAN RESOURCE MANAGEMENT

On completion of this course, the students will be able to	
CO1	Interpret the terms used in HRM
CO2	Apply the knowledge in day to day working
CO3	Compare between various options in HRM
CO4	Evaluate the human capital
CO5	Formulate HR policies and procedures

MODULE I

- 1. Human Resource Management:** Meaning, Scope, objectives, and functions of HRM , HR as a Factor of Competitive Advantage, Structure of HR Department, , Line and staff responsibility of HR Managers, Environmental factors influencing HRM (2L)
- 2. Human Resource Planning:** definition, objective, process of HRP. Supply and Demand Forecasting techniques, Manpower Inventory, Career Planning& Development, Succession Planning, Rightsizing, Restructuring. Human Resource Information System (HRIS) (6L)
- 3. Recruitment and Selection :** Process, Sources, Methods of selection, Interviewing Methods, Skills and Errors. (4L)
- 4. Human Resource Development:** Definition, objective, process of HRD, Assessment of HRD Needs, HRD Methods: Training and Non-Training, Training Process; Designing, Implementation and Evaluation of Training Programmes, Induction Training. Developing Managerial Skills for: team management, collaboration, interaction across business functions, presentation , Negotiation, and Networking (6L)
- 5. Performance Appraisal Systems :** Purpose, Methods, Appraisal instruments, 360 degree Appraisal,HR Score Card, Errors in appraisal, Potential Appraisal, Appraisal Interview.

(4L)

MODULE –II

6. **Compensation Management** : Concepts, Components; System of Wage Payment, job evaluation, wage/ salary fixation, incentives, bonus, ESOPs, Fringe Benefits, Retirement Benefits. Compensation Plans (4L)
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. **Workers' Participation in Management:** Concept, Practices and Prospects in India, Quality Circles and other Small Group Activities. (2L)
9. **Discipline Management** : Misconduct, Disciplinary action, Domestic Enquiry, Grievance Handling (4L)
10. **Strategic HRM:** Meaning, Strategic HRM vs Traditional HRM, SHRM Process, barriers to SHRM. Nature of e-HRM, eRecruitment & Selection, e-Performance Management, e-Learning (4L)

Suggested Readings:

1. Agarwala T. - Strategic Human Resource Management, OUP
2. Aswathappa, K. - Human Resource Management, Tata McGraw Hill
3. Jyothi P. & Venkatesh, D.N. - Human Resource Management, OUP
4. Ramaswamy, E.A. - Managing Human Resources, OUP
5. Saiyadain, M.S - Human Resource Management : Tata McGraw Hill
6. Mondal Sabari & Goswami Amal - Human Resource Management: Vrinda Publications

MB 301: ENTREPRENEURSHIP & PROJECTMANAGEMENT

On completion of this course, the students will be able to

CO1	Discuss the concepts of Project Management from planning to execution of projects
CO2	Apply Project Appraisal & Management techniques and Analyze the techniques PERT & CPM for Project planning, scheduling and Execution Control.
CO3	Develop the strategies employed in managing project risk & termination
CO4	Discuss the nature of entrepreneurship and have the ability to discern distinct entrepreneurial traits.
CO5	Assess personal attributes that enable best use of entrepreneurial opportunities and also know the parameters to assess opportunities and constraints for new business ideas.

MODULE I: ENTREPRENEURSHIP

1. Introduction: Meaning and Concept of Entrepreneurship, Innovation and entrepreneurship, Contributions of entrepreneurs to the society, risk-opportunities perspective and mitigation of risks
[2L]
2. Entrepreneurship – An Innovation: Challenges of Innovation, Steps of Innovation Management, Idea Management System, Divergent v/s Convergent Thinking, Qualities of a prospective Entrepreneur
[2L]
3. Idea Incubation: Factors determining competitive advantage, Market segment, blue ocean strategy, Industry and Competitor Analysis (market structure, market size, growth potential), Demand-supply analysis
[4L]
4. Entrepreneurial Motivation: Design Thinking - Driven Innovation, TRIZ (Theory of Inventive

Problem Solving), Achievement motivation theory of entrepreneurship – Theory of McClelland, Harvesting Strategies [2L]

5. Information: Government incentives for entrepreneurship, Incubation, acceleration. Funding new ventures – bootstrapping, crowd sourcing, angel investors, Government of India's efforts at promoting entrepreneurship and innovation – SISI, KVIC, DGFT, SIDBI, Defense and Railways [4L]
6. Closing the Window: Sustaining Competitiveness, Maintaining Competitive Advantage, the Changing Role of the Entrepreneur. [2L]
7. Applications and Project Reports Preparation [4L]

MODULE II: PROJECT MANAGEMENT

8. Definitions of Project and Project Management, Issues and Problems in Project Management, Project Life Cycle - Initiation / Conceptualization Phase, Planning Phase, Implementation / Execution Phase, Closure / Termination Phase [4L]
9. Project Feasibility Studies – Pre-Feasibility and Feasibility Studies, Preparation of Detailed Project Report, Technical Appraisal, Economic/Commercial/Financial Appraisal including Capital Budgeting Process, Social Cost Benefit Analysis [2L]
10. Project Planning – Importance of Project Planning, Steps of Project Planning, Project Scope, Work Breakdown Structure (WBS) and Organization Breakdown Structure (OBS), Phased Project Planning [2L]
11. Project Scheduling and Costing – Gantt chart, CPM and PERT Analysis, Identification of the Critical Path and its Significance, Calculation of Floats and Slacks, Crashing, Time Cost Trade-off Analysis, Project Cost Reduction Methods. [6L]
12. Project Monitoring and Control – Role of Project Manager, MIS in Project Monitoring, Project Audit [2L]
13. Case Studies with Hands-on Training on MS-Project [4L]

Suggested Readings:

1. Innovation and Entrepreneurship by Drucker, P.F.; Harper and Row
2. Business, Entrepreneurship and Management: Rao, V.S.P. ;Vikas
3. Entrepreneurship: Roy Rajeev; OUP.
4. Text Book of Project Management: Gopalkrishnan, P. and Ramamoorthy, V.E.; McMillan
5. Project Management for Engineering, Business and Technology: Nicholas, J.M., and Steyn,H.; PHI
6. Project Management: The Managerial Process: Gray, C.F., Larson, E.W. and Desai, G.V.; MGH

MB 302: CORPORATE STRATEGY

On Completion of the Course the students will be able to

CO1	Differentiate between the nature of Strategic Decisions and Operational/Administrative Decisions.
CO2	Undertake an external environment analysis and an internal environment analysis for a firm.
CO3	Analyze the various forces of competition for a firm.
CO4	Design a road map for implementation of strategic decisions for a firm
CO5	Assess and evaluate the performance of strategic decisions taken by a firm.

MODULE I:

1. Strategic Management: Objectives, policies, Tools – Balanced Score Card, Strategic Management process. [4L]
2. Environmental Scanning: SWOT Analysis, External Environment Analysis (Economic, Legal, Political, Social, Geographic, Technical); Internal Environment Analysis - Strategic Advantage Factors (Finance, Marketing, Production, HR, R & D, etc.) [4L]
3. Strategic Planning: Corporate; Functional and Managerial Goal Setting; Positioning Organization, Models for Resource Allocation, Environmental Turbulence Strategic Investment, Strategic Entry [6L]
4. Formulating Strategies: Corporate, Administrative/Executive and Operating Levels, Developing Functional Strategies – Production/Operations, Finance, Marketing, HR, Materials, R & D; BCG Matrix, Portfolio analysis. [6L]

MODULE II:

5. Implementation of Strategies: Role of Managers, Leadership, Strategic Control System and Measurement, Structural Implementation, Functional Implementation. [6L]
6. Strategic Actions: Mergers, Acquisitions, Diversification, Joint Ventures, De-Merger, etc. [4L]
7. Evaluation of Strategy: Need, Problems, Criteria for Evaluation (Qualitative/Quantitative), Process of Evaluation [4L]
8. Case studies – Strategic Planning and Management [6L]

Suggested Readings:

1. Corporate Strategies: Banerjee, Bani P.; OUP
2. Crafting the Strategy: Das, Ranjan :, Tata McGraw Hill
3. Business Policy and Strategic Management: Kazmi, A., Tata McGraw Hill
4. Global Strategic Management: Mellahi, K.,Frynas, J.G.and Finlay, P., OUP
5. Competitive Strategy: Porter, Michael E., The Free Press
6. Discourses on Strategic Management: Roy, Dilip; Asian Books

ELECTIVE PAPERS

SPECIALIZATION: MARKETING

MM 303: IMC/ PROMOTION STRATEGY

On Completion of the course the students will be able to

CO1	Explain the basic concept of IMC and its relevance to marketing promotion
CO2	Illustrate different elements of IMC and distinguish between their features
CO3	Evaluate the growth, prospect and types of sales promotion and their importance in marketing
CO4	Organize the concept of advertising and media planing, budgeting
CO5	Explain strategies involved in the different forms of media selection

MODULE I:

1. Introduction to Integrated Marketing Communication: Definition, features and role of IMC and its relation with marketing program Concept, Evolution of IMC, Reasons for Growth and Features. Promotional Tools for IMC, IMC Planning Process, Communication Process, AIDA and Hierarchy of Effect Model, Establishing Objectives and Budgeting: Determining Promotional Objectives, Sales vs. Communication Objectives, DAGMAR, Problems in Setting Objectives, and Setting Objectives for the IMC Program. [4L]

2. Elements of IMC: Sales Promotion – Different Types of Sales Promotion, Advantages and Disadvantages. Public Relation and Publicity – Types of PR, Process, Advantages and Disadvantages, Types of Publicity, Direct Marketing – Features, Advantages and Disadvantages, Personal Selling – Features, Advantages and Disadvantages, Advertising – Features, Advantages and Disadvantages,, New Trends in IMC, International Media. [6L]

3. Sales Promotion: Definition, Reasons for rapid growth of sales promotion, Objectives of sales promotion, Types of sales promotion, Tools and techniques of consumer and trade promotion with merits and demerits, Role of sales promotion in IMC programme [4L]

4. Public Relations and Corporate Advertising: Definition, New role of PR, Objectives, tools and techniques of public relations with merits and demerits, Corporate advertising- scope and types, role of PR in IMC programme [2L]

5. Evaluation of Promotional Effectiveness: Reasons to measure effectiveness, What, when, where, how to test, Testing methods - pre-testing and post testing techniques, Essentials of effective measures, Problems with current methods, Measuring effectiveness of other promotion [2L]

MODULE II:

6. Advertisement: Introduction to Advertising: History of advertising, Definition, features and role of advertising, Relationship of advertising with other promotional mixes and marketing mix elements, Various forms of Advertising: (national, retail, cooperative, trade, industrial financial, corporate, public services, political)

7. Advertising Industry: Advertisers, Advertising agencies and support organizations, Types of agencies, Structure, role and functions of ad agencies, Agency compensation and evaluation. [2L]

8. Advertising Planning and Budgeting: Planning process, steps, situation analysis, objective setting, budgeting, developing promotional strategies, implementation and control, Budgeting approaches – different methods, allocation of budget [2L]

9. Designing an Advertisement: Different dimensions, Importance of creativity to advertising, Creative process, developing a creative brief, Message Strategies: Message structure, Message appeals- rational, emotional, Message source-credibility, attractiveness, power.

[4L]

10. Execution frameworks: for print and electronic media - copywriting, body copy, headlines, layout, visuals, slogans, logos, signatures, storyboards [2L]
11. Media Strategies: Media planning process, Media mix, Coverage, Reach, Frequency, Impact, Scheduling, Different types of media – television, radio, print, outdoor, characteristic features, advantages and limitations, Factors influencing choice of media flows and functions, Channel design decisions.. [4L]
12. Social Media marketing: Concept, role and features of SMO, SEO, Facebook, Twitter, Linked in, youtube as means of marketing communication. [2L]
13. Advertising and Society: Social – social and cultural, Ethical – deceptive, offensive, economical-effect on consumer choice, competition, cost and prices, and Regulatory aspects of advertising – ASCI [2L]
14. Case Study on aspects of Advertising [2L]

Suggested Readings:

1. Contemporary Advertising: Arens W.F.; TMH
2. Advertising and Promotion: Belch G.E. and Belch M.A; TMH
3. Integrated Advertising, Promotion and Marketing Communications: Clow K.E., Baack D.; Pearson
4. Advertising and Integrated Brand Promotion: O’Guinn T. C., Allen C.T.; South Western
5. Ogilvy on Advertising: Ogilvy David; Pan Books
6. Understanding Digital Marketing: Damian Ryan, Pearson

MM 304: MARKETING RESEARCH

On Completion of the Course the students will be able to

CO1	Explain the role of Marketing Research as a tool for making better marketing decisions, its scope, its process, its importance and its utility in solving problems in the domain of marketing.
CO2	Develop an end-to-end research design, formulate the research problems, set up the research objectives and identify the information needs and the sources from which such information can be collected.
CO3	Design suitable data collection methods & instruments, use different types of scales for measurement of data, organize field data collection and choose appropriate data analysis plans.
CO4	Construct research hypotheses, test them using different criteria, analyze data using different data analysis techniques.
CO5	Interpret data into findings, draw certain conclusions, propose certain recommendations and compile a research report.

MODULE I

1. Marketing Research: Introduction, Application of research in managerial decision making, Aims, roles, functions and sources of research, Client-user interface – role conflict and resolution [2L]
2. Research Process: Steps in planning – research purpose and objectives, Converting a manager's problem to a researcher's problem, Problem formulation, research design, data collection, analysis, report presentation, Preparation of the research proposal. [4L]
3. Research Design: Types of research - exploratory studies, descriptive studies, causal studies, Types of information needed - behavioural and non-behavioural correlates [4L]
4. Sources of Data: Primary and secondary source (govt., non-govt. and syndicated research), Errors in data collection [4L]
5. Primary Source – Methods of Data Collection: Focus groups, Observations, Case histories; Surveys – survey methods - structured and unstructured, direct and indirect methods, in- depth interviews, panels, interview media: personal, telephone, internet and mail, questionnaire

construction and pre-testing, qualitative and quantitative research.

