Maulana Abul Kalam Azad University of Technology, West Bengal
(Formerly West Bengal University of Technology)
Syllabus for MBA in BIG DATA ANALYTICS
(Applicable from the academic session 2021-2022)

CURRICULUM STRUCTURE

Semester – I (Total Credit=4*6=24)

        MB – 101 Managerial Economics (Micro)
        MB – 102 Organizational Behaviour
        MB – 103 Business Communication
        MB – 104 Introduction to Data Science and Business Analysis
        MB – 105 Indian Ethos and Business Ethics
        MB – 106 Quantitative Techniques

Semester – II (Total Credit=4*6=24)

        MB – 201 Big Data Analytics in Business
        MB – 202 Financial Reporting, Statements and Analysis
        MB – 203 Marketing Management and corporate strategy
        MB – 204 Operations Management
        MB – 205 Management Information System
        MB – 206 Human Resource Management

Semester - III

Common Papers: (Credit 4*2=8)

MB – 302 Business Research Method
MB – 301 Entrepreneurship and Project management

Major Papers (Core Papers) (Credit 4*2=8)

BDA – 301: Data Science using R and Python
BDA – 302: Business Intelligence

A Minor Papers (any two papers from the following functional areas) (Crdeit4*2=8)

FM/ HR/MM/MIS– 301
FM/ HR/MM/ MIS– 302
FM/ HR/MM/ MIS– 303
FM/ HR/MM/MIS – 304

MB – 303 Internship Project and Viva Voice **(Credit=4)**

Minor Elective Papers for THIRD Semester (any two)

FINANCE		HUMAN RESOURCE	
CODE	**COURSE NAME**	**CODE**	**COURSE NAME**
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		MARKETING MANAGEMENT	
MIS 301	DATA MINING FOR BUSINESS DECISIONS	MM 301	B2B MARKETING
MIS 302	E-COMMERCE & DIGITAL MARKETS	MM 302	SALES & DISTRIBUTION MANAGEMENT
MIS 303	MANAGING SOFTWARE PROJECTS	MM 303	IMC/ PROMOTION STRATEGY
MIS 304	DATA SCIENCE USING R	MM 304	MARKETING RESEARCH

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Semester – IV

A Major Papers (Core Papers) (Four papers from Big Data Analytics)   (Credit 4*4=16)

BDA- 401 Data Visualization with Tableau and Power BI
BDA– 402 Marketing Analytics
BDA– 403 Data Mining and Advanced Data Handling
BDA- 404 Machine Learning and Unstructured Data Analytics

(Any Two from Minor Functional areas) (Credit 4*2=8)

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

Minor Elective Papers for Fourth Semester (any two)

	FINANCE			HUMAN RESOURCE	
CODE	**COURSE NAME**		**CODE**	**COURSE NAME**	
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 405	STRATEGIC HRM	

	MIS			MARKETING MANAGEMENT	
MIS 401	DATA WAREHOUSING		MM 401	CONSUMER BEHAVIOUR	
MIS 402	MANAGING DIGITAL PLATFORMS		MM 402	RETAIL MANAGEMENT	
MIS 403	STRATEGIC MANAGEMENT FOR IT		MM 403	PRODUCT & BRAND MANAGEMENT	
MIS 404	BUSINESS DECISION USING ADVANCE EXCEL		MM 404	SERVICE MARKETING	

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FIRST SEMESTER
MB 101 -MANAGERIAL ECONOMICS (MICRO)

Name of the Course:	MANAGERIAL ECONOMICS (MICRO)	
Course Code: MB 101	Semester I	
Duration: 6 months	Maximum Marks: 100	
Teaching Scheme	Examination Scheme	
Theory: 5 Days /week	Mid Semester exam: 15	
Tutorial: NIL	Assignment and Quiz: 10 marks	
	Attendance: 5 marks	
	End Semester Exam : 70 Marks	
Credit Points:	4	

Unit	Content	Hrs/Unit	Marks/Unit
1	**Introduction to Managerial Economics:** (a) Basic problems of an economic system (b) Goals of managerial decision making (c) Resource allocation using PPC	2L	
2	**Demand Analysis:** 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)	10L	
3	**Production and Cost Analysis:** 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	14L	

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Unit	Content	Hrs/Unit	Marks/Unit
	Cost Schedules from the Production Function, D. Law of supply, elasticity of supply, market equilibrium, changes in equilibrium.		
4	**Alternate Goals of Managerial Firms:** (A) Profit maximization (B) Revenue maximization (C) Managerial utility maximization	2L	
5	**Managerial Decision Making under Alternative Market Structures:** 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	6L	
6	**Pricing Decisions:** A. Price Discrimination under Monopoly, Transfer Pricing. B. Market Failure C. Game theory &Asymmetric information	6L	

Suggested Readings:
1. Damodaran, Suma – Managerial Economics – Oxford University Press
2. Premvir Kapoor – Sociology for Economics and Engineers, Khanna Publishing
3. Lipsey & Chrystal – Economics – Oxford University Press 3. Peterson & Lewis
   – Managerial Economics – Pearson Education.
4. Pindyck and Rubenfeld - Micro Economics – Pearson Education
5. H.L. Ahuza- Managerial Economics, S. Chand 6. D.N. Dwivedi-
   Managerial Economics, Prentice Hall.

MB 102: ORGANIZATIONAL BEHAVIOUR

Name of the Course:	ORGANIZATIONAL BEHAVIOUR
Course Code: MB 102	Semester I
Duration: 6 months	Maximum Marks: 100
Teaching Scheme	Examination Scheme
Theory: 5 Days /week	Mid Semester exam: 15
Tutorial: NIL	Assignment and Quiz: 10 marks
Credit Points: 4	Attendance: 5 marks
	End Semester Exam : 70 Marks

Unit	Content	Hrs/Unit	Marks/Unit

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1	OB – Overview – Meaning of OB, Importance of OB, Field of OB, Contributing Disciplines, Applications in Industry.	2L	
2	Personality– Meaning of Personality, Determinants of Personality, Theories of Personality, Measurement of Personality, Development of Personality	6L	
3	Perception – Process and Principles, Nature and Importance, Factors Influencing, Perception, Perceptual Selectivity, Social Perception, Fundamentals of Decision making	4L	
4	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	
5	Attitudes and Job Satisfaction – Sources of Attitudes, Types of Attitudes, Attitudes and Consistency, Cognitive Dissonance Theory, Attitude Surveys.	2L	
6	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	
7	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	
8	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	
9	Conflict in Organization - Sources of Conflict, Types of Conflict, Conflict Process, Johari Window, Conflict Resolution, Cases on Conflict Resolution.	2L	
10	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 mode	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.

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MB 103: BUSINESS COMMUNICATION

Name of the Course:	BUSINESS COMMUNICATION	
Course Code: MB 103	Semester I	
Duration: 6 months	Maximum Marks: 100	
Teaching Scheme	Examination Scheme	
Theory: 5 Days /week	Mid Semester exam: 15	
Tutorial: NIL	Assignment and Quiz: 10 marks	
	Attendance: 5 marks	
	End Semester Exam : 70 Marks	
Credit Points:	4	

Unit	Content	Hrs/Unit	Marks/Unit
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 + 6p	
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	
5	Internal Communication – Circulars, Notices, Memos, Agenda and Minutes	4L+2P	
6	External Communication – Resume/CV, Using Facsimiles (Fax), Electronic Main, Handling Mail	4L	
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	2L + 2P	

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

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MB 104: Introduction to Data Science and Business Analysis

Name of the Course:		Introduction to Data Science & Business Analysis
Course Code: MB104	Semester -I	
Duration: 6 months	Maximum Marks: 100	
Teaching Scheme	**Examination Scheme**	
Theory: 3hrs/week	Mid Semester exam: 15	
Tutorial: NIL	Assignment and Quiz: 10 marks	
	Attendance: 5 marks	
Practical:	End Semester Exam : 70 Marks	
Credit Points:	3	

Unit	Content	Hrs/Unit	Marks/Unit
1	Introduction: Objective, scope and outcome of the course 1	1L	
2	Toolboxes: Python, fundamental libraries for data Scientists. Integrated development environment (IDE). Data operations: Reading, selecting, filtering, manipulating, sorting, grouping, rearranging, ranking, and plotting.	**7L**	
3	Descriptive statistics, data preparation. Exploratory Data Analysis data summarization, data distribution, measuring asymmetry. Sample and estimated mean, variance and standard score. Statistical Inference frequency approach, variability of estimates, hypothesis testing using confidence intervals, using pvalues.	**7L**	
4	4 Supervised Learning: First step, learning curves, training-validation and test. Learning models generalities, support vector machines, random forest. Examples	**7L**	
5	Regression analysis, Regression: linear regression simple linear regression, multiple & Polynomial regression, Sparse model. Unsupervised learning, clustering, similarity and distances, quality measures of clustering, case study.	**7L**	

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6	Network Analysis, Graphs, Social Networks, centrality, drawing centrality of Graphs, PageRank, Ego-Networks, community Detection.	**7L**	
7	Analytics in Business and Management	**4L**	

Suggested Readings:

1. Beginner's Guide for Data Analysis using R Programming, Jeeva Jose, Khanna Publishing House. (AICTE Recommended)

2. The Essentials Beginner's Guide to Data Science, Author Manasa Kalaimalai, Notion Press,

3. An Introduction to Data Science, by Jeffrey S. Saltz (Author), Jeffrey Morgan Stanton (Author), 3. SAGE Publication, DATA Science from Scratch, by Joel Grus, Data Science Fundamentals And 4. Practical Approaches by Rupam Kumar Sharma Gypsy Nandi, BPB Publications

MB 105: INDIAN ETHOS AND BUSINESS ETHICS

Name of the Course:	INDIAN ETHOS AND BUSINESS ETHICS		
Course Code: MB 105	Semester I		
Duration: 6 months	Maximum Marks: 100		
Teaching Scheme	Examination Scheme		
Theory: 5 Days /week	Mid Semester exam: 15		
Tutorial: NIL	Assignment and Quiz: 10 marks		
	Attendance: 5 marks		
	End Semester Exam : 70 Marks		
Credit Points:	4		

Unit	Content	Hrs/Unit	Marks/Unit
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	4L	
3	Stress Management, - meditation for mental health, yoga	2L	

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4	Contemporary Approaches to Leadership – Joint Hindu Family business; Leadership qualities of Karta	2L	
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	6L	
Business Ethics			
6	Understanding Business Ethics – Ethical Values, Myths and Ambiguity, Ethical Codes, Ethical Principles in Business; Theories of Ethics, Absolutism vs. Relativism	6L	
7	Approaches to Business Ethics: Teleological Approach, The Deontological Approach , Kohlberg's Six Stages Of Moral Development (CMD)	4L	
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	4L	
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.	6L	

Suggested Readings

1. Premvir Kapoor, Professional Ethics and Human Values, Khanna
   Publishing House (AICTE Recommended)
2. Beteille, Andre - Society and Politics in India, OUP
3. Chakraborty, S. K. - Values and Ethics for Organisations, OUP 3. Fernando, A.C.
   - Business Ethics - An Indian Perspective, Pearson
4. Gupta, Dipankar - Social Stratificaiton, OUP.
5. Srinivas, M. N.- Social Structure and Caste and Other Essays, OUP.
6. Sandhya, N- Indian Society, Vrindya Publication.

MB 106: QUANTITATIVE TECHNIQUES

Name of the Course:	QUANTITATIVE TECHNIQUES	
Course Code: MB 106	Semester I	
Duration: 6 months	Maximum Marks: 100	
Teaching Scheme	Examination Scheme	
Theory: 5 Days /week	Mid Semester exam: 15	
Tutorial: NIL	Assignment and Quiz: 10 marks	
Credit Points: 4		

Unit	Content	Hrs/Unit	Marks/Unit
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	

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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	
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.	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 Reading:

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

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SEMESTER II

MB 201: BIG DATA ANALYTICS IN BUSINESS

Name of the Course:		BIG DATA ANALYTICS IN BUSINESS	
Course Code: MB 201	Semester II		
Duration: 6 months	Maximum Marks: 100		
Teaching Scheme	**Examination Scheme**		
Theory: 3hrs/week	Mid Semester exam: 15		
Tutorial: NIL	Assignment and Quiz: 10 marks		
	Attendance: 5 marks		
Practical:	End Semester Exam : 70 Marks		
Credit Points:	4		

Unit	Content	Hrs/Unit	Marks/Unit
1	Introduction to Marketing Analytics: Need for Data Driven Marketing Approach, Marketing Engineering, and 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, Modelling trend and Seasonality, Ratio to Moving Average Method, Winter's Method	**6L**	
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: Discriminate Analysis (DA), two Group DA .	**6L**	
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.	**8L**	
6	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 & Case Study	**8L**	

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COURSE OUTCOMES

After successful completion of this course, students shall be able to;
CO1: New Opportunities for Insight
CO2: .Spotting the best business opportunities for big data
CO3 Improving usability as data sources proliferate
CO4: Up skilling IT for big data
CO5: Provide flexible and transparent, self-service analytics

Suggested Readings:

1. The Business Case for Big Data, by award-winning author Phil Simon
2. The Data Revolution: Big Data, Open Data, Data Infrastructures, And Their Consequences By Rob Kitchin
3. Big Data: Principles and Best Practices of Scalable Real-Time Data Systems By Nathan Marz And James Warren
4. Analytics In A Big Data World: The Essential Guide To Data Science And Its Applications By Bart Baesens
5. Big Data and Analytics By Seema Acharya and Subhashini Chellappan
6. Big Data and Hadoop, V.K. Jain, Khanna Book Publishing Company.

MB 202: FINANCIAL REPORTING, STATEMENT ANDANALYSIS

Name of the Course:	FINANCIAL REPORTING, STATEMENT AND ANALYSIS		
Course Code: MB 202	Semester II		
Duration: 6 months	Maximum Marks: 100		
Teaching Scheme	Examination Scheme		
Theory: 5 Days /week	Mid Semester exam: 15		
Tutorial: NIL	Assignment and Quiz: 10 marks		
Credit Points: 4			

Unit	Content	Hrs/Unit	Marks/Unit
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	
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	

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| 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

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MB 203: MARKETING MANAGEMENT AND CORPORATE STRATEGY

Name of the Course:	MARKETING MANAGEMENT AND CORPORATE STRATEGY	
Course Code: MB 203	Semester II	
Duration: 6 months	Maximum Marks: 100	
Teaching Scheme	Examination Scheme	
Theory: 5 Days /week	Mid Semester exam: 15	
Tutorial: NIL	Assignment and Quiz: 10 marks	
Credit Points: 4		

UNIT	Content	Hrs/Unit	Marks/Unit
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. Marketing Environment: Major components of Internal Environment, the microenvironment and macro-environment; SWOT Analysis, PEST Analysis	4L	
2	Strategy and Planning: Concept of SBU, Choice of Corporate level Strategy; BCG matrix, Product-Market Grid, Porter's Five Force Model for Industry Analysis. 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.	8L	
3	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.	4L	
4	Branding and Packaging: Purpose of branding; Brand equity; Branding strategies; Purpose of Packaging; Types of Packaging – primary, secondary, shipping packages.	4L	
5	Marketing Channels: Channel flows and functions; Channel design decisions; Wholesaling and Retailing, Concept of Supply Chain Management and Logistics Management, Channel Conflict Management	4L	
Module II 6	Strategic Management: Objectives, policies, Tools – Balanced Score Card, Strategic Management process. Strategic Planning: Corporate; Functional and Managerial Goal Setting; Positioning Organization, Models for Resource Allocation, Environmental Turbulence Strategic Investment, Strategic Entry	6L	

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7	Formulating Strategies: Corporate, Administrative/Executive and Operating Levels, Developing Functional Strategies – Production/Operations, Finance, Marketing, HR, Materials, R & D; BCG Matrix, Portfolio analysis. Implementation of Strategies: Role of Managers, Leadership, Strategic Control System and Measurement, Structural Implementation, Functional Implementation.	4L	
8	Strategic Actions: Mergers, Acquisitions, Diversification, Joint Ventures, De-Merger, etc.	3L	
9	Case studies – Strategic Planning and Management	5L	

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

7. Corporate Strategies: Banerjee, Bani P.; OUP
8. Crafting the Strategy: Das, Ranjan :, Tata McGraw Hill
9. Business Policy and Strategic Management: Kazmi, A., Tata McGraw Hill
10. Global Strategic Management: Mellahi, K.,Frynas, J.G.and Finlay, P., OUP
11. Competitive Strategy: Porter, Michael E., The Free Press
12. Discourses on Strategic Management: Roy, Dilip; Asian Books

MB 204: OPERATIONS MANAGEMENT

Name of the Course:	OPERATIONS MANAGEMENT		
Course Code: MB 204	Semester II		
Duration: 6 months	Maximum Marks: 100		
Teaching Scheme	Examination Scheme		
Theory: 5 Days /week	Mid Semester exam: 15		
Tutorial: NIL	Assignment and Quiz: 10 marks		
Credit Points: 4			

UNIT	Content	Hrs/Unit	Marks/Unit
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	

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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	
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	5L	
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

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MB 205: MANAGEMENT INFORMATION SYSTEM

Name of the Course:	MANAGEMENT INFORMATION SYSTEM	
Course Code: MB 205	Semester II	
Duration: 6 months	Maximum Marks: 100	
Teaching Scheme	Examination Scheme	
Theory: 5 Days /week	Mid Semester exam: 15	
Tutorial: NIL	Assignment and Quiz: 10 marks	
Credit Points: 4		

UNIT	Content	Hrs/Unit	Marks/Unit
1	E-commerce / E-business Overview, Definitions, Advantages & Disadvantages of E- commerce Business models of e-commerce: models based on transaction party (B2B, B2C, B2G,C2B, C2C, E-Governance), models based on revenue models Implementation ecommerce business, online and offline marketing	3L	
2	**ERP, CRM, SCM** **ERP (Enterprise Resource Planning):** Concepts of ERP, architecture of ERP, Generic modules of ERP, Applications ofERP, concept of XRP (extended ERP) Features of commercial software like SAP, Oracle Apps, MS Dynamics NAV **CRM (Customer Relationship Management):** Concepts of CRM, Features, application of CRM Sales force automation **SCM (Supply Chain Management):** Concepts of SCM, drivers of SCM, inbound & outbound Definition, brief description and applicability of: eProcurement, eTailing,eLogistics, eCollaboration, eIntegration. Case studies for ERP, CRM, and SCM	10L	
3	**Data Communication & Networking** Need for computer networking, components of a data communication system, Network topology Types of networks: LAN, MAN, WAN; concepts of Internet, Intranet, Extranet, and WWW. Network protocols, Network Architecture	4L	
4	Threats to Computer Systems and Control Measures Concepts of threats: Virus, hacking, phishing, spyware, spam, physical threats (fire, flood, earthquake, vandalism) Concepts of security measures: firewall, encryption	2L	

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5	Database Management Systems (DBMS) [e.g. MS-Access/ Oracle/ MS SQL Server / MySQL etc.] What is a DBMS; Need for using DBMS. Concepts of tables, records, attributes, keys, integrity constraints SQL: DDL & DML, DCL concepts, SQL commands [ANSI standard].	4L+2P	
6	Data Warehousing and Data Mining Concepts of Data warehousing, data mart, meta data, multidimensional modeling, Online Analytical Processing (OLAP), Online Transaction Processing (OLTP), Data mining concepts, knowledge discovery v. data mining, data mining applications.	3L	
7	MS Office Applications MS Excel: Graphs and Charts–Calculation of various financial functions Performing Mathematical Calculations (using Formula and Functions), Searching, Sorting and Filtering, Min Media Mode, Reference Operators, Functions: Typing a Function, Creating a Column Chart: Changing the Size and Position of a Chart Saving MS Access: Tables and Queries, Forms, Relationship MS Power Point: Introduction–Toolbar, their Icons and Commands– Navigating in Power point-Creation of slides, animation, and templates-Designing Presentations– Slide show controls–Making notes on Pages and Handouts– Printing Presentations– Customizing Presentations-Auto content Wizard.	12L+ 4P	

Suggested Readings:

1. Waman S Jawadekar: Management Information Systems – Text and Cases 3ed. McGraw Hill
2. Mahadeo Jaiswal & Monica Mittal: Management Information Systems, OUP
3. Forouzan: Data Communication & Networking, TMH.
4. Tanenbaum: Computer Networks, Pearson Education
5. Ivan Bayross: SQL & PL/SQL, BPB ISRD, Introduction to Database Management Systems, Tata McGraw Hill
6. Sadagopan: ERP: A Managerial Perspective, Tata McGraw Hill
7. Mahapatra: Database Management Systems, Khanna Publishing House.