[4L]

MODULE II:

6. Measurement and Scaling: Types of scales (data/levels of measurements), nominal, ordinal, interval, ratio scales, Attitude measurement methods - variability methods (paired comparison, ranking, rating, ordered category sorting), Quantitative judgment methods [6L]
7. Sampling: Census vs. sample, Steps in sampling process, Definition of population, frame, unit and element, Types of sampling: Probabilistic and non-probabilistic sampling techniques
Determination of sample size [4L]
8. Analysis of Data: Classification of data, Analytical techniques – univariate analysis, hypothesis testing-parametric and non-parametric tests, bivariate analysis. Some multivariate analysis techniques like multiple regression, discriminant analysis, factor analysis, cluster analysis, multi - dimensional scaling and conjoint analysis, forecasting methods (application and interpretation only)
9. Application Areas: Advertising Sales analysis and forecasting, Case Studies [2L]

Suggested Readings:

1. Research for Marketing Decisions: P. Green and D. Tull and G. Albaum; PHI
2. Marketing Research: Text and Cases; Boyd and Westfall; AIT Bookseller
3. Marketing Research: Luck and Rubin; PHI
4. Marketing Research: D.R. Cooper and P.S. Schindler; TMH
5. Marketing Research: Naresh K Malhotra; Pearson
6. Marketing Research: G C Beri; Tata McGraw Hill

SPECIALIZATION: FINANCE

FM 301: TAXATION

On Completion of the course the students will be able to

CO1	Explain the basic concept of taxation system in India
CO2	Analyse the residential status of different assesses and tax liability.
CO3	Identify planning, exemption, deduction, rebate, relief and other ways to reduce tax liability.
CO4	Assess the Taxable Income of Individual, HUF, Firm and Corporate and different Heads of Income like Salaries, Income from House Property etc.
CO5	Identify Indirect tax system in India and Levy and Collection of Tax system under GST rules

MODULE I: DIRECT TAX

1. Concepts: Cannons of Taxation, Person, Assessee, Income, Previous Year, Assessment Year, Gross Avoidance, Planning, Exemption, Planning, Exemption, Deduction, Rebate, Relief. [2L]

2. Residential Status and Tax Incidence: Individual and Corporate. [4L]

3. Income Exempted from Tax: Individual and Corporate.

4. Computation of Taxable Income of Individual, HUF, Firm and Corporate: Heads of Income – Salaries, Income from House Property, Profits and Gains from Business or Profession, Capital Gains, Income from Other sources. Deduction from Gross Total Income – 80CCC, 80D, 80DDDB, 80E, 80G, 80GG, 80GGA, 80C, 80U; Set Off and Carry Forward of Losses – Principles, Meaning, Inter – sources and Inter – head Set Off, Carry Forward and Set Off of Losses under sections 71, 72 and 73. [8L]

5. Computation of Tax for Individual, H.U.F, Firm and Corporate: Rate of Tax and Surcharge Tax, Rebate Tax Management – Submission of Return and Procedure of Assessment, Pan, Tan, Preliminary ideas of Deduction and Collection of Tax at Source, Advance Payment of Tax, Refund of Tax, Minimum Alternate Tax. [6L]

MODULE II: INDIRECT TAX

1. Customs Act and Valuation: Basic Concepts only [2L]
2. Goods and Service Tax: GST in India. Features and Advantages, Structure of GST in India: CGST, SGST, UTGST, IGST, Taxes subsumed by GST, Commodities kept outside the scope of GST. Procedure for Registration; Deemed Registration, Cancellation of Registration, Revocation of Cancellation of Registration. Levy and Collection of Tax under GST: 16 Rates structure of GST, Scope of supply, Composition Scheme under GST [8L]
3. Tax Planning: Scheme of Tax Planning, Tax Planning for Salaries, Tax Planning for Profits and gains of Business or Profession, Tax Planning for Capital Gains. [6L]
4. Case Study [2L]

Suggested Readings:

1. Lal and Vasisht, Direct Taxes, Pearson Education
2. Singahnia, Direct Taxes, Taxman
3. Singhania, Indirect Taxes, Taxman
4. Bhagawati Prasad, Direct tax law and Practice.
5. Gaur and Narang, Income Tax law and Practices, Kalyani Publisher
6. T. B. Chatterjee and V. Jalan, How to handle - GST-TDS and GST-TCS, GST audit, GST Annual Return, Book Corporation

FM 302: PROJECT APPRAISAL AND FINANCE

On Completion of the course the students will be able to

CO1	Construct the levels of basic operations research concepts and terminology involved in optimization techniques
CO2	Interpret and solve business-related problems
CO3	Apply certain mathematical techniques in getting the best possible solution to a problem involving limited resources
CO4	Apply the most widely used quantitative techniques in decision making
CO5	Identify project goals, constraints, deliverables, performance criteria, control needs, and resource requirements in order to achieve project success

MODULE I:

1. Introduction to Project Finance, Overview and Fundamentals- Concepts, Functions, Types, Advantages and Disadvantages, Parties, Prerequisites of Project Finance. [4L]
2. Project Finance Risks and Risk Mitigation- Project Conceptualization Risk, Financial Closure Risk , Project Construction Risk , Political Risk , Market Risk ,Supply Chain Risk, Policy Risk, Exchange Risk, Environmental Risk , Force Majeure. [6L]
3. Sources of Capital- Various sources of debt and equity , Prudence in Mix of Long Term and Short Term Finance ,Forms of Long Term Project Finance ,Forms of Short Term Project Finance , Lease , Role of Non-Banking Finance Companies (NBFC) [6L]
4. Project Selection- Projects Procurement Process, Life – Cycle Costing, Market Analysis , Competencies and Promoter Analysis, Loan Documentation - Infrastructure and Public Private Partnership [6L]

MODULE II:

5. Cost of Project -Project specifications , Estimating Fixed Capital Investment in Project ,

Estimating Working Capital investment in the project, Means of Financing , Concepts of Depreciation and Amortization [4L]

6. Project Feasibility Analysis - Background , Net Present Value (NPV) , Profit v/s Cash Flow, Discount Rate , Tax-Shield on Interest , Tax-Shield on depreciation ,Internal Rate of Return (IRR) , XIRR , MIRR , Project IRR and Equity IRR , Payback Period , Discounted Payback Period , Economic IRR [6L]

7. Financial Projections-Projected Profit and Loss Account, Projected Balance Sheet, Projected Funds Flow, Project IRR , Equity IRR , Loan Servicing Capability: (a) Interest Coverage Ratio (ICR) (b) Debt Service Coverage Ratio (DSCR) (c) Long Term Debt Service Coverage Ratio (LDR) d) Sensitivity Analysis [6L]

8. Case Study [2L]

Suggested Readings:

1. Project Financing: Asset-Based Financial Engineering-John D. Finnerty, Wiley and Sons
2. Project Finance in Theory and Practice: Designing, Structuring, and Financing Private and Public Projects, Stefano Gatti- Academic Press
3. Principles of Project Finance- E. R. Yescombe,Academic Press
4. Corporate and Project Finance Modeling: Theory and Practice- Edward Bodmer, Wiley and Sons
5. Introduction to Project Finance-Andrew Fight, Elsevier
6. PPP And Project Finance -Das, Prabuddha, McGraw-Hill Education

FM 303: BEHAVIORAL FINANCE

On Completion of the course the students will be able to

CO1	Compare the various financial systems in India
CO2	Classify the structure of commercial banks and mutual funds
CO3	Develop knowledge of the various financial and securities markets
CO4	Interpret Lease and hire purchase system
CO5	Construct knowledge on Managers, underwriting, bankers.

MODULE I:

1. Introduction to the Practical Application of Behavioral Finance: Concept of Behavioral Finance, History, Incorporating Investment Behavior into the Asset Allocation Process. [4L]
2. Investment Decision Cycle: Judgment under Uncertainty [2L]
3. Intro to Neoclassical Economics and Expected Utility Theory-Utility/ Preference Functions: Expected Utility Theory [EUT] [4L]
4. Brief History of Rational Thought: Pascal-Fermat to Friedman-Savage Paradoxes [4L]
5. Prospect Theory :Capital Asset Pricing Model, Misconceptions about Market Efficiency, and Agency Theory Prospect Theory, Framing, and Mental Accounting
6. Information Screening Biases : Anomalies, Noise Trading, and Limits to Arbitrage

MODULE II:

7. Information Processing: Bayesian Decision Making, Heuristics and cognitive biases Overconfidence, Emotional Foundations, Implication of Heuristics and Biases for Financial Decision-Making, Implications for Overconfidence for Financial Decision-Making, Individual Investors and the Force of Emotion [6L]
8. Forecasting Biases [2L]
9. Emotion and Neuroscience [4L]
10. Group Behavior: Conformism, Herding, Fatal Attractions [4L]
11. Investing Styles and Behavioral Finance [4L]
12. Case Study [2L]

Suggested Readings:

1. Behavioural Finance Chandra. Prasanna.Mcgraw Hill
2. Behavioural Finance M. M. Sulphey. PHI
3. Understanding Behavioral Finance Lucy AckertCengage Learning India
4. Behavioural Finance ,William Forbes, Wiley
5. Behavioral Finance: Psychology, Decision-Making, and Markets ,Richard Deaves , South-Western College Publishing
6. Behavioural Finance, Shuchita Singh Vikas Publishing House

FM 304: CORPORATE FINANCE

On Completion of the course the students will be able to

CO1	To extend basic knowledge on the on corporate finance and goal of financial management
CO2	To classify different finance functions including capital structure, financing mix and the dividend decision criterion
CO3	To choose different capital budgeting technique by considering conventional and non-conventional cash flows
CO4	To analyse market efficiencies and anomalies in corporate finance
CO5	To build the strong understanding between managers and owners goal

MODULE I

1. Introduction to Financial Management: Scope, Objectives, Functions [2L]

2. Capital Structure: Concepts, Component of Capital, Leverage, Models of Capital Structure [6L]

3. Introduction to Corporate Finance: Meaning of Corporation, Role of Financial Manager, Agency Problem. [2L]

4. NPV as Investment Decision Criteria: Comparing NPV with other methods of Investment Decisions, The problems of multiple rates of Return, Mutually Exclusive Projects, Capital Rationing. [4L]

5. The Investment Decision: The Cash Flow, Equivalent annual Costs, Project Interactions.

MODULE II

6. Capital Budgeting and Risk: Company and Project Costs of Capital, Measuring Cost of Equity, Cost of Capital, and Risk Adjusted Discount Rate, Sensitivity Analysis, Monte Carlo Simulation, Real Options and Decision Trees

7. Alignment of Managers and Owners Goal: Practical aspects of Capital Investment Process, Information and Capital Investment, Incentives and their role in agency Problem, Measuring and Rewarding Performance: EVA, Pros and Cons of EVA [4L]

8. Market efficiency and Corporate Financing Basics of EMH, The Anomalies, The lessons for the Corporate Manager [4L]

9. The Financing Decision: The Financing Process, The Financing Mix: Tradeoffs and Theory, The Optimal Financing Mix, The Financing Mix and Choices [4L]

10. The Dividend Decision: Dividend Policy, analyzing Cash Returned to Stockholders, Buybacks, Spinoffs, and Divestures [4L]

11. Case Study [2L]

Suggested Readings:

1. Brearly, Myers, Mohanty: Corporate Finance, Tata McGraw-Hill
2. Copeland Weston Shastri: Financial theory and Corporate Policies, Pearson Education
3. Damodaran: Corporate Finance, Wiley
4. Ehrhardtand Brigham: Corporate Finance- a Focused approach, Thomson Learning
5. Megginson, Smart and Gitman: Principles of Corporate Finance, Thomson Learning
6. Ross, Westerfield and Jaffe: Corporate Finance, Tata McGraw-Hill

SPECIALIZATION: OPERATIONS MANAGEMENT

OM 301: SUPPLY CHAINAND LOGISTICSMANAGEMENT

On Completion of the course the students will be able to

CO1	EXPLAIN the important role of Supply Chain Management in business operations
CO2	DISCUSS current supply chain management trends
CO3	EXPLAIN the role of information & communication technology in supply chain management
CO4	APPLY the principles of supply chain management in logistical decision-making
CO5	ANALYZE the design for a given supply chain

MODULE I:

1. Introduction – Value Chain, Value System and Supply Chain, Supply Chain Drivers and Obstacles, Concept of Supply Chain Management (SCM) [4L]
2. Supply Chain Structure – Push-based Supply Chain vs. Pull-based Supply Chain, Trade-off between Push and Pull Strategies, Agile Supply Chain
3. Supply Chain Strategy – Strategic Decisions in SCM, Relating Supply Chain Strategies with Corporate Strategies, SBU Strategies and Functional Strategies [4L]

4. Role of Sales and Marketing in SCM – Personal Selling in SCM, New Roles for Sales Management, Relationship Marketing in SCM [2]
5. Operational Aspects in SCM – JIT and Kanban in SCM, Green Logistics, Reverse Logistics, Ethical SCM [4]
6. Role of Transportation in SCM – Key Role Players in Transportation, Transportation Modes, Performance Characteristics and Selection, Vehicle Scheduling and Routing, Distribution Management [4]

MODULE II:

7. Sourcing in SCM – Importance of Sourcing in SCM, Buying Decision, Procurement Process, Strategic Sourcing [4]
8. Supply Chain Planning – Demand Planning, Collaborative Planning, Scope of Planning Initiatives in SCM [2]
9. Role of Inventory Management in SCM – Need for Inventory Management, Control of Inventory in Retail and Services, Costs in Inventory Management [2]
10. Information Systems in SCM – Supply Chain Information Systems, Requirements Analysis of IT for SCM, E-Business and SCM, Challenges in Implementing Supply Chain Information Systems [4]
11. SCM in the Global Environment – Global Business Environment, Approaches to Globalization, an Overview of Global SCM, Challenges in establishing a Global Supply Chain [4]
12. Case Study [2L]

Suggested Readings:

1. Chandrasekaran, N. – Supply Chain Management – Process, System and Practice; OUP
2. Altekar, R.V. – Supply Chain Management; PHI
3. Chase, R.B., Shankar, R. and Jacobs, F.R. – Operations and Supply Chain Management; MGH

4. Agarwal, D.K. – Supply Chain Management: Strategy Cases and Best Practices; Cengage Learning
5. Chopra S., Meindl, P. and Kalra, D.V. – Supply Chain Management: Strategy, Planning and Operation; Pearson
6. Shah, J. – Supply Chain Management: Text and Cases; Pearson

OM 302: OPERATIONS STRATEGY

On Completion of the Course the students will be at

CO1	DEVELOP a bird's eye view of utilising organisational resources through continuous improvement of business parameters
CO2	EVALUATE and APPLY appropriate operation strategy to reconcile with market requirements
CO3	ANALYZE global quality management system
CO4	ANALYZING of strategies for improving quality and productivity
CO5	EVALUATE operation strategy as part of organisational strategy & mission

MODULE I:

1. Introduction – Innovation and operations discipline; Frameworks for strategy and the decision category approach; Developing an operations strategy; Content of Operations Strategy; The Operations Strategy Matrix; Value chain dynamics and operations decisions; Enterprise architecture and operations strategy. [4]
2. **Key Elements and Decision Categories** – Vertical integration and outsourcing; Business processes; Process technology decisions and multiple plants; Capacity strategy: How to make decisions on capacity and capacity expansion; Facilities strategies and globalization; Comparisons of plant productivity; facilities strategy and globalization; Sourcing and supplier management; Information systems and the impacts of the electronic economy. [6L]

3. **Capabilities and Different Approaches** – Competing on quality: Sources of quality and different measures of quality; Competing on cost versus competing on availability; Competing on cost versus competing on features and innovativeness; Competition in the various industries: Improving cost and quality. [6]
4. **Strategic Operations Planning** – Environmental assessment including assessment of technology and competition, organization position assessment, mission, financial and non- financial goals, operational forecasts. [4]

MODULE II:

5. **Modern Approach to Operations Strategy** – Integrating Operations strategy with Marketing, Finance and HR Strategies. International Operations Management: Key differences between Asia, Europe and USA, Productivity enhancement practices in Asia, Europe and USA, Role of competitive pricing.
6. **Globalization, Outsourcing and other Critical Issues** – Models for gaining advantage in a global environment; How to position within a value chain; Globalization, joint ventures, sourcing overseas, and macroeconomic effects of off-shoring; Supplier power and overseas sourcing: Moving up the value chain in outsourcing; basic concept of International trade and competitiveness. [6]
7. **Strategy Implementation** – Tracking goal fulfillment, Quality and productivity, Technology Plans, Mechanization and Automation. Simulation: Techniques of simulation, simulating operational scenarios, integrating operations with other functional areas, simulating service operations based on known distributions. [6]
8. Case Study [2L]

Suggested Readings:

1. Slack, N., Leewis, M. and Sharma, M.G. – Operations Strategy; Pearson India.
2. Krajewski, L.J. and Ritzman, L.P. – Operations Management – Strategy and Analysis; Addison-Wesley Publishers.
3. Garvin, D.A. – Operations Strategy: Text and Cases; Pearson.
4. Tan, K. H. and Matthews, R. – Operations strategy in action: A guide to the theory and practice of implementation; Edward Elgar Publishing.
5. Hayes, R., Pisano, G. and Upton, D. – Strategic operations: Competing through capabilities; Free Press.
6. Hayes, R. – Operations, Strategy and Technology: Pursuing the Competitive Edge; Wiley India. [6]

OM 303: QUALITY TOOLKIT FOR MANAGERS

On Completion of the Course the students will be able to

CO1	DISCUSS the importance of Quality and Quality Management
CO2	EXPLAIN the Quality Philosophies behind the modern approaches to quality management
CO3	EXPLAIN the quality concepts such as Lean Manufacturing, Cost of Quality, and Continuous Process Improvement
CO4	APPLY commonly used statistical quality control tools.
CO5	ANALYZE issues related to Six Sigma implementation.

MODULE I:

1. Quality Philosophies – Defining Quality, Introduction to TQM, Benefits of TQM, Obstacles in Implementing TQM [2L]
2. Customer Satisfaction – Defining Customer, Customer Perception of Quality, Feedback, Customer Complaints Analysis, Customer Retention [4L]
3. Quality Leadership – Characteristics and Role of Quality Leaders/Gurus, Strategic Planning and Decision Making, Deming Philosophy [4L]
4. Quality Awards – Quality Audits, Documentation, ISO 9000 [2L]
5. Quality Function Deployment – Introduction, Benefits of QFD, Voice of Customer, House of Quality, QFD Process [4L]
6. Failure Mode and Effects Analysis – Reliability and Reliability Requirements, Failure Rate, Stages of FMEA [2L]

MODULE II:

7. Statistical Process Control – 7 QC Tools, Acceptance Sampling Plan, Control Charts – Mean and Range Charts, p-Chart, np-Chart, c-Chart [6L]

8. Continuous Process Improvement - PDCA / PDSA Cycle, Poka yoke, Kaizen, Theory of Constraints, Kaizen, Benchmarking, Business Process Reengineering, Kaikaku [6L]
9. Cost of Quality – Cost of Achieving Good Quality, Cost of Poor Quality, Optimum Quality Level [2L]
10. Six Sigma Implementation – Introduction to Six Sigma, Process Capability Indices, Six Sigma in Manufacturing, DMAIC and DMADV, Technology Development using Design for Six Sigma, Product Design using Design for Six Sigma, Six Sigma in Service Industries [4L]
11. Lean Manufacturing – Concept of Value and Waste, VA, NVA and NNVA activities, Value Stream Mapping, Concept and Features of Lean Manufacturing [2L]
12. Case Study [2L]

Suggested Readings:

1. Besterfield, D.H., Besterfield-Michna, C., Besterfield-Sacre, M. Besterfield, G.H. Urdhwareshe, H. and Urdhwareshe, R. – Total Quality Management; Pearson.
2. Feigenbaum, A.V. – Total Quality Control; MGH
3. Urdhwareshe, H. – Six Sigma for Business Excellence; Pearson
4. Charantimath, P.M. – Total Quality Management; Pearson
5. Omachonu, V.K. and Ross, J.E. – Principles of Total Quality; CRC Press
6. Wilson, L. – How to Implement Lean Manufacturing, Indian Edition; MGH

OM 304: PRICING & REVENUE MANAGEMENT

On Completion of the Course the students will be able to

CO1	Understand pricing and revenue management with respect to operations management
CO2	Analyze the impact of different types of pricing and optimization and economy on revenue management
CO3	Illustrate demand forecasting for dynamic pricing
CO4	Develop Network and Capacity Control ideas in Revenue Management
CO5	Formulate pricing and revenue management in various fields

MODULE I:

1. Introduction – Historical background and context. Financial impact and Implications of Pricing and Revenue Management.[2L]
2. Revenue Management – Introduction, Revenue Management Process, Measuring Revenue Management Effectiveness, Revenue Management in Action.[6L]
3. Pricing Theory and Optimization – Traditional approaches to pricing, Basic pricing optimization, Price response function, Price response with competition, Price differentiation, Economies of price differentiation, Price differentiation and consumer welfare, Variable pricing.[8L]
4. Markdown Management – Markdown Pricing and Optimization; Estimating Markdown sensitivity; Markdown Management in Action.[6L]

MODULE II:

5. Customized Pricing – Introduction and Customized Pricing in Action, Bid Price Approach.[4L]
6. Forecasting – Demand Forecasting – Need, Types, Objectives and Steps. Overview of Qualitative methods, Quantitative methods – Naive, Moving Average (Simple and Weighted), Exponential Smoothing, Linear Regression, Implication of Forecasting in Revenue Management. [6L]
7. Capacity Allocation – Capacity Planning – Long range, Types, Developing capacity alternatives, Capacity Allocation with dependent demands, Forecasting and capacity planning. [4L]
8. Industry Applications – Industry Implementations and Practices, Case Studies. [4L]

Suggested Readings:

1. Philips R.L. – Pricing and Revenue Optimization, Stanford Business Book
2. The Oxford Handbook of Pricing Management Edited by Ozalp Ozer and Robert Philips, Oxford University Press
3. Talluri, K. and Van Ryzin, G. – The Theory and Practice of Revenue Management, Springer.
4. Bodea, T. and Ferguson, M. – Segmentation, Revenue Management and Pricing Analytics, Routledge.
5. Makridakis, S., Wheelright, S.C. and Hyndman, R.J. – Forecasting Methods and Application, Wiley.
6. John Hogan, Joseph Zale and Thomas T Nagle: The Strategy and Tactics of Pricing, published 2016 Routledge.

SPECIALIZATION: HUMAN RESOURCE MANAGEMENT
HR 301: TEAM DYNAMICS AT WORK

On Completion of the course the students will be able to

CO 1	Discuss the foundation of groups and teams, group dynamics and the different types of decision-making techniques at the workplace
CO2	Illustrate the development of organizational behavior and its importance in interpersonal competence and team effectiveness
CO3	Evaluate the complexities of managing teams efficiently.
CO4	Assess the various types of team interventions and the significance of communication and creativity strategies for organizational effectiveness
CO5	

MODULE I:

1. Meaning of a Group and Group Dynamics, Classification of Groups – Formal and Informal groups, Command, Task, Interest and Friendship groups. Why people join groups. The dynamics of group formation. Theories of group formation: Classic theory of George Homans, Theodore Newcomb’s Balance theory, Exchange theory. Five stage group development model, Punctuated Equilibrium model of development of temporary groups with deadlines. Managerial Implications.[4L]

2. Group Properties: Roles, Norms, Status, Size, Cohesiveness - factors that increase, Decrease group cohesiveness, relationship between group cohesiveness, Performance norms and productivity. Deviant workplace behaviour, Typology of Deviant workplace behaviour, groups and deviant behaviour. Managerial Implications.[4L]
3. The Schachter Study - Implication of the Schachter study, Sociogram, Sociometry. The dynamics of Informal Groups - Norms and Roles in informal groups, informal Roles and the informal organization. The dynamics of formal Groups - Positive and negative attributes of committees. The dysfunctions of group norms violation and role ambiguity conflict. Groups' contribution to employee satisfaction and performance. Managerial Implications.[4L]
4. Group decision making: Group versus the Individual, strength and weakness of group decision making, Effectiveness and efficiency. Group Think – conformity problem, symptoms of groupthink. Group Shift - risky shift phenomenon. Dysfunctions perspective, social loafing. Group decision making techniques - Interacting groups, Brainstorming, Nominal Group Technique, Electronic meeting, Dialectic Decision Method (DDM), Delphi Technique. Managerial implications [4L]

Case Studies, Presentations, quizzes, experiential exercises, Team exercises, Group Discussions, Role Playing. [4L]

MODULE II:

5. Teams in the modern workplace, why teams have become so popular, difference between group and team, types of teams – problem-solving teams, self-managed work teams, cross- functional teams, virtual teams. Managerial Implications. [4L]
6. Creating effective teams, the Team Effectiveness Model – context, composition, work design, process. Ingredients of effective teams – supportive environment, skills and role clarity, super ordinate goals, team rewards. Potential team problems – changing composition, social loafing. Guidelines for developing effective self-managed teams. Turning individuals into team players, shaping team players – selection, training, rewards. Managerial Implications.

[6L]

7. Team building: meaning of team building, need of team building, the process, specific building issues, team leadership, skills useful in team building – process consultation, T- group sensitivity training, communication skills, Negotiation skills, conflict resolution in teams, competitive vs collaborative behavior, developing collaboration facilitating behaviours, feedback. Managerial

Implications. [4L]

8. Contemporary issues in managing teams: teams and quality management, teams and workforce diversity. Cultural/global issues. Characteristics of mature teams - individual territories versus team spaces. Managerial Implications. [2L]

Case Studies, Presentations, quizzes, experiential exercises, Team exercises, Group Discussions, Role Playing.

[4L]

Suggested Readings:

1. Robbins, S.P. Judge, T.A. and Sanghi, S.: Organizational Behaviour, Pearson
2. Luthans, Fred: Organizational Behaviour, McGraw Hill
3. Newstrom J.W. and Devis K.: Organizational Behaviour, McGraw Hill
4. Aswathappa, K: Organisational Behaviour, Himalaya Publishing House
5. Shukla, Madhukar: Understanding Organizations – Organizational Theory and Practice in India, Prentice Hall
6. Sekharan, Uma: Organisational Behaviour, The Mc Graw –Hill Companies

HR 302: HUMAN RESOURCE METRICS AND ANALYTICS

On Completion of the Course the students will be able to

CO1	Understand the growing importance of Analytics in HRM
CO2	Develop an idea on the functioning of HRM , in creating value in terms of business
CO3	Create figures from intangibles in HRM, and foster Decision Making
CO4	Organize qualitative factors of HRM for better People Management
CO5	Create new ways in terms of Employee Management utilizing an Data Driven Approach
CO6	Apply HRM as a strategic business function

MODULE I:

1. Introduction: HR metrics - meaning, importance, what metrics should HR measure? Examples of HR metrics. HR Analytics - What is Analytics? Big data and Analytics, Stages in Data Analytics, Types of Analytics, Causal Modeling, What is HR Analytics? Objectives of HR Analytics. Its importance and benefits. [6L]
2. Realigning HR to business priorities, Stages of HR Analytics and the role of technology. Leveraging HR Analytics for organizational success. Mapping Business Analytics and HR Analytics. IMPACT Cycle. Pillars of HR Analytics success. Linking HR metrics to business outcomes. HR measurement tools and techniques: Identifying HR metrics, sources of data, tools and techniques of measurement. Excel, SPSS, SAP and Other software packages. [8L]
3. Human Capital Management (HCM) - Concepts, Phases-Scanning, Planning, Producing, Predicting. The Model for Predictive Management. Value Chain for HCM Model. Predictive Human Capital measurements. Guiding principles of Human Capital Analytics. [4L]

MODULE II:

4. HR Analytics and the HR delivery model. Requisites of effective HR Analytics. HR analytics modules: HR Planning, Hiring, HR Operations, Learning and Development, Performance Management, Compensation and Rewards, Succession Planning, Employee Engagement. [6L]
5. Human Resource Information System (HRIS): Understanding HRIS, Framework of HRIS. Benefits of HRIS. HRIS Trends: Talent Management Analysis, Data Analytics, Social media, cloud mobile enabled, Employee Engagement Analysis. Integrated HRIS. [6L]
6. Data and Information needs for HR Manager - Role of IT in HRM - IT for HR Managers - Concept, Structure, and Mechanisms of HRIS, survey of Software [4L]
7. Packages for Human Resource Information System including ERP Software such as SAP, Oracle. EHRM-objectives, advantages and disadvantages. [4L]
8. Case Study [2L]

Suggested Readings:

1. Michael Armstrong, A Handbook Of Human Resource Management Practice, Kogan Page

2. Gueutal and Stone, The Brave New World Of e-HR
3. Monk and Wagner, Concepts In Enterprise Resource Planning, Thomson
4. Steve VanWieren, Quantifiably Better: Delivering Human Resource Analytics from start to finish.
5. Bernard Marr, Data-driven HR: How to use Analytics and Metrics to drive performance.
6. Ramesh Soundararajan, Kuldeep Singh, Winning on HR Analytics: Leveraging data for competitive advantage.

HR 303: CROSS CULTURAL MANAGEMENT

On completion of the course the students will be able to

CO1	Develop the importance of culture and its various dimensions in managing the organization
CO2	Classify the issues of diverse workforce belong to various culture and ethnicity within the organization
CO3	Develop the concept of negotiation and effective decision making in a multi-cultural organization setting
CO4	Illustrate global Human resource management
CO5	Develop critical thinking and analytical skills through the case studies

MODULE I:

1. Introduction - Concept of Culture For A Business Context; Organizational Culture and Its Dimensions; Cultural Background of Business Stake-Holders [Managers, Employees, Share -Holders, Suppliers, Customers and Others] – An Analytical Framework [10L]
2. Culture and Global Management - Global Business Scenario and Role of Culture; A Frame Work for Analysis; Elements and Processes of Communication Across Cultures; Communication Strategy for/ of An Indian MNC and Foreign MNC and High Performance

Winning Teams and Cultures; Culture Implications for Team Building [10L]

MODULE II:

3. Cross Culture – Negotiation and Decision Making - Process of Negotiation and Needed Skills and Knowledge Base – Over view with two illustrations from multi cultural contexts [India – Europe/ India – US settings, for instance]; International and Global Business Operations- Strategy Formulation and Implementation; Aligning Strategy, Structure and Culture in an organizational Context. [8L]
4. Global Human Resources Management - Staffing and Training for Global Operations – Expatriate - Developing a Global Management Cadre.. Motivating and Leading; Developing the values and behaviors necessary to build high-performance organization personnel [individuals and teams included] – Retention strategies. [4L]
5. Corporate Culture - The Nature of Organizational Cultures Diagnosing the As-Is Condition; Designing the Strategy for a Culture Change Building; Successful Implementation of Culture Change Phase; Measurement of ongoing Improvement. [6L]
6. Case Study [2L]

Suggested Readings:

1. Cashby Franklin, Revitalize Your Corporate Culture: PHI, Delhi
2. Deresky Helen, International Management: Managing Across Borders And Cultures, PHI, Delhi
3. Esenn Drlarry, Rchildress John, The Secret of A Winning Culture: PHI, Delhi
4. Deepak Kr. Bhattacharya, Cross Cultural Management, PHI
5. Jessica. L. Whiteman, Richard, L. Griffith, Critical Issues in Cross Cultural Management, Springer
6. Broweays, Understanding Cross Cultural Management; Pearson

HR 304: ORGANIZATIONAL DESIGN

On Completion of the Course the students will be able to

CO 1	Create the most suitable organisation
CO2	Evaluate the importance of designing an organisation
CO3	Construct organisation structure
CO4	Categorise organisation functioning
CO5	Design organisation depending on chnges in business operations

MODULE I:

1. Organization Theory – Classical Theories: Scientific Management, Administrative Principles, Theory of Bureaucracy, Human Relations Approach; Modern Theories: Systems Approach, Information processing Approach, Contingency Approach. Managerial Implications. [4L]
2. The Bureaucratic model, dysfunctions of Specialization, Hierarchy, Rules, Impersonal characteristics. Modern view of Bureaucracies, Modifications of Bureaucratic structuring, types of centralization and decentralization, optimum degree of decentralization, Flat and tall structures, Behavioral implications of Flat versus Tall Structure. Managerial Implications. [4L]
3. Organizational Structure and Design – Understanding organizational structure, Elements of Designs of organization’s structure: Work Specialization, Departmentalization, Chain of command, Span of control, Centralization and Decentralization, Formalization Understanding Departmentalization by Function, Product, Location, process, customer. Types of structures: Line, Line and Staff, Functional, Project, Matrix structures. Managerial Implications [6L]
4. Case Studies, Presentations, quizzes, experiential exercises, Team exercises, Group Discussions. [6L]