MB - 206: HUMAN RESOURCE MANAGEMENT

Name of the Course:	HUMAN RESOURCE MANAGEMENT	
Course Code: MB 206	Semester II	
Duration: 6 months	Maximum Marks: 100	
Teaching Scheme	Examination Scheme	
Theory: 5 Days /week	Mid Semester exam: 15	
Credit Points: 4		
UNIT	**Content**	**Hrs/Unit**	**Marks/Unit**

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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	
	Performance Appraisal Systems : Purpose, Methods, Appraisal instruments, 360 degree Appraisal, HR Score Card, Errors in appraisal, Potential Appraisal, Appraisal Interview.	4L	
5	Compensation Management : Concepts, Components; System of Wage Payment, job evaluation, wage/ salary fixation, incentives, bonus, ESOPs, Fringe Benefits, Retirement Benefits. Compensation Plans	4L	
6	Industrial Relations in India: Parties; Management and Trade Unions, Industrial Disputes: Trends, Collective Bargaining, Settlement Machineries, Role of Government, Labour Policy in India.	4L	
7	Workers' Participation in Management: Concept, Practices and Prospects in India, Quality Circles and other Small Group Activities.	2L	
8	Discipline Management : Misconduct, Disciplinary action, Domestic Enquiry, Grievance Handling	4L	
9	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	

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SEMESTER III

MB 302: BUSINESS RESERCH METHOD

Name of the Course:	Business Research Method	
Course Code: MB 302	Semester III	
Duration: 6 months	Maximum Marks: 100	
Teaching Scheme	**Examination Scheme**	
Theory: 3hrs/week	Mid Semester exam: 15	
Tutorial: NIL	Assignment and Quiz: 10 marks	
	Attendance: 5 marks	
Practical:	End Semester Exam : 70 Marks	
Credit Points:	4	

Unit	Content	Hrs/Unit	Marks/Unit
1	RESEARCH FORMULATION AND DESIGN Motivation and objectives Research methods vs. Methodology. Types of research – Descriptive vs. Analytical, Applied vs. Fundamental, Quantitative vs. Qualitative, Conceptual vs. Empirical, concept of applied and basic research process, criteria of good research. Defining and formulating the research problem, selecting the problem, necessity of defining the problem, importance of literature review in defining a problem, literature review-primary and secondary sources, reviews, monograph, patents, research databases, web as a source, searching the web, critical literature review, identifying gap areas from literature and research database, development of working hypothesis.	10L	
2	DATA COLLECTION AND ANALYSIS Accepts of method validation, observation and collection of data, methods of data collection, sampling methods, data processing and analysis strategies and tools,data analysis with statically package (Sigma 9 78 PG STAT,SPSS for student t-test, ANOVA, etc.), hypothesis testing	**10L**	
3	RESEARCH ETHICS IPR AND SCHOLARY PUBLISHING Ethics-ethical issues, ethical committees (human & animal); IPR- intellectual property rights and patent law, commercialization, copy right, royalty, trade related aspects of intellectual property rights (TRIPS); scholarly publishing-IMRAD concept and design of research paper, citation and acknowledgement, plagiarism, reproducibility and accountability	**10L**	

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4	INTERPRETATION AND REPORT WRITING Meaning of Interpretation, Technique of Interpretation, Precaution in Interpretation, Significance of Report Writing, Different Steps in Writing Project Report, Layout of the Project/Research Report, Types of Reports, Oral Presentation, Mechanics of Writing a Project/Research Report, Precautions for Writing Research Reports, Conclusions.	**10L**	

On successful completion of this course students will be able to:

- Apply an advanced understanding of business research design options, methodologies and analysis methods (both qualitative and quantitative), including respective terms, definitions and applications to the design, implementation and evaluation of a research project.
- Distil an identified business problem into a succinct research problem (or problems) and articulate this into a comprehensive research brief for investigation by a research team locally or internationally.
o This brief will include a statement of the resulting research problem and the objectives that need to be achieved to provide the information necessary to tackle the business problem and the decisions that need to be made respective to it.
- Complete, from the brief created, a research proposal for implementation at either a local or international level.
o This will include (but not be restricted to), a literature summary at the necessary level of depth to ensure a thorough understanding of what is already known about the problem to be addressed, the proposed research design, data collection, sampling, analysis methods to be employed along with an indicative time frame for each stage of the research proposed and budget.
- Apply a broad understanding of issues specific to undertaking business research across international boundaries, including cultural, geographical, language and cost related challenges and respective strategies and approaches that may be employed to solve them to the design, implementation and evaluation of a research project.
- Recognise, and take account of, the importance of ethical conduct in undertaking research, including potential implications for business relationships, effects on potential respondents and sensitivity to cultural differences and honesty and integrity in analysis and reporting in the design, implementation and evaluation of a research project.

Text book and Reference books:
1. Garg, B.L., Karadia, R., Agarwal, F. and Agarwal, U.K., 2002. An introduction to Research Methodology, RBSA Publishers.
2. Kothari, C.R., 1990. Research Methodology: Methods and Techniques. New Age International. 418p.
3. Sinha, S.C. and Dhiman, A.K., 2002. Research Methodology, Ess Ess Publications. 2 volumes.
4. Trochim, W.M.K., 2005. Research Methods: the concise knowledge base, Atomic DogPublishing. 270p.
5. Wadehra, B.L. 2000. Law relating to patents, trade marks, copyright designs and geographical indications. Universal Law Publishing.
Additional reading

1. Anthony, M., Graziano, A.M. and Raulin, M.L., 2009. Research Methods: A Process of Inquiry, Allyn and Bacon.
2. Carlos, C.M., 2000. Intellectual propertyrights, the WTO and developing countries: the TRIPS agreement and policy options. Zed Books, New York.
3. Coley, S.M. and Scheinberg, C. A., 1990, "Proposal Writing", Sage Publications.

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MB 301: ENTREPRENEURSHIP & PROJECT MANAGEMENT

Name of the Course:	**ENTREPRENEURSHIP & PROJECT MANAGEMENT**		
Course Code: MB 301	Semester III		
Duration: 6 months	Maximum Marks: 100		
Teaching Scheme	**Examination Scheme**		
Theory: 5 Days /week	Mid Semester exam: 15		
Tutorial: NIL	Assignment and Quiz: 10 marks		
	Attendance: 5 marks		
Practical: hrs./week	End Semester Exam : 70 Marks		
Credit Points:	4		

Unit	Content	Hrs/Unit	Marks/Unit
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	
PROJECT MANAGEMENT			

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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

BDA 301: DATA SCIENCE USING R AND PYTHON

Name of the Course:	DATA SCIENCE USING R and Python	
Course Code: BDA 301	Semester III	
Duration: 6 months	Maximum Marks: 100	
Teaching Scheme	**Examination Scheme**	
Theory: 3hrs/week	Mid Semester exam: 15	
Tutorial: NIL	Assignment and Quiz: 10 marks	
	Attendance: 5 marks	
Practical:	End Semester Exam : 70 Marks	
Credit Points:	4	
Unit	**Content**	**Hrs/Unit**	**Marks/Unit**

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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	2L	
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	2L	
3	Modeling in R:Linear regression model in R, Multiple linear regressions model, Representation of regression results, Non Linear Regression	**5L**	
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	**5L**	
5	Time Series Forecasting in R and model deployment: Basics of time series, Components oftime series, Time series forecasting, Deploying predictive models	**5L**	
6	. Case Study	**2L**	
MODULE-III			
7	Python Basics: Python variables, expressions, statements Variables, Keywords, Operators & operands, Expressions, Statements, Order of operations, String operations, Comments, Keyboard input.	**2L**	
8	Conditions & Iterations: Conditions, Modulus operator, Boolean expression, Logical operators, if, if else, if-elif-else, Nested conditions, Iteration - while, for, break, continue, Nested loop.	**2L**	
9	Functions: Type conversion function, Math functions, Composition of functions, defining own function, parameters, arguments, Importing functions	**2L**	
10	. Recursion: Python recursion, Examples of recursive functions, Recursion error, Advantages & disadvantages of recursion. Strings: Strings Accessing values in string, Updating strings, Slicing strings, String methods – upper(), find(), lower(), capitalize(), count(), join(), len(), isalnum(), isalpha(), isdigit(), islower(), isnumeric(), isspace(), isupper() max(), min(), replace(), split(). List: Introduction, Traversal, operations, Slice, Methods, Delete element, Difference between lists and strings, Example program, Dictionaries - idea of dictionaries Tuples: idea of lists & tuples, Brief idea of dictionaries & tuples.	**6L**	
MODULE-IV			

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11	Object-Oriented Programming with Python: Concepts, Creating class, Instance objects, Accessing attributes, built in class attributes, destroying objects, Inheritance, Overloading, Overriding, Data hiding	**2L**	
12	Python Exceptions: Exception handling, except clause, User Defined Exceptions Regular expression- Match function, Search function, Matching VS Searching, Modifiers, Patterns	**2L**	
13	File Operations in Python: create, open, read, write, append, close files; Stack and Queue, Stacks and Queues using lists	**2L**	
14	8. NumPy, SciPy, SymPy: basic concepts Pandas: Object creation, Viewing data, Selection, Missing data, Operations, Merge, Grouping, Reshaping, Time series, Categoricals, Plotting, Getting data in/out from CSV, Excel.	**3L**	
15	Case Studies	**2L**	

COURSE OUTCOMES

After successful completion of this course, students shall be able to;
CO1: Use analytic approaches to data warehousing and Data mining.
CO2: The candidate will get knowledge of Data pre-processing and data quality
CO3: Modeling and design of data warehouses
CO4: Algorithms for data mining. Skills
CO5: Ability to apply acquired knowledge for understanding data and select suitable methods for data analysis

Suggested Readings:
1. R for Data Science – Hadley Wickham and Garrett Grolemund
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
7. Python Programming - By Anurag Gupta, G Biswas – Mcgraw Hill Education
8. Learn Python The Hard Way, Zed A. Shaw, ADDISON-WESLEY
9. Learning Python, Mark Lutz, O'REILY 4. Programming In Python, Dr. Pooja Sharma, BPB
10. Python Programming - Using Problem Solving Approach, Reema Thareja, OUP
11. Taming Python by Programming, Jeeva Jose, Khanna Publishing House (AICTE Recommended Textbook)
12. Beginner's Guide for Data Analysis using R Programming, Jeeva Jose, Khanna Publishing House (AICTE Recommended)
13. Introduction to Machine Learning using R Programming, Jeeva Jose, Khanna Publishing House (AICTE Recommended)

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BDA 302: BUSINESS INTELLEGENCE

Name of the Course:		Business Intelligence	
Course Code: BDA 302	Semester III		
Duration: 6 months	Maximum Marks: 100		
Teaching Scheme	**Examination Scheme**		
Theory: 3hrs/week	Mid Semester exam: 15		
Tutorial: NIL	Assignment and Quiz: 10 marks		
	Attendance: 5 marks		
Practical:	End Semester Exam : 70 Marks		
Credit Points:	4		

Unit	Content	Hrs/Unit	Marks/Unit
1	Business Intelligence an Introduction: Introduction, Definition, History and Evolution, Business Intelligence Segments, Difference between Information and Intelligence, Defining Business Intelligence Value Chain, Factors of Business Intelligence System, Real time Business Intelligence, Business Intelligence Applications	4L	
2	Business Intelligence Essentials: Introduction, Creating Business Intelligence Environment, Business Intelligence Landscape, Types of Business Intelligence, Business Intelligence Platform, Dynamic roles in Business Intelligence	**4L**	
3	Business Intelligence Types: Introduction, Multiplicity of Business Intelligence Tools, Types of Business Intelligence Tools, Modern Business Intelligence, the Enterprise Business Intelligence, Information Workers	**6L**	
4	Architecting the Data: Introduction, Types of Data, Enterprise Data Model, Enterprise Subject Area Model, Enterprise Conceptual Model, Enterprise Conceptual Entity Model, Granularity of the Data, Data Reporting and Query Tools, Data Partitioning, Metadata, Total Data Quality Management (TDQM).	**4L**	
5	Introduction to Data Mining: Introduction, Definition of Data Mining, Data mining parameters, How Data Mining works?, Types of relationships, Architecture of Data Mining, Kinds of Data which can be mined, Functionalities of Data Mining, Classification on Data Mining system, Various risks in Data Mining, Advantages and disadvantages of Data Mining, Ethical issues in Data Mining, Analysis of Ethical issues	8L	

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6	Data Mining Techniques: Introduction, Statistical Perspective on Data Mining, Statistics-need, Similarity Measures, Decision Tree-Illustrations, Neural Network, Neural Network versus Conventional Computers, Kohonen's Self-Organizing Maps, Genetic Algorithms, Applications of Genetic Algorithm	4L	
7	Introduction to Data Warehousing: Introduction, Data Warehousing, Advantages and Disadvantages of Data Warehousing, Data Warehouse, Data Mart, Aspects of Data Mart, Online Analytical Processing , Characteristics of OLAP, OLAP Tools, OLAP Data Modeling, OLAP Tools and the Internet	4L	
8	Different Ways of Data Warehousing: Introduction, Types of Business Models, B2B Business Intelligence Model, Electronic Data Interchange & E-Commerce Models, Advantages of E-Commerce for B2B Businesses, Systems for Improving B2B E-Commerce, B2C Business Intelligence Model, Need of B2C model in Data warehousing, Different types of B2B intelligence Models & Case Study	6L	

On successful completion of this course students will be able to:
- Spotting business issues that need to be resolved.
- Working hard to improve and speed up decision making.
- Optimization of company processes internally.
- Greater running performance.
- Improve and strengthen advantage over its competitors.

Text book and Reference books:
1. Data Strategy: How To Profit From A World Of Big Data, Analytics And The Internet Of Things" by Bernard Marr.
2. Big Data Demystified: How To Use Big Data, Data Science And AI To Make Better Business Decisions And Gain Competitive Advantage" by David Stephenson PhD
3. The Wall Street Journal Guide To Information Graphics: The Dos And Don'ts of Presenting Data, Facts, And Figures" by Dona M. Wong
4. Data Analytics For Beginners: Your Ultimate Guide To Learn And Master Data Analysis. Get Your Business Intelligence Right – Accelerate Growth And Close More Sales" by Victor Finch
5. Beginner's Guide for Data Analysis using R Programming, Jeeva Jose, Khanna Publishing House (AICTE Recommended)
6. Performance Dashboards – Measuring, Monitoring, And Managing Your Business" by Wayne Eckerson

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ELECTIVE PAPERS

FM 301: TAXATION

Name of the Course:	**TAXATION**	
Course Code: FM 301	Semester III	
Duration: 6 months	Maximum Marks: 100	
Teaching Scheme	**Examination Scheme**	
Theory: 5 days./week	Mid Semester exam: 15	
Tutorial: NIL	Assignment and Quiz: 10 marks	
	Attendance: 5 marks	
Practical: hrs./week	End Semester Exam : 70 Marks	
Credit Points:	4	

Unit	Content	Hrs/Unit	Marks/Unit
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	
	Income Exempted from Tax: Individual and Corporate	2L	
3	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, 80DDB, 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, 72and 73.	8L	
4	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	
INDIRECT TAX			
	Customs Act and Valuation: Basic Concepts only	2L	

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5	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	
6	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	
7	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

Name of the Course:	**PROJECT APPRAISAL and FINANCE**	
Course Code: FM 302	Semester III	
Duration: 6 months	Maximum Marks: 100	
Teaching Scheme	**Examination Scheme**	
Theory: 5 days./week	Mid Semester exam: 15	
Tutorial: NIL	Assignment and Quiz: 10 marks	
	Attendance: 5 marks	
Practical: hrs./week	End Semester Exam : 70 Marks	
Credit Points:	4	

Unit	Content	Hrs/Unit	Marks/Unit
1	Introduction to Project Finance, Overview and Fundamentals- Concepts, Functions, Types, Advantages and Disadvantages, Parties, Perquisites of Project Finance.	4L	

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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	
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

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FM 303: BEHAVIORAL FINANCE

Name of the Course:	**BEHAVIORAL FINANCE**	
Course Code: FM 303	Semester III	
Duration: 6 months	Maximum Marks: 100	
Teaching Scheme	**Examination Scheme**	
Theory: 5 days./week	Mid Semester exam: 15	
Tutorial: NIL	Assignment and Quiz: 10 marks	
	Attendance: 5 marks	
Practical: hrs./week	End Semester Exam : 70 Marks	
Credit Points:	4	

Unit	Content	Hrs/Unit	Marks/Unit
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	4L	
6	Information Screening Biases : Anomalies, Noise Trading, and Limits to Arbitrage	2L	
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	

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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

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FM 304: CORPORATE FINANCE

Name of the Course:	**CORPORATE FINANCE**	
Course Code: FM 304	Semester III	
Duration: 6 months	Maximum Marks: 100	
Teaching Scheme	**Examination Scheme**	
Theory5 days./week	Mid Semester exam: 15	
Tutorial: NIL	Assignment and Quiz: 10 marks	
	Attendance: 5 marks	
Practical: hrs./week	End Semester Exam : 70 Marks	
Credit Points:	4	

Unit	Content	Hrs/Unit	Marks/Unit
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	4L	
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	4L	
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	

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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

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HUMAN RESOURCE MANAGEMENT

HR 301: TEAM DYNAMICS AT WORK

Name of the Course:	**TEAM DYNAMICS AT WORK**		
Course Code: HR 301	Semester III		
Duration: 6 months	Maximum Marks: 100		
Teaching Scheme	**Examination Scheme**		
Theory: 5 days./week	Mid Semester exam: 15		
Tutorial: NIL	Assignment and Quiz: 10 marks		
	Attendance: 5 marks		
Practical: hrs./week	End Semester Exam : 70 Marks		
Credit Points:	4		

Unit	Content	Hrs/Unit	Marks/Unit
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	

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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	
5	Case Studies, Presentations, quizzes, experiential exercises, Team exercises, Group Discussions, Role Playing.	4L	
6	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	
7	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	
8	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	
9	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	
10	Case Studies, Presentations, quizzes, experiential exercises, Team exercises, Group Discussions, Role Playing.	4L	

Suggested Readings:
1. Robbins, S.P. Judge, T.A. andSanghi, S.: Organizational Behaviour, Pearson
2. Luthans, Fred: Organizational Behaviour, McGraw Hill
3. Newstrom J.W. andDevis 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

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HR 302: HUMAN RESOURCE METRICS AND ANALYTICS

Name of the Course:	**HUMAN RESOURCE METRICS AND ANALYTICS**		
Course Code: HR 302	Semester III		
Duration: 6 months	Maximum Marks: 100		
Teaching Scheme	**Examination Scheme**		
Theory: 5 days./week	Mid Semester exam: 15		
Tutorial: NIL	Assignment and Quiz: 10 marks		
	Attendance: 5 marks		
Practical: hrs./week	End Semester Exam : 70 Marks		
Credit Points:	4		
Unit	Content	Hrs/Unit	Marks/Unit
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	
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	10L	
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	

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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 Packages for Human Resource Information System including ERP Software such as SAP, Oracle. EHRM-objectives, advantages and disadvantages.	4L	
7	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

Name of the Course:	**CROSS CULTURAL MANAGEMENT**		
Course Code: HR 303	Semester III		
Duration: 6 months	Maximum Marks: 100		
Teaching Scheme	**Examination Scheme**		
Theory: 5 days./week	Mid Semester exam: 15		
Tutorial: NIL	Assignment and Quiz: 10 marks		
	Attendance: 5 marks		
Practical: hrs./week	End Semester Exam : 70 Marks		
Credit Points:	4		

Unit	Content	Hrs/Unit	Marks/Unit
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	

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Unit	Content	Hrs/Unit	Marks/Unit
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

Name of the Course:	**ORGANIZATIONAL DESIGN**		
Course Code: HR 304	Semester III		
Duration: 6 months	Maximum Marks: 100		
Teaching Scheme	**Examination Scheme**		
Theory: 5 days./week	Mid Semester exam: 15		
Tutorial: NIL	Assignment and Quiz: 10 marks		
	Attendance: 5 marks		
Practical: hrs./week	End Semester Exam : 70 Marks		
Credit Points:	4		
Unit	**Content**	**Hrs/Unit**	**Marks/Unit**

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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	
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	

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Suggested Readings:

1. Robbins, S.P. Judge, T.A. andSanghi, S.: Organizational Behaviour, Pearson
2. Luthans, Fred: Organizational Behaviour, McGraw Hill
3. Newstrom J.W. andDevis 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

MARKETING

MM 301: B2B MARKETING

Name of the Course:	**B2B MARKETING**	
Course Code: MM 301	Semester III	
Duration: 6 months	Maximum Marks: 100	
Teaching Scheme	**Examination Scheme**	
Theory: 5 days./week	Mid Semester exam: 15	
Tutorial: NIL	Assignment and Quiz: 10 marks	
	Attendance: 5 marks	
Practical: hrs./week	End Semester Exam : 70 Marks	
Credit Points:	4	

Unit	Content	Hrs/Unit	Marks/Unit
1	Nature of Business Marketing: Business Marketing Concept, Business vs. Consumer Marketing, Economics of Industrial demand, Types of Industrial Markets, Types of Business Customers, Classifying Industrial Products and Services, Business customers' purchase orientations, Organizational Procurement Characteristics, Environment Analysis in Business Marketing.	6L	
2	Organizational Buying Behavior: Organizational Buying Process, Types of purchases/buying situations, Buying Centre Concept, Inter Personal Dynamics of Business Buying Behaviour, Roles of Buying centre, Conflict Resolution in Decision, The Webster and Wind model of Organizational Buying Behaviour, Ethics in Purchasing	6L	
3	Business Marketing Research: Differences between B2C and B2B Marketing Research, Sales Forecasting Approaches, Top-Down, Bottom-up approaches.	2L	
4	Market Segmentation: Segmenting, Targeting and Positioning of Business Market, Value based segmentation, Model for segmenting the organizational Market	4L	

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5	Product Policy of established products: Classification of the product types; the life cycle of the product; Management products; Strategies for established products. Product policy of new product development: Strategies for the development of new products; Marketing systems; Marketing of engineering services	4L	
6	Formulating Channel Strategy: Nature of Business Marketing channels, Intermediaries, Direct and Indirect Channels, Channel Objectives, Channel Design, Managing Channel Members, Selection and Motivation of Channel Members, Channel conflicts	4L	
7	Pricing Strategy: Price Determinants, Factors that Influence the Pricing Strategies, Pricing Methods, concept of learning curves, Pricing Strategies, Pricing Policies, Terms of Payment, Competitive Bidding, Leasing	2L	
8	Case Study The Promotional Strategies: Communication Objectives, Role of personal relation, Advertising, Sales Promotion in Industrial Markets, Trade shows and Exhibitions	2L	
9	Management of Sales Force: Personal Selling, steps involved in B2B personal selling, process of tendering, Key Account Management, Managing the Industrial Sales Force, Organizing and controlling the industrial sales force activity, planning for sales force deployment	4L	
10	B2B through E-Commerce: Business-to-Business forms of E-Commerce, Models for B2B ecommerce, marketing strategy for the electronic market place.	4L	
11	Case Studies in Indian context only	2L	