MODULE II:

5. Mechanistic and Organic Models: Determinants of an Organization's Structure – Strategy, the strategy and structure relationship, Organization Size, Technology and Environment, Three Dimensional Model of the Environment. Organizational Designs and Employee Behaviour. Managerial Implications. [4L]

6. Emerging Organizational Designs: Horizontal design, Network design, Virtual Organization, Boundary less Organization, Learning Organisation, Empowered Organizations, e-Organization: implications for Individual Behaviour, Group behaviour, effects on interpersonal relationships. Restructuring Indian Organisations, Regrouping business activities, strategic business units. Managerial Implications. [6L]

7. Forces reshaping Organizations: Organizational Life Cycles, Impact of Culture on organization Structure, Types and forces of organizational change: Globalization, Changes in Information processing technologies, Automation, Demands on organizational processes. Roles and responsibilities in the changed process. Managerial Implications. [6L]

8. Case Studies, Presentations, quizzes, experiential exercises, Team exercises, Group Discussions. [4L]

Suggested Readings:

1. Robbins, S.P. Judge, T.A. and Sanghi, S.: Organizational Behaviour, Pearson
2. Luthans, Fred: Organizational Behaviour, McGraw Hill
3. Newstrom J.W. and Devis K.: Organizational Behaviour, McGraw Hill
4. Aswathappa, K: Organisational Behaviour, Himalaya Publishing House
5. Shukla, Madhukar: Understanding Organizations – Organizational Theory and Practice in India, Prentice Hall
6. Sekharan, Uma: Organisational Behaviour, The Mc Graw –Hill Companies

SPECIALIZATION: BUSINESS ANALYTICS

BA 301: MODELING TECHNIQUES

On Completion of the course the students will be able to

CO1	Explain Data Modeling concept, types and applications.
CO2	Illustrate different strategies for data per-processing
CO3	Apply learned concepts to build prediction and classification models aims to solve business related problem.
CO4	Interpret the outcomes or results of various prediction and classification models.
CO5	Choose proper statistical model for a business situation for smooth and fast decision making.

MODULE I:

1. Introduction to Data Modeling: Data Model Concept, Goals, Stages of Modeling, Applications of different types of data models, Importance of data modeling in business. [4L]
2. Data Preprocessing: Data types, Quality, Descriptive data summarization – central tendency and dispersion measure, Data cleaning, Outlier detection, Data integration & transform, Data reduction.[4L]
3. Non Parametric test: Goodness of Fit, Test of independence, Wilcoxon Sign rank test, Mann-Whitney-U test, K-S test. [6L]
4. Classification & Prediction: Decision Tree, Bayesian classification, Discriminant Analysis, Prediction – Linear Regression [6L]

MODULE II:

5. Linear Modeling: Theory of linear estimation, Gauss Markov linear models (concepts only),

least square estimators, estimation of error variance, properties of least square estimators. [4L]

6. ANOVA & DOE: One way & Two way classifications, Types of Experimental Designs.[6L]
7. Elements of Decision Theory: Decision making under certainty, uncertainty and risks. Concepts of Decision Modeling.[6L]
8. Simulation Modeling: Monte Carlo simulation, using random numbers, Applications in inventory analysis, Waiting lines, Maintenance and finance areas. [4L]

Suggested Readings:

1. David Levine, Mark Berenson and Timothy C. Krehbiel: Basic Business Statistics
2. Jacquelyn G Blac: Business Statistics: Contemporary Decision making
3. Amir Aczel: Complete Business Statistics
4. Hoberman Steve: Data Modeling Master Class Training Manual
5. William W. Gregory & William W. Gregory: The Data Modeling Handbook: A Best–Practice Approach to Building Quality Data Models
6. Adrienne Watt: Database Design – 2nd Edition

BA 302: APPLICATION OF ANALYTICS IN BUSINESS

On Completion of the Course the students will be able to

CO1	Explain marketing analytics concept, principles and applications.
CO2	Illustrate different types of prediction and classification techniques, popularly used in business.
CO3	Apply learned concepts to build models aims to solve business related problem.
CO4	Interpret the outcomes or results of various statistical techniques.
CO5	Choose proper statistical model for a business situation for smooth and fast decision making.

MODULE I:

1. Introduction to Marketing Analytics: Need for Data Driven Marketing Approach, Marketing Engineering, Model Building in Marketing Engineering, Basic Principles of Marketing Analytics to Business Problems, Slicing and Dicing Marketing data with Pivot Tables, Excel Charts to summarize data [6L]
2. Pricing Analytics: Basic Concept of Pricing, Estimating Demand Curves and Optimize Price, Price Bundling, Non Linear Pricing and Price Skimming [6L]
3. Marketing Forecasting: Simple Regression and Correlation, Multiple Regression to forecast sales, Modeling trend and Seasonality, Ratio to Moving Average Method, Winter's Method [4L]
4. Strategic Marketing Analytics: The STP framework, Value generation through STP framework, Managing the segmentation process, Segmentation in Real world: Cluster Analysis, Hierarchical and Non-Hierarchical - K Means Clustering, Prediction of Customer's segment membership: Discriminant Analysis (DA), two Group DA [4L]

MODULE II:

5. Positioning Strategies: Concept of Product positioning, Conduct a Positioning Study, Perceptual Mapping using Principal Component Analysis (PCA), Multidimensional Scaling (MDS), Incorporating preferences into Perceptual Maps [6L]
6. Customer Lifetime Value (CLV): Concept of CLV, Comparison of CLV with related metrics, Analyzing CLV, Extensions of CLV Analysis, Drivers of CLV, Uses of CLV metrics [8L]
7. Product Designing: Concept of Product Designing, Conjoint Analysis as a decompositional preference model, Steps in Conjoint Analysis, Uses of Conjoint Analysis, Drivers of CLV, Uses of CLV metrics [4L]
8. Case Study [2L]

Suggested Readings:

1. Marketing Analytics - Data-driven Techniques with Microsoft Excel by Wayne L. Winston
2. Marketing and Sales Analytics: Proven Techniques and Powerful Applications from Industry Leaders by Cesar A. Brea
3. Marketing Analytics by Winston
4. Data Analytics using R - Seema Acharya, Mc. Graw Hill Publication

5. Advanced Customer Analytics: Targeting, Valuing, Segmenting and Loyalty Techniques’
Mike Grigsby
6. Digital Marketing Analytics: Making sense of Consumer Data in digital world, Chuck Hemann,
Ken Burbary; Que Publishing

BA 303: BUSINESS FORECASTING

On Completion of the course the students will be able to

CO1	Apply the concept, meaning as well as the importance and different methods of Business Forecasting and the applicability and importance of the each of the methods of Business Forecasting in the Management Decision Making using previous few years Data of the Organization,
CO 2	Analyze the existing system, followed by application of strategies, way of operations of the existing Organizational Forecasting System, making improvement with the application or introduction of new and improved Forecasting systems based on the requirement and type of Operation of the organization
CO 3	Evaluate and Analyze different aspect of Business Forecasting, viz forecasting of Sales for the coming years, Forecasting of Marketing Budget and return, Forecasting of Labor requirement based on Sales Forecast, Budget requirement based on the Sales Forecast, etc. Evaluation of Business Forecasting methods and Forecasting applications for better performance of actual versus Forecast
CO 4	Implement concepts of Business Forecasting at present situation, creating a system for Mathematical modelling, Statistical hypothesis analysis, econometric analysis, Time series analysis of the data of the previous years to model the forecast of the coming years, Linear and non linear modelling, univariate and multivariate analysis of Organizational data to have a better forecast of the coming years, creation a system in the organization based on R and R studios, Analysis of the historical data using R and R studio, coding in R for Business Forecasting to be applied in the organization
CO 5	Apply the difference between the types of Forecasting methods using the architecture of Data Analytics, application of Analytics and forecasting, use of application like R. Connecting R studio with Organizational data base to analyze the historical data and make forecast. Analysis of the existing Forecasting tools and upgrading it with updated system for better performance

MODULE I:

1. Historical perspective of Business Forecasting: Concept of Business forecasting, Difference

among Econometrics, Mathematics and Statistics, Importance of Econometrics, Linkage of Econometrics with Business Forecasting-Types of Data [6L]

2. Regression Model: Steps, Linear, Non linear. [4L]
3. Univariate time series: Linear model, Stationarity, Autocorrelation, Partial Auto correlation, Multicollinearity, ARIMA, ARMA process. [10L]

MODULE II:

4. Stationarity and Unit Roots Tests: Introduction, Unit Roots tests, Stationarity tests [4L]
5. Univariate Time Series: Volatility Models-Introduction, The ARCH Model, The GARCH Model [6L]
6. Multivariate Time Series Analysis: Vector Auto regression Model–Co integration [4L]
7. Introduction to E Views: E views Functions, Programming in E views [2L]
8. Introduction to R studios: Programming in R for time series forecastin [2L]
9. Case Study [2L]

Suggested Readings:

1. Damodar N. Gujarati, Basic Econometrics ,McGraw-Hill Publication,2003
2. Chris Chatfield, The Analysis of Time Series: An Introduction , Chapman and Hall
3. N. H. Chan, Time Series: Applications to Finance, John Wiley and Sons,
4. James D. Hamilton, Time Series Analysis, Princeton University Press,
5. Terence C. Mills, The Econometrics of Financial Time Series Cambridge University Press.
6. Box, Jenkins, Reinsel, Ljung, Time Series Analysis: Forecasting and Control; WileyPublications

BA 304: DATA SCIENCE USING R

On Completion of the Course the students will be able to

CO1	DEVELOP basic knowledge of variable and syntax
CO2	EVALUATE and APPLY appropriate syntax and operation for coding
CO3	ANALYZE the code segment for applying syntax real life problem
CO4	ANALYZING of the code segment for debug the real life problem
CO5	EVALUATE the real life problem set

MODULE I:

1. Programming in R: Basics of R, Conditional and loops, R packages/libraries, Data mining GUI in R, Data structures in R, Exceptions/ debugging in R [4L]
2. Data Wrangling: Reading CSV, JSON, XML, .XLSX and HTML files using R,ETL operations in R, Sorting/ merging data in R, Cleaning data, Data management using dplyr in R [4L]
3. Modeling in R: Linear regression model in R, Multiple linear regressions model, Representation of regression results, Non Linear Regression [10L]

MODULE II:

4. Mining Algorithms using R: Association analysis, Market-based analysis/ rules, Apriori algorithm, Segmentation analysis- types of segmentation, k-means clustering, Bayesian clustering, Principal Component Analysis (PCA) [10L]
5. Time Series Forecasting in R and model deployment: Basics of time series, Components of time series, Time series forecasting, Deploying predictive models [10L]
6. Case Study [2L]

Suggested Readings:

1. R for Data Science – Hadley Wickham and Garrett Golemund
2. R in Action – Robert Kabacoff
3. R for Everyone: Advanced Analytics and Graphics – Jared P. Lander
4. The R Book – Michael J. Crawley
5. R and Data Mining: Examples and Case Studies – Yanchang Zhao
6. Data Analytics using R - Seema Acharya, Mc Graw Hill Publication

FOURTH SEMESTER**ELECTIVE SPECIALIZATION: MARKETING****MM 401: CONSUMER BEHAVIOUR**

On completion of the course the students will be able to

CO1	Explain the consumer's decision-making process and to look at marketing programs from the point of view of the consumer.
CO2	Apprise the different individual determinants that influence consumers' decision-making – the various psychological constructs that make every consumer unique.
CO3	Appreciate the impact of different external factors in the consumer's environment that have a bearing on his choice process.
CO4	Understand of the consumer's buying process and make suitable adjustments in the firm's marketing program for better marketing outcomes.

MODULE I:

1. **Introduction to Consumer Behaviour:** Defining consumer behaviour, Impact on marketing strategies, Current trends in consumer behavior [2L]

2. **Consumer Decision Process:** Need recognition, information search, evaluation of alternatives, purchase decision, consumption and post-purchase evaluation, Variables that shape decision process- individual differences, psychological processes, environmental influences, Types of decision process – complex decision making, variety seeking, impulse buying, loyalty, degree of involvement in buying [6L]
3. **Individual Characteristics:** Demographic and psychographic characteristics and market segmentation, Personality, personal values, lifestyle concepts and measurements [4L]
4. **Consumer Perception:** Marketing stimuli and perception, Perceptual selection - organization, interpretation, and selective perception process [2L]
5. **Learning and Memory:** Information acquisition and processing, learning elements, Theories, Memory processes [2L]
6. **Consumer Motivation:** Nature and role of motives, Classifying motives, Motive arousal, Motivation and Involvement [2L]
7. **Self-concept:** Perspective of self, Consumption and self concept, Gender roles [2L]
8. **Attitude:** Characteristics and functions of attitude, Attitude development, Attitude theories and models, Role of belief in attitude formation, Relationship of attitude and behaviour, Attitude reinforcement and change [6L]

MODULE II:

9. **Culture Subculture and Social Class:** Nature of culture, Cultural values, Changing values, Cross-cultural understanding of consumer behaviour, Types of subculture and their influence on behaviour, Nature of social class, Social stratification [4L]
10. **Reference Group Influence:** Nature and types of reference groups, How groups influence individuals, Opinion leadership, Word-of-mouth, Innovation and diffusion [2L]

11. **Family and Household:** Structural and sociological variables affecting families and households, Family life cycles, Role behaviour, Conflict resolution, Changing role of women, Children and household consumer behavior [4L]

12. **Case Studies** [4L]

Suggested Readings:

1. Assael, H.: Consumer Behaviour & Marketing Action; South-Western
2. Blackwell, R.D., Miniard, P.W. & Engel, J,F.: Consumer Behaviour; South-Western
3. Hawkins, D.I., Best, R.J. Koney, K.A.& Mookerjee, A.: TMH
4. Kumar: Conceptual issues in Consumer Behaviors; Pearson Education
5. Loudon & Bitta, Della: Consumer Behaviour; TMH
6. Shiffman & Kanuk: Consumer Behaviour; Pearson Education

MM 402: RETAIL MANAGEMENT

On Completion of the course the students will be able to

CO1	Describe basic concepts in retail management.
CO2	Describe the strategies existing in the retail managements.
CO3	Discuss about the different opportunities available in selecting a location.
CO4	Discuss about the different store layouts & designs existing in the retail management
CO5	Explain the various pricing approaches available in the retail marketing

MODULE I:

1. **Introduction to Retailing:** Growth and importance, Strategic Retail Planning. Retail

Organization, Models and Theory of Retail Development, Retail Formats, Rural Retailing, Environment and Legislation for Retailing [4L]

2. **Retail Operations Management:** Retail location research and techniques, Objectives of Store designing, Responsibilities of Store Manager, Store record and accounting system, Logistic and Information system [6L]
3. **Retail Planning:** Marketing and Strategic Management, Operations and finance in retailing, HRM in retailing, Mall Management, Relationship Management, Brand Management, Social Marketing in Retailing [6L]
4. **Retail Sales Techniques and Promotion:** Advertising communications and promotion, Promotion Impact, Tactical analysis, Consumer and Retail Sales promotion techniques. [4L]

MODULE II:

5. **Customer Relationships and Behaviour:** Understanding Consumer and Market Segment, Consumer Behaviour and Marketing Strategy, Consumer Perception, Self Concept, Relevance of Culture, Buying Decision, Opinion Leadership, Implications of Personal Influences [4L]
6. **International Retailing:** International Marketing Research and Information System, Market Analysis, Motives of International Retailing, International Retail Environment and Structure, Analysis of Retailing in Global Setting – methods and competition. [6L]
7. **Supply Chain Management:** Network, Challenges, Forecasting, Sourcing and Vendor Selection, Routing and Route sequencing, Inventory Management, Lead Time uncertainty and Product Availability, Cross Docking and Collaborative Planning. [4L]
8. **Electronic Retailing:** Use of IT in Retailing, Effective Management of Online catalogues, Direct Retailing Methods, Database Management, Data warehousing, Analysis of E – Retailing Strategies, Digital and Network marketing. [4L]
9. **Case Studies** [2L]

Suggested Readings:

1. Bajaj , Tuli, & Srivastava “Retail Management” Oxford University Press
2. Berman Barry & Evance J.R “Retail Management” Prentice Hall India
3. Jain J.N.& Singh P.P “ Modern Retail Management – Principal And Techniques ” Regal Publications
4. Swapna Pradhan “Retailing Management- Text And Cases” Tata Mcgraw-Hill
5. George H, Lucas Jr., Robert P. Bush, Larry G Greshan- Retailing
6. Barry Berman, Joel R Evans- Retail Management; A Strategic Approach

MM 403: SALES & DISTRIBUTION MANAGEMENT

On Completion of this course the students will be able to

CO1	Understand role of personal selling and its management as a component of IntegratedMarketing Communications, its uniqueness, its application and its relationship with theother components of IMC.
CO2	Organize nuances of personal selling, the art and craft of salesmanship, the sales cycle,the different types of selling situations and some characteristics of successful salespersons.
CO3	Implement the various functions of sales force management like recruitment,selection, training, equipping & motivating the sales force, designing sales territories & quotas, sales force compensation and management of salesperformance.
CO4	Decide pertaining to setting up of distribution channels & their management,Thisbased on an understanding of their different formats, functions, specializations, capabilities & constraints.