Suggested Readings:
1. Industrial Marketing by P. K. Ghosh; Oxford University Press
2. Indian Cases in B2B Marketing by Dilip Sarwate
3. Fundamentals of Business to Business by Coe John; McGraw-Hill Education
4. Business Market Management by Jr. Anderson James C; Pearson
5. Driving Demand: Transforming B2B Marketing to Meet the Needs of the Modern Buyer by Carlos Hidalgo; Palgrave Macmillan
6. The Challenger Sale by Matthew Dixon, Brent Adamson; Penguin

MM 302: SALES & DISTRIBUTION MANAGEMENT

Name of the Course:	**SALES & DISTRIBUTION MANAGEMENT**	
Course Code: MM 302	Semester III	
Duration: 6 months	Maximum Marks: 100	
Teaching Scheme	**Examination Scheme**	
Theory: 5 Days /week	Mid Semester exam: 15	

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Tutorial: NIL		Assignment and Quiz: 10 marks		
		Attendance: 5 marks		
Practical: hrs./week		End Semester Exam : 70 Marks		
Credit Points:	4			
Unit	**Content**		**Hrs/Unit**	**Marks/Unit**
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	
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	
7	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	
8	Physical Distribution & Logistics: Goals, function, processing, warehousing, inventory & transportation		2L	
9	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	
10	Case Studies		4L	

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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 Havaldar Vasant M Cavale Sales and Distribution Management: Text and Cases, Tata McGraw-Hill Education,

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MM 303: IMC/ PROMOTION STRATEGY

Name of the Course:	**IMC/ PROMOTION STRATEGY**		
Course Code: MM 303	Semester III		
Duration: 6 months	Maximum Marks: 100		
Teaching Scheme	**Examination Scheme**		
Theory: 5 days./week	Mid Semester exam: 15		
Tutorial: NIL	Assignment and Quiz: 10 marks		
	Attendance: 5 marks		
Practical: hrs./week	End Semester Exam : 70 Marks		
Credit Points: 4			
Unit	**Content**	**Hrs/Unit**	**Marks/Unit**
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	
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)	2L	

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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	
	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

Name of the Course:	**MARKETING RESEARCH**	
Course Code: MM 304	Semester III	
Duration: 6 months	Maximum Marks: 100	
Teaching Scheme	**Examination Scheme**	
Theory: 5 days/week	Mid Semester exam: 15	

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Tutorial: NIL	Assignment and Quiz: 10 marks		
	Attendance: 5 marks		
Practical: hrs./week	End Semester Exam : 70 Marks		
Credit Points: 4			

Unit	Content	Hrs/Unit	Marks/Unit
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, indepth interviews, panels, interview media: personal, telephone, internet and mail, questionnaire construction and pre-testing, qualitative and quantitative research.	4L	
6	Case Study 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: Probabilitistic and non-probabilitistic 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)	10L	
9	Application Areas: Advertising Sales analysis and forecasting, Case Studies	2L	

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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

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MANAGEMENT INFORMATION SYSTEM

MIS 301: DATA MINING FOR BUSINESS DECISION

Name of the Course:	**DATA MINING FOR BUSINESS DECISION**	
Course Code: MIS 301	Semester III	
Duration: 6 months	Maximum Marks: 100	
Teaching Scheme	**Examination Scheme**	
Theory: 5 Days /week	Mid Semester exam: 15	
Tutorial: NIL	Assignment and Quiz: 10 marks	
	Attendance: 5 marks	
Practical: hrs./week	End Semester Exam : 70 Marks	
Credit Points: 4		

Unit	Content	Hrs/Unit	Marks/Unit
1	Introduction to Data Mining: Data Mining Concept, Goals, Stages of Mining Process, Applications, Techniques, Knowledge representation methods, Challenges.	4L	
2	Data Preprocessing: Data types, Quality, Descriptive data summarization – central tendency and dispersion measure, Data cleaning, Outlier detection, Data integration and transform, Data reduction.	6L	
3	Association Rule Mining: Market-basket analysis basics, Naïve algorithm, Apriori algorithm, Software for Association Rule Mining.	4L	
4	Classification and Prediction: Decision Tree, Bayesian classification, Rule-based classification, Prediction – Linear Regression	4L	
5	Data Warehouse and OLAP: Data Warehouse and DBMS, Multidimensional data model, OLAP operations	6L	
6	Data Warehouse and OLAP: Data Warehouse and DBMS, Multidimensional data model, OLAP operations	8L	
7	Data Mining Software and Applications: Text mining: extracting attributes (keywords), structural approaches (parsing, soft parsing), Bayesian approach to classifying text, Web mining: classifying web pages, extracting knowledge from the web, Social impacts of data mining, information privacy and data security, IT Act overview.	6L	
8	Case Study	2L	

Suggested Readings:
1. Tan, Steinbach and Kumar, Introduction to Data Mining, Pearson
2. Han and Camber, Data Mining: Concepts and Techniques, Morgan Kaufmann
3. Foreman, Data Smart: Using Data Science to Transform Information into Insight, John Wiley

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4. Dunham, Data Mining : Introductory and Advanced Topics, Pearson
5. Vipin Kumar: Introduction to Data Mining, Pearson
6. Ian, H. Witten, Frank: Data Mining: Practical Machine Learning Tools and Techniques, Elsevier.

MIS 302: E-COMMERCE and DIGITAL MARKETS

Name of the Course:	**E-COMMERCE and DIGITAL MARKETS**	
Course Code: MIS 302	Semester III	
Duration: 6 months	Maximum Marks: 100	
Teaching Scheme	**Examination Scheme**	
Theory: 5 days /week	Mid Semester exam: 15	
Tutorial: NIL	Assignment and Quiz: 10 marks	
	Attendance: 5 marks	
Practical: hrs./week	End Semester Exam : 70 Marks	
Credit Points: 4		

Unit	Content	Hrs/Unit	Marks/Unit
1	E-Commerce /E-Business: Introduction, Advantages and Disadvantages, Benefits, Features, Business models of E-Commerce, Model based on revenue models, Implementation ECommercebusiness, Infrastructure Requirement for E-Commerce, Different types ofNetworking for E-Commerce ,Internet, Extranet and Intranet, Intelligent System, Risk of Ecommerce –Overview, Security for ECommerce, Security Standards, Farewell, Cryptography	8L	
2	M-Commerce: Definition, Classification, Advantages and Disadvantages, Benefits, Pitfalls of M-Commerce, Hand Held Devices, Mobility and Commerce, Mobile Computing, Wireless Web, Payment Mode.	6L	
3	E-Strategy: Overview, Strategic Methods for developing E-Commerce, E-Advertisement, Payment Mode, E-Cheque, E-cash, E-Threats and Protection	6L	
4	ERP and SCM: Definitions-ERP,CRM,SCM, Concept of ERP, Evolution of ERP, Scope and Problem of ERP selection and Implementation ,Selection of EEP process, Feature of Commercial Software, Concept of CRM, Features ,Applications, SRM portal, SCP tools, SCE, Framework, Internet's Effect on Supply Chain Power, Case Study	8L	
5	E- Marketing/ Digital Marketing: E-shopping, Role, Policies ,Online Marketing and Offline marketing, SEO,SMM,SEM, Meta Tags, Content Marketing, Marketing in Digital Age, Telemarketing, Commercial packages for Eshopping Portal, Case Study	6L	
6	EDI: Introduction, Definition, Features, Benefits, Application, Model, Protocol	4L	
7	Case Study	2L	

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Suggested Readings:
1. Dropshipping E-commerce Business Model 2019: Steven Sparrow
2. Electronic Commerce: Gray P. Schneider
3. E-Commerce Website Optimization: Dan Croxen-John, Johann van Tonder
4. Electronics Commerce –Technologies and Applications: Bhaskar Bharat, TMH
5. Frontiers of Electronic Commerce: Kalakota ,Whinston, Pearson Education
6. E-Commerce, Sarika Gupta, Khanna Publishing House.
7. E-Commerce : Strategy Technologies and Applications: Whiteley, David, TMH

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MIS 303: MANAGING SOFTWARE PROJECTS

Name of the Course:	**MANAGING SOFTWARE PROJECTS**	
Course Code: MIS 303	Semester III	
Duration: 6 months	Maximum Marks: 100	
Teaching Scheme	**Examination Scheme**	
Theory: 5 days./week	Mid Semester exam: 15	
Tutorial: NIL	Assignment and Quiz: 10 marks	
	Attendance: 5 marks	
Practical: hrs./week	End Semester Exam : 70 Marks	
Credit Points:	4	

Unit	Content	Hrs/Unit	Marks/Unit
1	Project Evaluation and Project Planning: Importance of Software Project Management –Activities Methodologies – Categorization of Software Projects – Setting objectives – Management Principles – Management Control – Project portfolio Management – Cost benefit evaluation technology – Risk evaluation – Strategic program Management – Stepwise Project Planning	8L	
2	Project Life Cycle: Software process and Process Models – Choice of Process models – mental delivery – Rapid Application development – Agile methods – Extreme Programming – SCRUM – Managing interactive processes	4L	
3	Effort Estimation: Basics of Software estimation – Effort and Cost estimation techniques – COSMIC Full function points – COCOMO II. Parametric Productivity Model – Staffing Pattern	4L	
4	Activity Planning And Risk Management: Objectives of Activity planning – Project schedules – Activities – Sequencing and scheduling – Network Planning models – Forward Pass and Backward Pass techniques – Critical path (CRM) method – Risk identification – Assessment – Monitoring – PERT technique – Monte Carlo simulation – Resource Allocation – Creation of critical patterns – Cost schedules.	6L	
5	Project Management and Control: Framework for Management and control – Collection of data Project termination – Visualizing progress – Cost monitoring – Earned Value Analysis – Project tracking – Change control- Software Configuration Management – Managing contracts – Contract Management.	8L	
6	Staffing in Software Projects: Managing people – Organizational behavior – Best methods of staff selection – Motivation – The Oldham-Hackman job characteristic model – Ethical and Programmed concerns – Working in teams – Decision making – Team structures – Virtual teams – Communications genres – Communication plans.	8L	
7	Case Study	2L	

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Suggested Readings:

1. Project Management: K. Nagarajan – New Age International Publishers
2. Applied Softer Project Management: Andrew Stellman, Jenifer Greene – O' Reilly Media
3. Software Project Management: Bob Hughes, Mike Cotterell and Rajib Mall:– Tata McGraw Hill, New Delhi.
4. Effective Software Project Management: Robert K. Wysocki – Wiley Publication.
5. Software Project Management: Walker Royce - Addison-Wesley.
6. Managing Global Software Projects: Gopalaswamy Ramesh - McGraw Hill Education (India).

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MIS 304: DATA SCIENCE USING R

Name of the Course:	DATA SCIENCE USING R		
Course Code: MIS 304	Semester III		
Duration: 6 months	Maximum Marks: 100		
Teaching Scheme	**Examination Scheme**		
Theory: 5 days ./week	Mid Semester exam: 15		
Tutorial: NIL	Assignment and Quiz: 10 marks		
	Attendance: 5 marks		
Practical: hrs./week	End Semester Exam : 70 Marks		
Credit Points:	4		
Unit	**Content**	**Hrs/Unit**	**Marks/Unit**
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	
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)	12L	
5	Time Series Forecasting in R and model deployment: Basics of time series, Components of time series, Time series forecasting, Deploying predictive models	8L	
6	Case Study	2L	

Suggested Readings:
1. Beginner's Guide for Data Analysis using R Programming, Jeeva Jose, Khanna Publishing House
2. R for Data Science – Hadley Wickham and Garrett Grolemund
3. R in Action – Robert Kabacoff
4. R for Everyone: Advanced Analytics and Graphics – Jared P. Lander
5. The R Book – Michael J. Crawley
6. R and Data Mining: Examples and Case Studies – Yanchang Zhao
7. Data Analytics using R - Seema Acharya, Mc. Graw Hill Publication

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FOURTH SEMESTER

BDA 401 DATA VISUALIZATION WITH TABLEAU AND POWER BI

Name of the Course:	DATA VISUALIZATION WITH TABLEAU AND POWER BI
Course Code: BDA 401	Semester IV
Duration: 6 months	Maximum Marks: 100
Teaching Scheme	**Examination Scheme**
Theory: 5 days./week	Mid Semester exam: 15
Tutorial: NIL	Assignment and Quiz: 10 marks
	Attendance: 5 marks
Practical: hrs./week	End Semester Exam : 70 Marks
Credit Points: 4	

Unit	Content	Hrs/Unit	Marks/Unit
1	Tableau Instructions, Salary Data Set, Description, and Analysis Plan, Dognition Data Set, Description, and Analysis Plan.,The Effects of Outliers Video Introduction to Linear Regression	8L	
2	The Effects of Outliers Video Introduction to Linear Regression Data Sets Needed in , Examples of Tableau Dashboards and StoriesDesigning and Delivering an Effective Business Presentation	8L	
3	POWER BI ARCHITECTURE, POWER BI attributes,data types,data SOURCES, Data Modelling	6L	
4	Dashboard Of Power Bi And Visualization Options Of Data Using Power Bi Tool, Excel Integration With Power Bi	8L	
5	Dax Basics, Administration Role.	6L	
6	**CASE STUDY**	4L	

Course Outcomes:
After successful completion of this course, students shall be able to
CO1: Understand the concept TABLEAU Analyzing
 CO2: Evaluate the impact of a Linear Regression Techniques On Data. CO3: How to Design Using Power Bi.

Suggested readings:
1. Introducing Microsoft Power Bi By Alberto Ferrari And Marco Russo-Wiley Publications
2. Analyzing Data With Power Bi By Anthony S.Williams
3.Visual Analytics With Tableau-Alexander Loth
4.Advanced Analytics With R And Tableau By Jenstirrup,Ruben Olive Ramos-Packt Publishers

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BDA 402: MARKETING ANALYTICS

Name of the Course:	**Marketing Analytics**		
Course Code: BDA 402	Semester IV		
Duration: 6 months	Maximum Marks: 100		
Teaching Scheme	**Examination Scheme**		
Theory: 5 days./week	Mid Semester exam: 15		
Tutorial: NIL	Assignment and Quiz: 10 marks		
	Attendance: 5 marks		
Practical: hrs./week	End Semester Exam : 70 Marks		
Credit Points: 4			

Unit	Content	Hrs/Unit	Marks/Unit
1	Introduction to marketing research, Research design setup, qualitative research, quantitate research, Concept development, scale development, Exploring Data, Descriptive Statistics	8L	
2	Inbound marketing analytics, Click analytics, Google analytics, Social Media Analytics, Web analytics, Online traffic analytics, conversion analytics, Online and Offline analytics	8L	
3	Product analytics- features, attributes, benefits, Price analytics, Promotion analytics, Channel analytics, Multiple Discriminate analyitics	6L	
4	Customer Analytics, Analyzing customer satisfaction, Prospecting and Targeting the Right Customers, Covariance and Correlation analysis, Developing Customers, Retaining Customers, Customer lifetime value case, Factor analysis,	8L	
5	Market Segmentation & Cluster Analysis, Scatterplots & Correlation Analysis, Linear Regression, Model Validation & Assessment, Positioning analytics, Cross tabulation	12L	

COURSE OUTCOMES
After successful completion of this course, students shall be able to;
CO1: Use analytic approaches to transform marketing and sales data into actionable and appropriate marketing decisions CO2: Justify the use of a particular marketing analytics approach and communicate its managerial implications to a non-technical audience
CO3: Recommend marketing strategies that align forces in the external environment with the core competencies of the firm.
CO4: Recognize trends based on current research related to consumer analytics behavior
CO5: Analyze the challenges that might influence the formulation of effective marketing analytics from a consumer behavior perspective.

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BDA 403: DATA MINING AND ADVANCED DATA HANDLING

Name of the Course:	DATA MINING & ADVANCED DATA HANDLING		
Course Code: BDA 403	Semester IV		
Duration: 6 months	Maximum Marks: 100		
Teaching Scheme	**Examination Scheme**		
Theory: 5 days /week	Mid Semester exam: 15		
Tutorial: NIL	Assignment and Quiz: 10 marks		
	Attendance: 5 marks		
Practical: hrs./week	End Semester Exam : 70 Marks		
Credit Points: 4			

Unit	Content	Hrs/Unit	Marks/Unit
1	Introduction to Data Mining: Introduction, What is Data Mining, Definition, KDD, Challenges, Data Mining Tasks, Data Preprocessing, Data Cleaning, Missing data, Dimensionality Reduction, Feature Subset Selection, Discretization and Binaryzation, Data Transformation; Measures of Similarity and Dissimilarity-Basics.	10L	
2	Association Rules: Problem Definition, Frequent Item Set Generation, TheAPRIORI Principle, Support and Confidence Measures, Association Rule Generation; APRIOIRI Algorithm, The Partition Algorithms, FP-Growth Algorithms, Compact Representation of Frequent Item Set-Maximal Frequent Item Set, Closed Frequent Item Set.	10L	
3	Classification: Problem Definition, General Approaches to solving a classification problem , Evaluation of Classifiers , Classification techniques, Decision Trees-Decision tree Construction , Methods for Expressing attribute test conditions, Measures for Selecting the Best Split, Algorithm for Decision tree Induction ; Naive-Bayes Classifier, Bayesian Belief Networks; K-Nearest neighbor classification- Algorithm and Characteristics.	8L+2P	
4	Web and Text Mining: Introduction, web mining, web content mining, web structure mining, we usage mining, Text mining – unstructured text, episode rule discovery for texts, hierarchy of categories, text clustering.	12L	

COURSE OUTCOMES

After successful completion of this course, students shall be able
CO1: Ability to perform the preprocessing of data and apply mining techniques on it.
CO2: Ability to identify the association rules, classification and clusters in large data sets.
CO3: Ability to solve real world problems in business and scientific information using data mining CO4: Ability to classify web pages, extracting knowledge from the web

SUGGESTED READING:

1. Data Mining-Concepts and Techniques-Jiawei Han, Micheline Kamber, Morgan Kaufmann Publishers, Elsevier, 2 Edition, 2006.2.Introduction to Data Mining, Pang-Ning Tan, Vipin Kumar, Michael Steinbanch, Pearson Education.
3.   Data mining Techniques and Applications,Hongbo Du Cengage India Publishing
4.   Data MiningTechniques, Arun K Pujari, 3rdEdition, Universities Press.
5 .Data Mining Principles & Applications –T.V Sveresh Kumar, B.Esware Reddy, Jagadish S Kalimani, Elsevier.
6. Data Mining, Vikram Pudi, P Radha Krishna, Oxford University Press

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BDA 404 MACHINE LEARNING AND UNSTRUCTURED DATA ANALYTICS

Name of the Course:	**Machine Learning & Unstructured Data Analytics**		
Course Code: BDA 404	Semester IV		
Duration: 6 months	Maximum Marks: 100		
Teaching Scheme	**Examination Scheme**		
Theory: 5 days./week	Mid Semester exam: 15		
Tutorial: NIL	Assignment and Quiz: 10 marks		
	Attendance: 5 marks		
Practical: hrs./week	End Semester Exam : 70 Marks		
Credit Points: 4			

Unit	Content	Hrs/Unit	Marks/Unit
1	**What is unstructured data:**Introduction,unstructured vs structured,semi structured,unstructured examples	4L	
2	**Unstructured analytics tools,**data tools,tools equipped with machine learning,NLP,capabilities,importance of data analytics tools.	4L	
3	Structuring Unstructured Data,Ai-Power Tools,Using Saas Tools To Analyse,Using AMAZON AWS,MICROSOFT AZURE,IBM Cloud	4L	
4	Basic Text Processing, Frequency, Analysis Basic Text Analysis Demo, Co- Occurrence Analysis Finding Possibly, Related Entities, PCA, Isomap	6L	
5	Introduction To Clustering, K-Means, Gaussian Mixture Models Clustering And Clustering Interpretation Demo, Automatic Selection Of K With CH Index, Hierarchical Clustering, Topic Modeling Introduction To Predictive Analytics Model Validation, Decision Trees/Forests	4L	
6	Introduction To Neural Nets And Deep Learning–Recitation: SVM, ROC Curve, Image Analysis With Convolutional, Neural Nets Time Series Analysis With Recurrent Neural Nets	6L	

Course outcomes:
After successful completion of this course, students shall be able to;
CO1: Understand About Common Methods For Exploratory And Predictive Analysis Of Unstructured Data
CO2: Able To Execute Write Python Code For Exploratory And Predictive Data Analysis That Handles Large Datasets
CO3: Understand Working With Cloud Computing Using Amazon Web Services (Aws)
CO4: Apply Unstructured Data Analysis Techniques To Solve Problems

SUGGESTED READINGS:
1 .   Data Analytics By Darryl barton
2.   Too Big To Ignore By Phil Simon, Wiley Publications
3.   Data Analytics For Business By Edward Brown
4.   Machine Learning Quick Reference By Rahul Kumar By Packt Publishers
5.   Machine Learning Algorithms By Giuseppe Bonaccorso.
6.   Machine Learning by Jeeva Jose By Khanna Publishing House.