MODULE I:

1. **Introduction to Sales Management:** Evolution of sales department, Nature & scope of personal selling & sales management, Roles and functions of a sales manager [2L]
2. **Personal Selling:** Types of selling situations, Buyer-seller dyad, Theories of selling, Personal selling process (pre-approach, approach, presentation, handling objections, closing a sale, follow-up) [4L]
3. **Planning and Organizing Sales Force Efforts:** Strategic planning and sales organization, Sales department relations, Distribution network relations, Sales forecasting, Sales budget, Sales objectives, Sales territories and quotas, functions of a sales manager, sales force planning [4L]
4. **Sales Force Development:** Sources of recruitment, Selection process, Methods of selection, Need and purpose of training, Types of training, Designing a training programme - ACMEE model [4L]
5. **Directing and Controlling the Sales Force:** Supervision, Territory management, Determination of quota/target, Determination of compensation of sales force, Leading and Motivating, Analysis of sales, Costs and Profitability, Evaluation of sales force performance [6L]

MODULE II:

6. **Marketing Channels:** Structure, Functions and advantages, Types of channel intermediaries – wholesalers, distributors, sales agents, brokers, franchisers, C&F agents, and retailers, Channel Conflicts and remedies [4L]
8. **Channel Design and Management:** Channel objectives & constraints, Identification, evaluation and selection of channel alternatives, Channel management and control – recruiting and selecting channel members, motivating, evaluating channel arrangements [4L]
9. **Physical Distribution & Logistics:** Goals, function, processing, warehousing, inventory

& transportation

[2L]

10. **Retail and Merchandise Management:** Retail strategies, Location, Types of retail formats, Stores layout, Visual merchandising techniques, Planning of assortment, Servicing and buying of merchandise, Supply chain management in retailing [6L]

11. **Case Studies**

[4L]

Suggested Readings:

1. Cundiff, Still & Govoni : Sales Management – Decision, Strategies & Cases; PHI./Pearson Education
2. Levy, M. & Weitz, B.A.- Retailing Management - McGrawHill
3. Panda, Sahadev: Sales & Distribution Management; OUP
4. Shapiro, R.L., Stanton, W.J. & Rich, G.A.: Management of Sales Force; TMH
5. S.L. Gupta **Sales and Distribution Management**, Excel Books India, 2009
6. Krishna K Havaladar Vasant M Cavale **Sales and Distribution Management: Text and Cases**, Tata McGraw-Hill Education,

MM 404: SERVICE MARKETING

On Completion of the course the students will be able to

CO1	Understand the importance and criticality of services marketing .
CO2	Understand and apply the seven marketing mixes in the area of services marketing
CO3	Appreciate the differentiating role of services marketing in today's business context
CO4	Understand and relate to the issues of marketing in terms of customer expectation and develop a services strategy.
CO5	Develop an understanding of services marketing in multiple sectors.

MODULE I:

1. **Service Concept:** Definition, Characteristics of services, Tangibility continuum, Marketing mix for services, Different types of service sectors – traditional and new, Service experience – moments of truth, zone of tolerance. [6L]
2. **Service Strategy Planning:** Understanding the customer and competition, Positioning services, Service triangle concept [2L]
3. **Creating the Service Product:** Creating service product, Customer value hierarchy, Flower of service, Service product mix, Branding service products [4L]
4. **Service Marketing Pricing and Communications:** Approaches to pricing of services, Elements of promotional mix for services [4L]
5. **Designing and Managing Service Demand and Capacity:** Designing service delivery

system, Service blue printing, Customer as co-producer, Capacity constraints, Demand patterns, Strategies for matching capacity and demand, Wait lines and reservations [4L]

MODULE II:

6. **Planning the Service Environment:** Physical evidence, Servicescapes - types and role, customer response to environment, guidelines for servicescape strategies [2L]

7. **Managing People:** Critical importance of service employees, Problems and difficulties of boundary-spanning roles, Strategies for delivering service quality through people, Service leadership and culture [4L]

8. **Service Quality:** Service quality, Integrated Gap model - to identify and correct quality problems, Measuring and improving service quality [4L]

9. **Different Services:** Nature and characteristics of financial, hospitality, health-care, educational & professional, logistics, entertainment services and their respective marketing mix analysis [6L]

10. **Case Studies** [4L]

Suggested Readings:

1. Zeithaml, V.A., Bitner, M J, Gremler, D.D. & Pandit, A.: Service Marketing; TMH
2. Rao, K.R.M.: Services Marketing, Pearson Education
3. Rajendra Nargundkar, Services Marketing: Text & Cases, Tata McGraw-Hill Publishing Company, New Delhi, 2008
4. Apte, G.: Service Marketing; OUP
5. Lovelock, C., Wirtz, J. & Chatterjee, J.: Services Marketing; Pearson Education
6. Srinivasan R.: Services Marketing; PHI

MM 405: PRODUCT & BRAND MANAGEMENT

On Completion of the course the students will be able to

CO1	Develop perspective on various aspects of managing products successfully and developing strong brands, Determine variables that drive the success of brands and product lines and the interrelationships among these variables.
CO2	Utilize practical tools to interpret, relate and evaluate product and brand strategies in an array of customer and competitive contexts and Evaluate strategies for brand management at the global level and adapt them to suit the requirement of managing the brand in different cultural contexts.
CO3	Examine the importance of the ethical dimension in new product innovations and brand building.
CO4	Discuss the process and methods of brand management, including how to establish brand identity and build brand equity.
CO5	Compose , assess, and incorporate individual input to produce effective team project output for the purpose of branding and product management.

MODULE I:

1. **Product Concepts:** Product Mix concepts, Product Classification. Product Planning: Marketing Plan, Portfolio Analysis, Market Potential and forecasting [4L]
2. **Product Market Strategies.** New Product Development, Product Life Cycle Stages and corresponding Strategies, Product Evaluation, Product Modification, Line Extension & Brand Extension. [6L]
3. **Managing Brand:** Concept & function of Brand Management, Brand creation, Brand Name, Brand attributes, awareness, loyalty, Personality association, brand extension, co-branding, branding commodities [4L]
4. **Strategic Brand Management Process:** developing brand strategy Positioning concept, positioning statement, positioning process and steps; Brand Identity, Roles of brand, building Brand image, Brand dimensions [6L]

MODULE II:

5. **Planning & Implementing Brand Marketing Programs:** Criteria for Choosing Brand Elements, Options & tactics for Brand Elements, Use of IMC for Brand Building, Leveraging Secondary Brand Associations to Brand building. [6L]
6. **Brand Equity:** Concept of brand equity, Brand equity vs brand value, brand equity benefits, brand review, brand value, creating brand equity and brand value. [4L]
7. **Brand Personality:** Concept, advantages, importance of brand personality, brand personality and user imaging. Brand ambassadors, Brand promise. [2L]
8. **Brand Communication:** Understanding branding objective, brand communication strategy, mapping brand strategy with IMC, Media strategy. [2L]
9. **Global Brands:** Concept of global brand, benefits, advantages of global branding, building on successful global branding global brand strategy. [2L]
10. **Case studies** [4L]

Suggested Readings:

1. Lehmann, R. Donald & Winer, Russel S. (2004), Product Management, Pearson Education
2. Donald R. Lehmann and Russell S. Winer, Product Management, Fourth Edition, TMH
3. Keller, Kevin Lane (2007), Strategic Brand Management
4. Niraj Kumar & Paras Tripathi, Brand Management (text & cases), Himalaya Publishing House.
5. M. G. Parameswaran, 2006, Building Brand Value: Five Steps of Building Powerful Brands, New Delhi: Tata McGraw Hill
6. H. V. Verma, 2004, Brand Management, New Delhi: Excel Books

MM 406: INTERNATIONAL MARKETING

On Completion of the course the students will be able to

CO1	Explain major concepts and issues of international marketing
CO2	Assess the cross cultural issues in the internationalization of firms
CO3	Analyze emerging trends in international markets
CO4	Assess the role of regional agreements and public policy in international marketing.
CO5	Identify and evaluate different frameworks for market entry strategies in the international market

MODULE I:

1. **Introduction:** Definition of international marketing, Domestic vs. international marketing, Benefits of international marketing, Process of internationalization, marketing orientation of a firm. [4L]
2. **Trade Theories:** Basis of international trade, Principles of absolute and relative advantage, Factor endowment theory [2L]
3. **Dynamics of World Market:** Identifying and satisfying global needs, Coordinating activities and recognizing constraints [4L]
4. **Environment of International Marketing:** Economic-cultural – culture and its characteristics, influence of culture on consumption decisions, cultural universals, Politico- Legal – concept of multiplicity of political and legal environment, different political and legal systems. [4L]
5. **International Institutions:** (only the objectives) – WTO, World Bank, IMF, ADB, UNCTAD, EEC, SAPTA, NAFTA etc. [2L]
6. **International Product Policy:** New product policy, International product life cycle,

Product line policies, Branding, packaging and labelling [4L]

MODULE II:

7. **International Pricing Strategies:** Factors in pricing, Alternative strategies, Forfeiting, Transfer pricing, Dumping, Counter trade [4L]
8. **Distribution:** Methods of entry into foreign markets, Foreign market channels, Global logistics [4L]
9. **Promotion:** Global promotion mix, Standardized global communication. [2L]
10. **Foreign Exchange:** Concepts of spot rate, forward rate, arbitrage, translation; FEMA [4L]
11. **Procedure of Foreign Trade and Documentation:** Process of importing and exporting, Documentation (only the purpose) – certificate of origin, bill of lading, mates receipt, letter of credit, line of credit. [4L]
12. **Case Studies** [2L]

Suggested Readings:

1. Black & Sundaram: International Marketing: PHI
2. Doole, J. & Lowe, R.: International Marketing Strategy; Thomson
3. Johansson, J.K., TMH
4. Joshi: International Marketing: OUP
5. Keegan: Global Marketing Management: Pearson
6. Paul, J, & Kapoor, R, International Marketing, TMH

ELECTIVE PAPERS
SPECIALIZATION: FINANCE

FM 401: INVESTMENT ANALYSIS & PORTFOLIOMANAGEMENT

On Completion of the course the students will be able to

MODULE I:

1. **Concepts of Portfolio Management:** Financial Instruments, Overview of Indian Capital Market, Brief ideas on portfolio management, ideas on speculation, hedging, arbitraging. [4L]
2. **Security Analysis:** Concept of Security- Fundamental and Technical Analysis- difference between Fundamental and Technical Analysis – (support and resistance- Charts and graph – line chart – Candlestick Chart – various patterns) – Dow Theory –Elliot Wave Theory. [6L]
3. **Security Valuation:** Valuation of Bond – YTM and its calculation- Duration of Bond-Concept of Immunization- Valuation of Shares.[6L]
4. **Risk and Return:** Definition of Risk and Return- Different types of Risk- measurement of Risk and Return of single security of Security Beta [2L]

MODULE II:

5. **Portfolio Theory:** Concept of Portfolio, measurement of Portfolio risk and return, Markowitz Portfolio theory – Efficient Frontier and selection of Optimum Portfolio. [4L]
6. **CAPM Model:** Idea and interpretation - SML and CML. Analysis and interpretation- Usefulness. [4L]
7. **Other Portfolio Theory:** Sharp Single Index Model - Arbitrage pricing theory and Multi Factor Theory.[6L]
8. **Market efficiency and Portfolio Evaluation:** Concept of market efficiency - Different types of market efficiency and their interpretation - Techniques of analyzing portfolio performance - analysis and modification of portfolio. [4L]
9. **Case Studies** [4L]

Suggested readings:

1. Fischer and Jordon, Security Analysis and Portfolio Management, Prentice Hall.
2. Kevis, S, Security Analysis and Portfolio Management, Prentice Hall
3. Copeland, Weston & Shastri, Multinational financial analysis, Pearson
4. Nagarajan & Jayabal, Security analysis and portfolio management, New Age International
5. Avadhani, V.A., Security Analysis and Portfolio Management, Himalaya Publishing
6. Bhalla. B.K. Investment Management, S Chand Publication

FM 402: MANAGING BANKS & FINANCIAL INSTITUTIONS

On Completion of the Course the students will be able to

CO1	Apply the concept, meaning, importance and significance of Securities & Portfolio
CO2	Apply strategies to define goals, functions, of securities, risk involved in business, securities valuation
CO3	Evaluate and Analyze the fundamentals & technical aspects of security analysis
CO4	Implement concepts of different theories in securities and portfolio management and Contemporary issues in portfolio management,
CO5	Apply the concepts like portfolio diversification, Construction, portfolio management, portfolio revision, portfolio evaluation, portfolio protection, portfolio performance measures
CO6	Implement strategies to make an Impact on the students in taking investment decisions, and properly manage the portfolio

MODULE I:

1. **Organization and Functions of banking industry:** types of banks, comparative features of different banks, banking business models, factors, necessitating banker's role in the economy, intermediation functions of bank, credit creation. [6L]
2. **Competition in banking industry:** competition in commercial & investment banks, changes in bank's operation, managing competition among banks. [2L]
3. **Failures of banks & Need for regulation:** risk associated in banking business, causes of bank failures, warning signals in predicting bank failures. Bank support mechanism, problems to bank, regulatory support, bank's supervision, financial crisis to bank. Regulatory cycle. [6L]

4. **Basel committee norms:** capital adequacy, 3 pillars, Basel-I & II, measurement of market & operational. [4L]

MODULE II:

5. **Interest rate & Risk Management:** asset & liability management, GAP analysis, duration analysis. [4L]
6. **Business loan & Micro credit:** loan proposals, classification of loans based on pricing, methods of sanctioning loans, loan portfolio of banks, fundamentals of micro finance, micro finance credit model, institutions. [4L]
7. **Credit rating & risk management:** structure of credit risk management, evaluation of credit risk, internal rating system, credit risk distribution. [4L]
8. **Liquidity functions of banks:** liquidity management & conflict, action plan, time bucket. [2L]
9. **Bank Merger:** Merger objectives, Stewart's motivating forces, evaluating mergers. [4L]
10. **Rating of banks:** business risk of banks, ratio used in bank rating, application of bank grading. [2L]
11. **Case Studies** [2L]

Suggested Readings:

1. M.Y. Khan, Indian Financial System, Tata Mc Graw Hill, Delhi
2. Jeff Madura, Financial Markets And Institutions, CenGage Learning, Delhi
3. H.R. Machiraju, Indian Financial System, Vikas Publishing House, Delhi
4. Pathak, The Indian Financial System, Pearson Education India
5. Suresh Padmalata & Paul Justin, Management of Banking and Financial Services; Pearson
6. Joel Bessis, Risk Management in Banking; Wiley

FM 403: MERGERS, ACQUISITIONS & CORPORATE RESTRUCTURING

On Completion of the Course the students will be able to

CO1	Identify the basics Forms of Business Alliances, Strategic choice of type of business, types of Mergers, History of Mergers .
CO2	Distinguish different strategic processes, Synergies, defining and selecting targets, pricing of Mergers, negotiations approach, Acquisitions and take over.
CO3	Illustrate the techniques of valuing Firms, product life cycle effect, corporate Restructuring, divestitures mechanism, Value creation.
CO4	Discuss techniques of Accounting for Mergers, Financing Mergers, commonly takeover tactics, International takeover and Restructuring .
CO5	Discuss the legal aspects of M&A, provisions of companies Act, SEBI regulations, schemes of Amalgamation, courts approval.
CO6	Understand the basic concepts of How and when to apply Valuation technique- Financial modelling tools, S

MODULE I:

1. **Introduction to mergers and acquisitions:** Meaning, types, advantages & disadvantages. [2L]
2. **Strategic evaluation of M & A opportunities:** Selection criteria, key steps in the strategic planning of a merger, feasibility analysis, features of acquisition of sick companies. [4L]
3. **Strategizing and structuring M & A activities:** Merger process from planning to implementation, five stage model, and methods of financial mergers. [4L]
4. **Synergy and value creation in mergers:** Types of synergy, role of industry life cycle, value creation in synergy, factors contributing to M & A. [4L]
5. **Corporate Restructuring:** Meaning & need, different methods of corporate restructuring. [4L]

MODULE II:

6. **Demergers:** Meaning & characteristics, structure of demerger, tax implications. [4L]
7. **LBOs, MBOs, MLPs, ESOPs:** Concepts, mode of purchase in LBO, key motives behind an MBO, classify types of MLP, & ESOP. [4L]
8. **Joint ventures:** Meaning & characteristics, role of joint venture in business strategy, Tax aspect of joint venture, reasons for failure in joint venture. [4L]
9. **Valuation of assets:** basis of valuation, different methods of valuation, valuation of synergy. [6L]
10. **Legal & regulatory framework of M& A:** Provisions of the Companies Act 1956 relating to M & A., buy back of shares, provisions for SEBI act 1992, income tax act for M & A.[2L]
11. **Case Studies** [2L]

Suggested Readings:

1. Kamal Ghosh Roy (2010).Merger & Acquisitions. PHI
2. Rabi Narayan Kar & Minakshi (2017). Mergers Acquisitions & Corporate Restructuring. Taxmann
3. Kapil & Kapil (Mergers and Acquisitions: Valuation Leveraged Buyouts and Financing. Willey
4. Donald M. De Pamphilis ,Mergers, Acquisitions, and Other Restructuring Activities, Academic Press
5. Robert F. Bruner ,Applied Mergers and Acquisitions, University Edition, Wiley
6. Jean Tirole, The Theory of Corporate Finance, , Princeton University Press

FM 404: FINANCIAL DERIVATIVES

On Completion of the Course the students will be able to

CO1	Identify different contracts in derivative market
CO2	Illustrate different types of margin
CO3	Discuss the types of credit derivatives
CO4	Apply different concepts of option strategies
CO5	Evaluate option Greek

MODULE I:

1. **Introduction to Forward Contract:** Forward contracts, Limitations of forward markets, pay-offs, Forward Rate Agreement (FRA) and Forward Foreign Exchange Contract – Cost of Carry Model [6L]
2. **Introduction to Futures:** Introduction to futures, Stock Futures, Index futures, Commodity Futures and Currency Futures - Distinction between futures and forwards contracts. [4L]
3. **Concept of Margin** – Types of Margin in Futures – ITM, ATM, OTM - Concept of Lot size - Open Interest- Hedging through Forward and Futures – Contango and Backwardation – Basis Risk [4L]
4. **Credit Derivatives:** Types of Credit Derivatives- Types of Swap-Credit Default Swaps - Collateralized Debt Obligations(CDO) - The Indian Scenario, credit risk mitigation, Weather and Energy Derivatives [6L]

MODULE II:

5. **Option:** Call and Put Option- American and European Option- Put Call Parity [4L]
6. **Different Option Strategies:** Bully, Bearish, Neutral Non Directional Strategy, Option Strategy – Profit & Loss Chart [4L]
7. **Option Valuation:** Pricing and Valuation of Option Contract- Binomial Option Pricing

Model - Black Scholes Model – their interpretations [8L]

8. **Option Greeks:** Theta, Vega, Gamma, Delta [2L]

9. **Case Studies** [2L]

Suggested readings:

1. Options, Futures and other Derivatives, John C. Hull, Pearson Education
2. Derivatives, Dubofsky and Miller, Oxford University Press
3. Financial Derivatives, Gupta, S.L., Prentice Hall.
4. Financial Derivatives and Risk Management, O.P. Agarwal, Himalaya Publishing
5. Derivatives & Risk Management, Rajiv Srivastava, Oxford Publication House
6. Financial Derivatives: Risk Management, Bhalla. V. K., S. Chand & Company

FM 406: FINANCIAL MARKETS AND SERVICES

On Completion of the course the students will be able to

CO1	Discuss the Indian Financial System and multiplicity of Financial Instruments
CO2	Organize money market, Primary market and Secondary market and compare it with the developed market
CO3	Examine Mutual Funds and Merchant Banking under the nodal agency SEBI
CO4	Determine Financial Services and Credit rating Agencies in India
CO5	Discover merchant banking lease/hire purchase and other financial services

MODULE I:

1. **Indian Financial System:** Financial system, Financial Assets, Financial Intermediaries, Financial Markets, Classification, Components of Financial Market, Financial Instruments, Multiplicity of Financial Instruments.[4L]
2. **Money Market :** Definition, Money Market and Capital Market and their Features, Objectives, Features of a Developed Money Market, Importance of Money Market, Composition of Money Market, Money Market Instruments, Structure of Indian Money Market, Features of Indian Money Market.[4L]
3. **New Issue Market :** Relationship between New Issues Market and Stock Exchange, Functions of New Issue Market, methods of floating of new Issues, Players in the New Issue Market, general guidelines for new issue, Recent regulations for IPO.[4L]
4. **Secondary Market :** Introduction, Control Over Secondary Market, Registration of Stock Brokers, Registration Procedure, Listing of securities, Method of Trading in a Stock Exchange, settlement procedure, online trading, defects of Indian capital markets, Depository services, Emergence of NSE, Objectives, Features of NSE- Comparative analysis of BSE & NSE functioning.[4L]

5. **Securities and Exchange Board of India:** SEBI – Background, Objectives, Functions, Powers, Organization, SEBI and the Central Government, SEBI Guidelines for Primary Market, Secondary Market.[2L]

MODULE II:

6. **Mutual Funds:** Concept - Types - Nature – NAV& SIP – Trends in Indian Mutual Fund Market - SEBI & Mutual Fund, Sharpe's ratio, Treynor's ratio, alpha ratio, and beta related to mutual fund. Role of AMFI.[4L]
7. **Merchant Banking:** Concept -Types -Functions - Trends in Merchant Banking in India - SEBI & Merchant Banking, features, scope and importance of venture capital, Nitin Desai committee on venture capital, Angel investment.[4L]
8. **Leasing & Hire Purchase Finance:** Definition of Leasing, Types of Lease, The Leasing Process, Definition of Hire Purchase, Rights of Hirer, Rate of Interest, and Evaluation of Leasing & Hire Purchase as method of financing.[4L]
9. **Financial Services:** Discounting, Factoring – meaning, Types, cost and benefits, Factoring v/s discounting; Forfaiting – working of forfaiting, benefits. Securitisation of Debt - Types of securities, structure and benefits of securitization, securitization v/s factoring.[4L]
10. **Credit Rating Agencies:** Concept - Functions - Different Credit Rating Agencies - Popular Symbols – SEBI & Credit Rating.[4L]
11. **Case Studies**[2L]

Suggested Readings:

1. Fabozzi: Financial Markets & Institutions, Pearson
2. Guruswamy: Financial services and Markets, Thomson Learning
3. Khan: Indian Financial Systems, Tata McGraw-Hill
4. Gordon Natarajan, Financial Markets and Services, Himalaya Publishing
5. Pathak: Indian Financial System, Pearson
6. L. M. Bhole, Jitendra Mahakund, Financial Institutions & Markets – Structure, Growth & Innovation; Tata McGraw Hill

OM 401: SALES & OPERATIONS PLANNING

On Completion of the Course the students will be able to

CO1	Explain basic concepts of operations planning
CO2	Explain concepts of sales & operations planning (SOP), aggregate operations planning, operations scheduling
CO3	Explain concepts of demand forecasting and capacity planning
CO4	Apply the elements of sales & operations planning in given situations
CO5	Evaluate different parameters of sales & operations planning in given situations

MODULE I:

1. **Introduction:** Definition of sales and operations planning, benefits and best practices, relationship between sales and operations planning, role of top management.[2L]
2. **Operations Planning:** Need for operations planning and control, the Annual Operations Plan, steps, functions of operations planning and control, comparison of operations planning and control in manufacturing and service organizations, operations planning insights from the TOC school of thought.[4L]
3. **Demand Forecasting:** Objectives of forecasting in operations, elements of a good forecast, determinants of demand forecast, steps in the forecasting process, forecasts based on time-series data and associative forecasting techniques – moving average, weighted moving average, exponential smoothing, trend equation, monitoring forecast errors, qualitative forecasting techniques.[8L]
4. **Strategic Capacity Planning:** Defining and measuring capacity, determinants of effective capacity, capacity requirements planning, using forecasting information for capacity planning, challenges of planning service capacity, developing capacity strategies, constraint management and evaluating alternatives[4L]

MODULE II:

5. **Aggregate operations planning:** Concept of aggregation, strategies for meeting uneven demand, aggregate planning as an operational tool, factors affecting aggregate planning, objectives and importance of aggregate planning, techniques and strategies for aggregate planning, aggregate planning in services.[6L]
6. **Operations scheduling:** Purpose of scheduling, Master Production Scheduling (MPS), overview of MRP, MRP inputs, programs and outputs, MRP in services, scheduling methods – forward scheduling, backward scheduling, scheduling activities: routing, loading, dispatching, scheduling by type of operations: job operations, repetitive operations, labor-intensive operations and service operations.[8L]
7. **Enterprise Resource Planning:** Introduction, evolution of ERP, need for ERP, ERP implementation methodology, benefits of an ERP system, factors affecting ERP implementation, role of ERP in operations planning and control, economic impact of the adoption of ERP Systems.[4L]
8. **Case Studies**[4L]

Suggested Readings:

1. Stahl, R.A. & Wallace, T.F., Sales and Operations Planning: The How-To Handbook, SPD.
2. Russell, R.S. & Taylor III, B.W., Operations Management along the Supply Chain, Wiley India Edition.
3. Panneerselvam, R., Production and Operations Management, Prentice Hall India.
4. Stevenson, W.J., Operations Management, McGraw Hill Education (Indian Edition)
5. Leon, A., Enterprise Resource Planning, McGraw Hill Education.

OM 402: BEHAVIORAL OPERATIONS MANAGEMENT

On completion of the course the students will be able to

CO1	Illustrate behavioral operations management
CO2	Model cycles of experimental learning
CO3	Plan motivation and performance in work design
CO4	Analyze incentives and rewards in operations
CO5	Classify supply chain negotiator

MODULE I:

1. **Introduction:** Definition of behavioral operations management, a brief history and the contemporary knowledge base, behavioral assumptions underlying operations models, objectives, aspirations and goals of behavioral operations management, foundational disciplines supporting behavioral operations – cognitive psychology, group psychology and system dynamics, the unified theory – linkage between operational design, individual traits, behavior and actions. [6L]
2. **The virtuous cycles of experimental learning:** Methods in behavioral operations – normative modelling, survey and archival methods, empirical experiments, system simulation, and field case studies, benefits of learning experiments.[4L]
3. **Process and perception:** Behavioral issues on process analysis, challenges with current state of management practice, traditional OM theory and its limitations.[4L]
4. **Envisioning motivation and performance in work design:** Importance of motivation in the workplace, ways to improve motivation, Maslow's need hierarchy theory, Alderfer's ERG theory, Herzberg's two-factor theory, McGregor's participation theory, Vroom's expectancy theory, Porter and Lawler theory of motivation, Hackman and Oldham's job characteristic model, meaning, relevance and significance of VUCA in the workplace [6L]

MODULE II

5. Impulsiveness and emotions: Nature, types and sources of emotions, relationship with perception, attitude and personality, emotional intelligence, managing emotions at workplace, James-Lange and Cannon-Bard theories of emotion – their implications on operations. [4L]

6. **Sharing the risk:** risk sharing contracts – types and benefits, buyback and revenue sharing contracts, effect of behavioral characteristics on contract decisions. [2L]

7. **Incentives and rewards in operations:** Pay for performance, types of incentive schemes, wage incentive plans, pre-requisites of effective incentive schemes, merits and demerits of incentives, reward management, developing reward policies, reward strategy, developing total reward approach.[4L]

8. **Supply chain negotiator:** Negotiation of relationships between supply chain members, negotiation strategies - accommodating, avoiding, collaborating, competing, and compromising, conflict management strategies with supply chain members – avoiding, accommodating, competing, collaborating and compromising strategies, role of prospect theory and equity theory in decision making and role sharing[4L]

9. **A chain of hands:** Importance of value chain, bullwhip effects in the supply chain, power of suppliers and consumers and its effect on the supply chain, social sustainability – labor equity, healthcare, safety and philanthropy.[2L]

10. **Case Studies**[4L]

Suggested Readings:

1. Bendoly, E., van Wezel, W., & Bachrach, D.G. (Eds.), The Handbook of Behavioral Operations Management, Oxford University Press.
2. Krajewski, L.J., Malhotra, M.K., Ritzman, L. P., & Srivastava, S.K., Operations Management: Processes and Supply Chains, Pearson.
3. Russell, R.S., & Taylor III, B.W., Operations Management along the Supply Chain, Wiley India Edition.
4. Robbins, S.P., Judge, T.A., & Vohra, N., Organizational Behavior, Pearson.
5. Aswathappa, K., Human Resource Management, Text & Cases, McGraw Hill Education.

6. Nagarajan, K., Textbook of Operations Research, New Age International

OM 403: OPERATIONS RESEARCH APPLICATIONS

On completion of the course the students will be able to

CO1	Classify linear programming, goal programming and non-linear programming
CO2	Apply non-linear programming, goal programming, dynamic programming and non-linear programming
CO3	Analyze linear and non-linear programming
CO4	Apply data envelopment analysis, Marcov chain, Forecasting and Queing Theory
CO5	Evaluate data envelopment analysis, queing theory, Markov Chains and Forecasting

MODULE I:

1. **Linear Programming:** Revised simplex method, dual simplex method, introduction to Lingo software.[4L]
2. **Integer Linear Programming:** Gomory's cutting plane method, branch & bound method, vehicle routing problems[6L]
3. **Goal Programming:** Difference between linear programming & goal programming approach, model formulation – single goal with multiple sub goals and equally ranked multiple goals, graphical solution, modified and alternative simplex method[6L]
4. **Dynamic Programming:** Developing Optimal Decision Policy, Dynamic Programming under Certainty and Dynamic Programming Approach for solving Linear Programming Problem.[4L]

MODULE II:

5. **Non Linear Programming Models:** The general non-linear programming model, graphical solution, quadratic programming – Kuhn Tucker conditions, Wolfe's modified simplex method, Beale's method, applications of quadratic programming.[6L]
6. **Staff transfers problem:** Two stage supply chain distribution problem.[2L]
7. **Queuing Theory:** Structure of a queuing system and performance measures, probability distributions in queuing theory, solution of queuing models.[2L]
8. **Markov chains and forecasting:** Steady state equilibrium, study of switching behaviour of customers between brands, absorbing

states and accounts receivable applications, application to the study of click stream data.[6L]

9. Introduction to Data Envelopment Analysis (DEA) [2L]

10. Case Studies[2L]

Suggested Readings:

1. Sharma, J.K., Operations Research: Theory and Application, Macmillan.
2. Taha, Hamdy A., Operations Research: An Introduction, Pearson Education.
3. Kalavathy, S., Operations Research, Vikas Publishing.
4. Hillier, F.S., Lieberman, G.J., Nag, B., & Basu P., Introduction to Operations Research, McGraw Hill Education.\
5. Rardin, Ronald L., Optimization in Operations Research, Pearson Education.

OM 404: SUPPLY-CHAIN ANALYTICS

On Completion of the course the students will be able to

CO1	Explain better supply chain visibility
CO2	Develop data-driven rules to manage volatility
CO3	Plan inventory flow of goods and services
CO4	Forecast demand, predict and monitor supply and replenishment policies
CO5	Analyze and Model supply chains

MODULE I:

1. **Introduction:** Overview of supply chain, analytics and supply chain analytics,

supply chain decisions, purchasing and e-commerce in supply chain, types of supply chain.

2. **Supply chain metrics:** Definition, key metrics – cash to cash cycle time, perfect order measurement, customer order cycle time, fill rate, supply chain cycle time, freight bill accuracy, freight cost per unit, inventory turnover, inventory days of supply, days sales outstanding, on time shipping rate, average payment period, gross margin return on investment.[2L]

3. **Integrated models for facility location selection and capacity allocation:** p-Median location models, fixed charge location-allocation models, gravity models, locating plants and warehouses simultaneously, location and allocation in multiple stages.[6L]

4. **Facilities layout:** Heuristic algorithm.[2L]

5. **Production planning decisions:** Aggregate planning in a supply chain – role of aggregate planning in a supply chain, aggregate planning strategies, role of IT in aggregate planning in a supply chain, aggregate planning in practice. Tools and methods for aggregate planning – graphical approach, tabular method, linear programming, transportation problem, dynamic programming.[8L]

MODULE II:

6. **Production control decisions:** Scheduling – shop loading and sequencing, branch and bound algorithm, heuristics, line balancing, JIT, TOC.[4L]

7. **Resource planning and control:** Deterministic inventory models – EOQ, EBQ, quantity discounts, and multiple items inventory models, buffer/safety stock model, intentional shortages. Probabilistic inventory models (lot sizing for time varying demand), periodic review model.[6L]

8. **Quality planning and control models:** Overview on application of SQC, SPC, TQM and TPM

[2L]

9. **Designing automated dashboards** with relevant KPIs for production planning and control, resource planning and control, material planning and control, capacity planning and control, quality planning and control and distribution system optimization.[4L]

10. Numerical examples and case studies[4L]

Suggested Readings:

1. Chopra,S., Meindl, P., VirKalra, D., Supply Chain Management: Strategy, Planning and Operation, Pearson.
2. Srinivasan, G., Quantitative Models in Operations and Supply Chain Management, PHI.
3. Ravi Ravindran, A., Warshing Jr., D.P., Supply Chain Engineering, Models and Applications, CRC Press, Taylor and Francis Group.
4. Mathirajan, M., Rajendran, C., Sadagopan, S., Ravindran, A., & Balasubramanian, P. (Eds.), Analytics in Operations/Supply Chain Management, I.K International Publishing House Pvt. Ltd.
5. Krajewski, L.J., Malhotra, M.K., Ritzman, L. P., & Srivastava, S.K., Operations Management: Processes and Supply Chains, Pearson.
6. Palekar, A. & Shiralkar, S.W., Supply Chain Analytics with SAP NetWeaver Business Warehouse, Tata McGraw Hill.

OM 405: MANAGEMENT OF MANUFACTURING SYSTEM

On Completion of the Course the students will be able to

CO1	Explain basic concepts of manufacturing systems
CO2	Apply the concepts of manufacturing systems design
CO3	Apply the concepts of synchronous manufacturing in given situations

CO4	Apply the concepts of Just-in-Time manufacturing systems in given situations
CO5	Analyze the design of cellular manufacturing layout

MODULE I:

1. **Manufacturing systems:** Types and process mapping, manufacturing process planning – definition, scope and elements, functions of manufacturing managers, manufacturing concept planning, requirements of good manufacturing and assembly lines, layout planning and analysis.[6L]
2. **Group technology/cellular manufacturing I:** Definition, objectives, cell formation, methods and production flow analysis.[2L]
3. **Group technology/cellular manufacturing II:** Layout design for cellular manufacturing, operator allocation, sequencing and scheduling of cellular manufacturing systems, set-up time reduction to enhance cell performance and flexibility definition, objectives, cell formation, methods and production flow analysis.[6L]
4. **Just In Time (JIT systems):** Overview, principles and benefits, elements of JIT, design and improvement aspects of JIT, role of suppliers in JIT, Kanban systems – definition and principles, types of Kanban – single card and two card Kanban, push and pull concepts of kanban, constant work-in-process (CONWIP) – concept and comparison with Kanban system.[6L]

MODULE II:

5. **Synchronous manufacturing:** Definition, operation planning and control based on Theory of Constraints, measures of performance, constraints in manufacturing system, Drum-Buffer-Rope (DBR) methodology, Flexible Manufacturing Systems (FMS) – meaning, components and types, conceptual model of FMS, applications of

FMS.[8L]

6. **Agile manufacturing:** Concept, advantages, similarities and differences with lean manufacturing, le-agile manufacturing systems.[2L]
7. **Green manufacturing:** Importance, methodology and applications.[2L]
8. **Intelligent manufacturing systems:** Industry 4.0: First to fourth industrial revolutions, objective of Industry 4.0, Cyber Physical Systems (CPS) and Cyber- Physical Production Systems (CPPS), introduction to Artificial Neural Network (ANN).[4L]
9. **Case Studies**[4L]

Suggested Readings:

1. Mahadevan, B., Operations Management – Theory and Practice, Pearson.
2. Chase, R.B., Shankar, R., & Jacobs, F.R., Operations and Supply Chain Management, McGraw Hill Education.
3. Ohno, T. & Mito, S., Just-in-Time for Today and Tomorrow, Productivity Press
4. Cheng, T.C.E., & Podolsky, S., Just-in-Time Manufacturing: An Introduction, Chapman & Hall
5. Irani, S.A. (Editor), Handbook of Cellular Manufacturing Systems, John Wiley & Sons

OM 406: SOURCING MANAGEMENT

On Completion of the course the students will be able to

CO1	Explain conceptual knowledge about the procurement and sourcing management
CO2	Understanding of laws of Procurement
CO3	Understand and Apply the processes of sourcing management
CO4	Analyze competency to vendor selection and rating
CO5	Analyze the importance of effective sourcing

MODULE I:

1. **Introduction:** Importance of sourcing, sourcing objectives, purchasing policy and procedures – policy overview, purchasing procedural areas.[2L]
2. **Strategic sourcing:** Category strategy development, supplier scorecards, supplier relationship management, types of supply management strategies[4L]
3. **Sourcing cost management:** price analysis, cost analysis techniques, Total Cost of Ownership (TCO) model.[2L]
4. **Supplier evaluation and selection:** Need for supplier selection, identification of potential supply sources, supplier evaluation criteria, supplier risk management, capabilities of suppliers, supplier financial analysis and stability, supplier rating.[6L]
5. **Sourcing tools and techniques:** Learning curve analysis, value analysis/value engineering, quantity discount analysis, process

mapping.[4L]

6. **Global sourcing:** Overview, objectives and barriers, types of intermediaries and organization for global sourcing, cultural issues, language and communication differences, legal systems, factors driving successful global sourcing programs, future global sourcing trends.[2L]

MODULE II:

7. **Negotiations:** Importance, framework, planning, power in negotiation, negotiation tactics, impact of electronic media on negotiations.[4L]
8. **Contract management:** Overview, elements of a contract, framing a contract, types of contracts – fixed price and cost based contracts, long term contracts, settling contractual disputes – legal alternatives, arbitration and other forms of conflict resolution[4L]
9. **Supply performance measurement and evaluation:** Objectives, categories of purchasing and supply chain measures, developing a performance measurement and evaluation system, performance benchmarking.[6L]
10. **Emerging sourcing trends:** Corporate social responsibility, environment and sustainability, E-sourcing and its benefits, green sourcing.[2L]
11. **Case Studies**[4L]

Suggested Readings:

1. Handfield, R.B., Monczka, R.M., Giunipero, L.C., & Patterson, J.L., Sourcing and Supply Chain Management, Cengage Learning.

2. Baily, P., Farmer, D., Crocker, B., Jessop, D., & Jones, D.,
Procurement Principles and Management, Pearson Education.
3. Johnson, P. F., & Flynn, A.E., Purchasing and Supply Management,
McGraw Hill.
4. Gopalakrishnan, P., Purchasing and Materials
Management, McGraw Hill Education.
5. Panneerselvam, R., Production and Operations Management, Prentice Hall
India.
6. Sharif, Materials and Purchase Management: Theory and Practice, NarosaPub

ELECTIVE PAPERS
SPECIALIZATION: HUMAN
RESOURCE MANAGEMENT

**HR401: MANPOWER PLANING, RECRUITMENT AND
SELECTION**

On completion of this course, the students will be able to

CO1	Plan the effective deployment of human resource in the organization
CO2	Make use of various methods and techniques HR demand forecasting

CO3	Classify the factors that affect manpower planning
CO4	Examine different HR Audit methods for the effective utilization of human resources in the organization evaluate various recruitment and selection strategies for onboarding employees in the organization

MODULE I:

1. **Manpower Planning:** Concept, Benefits, Types of manpower planning, Macro Level Scenario of manpower planning, Factors affecting manpower planning, Process of manpower planning, barriers, requisites for successful manpower planning. [4L]

2. **Methods and Techniques:** Demand Forecasting : Managerial judgement, Ratio- Trend Analysis, Work Study Techniques, Delphi Technique, Regression Analysis, New Venture analysis, Markov Analysis, Supply Forecasting : Analysis of existing Manpower, Analysis of internal supply; inflows and outflows, turnover rate, productivity level, movement among jobs, Analysis of external supply, Balancing Supply & Demand, Issues of Shortage and Surplus. [8L]

3. **Job Analysis & Job Evaluation:** Job Analysis - Concepts, Process, Job Description, Job Specification, Uses, Limitations; Job Evaluations – Concepts, Methods, Uses, Limitations [4L]

4. **Human Resource Information System (HRIS):** Understanding HRIS, its objectives, HRIS Framework, Benefits, Trends. [2L]

5. **HR Audit, HR Accounting [2L]**

MODULE II:

6. Manpower Plan Implementation Strategies: Recruitment, Redeployment, Downsizing Plan, Retention Plan, Training Plan, Career Plan, Succession Plan, Compensation Plan [4L]

7. Strategic Manpower Planning: Concepts, objectives, SMP Process, Tools, Evaluation, Balanced Score Card, HR Dash Boards, HR score card. [4L]

8. Recruitment and Selection: Concepts, Factors influencing recruitment, reservation rules, resettlement and rehabilitation rules, policy and programmes in Public Sector, Private Sector, MNCs, Government Establishments, Educational Institutions, Health Care & Hospitals, Process of Recruitment, Sources of Recruitment, alternatives to recruitment, The New Techniques: Web, Social Media, Mobile, Recruitment Issues in Core sector, Service sector and IT sector.

Selection: Meaning, use of selection for competitive advantage, Selection Process- Tests, types of tests, Group Discussions, Interviews, types of interviews, Common Interview Problems, Assessment Centres, Gamification, Physical fitness tests, Hiring Decisions, Barriers to effective selection, Evaluation of selection process, making selection effective, Outsourcing-gains, problems, issues.[8L]

9. Case Studies [4L]

Suggested Readings:

1. Turner, Paul : HR Forecasting and Planning, Jaico Publishing House
2. Armstrong, Michael: A Handbook of Personnel Management Practice, Kogan Page ,London
3. Dessler,Gary : Human Resource Management, Pearson Education

4. Aswathappa, K : Human Resource Management, Tata McGraw Hill
5. Pattanayek, B : Human Resource Management, PHI
6. Saiyadain, M.S: Human Resource Management : Tata McGraw Hill

HR 402: EMPLOYEE RELATIONS & LABOUR LAWS

On Completion of the course the students will be able to

CO1	Define terminologies used in IR and labour laws
CO2	Understand the importance of employee relations in an organization
CO3	Apply the knowledge in day day work
CO4	Analyze situations and find out solutions
CO5	Evaluate from time to time, the relationship to take corrective action.