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ELECTIVE PAPERS

FINANCE

FM 401: INVESTMENT ANALYSIS & PORTFOLIO MANAGEMENT

Name of the Course:	INVESTMENT ANALYSIS & PORTFOLIO MANAGEMENT		
Course Code: FM 401	Semester IV		
Duration: 6 months	Maximum Marks: 100		
Teaching Scheme	**Examination Scheme**		
Theory: 5 days./week	Mid Semester exam: 15		
Tutorial: NIL	Assignment and Quiz: 10 marks		
	Attendance: 5 marks		
Practical: hrs./week	End Semester Exam : 70 Marks		
Credit Points:	4		
Unit	Content	Hrs/Unit	Marks/Unit
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 – Beta of Security	2L	
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	

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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
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

Name of the Course:	**MANAGING BANKS & FINANCIAL INSTITUTIONS**		
Course Code: FM 402	Semester IV		
Duration: 6 months	Maximum Marks: 100		
Teaching Scheme	**Examination Scheme**		
Theory: 5 days./week	Mid Semester exam: 15		
Tutorial: NIL	Assignment and Quiz: 10 marks		
	Attendance: 5 marks		
Practical: hrs./week	End Semester Exam : 70 Marks		
Credit Points:	4		

Unit	Content	Hrs/Unit	Marks/Unit
1	Organization and Functions of banking industry: types of banks, comparatives 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	
5	Interest rate & Risk Management: asset & liability management, GAP analysis, duration analysis.	4L	

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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 RESTRUCRING

Name of the Course:	**MERGERS, ACQUISITIONS & CORPORATE RESTRUCRING**		
Course Code: FM 403	Semester IV		
Duration: 6 months	Maximum Marks: 100		
Teaching Scheme	**Examination Scheme**		
Theory: 5 days./week	Mid Semester exam: 15		
Tutorial: NIL	Assignment and Quiz: 10 marks		
	Attendance: 5 marks		
Practical: hrs./week	End Semester Exam : 70 Marks		
Credit Points:	4		

Unit	Content	Hrs/Unit	Marks/Unit
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	

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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	
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.	6L	
11	Case Studies	2L	

Suggested Readings:
1. Kamal Ghosh Roy (2010).Merger & Acquisitions. PHI
2. Rabi Narayan Kar & Minakshi (2017). Mergers Acquisitions & CorporateRestructuring. Taxmann
3. Kapil & Kapil (Mergers and Acquisitions: Valuation Leveraged Buyouts andFinancing. 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

Name of the Course:	**FINANCIAL DERIVATIVES**	
Course Code: FM 404	Semester IV	
Duration: 6 months	Maximum Marks: 100	
Teaching Scheme	**Examination Scheme**	
Theory: 5 days./week	Mid Semester exam: 15	
Tutorial: NIL	Assignment and Quiz: 10 marks	
	Attendance: 5 marks	
Practical: hrs./week	End Semester Exam : 70 Marks	
Credit Points:	4	

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Unit	Content	Hrs/Unit	Marks/Unit
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	
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.

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HUMAN RESOURCE MANAGEMENT

HR401: MANPOWER PLANNING, RECRUITMENT& SELECTION

Name of the Course:	**MANPOWER PLANNING, RECRUITMENT& SELECTION**		
Course Code: HR 401	Semester IV		
Duration: 6 months	Maximum Marks: 100		
Teaching Scheme	**Examination Scheme**		
Theory: 5 days./week	Mid Semester exam: 15		
Tutorial: NIL	Assignment and Quiz: 10 marks		
	Attendance: 5 marks		
Practical: hrs./week	End Semester Exam : 70 Marks		

Unit	Content	Hrs/Unit	Marks/Unit
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	
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	

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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

Name of the Course:	**EMPLOYEE RELATIONS & LABOUR LAWS**		
Course Code: HR 402	Semester IV		
Duration: 6 months	Maximum Marks: 100		
Teaching Scheme	**Examination Scheme**		
Theory: 5 days./week	Mid Semester exam: 15		
Tutorial: NIL	Assignment and Quiz: 10 marks		
	Attendance: 5 marks		
Practical: hrs./week	End Semester Exam : 70 Marks		
Unit	**Content**	**Hrs/Unit**	**Marks/Unit**
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	

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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	
7	Legal Framework: Evolution of Labour Laws in India4L	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;	6L	

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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 .	4L	
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

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HR 403: COMPENSATION AND BENEFITS MANAGEMENT

Name of the Course:	**COMPENSATION AND BENEFITS MANAGEMENT**	
Course Code: HR 403	Semester IV	
Duration: 6 months	Maximum Marks: 100	
Teaching Scheme	**Examination Scheme**	
Theory: 5 Days /week	Mid Semester exam: 15	
Tutorial: NIL	Assignment and Quiz: 10 marks	
	Attendance: 5 marks	
Practical: hrs./week	End Semester Exam : 70 Marks	

Unit	Content	Hrs/Unit	Marks/Unit
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	
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	
7	Dearness Allowance: Methods of DA payment, Consumer Price Index, Neutralization	2L	
8	Productivity and Wages: Productivity Bargaining, Incentive Payments, Productivity Linked Bonus, Incentives –Individual & Group, Case Studies on Productivity Bargaining, Reward strategy	4L	
9	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	
10	Employee Welfare and Working Conditions:	2L	

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	Statutory and voluntary measures		
11	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 405: STRATEGIC HRM

Name of the Course:	**STRATEGIC HRM**		
Course Code: HR 405	Semester IV		
Duration: 6 months	Maximum Marks: 100		
Teaching Scheme	**Examination Scheme**		
Theory: 5 Days /week	Mid Semester exam: 15		
Tutorial: NIL	Assignment and Quiz: 10 marks		
	Attendance: 5 marks		
Practical: hrs./week	End Semester Exam : 70 Marks		
Credit Points:	4		

Unit	Content	Hrs/Unit	Marks/Unit
1	Introduction: Concept of Strategy, types of strategies, Competitive advantage, value chain, Core competencies and distinctive capabilities, the resource-based view, Meaning of Strategic Management, Strategic Management Process	4L	
2	Strategic HRM: Meaning, elements, components, objectives. Conventional HRMversus Strategic HRM, Integrating HR with Strategic Management: drawing inputsfrom environment, identifying unique strengths, Formulating plans, identifying HRstrategies, implementing strategy and evaluation. Different classifications of HR Strategies. Strategic FIT: A Conceptual Framework. The Best Fit approach and its drawbacks. The "HR" Bundles approach, theoretical perspectives of SHRM, Benefits of SHRM. Challenges of SHRM.	8L	
3	Human Capital Management (HCM) Strategy: Concepts of Human capital,Objectives of HCM, Role of HCM Strategy, The link between HCM and Business Strategy, Developing a HCM Strategy.	4L	
4	Strategic HRP: meaning, definition, objectives, SHRP Process, Tools, Evaluation, HR score card.	2L	

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5	High Performance Work Systems: Meaning, definition of High Performance Work Systems, Characteristics of HPWS. Components of HPWS. Developing a high Performance Strategy, Developing high performance work systems	4L	
6	Resourcing Strategy: Understanding Resourcing, The strategic HRM approach to resourcing, Integrating business and resourcing strategies, Bundling resourcing strategies and activities, The components of employee resourcing strategy: Workforce planning, Employee, Value proposition, Resourcing plans, Retention Strategy, Flexibility strategy.	4L	
7	Talent Management Strategy: Understanding Talent Management, Strategic talent	2L	
	management, the process of Talent Management, Developing a talent management strategy, Components of a talent management strategy.		
8	Learning and Development Strategy: Understanding learning and development, Strategic HRD, Strategies for creating learning culture, Organizational learning strategies, Single and Double Loop learning, Learning organization strategy, Individual Learning Strategies	4L	
9	Reward Strategy: Understanding Reward management, Reward strategy: definition, characteristics, basis, content of reward strategy. Broad- brush reward strategy, Specific reward initiatives. Guiding principles, developing reward strategy, effective reward strategies, criteria for effectiveness, reward strategy and line management capability, the problem with the concept of reward strategy.	4L	
10	HR Evaluation: Balance Scorecard, HR score card, Malcom Baldrige business excellence model.	2L	
11	Case Studies	2L	

Suggested Readings:
1. Armstrong, Michael: Armstrong's Handbook of Strategic Human Resource Management, Kogan Page
2. L.Holbeche: Aligning Human Resources and Business Strategy,2002,Butterworth Heinemann
3. M.Porter: Competitive Advantage,1985,Free Press
4. G.Hamel & C.K.Prahalad: Competing for the Future,1994,HBR
5. Dessler,Gary : Human Resource Management, Pearson Education 6. Agarwala Tanuja: Strategic Human Resource Management, OUP
   7. Aswathappa, K: Human Resource Management, Tata McGraw Hill

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MANAGEMENT INFORMATION SYSTEM

MIS 401: DATA WAREHOUSING

Name of the Course:	**DATA WAREHOUSING**	
Course Code: MIS 401	Semester IV	
Duration: 6 months	Maximum Marks: 100	
Teaching Scheme	**Examination Scheme**	
Theory: 5 Days /week	Mid Semester exam: 15	
Tutorial: NIL	Assignment and Quiz: 10 marks	
	Attendance: 5 marks	
Practical: hrs./week	End Semester Exam : 70 Marks	
Credit Points:	4	

Unit	Content	Hrs/Unit	Marks/Unit
1	Data Warehouse Concepts: Introduction to Data Warehouse, OLTP Systems, Differences between OLTP Systems and Data Warehouse, Characteristics of Data Warehouse, Functionality of Data Warehouse, Advantages of Data Warehouse	2L	
2	Data Warehouse Applications: Applications of Data Warehouse, Applications: Top- Down and Bottom-Up, Development Methodology, Tools for Data warehouse development, Data Warehouse Types	2L	
3	Data Warehouse Architectures: Components of Data Warehouse Architecture, Technical Architectures, Tool Selection, Federated Data Warehouse Architecture	4L	
4	Dimensional Modelling: E-R Modelling, Dimensional Modelling, E-R Modelling VS Dimensional Modelling, Data Warehouse Schemas, Snowflake Schema, Fact Constellation Schema	6L	
5	Data Extraction, Transformation and Loading: ETL Overview, ETL Requirements and Steps, Data Transformation, Data Loading, ETL Tools	6L	

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6	Access Information and Delivery in Data Warehouse: Information from Data warehouse versus Operational systems, Users of information - their needs and how to provide information, Information delivery - queries, reports, analysis, and applications, Information delivery tools - Desktop environment, Methodology and criteria for tool selection, Information delivery framework, Business Activity Monitoring, Dashboards and Scorecards	4L	
7	Data Warehouse & OLAP: Introduction to OLAP, Multidimensional Data, OLAP Architectures, Data Warehouse and OLAP, Hypercube & Multi cubes	4L	
8	Metadata Management in Data Warehouse: Introduction to Metadata, Categorizing Metadata, Metadata management in practice, Tools for Metadata management	4L	
9	Web in Data Warehouse Architectures: Web-enabled Data Warehouse, adapting data warehouse for the web, Web-based information delivery, Browser technology for data warehouse and Security issues, OLAP and Web Enterprise OLAP, Web- OLAP approaches, OLAP Engine design	6L	
10	Case Studies	2L	

Suggested Readings:
1. Alex Berson and Stephen Smith - Data Warehousing, Data Mining, & OLAP – Mc Graw Hill Education
2. Reema Thareja – Data Warehousing – Oxford University Press
3. Singh M – Data Warehousing & Data Mining PB–Technical Publications
4. Varsha Bhosale - Data Warehousing & Data Mining – Technical Publications
5. Paulraj Ponniah- Data Warehousing Fundamentals – Wiley India
6. Ralph Kimball - The Data Warehouse Toolkit – Wiley India
7. I. Singh – Data Mining and Warehousing, Khanna Publishing House.

MIS 402: MANAGING DIGITAL PLATFORMS

Name of the Course:	MANAGING DIGITAL PLATFORMS	
Course Code: MIS 402	Semester IV	
Duration: 6 months	Maximum Marks: 100	
Teaching Scheme	**Examination Scheme**	
Theory: 5 Days /week	Mid Semester exam: 15	
Tutorial: NIL	Assignment and Quiz: 10 marks	

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		Attendance: 5 marks		
Practical: hrs./week		End Semester Exam : 70 Marks		
Credit Points:	4			
Unit	**Content**		**Hrs/Unit**	**Marks/Unit**
1	Business Models for Digital Platforms & New Forms of Value: Emergence of digital platforms Open Innovation & Crowd Sourcing Business Models, Social and Professional Networking Business Models, User-Generated Content & Long Tail Business Models & Revenue Generation		10L	
2	Product platforms: Internal and Supply Chain platforms		4L	
3	Collaborative Computing Technologies: Group Support system, technologies		4L	
4	Digital Platform Ecosystems & Digital Business Models: Ecological Approaches to Strategy & Digital Business Ecosystems, Value Capture in digital platform Ecosystem- Two-sided markets, The Internet of Things (IoT): Implications of Smart Connected Products, Scoping your Digital Ecosystem Niche.		8L	
5	Network Effect: Direct and Indirect, the limitations of modularity, Managing the degree of openness		6L	
6	The Future of Digital Platforms: ReVisioning Game Changers for Future		4L	
7	Case Studies		4L	

Suggested Readings:

1. Michael A. Cusumano, Annabelle Gawer, David B. Yoffie, The Business of Platforms: Strategy in the Age of Digital Competition, Innovation, and Power, Harper Business
2. Swaminathan T. N., Karthik Kumar, Digital Marketing: From Fundamentals to Future, Andrew McAfee and Erik Brynjolfsson, Cengage Learning India
3. Dave Chaffey, Fiona Ellis-Chadwick, Digital Marketing, Pearson
4. Abhishek Das, Applications of Digital Marketing for Success in Business, BPB Publications
5. Chris Westfall, The New Elevator Pitch: The Definitive Guide to Persuasive Communication in the Digital Age, Marie Street Press
6. Feras Alhlou, Shiraz Asif, Eric Fettman Google Analytics Breakthrough: From Zero to Business Impact, Wiley

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MIS 403: STRATEGIC MANAGEMENT FOR IT

Name of the Course:	**STRATEGIC MANAGEMENT FOR IT**		
Course Code: MIS 403	Semester IV		
Duration: 6 months	Maximum Marks: 100		
Teaching Scheme	**Examination Scheme**		
Theory: 5 Days /week	Mid Semester exam: 15		
Tutorial: NIL	Assignment and Quiz: 10 marks		
	Attendance: 5 marks		
Practical: hrs./week	End Semester Exam : 70 Marks		
Credit Points:	4		
Unit	**Content**	**Hrs/Unit**	**Marks/Unit**
1	Introduction to Information Technology: Fundamentals of Information Technology, Introduction to Computers & Bull	2L	
2	Data Storage and Database Management System: Overview of Database Management System, Concept of Relational Database Management Systems (RDBMS)	2L	
3	Network and Security: Overview of Network, The Internet Revolution, Internet and Internet technologies, Security and Internet Firewalls	2L	
4	Internet: World Wide Web (WWW), Advantages and Disadvantages, Internet Vs Intranet, The purpose and function of Internet Service Provider	4L	
5	E-Commerce: E-Commerce Framework, Evolution of E-Commerce - Advantages and Disadvantages, Electronic Payment System, Electronic Cash - Smart Cards and Credits, E-Banking, Online Banking, E-Shopping, E-Marketing, M-Commerce	6L	
6	Introduction to Strategies: Conceptual Evolution of Strategy, Scope and Importance of Strategies, Purpose of Business, Difference between Goals and Objectives of Business, Strategic Intent through Vision and Mission Statements, Core Competencies of Business.	4L	
7	Strategic Management: Need, Scope, Key features and importance, Role of Strategists in Decision Making, Strategists at various management levels, Types of Strategies, Limitations.	4L	
8	Strategy Formulation and Implementation: Process in Strategy Formulation, Strategy Implementation and its Stages, Reasons for Strategy Failure and Methods to overcome, Strategy Leadership and Strategy Implementation, Strategic Business Units (SBUs)	6L	

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9	Business Policy and Decision Making: Overview and importance of Business Policies Procedures, Process and Programmes, Types of Policies, Corporate Culture, Factors Considered Before Framing Business Policies, Steps Involved in Framing Business Policies, Policy Cycle and its Stages, Role of Policies in Strategic Management	6L	
10	Strategic Management for IT: Application of Strategy Management in IT, Advantages and Disadvantages of IT in Strategy Management	2L	
11	Case Studies	2L	

Suggested Readings:
1. Olivier Furrer - Corporate Level Strategy: Theory and Applications– Routledge
2. CA Nikhil Singhal, Deepali Singhal – Information Technology and Strategic Management For CA-IPCE – Mukhaksh Publications
3. Chandan Patni – Information Technology & Strategic Management for CA IPCC – Taxmann
4. Bhandari, Verma - Strategic Management: A Conceptual Framework – McGraw Hill Education
5. . Anthony Henry; Understanding Strategic Management – Oxford University Press
6. Mellahi; Global Strategic Management– Oxford University Press.
7. Computers Today, A. Ravichandran, Khanna Publishing House.

MIS 404: BUSINESS DECISION USING ADVANCE EXCEL

Name of the Course:	**BUSINESS DECISION USING ADVANCE EXCEL**		
Course Code: MIS 404	Semester IV		
Duration: 6 months	Maximum Marks: 100		
Teaching Scheme	**Examination Scheme**		
Theory: 5 Days /week	Mid Semester exam: 15		
Tutorial: NIL	Assignment and Quiz: 10 marks		
	Attendance: 5 marks		
Practical: hrs./week	End Semester Exam : 70 Marks		
Credit Points:	4		

Unit	Content	Hrs/Unit	Marks/Unit
1	Basics of Excel: Referencing, functions and formulas, Text functions, date and time.	4L	
2	Functions: Math functions, Financial functions, Charts, Dynamic named ranges, dynamic charting. Pivot table and pivot chart, Visual display of quantitative information – best practice guidelines.	6L	
3	Statistical functions: Descriptive statistics, Basic graph formatting, Frequency function, histograms, Data tables, scenario manager, Macros, Vlookup	6L	

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4	Data Formatting: Auto filter, advanced filter, sorting, Error proofing, conditional formatting, data validation, audit Tool, data cleaning.	6L	
5	Getting external Data: Text, web, database	4L	
6	Use of excel for statistical analysis: Anova, sampling, generating random numbers, Test of Independence-contingency table	4L	
7	Bivariate Analysis: Correlation, Methods of Regression (scatter plot, excel functions, data analysis tool), Multiple Linear Regression	4L	
8	Time series data Analysis Sensitivity analysis: Forecasting techniques and Simulation	4L	
9	Case Studies	2L	

Suggested Readings:
1. Bill Jelen, Tracy Syrstad: Microsoft Excel 2019 VBA and Macros, Microsoft Press
2. David Whigham, Business Data Analysis Using Excel, Oxford
3. Mastering Excel, Khanna Publishing House.
4. Ritu Arora, Advance Excel 2016: Training guide, BPB Publications
5. John, Microsoft Excel 2016 Bible, Wiley
6. McFedris - Excel 2016 Formulas and Functions 1/e –Pearson Education India
7. Shmuel Oluwa, Hands-On Financial Modeling with Microsoft Excel 2019: Build practical models for forecasting, valuation, trading, and growth analysis using Excel 2019, Packt Publishing Limited.

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MARKETING

MM 401: CONSUMER BEHAVIOUR

Name of the Course:	**CONSUMER BEHAVIOUR**	
Course Code: MM 401	Semester IV	
Duration: 6 months	Maximum Marks: 100	
Teaching Scheme	**Examination Scheme**	
Theory: 5 Days /week	Mid Semester exam: 15	
Tutorial: NIL	Assignment and Quiz: 10 marks	
	Attendance: 5 marks	
Practical: hrs./week	End Semester Exam : 70 Marks	
Credit Points: 4		

Unit	Content	Hrs/Unit	Marks/Unit
1	Introduction to Consumer Behaviour: Defining consumer behaviour, Impact on marketing strategies, Current trends in consumer behaviour	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	
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	

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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

Name of the Course:	RETAIL MANAGEMENT		
Course Code: MM 402	Semester IV		
Duration: 6 months	Maximum Marks: 100		
Teaching Scheme	**Examination Scheme**		
Theory: 5 Days /week	Mid Semester exam: 15		
Tutorial: NIL	Assignment and Quiz: 10 marks		
	Attendance: 5 marks		
Practical: hrs./week	End Semester Exam : 70 Marks		
Credit Points:	4		

Unit	Content	Hrs/Unit	Marks/Unit
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	

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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: PRODUCT & BRAND MANAGEMENT

Name of the Course:	**PRODUCT & BRAND MANAGEMENT**		
Course Code: MM 403	Semester IV		
Duration: 6 months	Maximum Marks: 100		
Teaching Scheme	**Examination Scheme**		
Theory: 5 Days /week	Mid Semester exam: 15		
Tutorial: NIL	Assignment and Quiz: 10 marks		
	Attendance: 5 marks		
Practical: hrs./week	End Semester Exam : 70 Marks		
Credit Points: 4			
Unit	**Content**	**Hrs/Unit**	**Marks/Unit**
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	

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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	
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 404: SERVICE MARKETING

Name of the Course:	SERVICE MARKETING		
Course Code: MM 404	Semester IV		
Duration: 6 months	Maximum Marks: 100		
Teaching Scheme	**Examination Scheme**		
Theory: 5 Days /week	Mid Semester exam: 15		
Tutorial: NIL	Assignment and Quiz: 10 marks		
	Attendance: 5 marks		
Practical: hrs./week	End Semester Exam : 70 Marks		
Credit Points: 4			
Unit	**Content**	**Hrs/Unit**	**Marks/Unit**

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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	4L	
	constraints, Demand patterns, Strategies for matching capacity and demand, Wait lines and reservations		
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	2L	

Suggested Readings:
1. Zeithaml,V.A., Bitner, M J, Grembler, D.D. &Pandit, A.: Service Marketing;, TMH
2. Rao, K.R.M.: Services Marketing, Pearson Education
3. Rajendra Nargundkar, Services Marketing: Text & Cases, Tata McGrawHill 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; PH