MODULE I:

1. **Employee Relations Management (ERM):** Overview, Tools, Core Issues ,ERM in multi union situations in Core Sector, ERM in Service & IT Sector , Strategic ERM- Strategy and Employment Policies, Future Challenges, Performance Management Services, Involvement and Commitment as Competitive Advantages, The Psychological Contract: Interest and Expectations, HR Infrastructure, Employee Surveys [4L]
2. **Industrial Relations:** Overview, importance, Approaches to IR, Parties to IR, System Model of IR, Industrial Employees of India, Problems of Industrial Workers (absenteeism, commitment, Work Ethics), Contemporary Issues in Employee Relations [4L]
3. **Employee Discipline:** Types, Misconduct, Disciplinary Action, Disciplinary Enquiry and Procedures, Grievance Handling and

Redressal. [2L]

4. **Collective Bargaining:** Theories, Prerequisites, Process, Negotiating Skills and Strategies, Agreement – content, Validity, Implementation, Productivity Bargaining, Growth of Collective Bargaining in India. [2L]
5. **Trade Unionism in India :** Introduction, Trade Unions, Reasons for Joining Trade Unions, Types and Functions of Trade Unions, Type of Trade Union Agitations, Trade Unions in India and its Problems, Employers' Organizations in India, Managerial Associations. [2L]
6. **Employee Welfare and Employee Participation:** Concept, Purpose, Statutory and Non-Statutory Provisions, ILO Conventions and its application in India. Meaning of Employee Participation and Empowerment, Advantages, Employee Participation in India- WPM, EPM, Quality Circles- Concept and Practices in India [4L]

MODULE II:

7. **Legal Framework:** Evolution of Labour Laws in India [2L]
8. **Laws relating to Establishment:** Factories Act, 1948; Plantations Labour Act, 1951; Mines Act, 1952; Shops & Establishment Act. [4L]
9. **Laws relating to Wages:** Payment of Wages Act, 1936; Minimum Wages Act, 1948; Payment of Bonus Act, 1965; Equal Remuneration Act, 1976. [2L]
10. **Laws relating to Industrial Relations :** Trade Unions Act, 1926; Industrial Employment (Standing Orders) Act, 1946; Industrial Disputes Act, 1947; [4L]
11. **Laws relating to Social Security –** Employees' Compensation Act,

1923; Employees' State Insurance Act, 1948; Employees' Provident Funds & Misc. Provisions Act, 1952; Maternity Benefit Act, 1961; Contract Labour (Regulations and Abolitions) Act, 1970; Payment of Gratuity Act, 1972, The. Protection of. *Human Rights Act, 1993*, The Sexual Harassment of Women at *Workplace* (Prevention, Prohibition and Redressal) *Act, 2013* . [6L]

12. Case Studies [4L]

Suggested Readings:

1. Agarwal, S.L. : Labour Relations in India, McMillan
2. Pathak, A : Legal Aspects of Business, Tata McGraw Hill
3. Samant, S.R. & Dongle, B.N. (eds). CLR's Yearly Labour Digest, Dwivedi
4. Srivastava, S.C. : Labour Law in Factories, Mines, Plantations etc., Prentice Hall
5. Labour Laws: Taxman Publications
6. Labour Laws in India : P.L. Malik

HR 403: COMPENSATION AND BENEFITS **MANAGEMENT**

On Completion of the course the students will be able to

CO1	Define terminologies used in IR and labour laws
CO2	Understand the importance of employee relations in an organization
CO3	Apply the knowledge in day day work
CO4	Analyze situations and find out solutions
CO5	Evaluate from time to time, the relationship to take corrective action.

MODULE I:

1. **Employment:** Policy and Programmes, Reservation Rules, Employment of Women and Dependents, Employment of Land Oustees - Provisions and Practices under the relevant Act and

statutory provisions [6L]

2. **New Employment Practices:** Outsourcing, Contingent Workers, Employee Leasing [4L]
3. **Labour Market:** Concept, Broad Types of Labour Market [2L]
4. **Employment of Contract Labourers:** Provisions and Practices under the relevant Act [4L]

MODULE II:

5. **Concept of Wage and Compensation:** Minimum Wage, Fair Wage, Living Wage, Wage Policy, Wage/Salary, Real Wage, Components of Wages: Basic, Dearness Allowances, House Rent Allowances, City Compensatory Allowance, Other Allowances, Wage Fixation, Pay for different types of employees, Managerial/ Executive Compensation-.Wage Administration - Pay Roll Management, Deductions etc [6L]
6. **Dearness Allowance:** Methods of DA payment, Consumer Price Index, Neutralization [2L]
7. **Productivity and Wages:** Productivity Bargaining, Incentive Payments, Productivity Linked Bonus, Incentives –Individual & Group, Case Studies on Productivity Bargaining, Reward strategy [4L]
8. **Employee Benefits:** Statutory & Voluntary Benefits - Fringe Benefits , Retirement Benefits – Provident Fund, Gratuity, Pension, Medical Insurance; ESOP, fundamentals of Computations of taxable income, overtime, etc Reward Management, team rewards & psychological contract [6L]

9. **Employee Welfare and Working Conditions:** Statutory and voluntary measures. [2L]

10. **Case Studies** [4L]

Suggested Readings:

1. Belcher, D.W.: Wage and Salary Administration, Practice Hall
2. Mondy, R.W. & Noe, R.M. : Human Resource Management, Pearson
3. Raynolds, G.L. : Labour Economics & Labour Relations, Practice Hall
4. Sarma : Understanding Wages in India,
5. Govt. of India : Report on National Commission on Labour (1st 1969, 2nd 2002)
6. ILO : Payments by Results

HR 404: PERFORMANCE MANAGEMENT SYSTEMS

On Completion of the Course the Students will be able to

CO 1	Identify various challenges of performance management system in the organization
CO 2	Develop an effective performance management system applicable in the organization
CO 3	Plan effective monitoring method for performance management
CO 4	Classify various financial and non-financial reward system for managing effective performance of the employees
CO 5	Measure various drivers of employee engagement for the benefit of organization

MODULE I:

1. **Performance Management:** Overview, principle, measuring performance versus measuring action, contribution of Performance

management to competitive advantage, difference between Performance Management and Performance Appraisal, Performance Management Process, Challenges of PMS, Managing team performance. [6L]

2. **Performance planning:** Role/job description, key result areas, key activities, goal setting, performance agreement. [2L]
3. **Monitoring:** Performance monitoring and feedback, Identifying problems, providing support. [2L]
4. **Developing:** Capability, willingness, work environment, technology, systems, group dynamics, Quality of supervision. [2L]
5. **Performance Appraisal:** Meaning, objective. Appraisal Process, Issues in appraisal design. Appraisal Methods – Traditional methods, Modern Methods: Management By Objectives (MBO), Assessment Centres, 360 degree Feedback. Designing KRA based performance appraisal system, Problems of Rating, Appraisal Interview, Archiving and Use of appraisal data, Legal issues associated with Performance appraisal [8L]

MODULE II:

6. **Potential Appraisal:** Concept, objectives. Potential Appraisal system, requirements of an effective system. Performance Appraisal and Potential Appraisal. [2L]
7. **Reward management:** meaning, importance, objectives. Reward, recognition, financial and non-financial rewards, performance pay, competency-based pay, Reward management process. [4L]
8. **Competency Mapping:** Concept, objectives, benefits, Process of Competency mapping. Identifying competency levels, developing competency maps for different positions. [4L]

9. **Employee Engagement:** Meaning, Nature, Types, Drivers of engagement, Benefits Of engagement, measurement of employee engagement. [2L]

10. **Balance Scorecard:** Balance Scorecard approach to PMS, HR score card, Malcom Baldrige business excellence model. [4L]

11. **Case Studies** [4L]

Suggested Readings:

1. Armstrong, Michael: A Handbook of Personnel Management Practice, Kogan Page, London
2. Armstrong, Michael: Armstrong's Handbook of Strategic Human Resource Management, Kogan Page
3. Dessler, Gary : Human Resource Management, Pearson Education
4. Aswathappa, K : Human Resource Management, Tata McGraw Hill
5. Pattanayek, B. : Human Resource Management, PHI
6. Saiyadain, M.S : Human Resource Management : Tata McGraw Hill

ELECTIVE PAPERS

SPECIALIZATION: BUSINESS ANALYTICS

BA 401: DATA VISUALIZATION FOR MANAGERS

On Completion of the course the students will be able to

CO1	Explain basic concepts of data visualization for managers
CO2	Apply the data warehousing techniques for real world problem
CO3	Apply the algorithm of data warehousing techniques of real problem

CO4	Apply the data set which is more suitable for data warehousing
CO5	Analyze the data set behaviour on applying data warehousing

MODULE I:

1. **Overview of Data Visualization & Web Technologies-** Visualize Data, Scalable Vector Graphics and Cascading Style Sheets, java script, vizhub., Making a Face with D3.js. [6L]
2. **Shapes of Data-**Data and Tasks, Loading and Parsing Data with D3.js [4L]
3. **Marks and Channels-**Encoding Data with Marks and Channels, Rendering Marks and Channels with D3.js and SVG, D3 Scales, Creating a Scatter Plot with D3.js [6L]
4. **Common Visualization Idioms-**Reusable Dynamic Components ,Bar Chart, Vertical & Horizontal, Pie Chart and Coxcomb Plot, Line Chart, Area Chart [4L]

MODULE II:

5. **Visualization of Spatial Data-** Networks, and Trees, Making Maps, Visualizing Trees and Networks, Using Color and Size in Visualization [4L]
6. **Encoding Data-** Encoding using Color, Encoding using Size, Stacked & Grouped BarChart, Stacked Area Chart & Stream graph, Line Chart with Multiple Lines. [6L]
7. **Interaction Techniques-**Interaction with Unidirectional Data Flow, UI elements to control a scatter plot, Panning and Zooming on a Globe, tooltips [4L]
8. **Multiple Linked Views-**Small Multiples, Linked Highlighting with Brushing, Linked Navigation: Bird's Eye Map [2L]

9. Data Reduction-Histograms, Aggregating Data with Group-By, Hexbin Mapping, Cross filtering [2L]

10. Case Studies [2L]

Suggested Readings:

1. Scott Murray: Interactive Data Visualization for the Web - 2nd Edition
2. Elijah Meeks: D3.js in Action - 2nd Edition
3. Jacques Bertin: Semiology of Graphics
4. Leland Wilkinson: The Grammar of Graphics
5. Hadley Wickham: ggplot2 Elegant Graphics for Data Analysis

BA 402: BIG DATA TECHNOLOGY

On Completion of the course the students will be able to

CO1	Explain basic concepts on big data technology
CO2	Apply the big data technology on given data set
CO3	Apply the big data technology on real life problem

CO4	Apply the big data technology on the appropriate data set
CO5	Analyze the data set using big data technology

MODULE I:

1. **Overview of Big Data:** History of big data, elements of big data, career related knowledge in big data, advantages, disadvantages, structured and unstructured data. [6L]
2. **Using Big Data in Businesses:** Use of Big Data in Marketing, Finance, HR, Production and Supply Chain Management. [8L]
3. **Technologies for Handling Big Data:** Introduction to Hadoop, functioning of Hadoop, Cloud computing (features, advantages, applications), Application Data store (NOSQL, OLAP. [6L]

MODULE II:

4. **Understanding Hadoop Ecosystem:** Pig: Introduction to PIG, Execution Modes of Pig, Comparison of Pig with Databases, Grunt, Pig Latin, User Defined Functions, Data Processing operators. Hive: Hive Shell, Hive Services, Hive Meta store, Comparison with Traditional Databases, Hive QL, Tables, Querying Data and User Defined Functions. Hbase: HBasics, Concepts, Clients, Example, Hbase versus RDBMS. Big SQL : Introduction [8L]
5. **Hadoop Distributed File System:** The Design of HDFS, HDFS Concepts, Command Line Interface, Hadoop file system interfaces, Data flow, Data Ingest with Flume and Scoop and Hadoop archives, Hadoop I/O: Compression, Serialization, Avro and File-Based Data structures. [6L]
6. **NoSQL Data Management:** NoSQL including document

databases, Graph Database, Schema less database, CAP Theorem
[4L]

7. Case Studies [2L]

Suggested Readings:

1. Zomaya and Sakr: Handbook of Big Data Technology
2. Sumit Gupta: Real time Big Data Analytics Book.
3. E. Siegel: Predictive Analytics: The Power to Predict Who Will Click, Buy, Lie, or Die
4. A. Maheshwari: Data Analytics Made Accessible
5. J. W. Foreman: Data Smart: Using Data Science to Transform Information into Insight
6. V. Mayer-Schönberger and K. Cukier: Big Data: A Revolution That Will Transform How We Live, Work, and Think

BA 404: DATA MINING

On Completion of the course the students will be able to

CO1	Explain the basic concept of data mining
CO2	Apply the data mining tools on given data set
CO3	Apply data mining algorithm on iris data set
CO4	Apply the classification and clustering on data set
CO5	Analyze the corresponding data set using data mining tools

MODULE I:

1. **Statistical Methods:** Definition and scope of Statistics, concepts of statistical population and sample. Data: quantitative and qualitative, attributes, variables, scales of measurement nominal, ordinal, interval and ratio. Presentation: tabular and graphical, including histogram and ogives, consistency and independence of data with

special reference to attributes. [6L]

2. **Probability and consequences:** Classical and axiomatic definitions, Law of total probability, Conditional probability, Bayes' theorem and applications. Discrete and continuous random variable [8L]
3. **Distribution:** functions and their properties. Standard discrete and continuous probability distributions - Bernoulli, Uniform, Binomial, Poisson, Geometric, Rectangular, Exponential, Normal. Random vectors, Joint and marginal distributions, Conditional distributions, Distributions of functions of random variables [6L]

MODULE II:

4. **Measures of Central Tendency:** mathematical and positional. Measures of Dispersion: range, quartile deviation, mean deviation, standard deviation, coefficient of variation, Moments, absolute moments, factorial moments, skewness and kurtosis, Sheppard's corrections. [6L]
5. **Hypothesis testing:** Estimation and sampling techniques [4L]
6. **Sampling distributions:** sample mean, sample variance, t, chi-square and F tests of significance based on them, Small sample tests [8L]
7. **Case Studies** [2L]

Suggested Readings:

1. Goon-Gupta-Dasgupta: Outline of Statistics 1 and 2, The World Press
2. Gupta and Kapoor: Fundamentals of Mathematical Statistics, Sultan Chand & Sons

3. Amir Aczel: Complete Business Statistics
4. Levin R.I. and Rubin D.S: Statistics for Management, Prentice Hall of India Pvt. Ltd.,New Delhi,.
5. Srivatsava TN, Shailaja Rego: Statistics for Management, Tata McGraw Hill,.
6. Anand Sharma, Statistics for Management, Himalaya Publishing House.

BA 405: DATA ANALYTICS USING PYTHON

On Completion of the course the students will be able to

CO1	Explain variables, expressions, statements, conditions and operations, data structures used in Python.
CO2	Illustrate the Object-Oriented Programming concepts applicable to Python.
CO3	Apply in-built functions to solve various business related situation for faster decision making.
CO4	Distinguish various exception handling modules and outcomes of regular expression.
CO5	Build user-defined function to solve various business related situation for faster decision making.

MODULE I:

1. **Introduction to Data Mining:** data mining, Related technologies - Machine Learning, DBMS, OLAP, Statistics ,Data Mining Goals ,Stages of the Data Mining Process, Data Mining Techniques, Knowledge Representation Methods, Applications [4L]
2. **Data Warehouse and OLAP:** Data Warehouse and DBMS ,Multidimensional data model, OLAP operations [2L]
3. **Data Preprocessing:** Data cleaning, Data transformation, Data reduction, Discretization and generating concept hierarchies, Installing Weka 3 Data Mining System [4L]

4. **Data Mining Knowledge Representation:** Task relevant data, Background knowledge, Interestingness measures, Representing input data and output knowledge, Visualization techniques, Experiments with Weka- visualization [6L]
5. **Attribute-Oriented Analysis:** Attribute generalization, Attribute relevance, Classcomparison, Statistical measures [4L]

MODULE II:

6. **Data Mining Algorithms I:** Association rules, Motivation and terminology, Generating item sets and rules efficiently, Correlation analysis [4L]
7. **Data Mining Algorithms II:** Classification, Basic learning/mining tasks, Inferring rudimentary rules: 1R algorithm, Decision trees, Covering rules [6L]
8. **Data Mining Algorithms III:** Prediction, The prediction task, Statistical (Bayesian) classification, Bayesian networks, Instance-based methods (nearest neighbor), Linear models [4L]
9. **Clustering:** Basic issues in clustering , conceptual clustering system, Partitioning methods: k-means, expectation maximization (EM) ,Hierarchical methods: distance- based agglomerative and divisible clustering ,Conceptual clustering: Cobweb [4L]
10. **Case Studies** [2L]

Suggested Readings:

1. Cristianini N. and Shawe-Taylor J.: An Introduction to Support Vector Machines and Other Kernel-based Learning Methods, Cambridge University Press, 2000.
2. Hand D., Mannila H. and Smyth P.: Principles of Data Mining, MIT Press,

2001.

3. Langley P.: Elements of machine learning, Morgan Kaufmann Publishers, 1996.