SEMESTER–I

MANAGEMENT AND ORGANISATIONAL BEHAVIOR

Course Code: 24MBA11	**Credits: 4**
L: T:P: J: 3:0:2:0	**CIA Marks: 50**
Exam Hours: 03	**SEA Marks: 50**

Course Objectives:

1. To provide basic knowledge of management's key concepts and theories.

2. To help students develop acumen for management functions.

3. To help students analyse key concepts of Organizational behaviour and culture for effective management of organizations.

4. To facilitate students' understanding of individual behaviour for better inter-personal relations.

5. To help students develop a comprehensive understanding of group dynamics, teams, power and politics, and leadership within the organization.

Contents of the Module	Hours	COs
Module-1: Introduction to Management		
Management - Introduction, Meaning, Nature, Objectives, Levels of Management, Types of Managers, Managerial Skills, Managerial Competencies, Functions of Management, Evolution of Management Thought, Fayol's fourteen principles of Management, Recent Trends in Management (Gingerbread Model - Wellness, Diversity, Equity & Inclusion)	**9**	**CO1**
Self-Study - Importance of Management, Difference between Administration and Management, Scope of Management	**1**	
Module-2: Functions of Management		
Planning - Features, Importance, Types, Steps / process of Planning **Organizing -** Sub-functions, Process **Directing -** Sub-functions, Directing v/s Leading, Skills required for Directing **Controlling -** Types, Process, Planning v/s Controlling **Decision-making** - Concept, Types, Models, Difficulties in Decision-making, Decision-making Styles	**8**	**CO2**

Practical Component: Visit an organization and meet a manager and note the Roles played in a day.	**2**	
Module-3: Introduction to Organizational Behavior		
Organizational Behavior - Introduction, Definition, Importance, Determinants, Contributing disciplines, Theoretical foundation for OB, Challenges and opportunities. **Organizational Culture -** Meaning, Types, Impact on Organization, Creating and Sustaining Culture, How employees learn culture?	**6**	**CO3**
Module-4: Cognitive Processes of Organizational Behavior		
Ability - Intellectual abilities, Physical ability, the role of disabilities. **Personality** - Meaning, formation, determinants, Big 5 Personality traits, Personality types - MBTI, Type A&B. **Perception -** Meaning, Process, factors influencing perception. **Attitude** - Meaning, Formation, components of attitudes. **Motivation** - Meaning, Theories of motivation: needs theory, two factor theory, Theory X and Y, Alderfer's ERG Model, application of motivational theories.	**10**	**CO4**
Practical Component: Big 5 and MBTI profiling of self for better career prospects.	**2**	
Module-5: Dynamics of Organizational Behavior		
Group - Meaning and Classification of Groups, Stages of Group Development. **Group Dynamics** - Meaning, Impact of Group on Individual's Behavior, Impact of External Factors on Group Behavior. **Work Teams -** Nature and Types of Teams, Reasons for Team Failure, Creating Effective Teams. **Leadership** - Meaning, Importance, Traits, Styles. **Leadership Theories -** Traditional Theories: Contingency theory, Situational Leadership Theory, Path-Goal Theory. Contemporary Theories: Charismatic Leadership theories, Transformational Leadership theory, Authentic Leadership Development Model. **Power and Politics -** Nature of Power and Politics. Sources of Power for Individuals, Managing Organizational Politics.	**9**	**CO5**
Self-study - Teams v/s Groups, Processes of Teamwork, Leaders v/s managers in 21st Century.	**1**	
Practical Component: Observe behavior of any 2 people while organizing an event. Prepare a report based on your observation describing the impact of the group on their individual behavior.	**2**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand the fundamentals of management, the theory of management, and its trends.
CO2	Apply their understanding of management functions in organizations
CO3	Demonstrate their acumen in analyzing key concepts of Organizational behavior and culture for effective management of organizations.
CO4	Apply the learnings of individual behavior for a better inter-personal relationship in the workplace
CO5	Analyze and manage group dynamics, leadership, and organizational politics to effectively contribute to the success of teams.

Suggested Case Studies

- Sharma, A.K., Goyal, A. and Sharma, A. (2024), "Relevance of classical management concepts in the contemporary era – a case study of Fayol's principles", *IIMT Journal of Management*, Vol. 1 No. 1, pp. 112-120. https://doi.org/10.1108/IIMTJM-10-2023-0026
- Brownlee, A.L., Dixon, D.P., Garcia, V. and Harris, A.V. (2024), "Leading with compassion and passion: A case study on servant leadership at the Crisis Center of Tampa Bay", Vol. 20 No. 6, pp. 1460-1475. https://doi.org/10.1108/TCJ-07-2023-0166
- Kumar, S. and Bhandarker, A. (2021), "Transformational leadership in AICTE: lessons for organizational excellence", Vol. 11 No.3. https://doi.org/10.1108/EEMCS-08-2020-0299
- Reidhead, Christine. (2020), Impact of Organizational Culture on Employee Satisfaction: A Case of Hilton Hotel, United Kingdom. In: Journal of Economics and Business, Vol.3, No.1, 432-437 DOI: 10.31014/aior.1992.03.01.209

Text Books:

Sl . No.	**Title of the book**	**Name of the Author/s**	**Publisher Name**	**Edition and year**
1	Essentials of Management	Koontz	McGraw Hill	11e, 2020
2	Principles and Practices of Management and Organizational Behavior	Chandrani Singh and Aditi Khatri	Sage Publication	2021
3	Organizational Behavior	Stephen P Robbins, Timothy A Judge, Neharika Vohra	Pearson	18e, 2022

Reference Books:

Sl. No.	**Title of the book**	**Name of the Author/s**	**Publisher Name**	**Edition and year**
1	Organizational Behavior	Fred Luthans	McGraw Hill International	12/e, 2013

2	Management and Organization Behavior	K Ashwathappa G. Sudarshana Reddy	HPH	2017
3	Principles of Management	Ramesh B. Rudani	Tata McGraw-Hill	2013

Articles for reference:

Sl. No.	**Title of the Article**	**Name of the Author/s**	**Publisher Name**	**URL (Year)**
1	The 4 Types Of Organizational Culture—Which Is Best?	Tracy Lawrence	Forbes	https://www.forbes.com/sites/tracylawrence/article/organizational-culture/ (2024)
2	Organizational Culture: Definition, Functions, Types, and Elements	onEntrepreneur		https://onentrepreneur.com/organizational-culture-definition-functions-types-and-elements/ (2023)

ACCOUNTING FOR MANAGERS

Course Code:24MBA12	**Credits: 4**
L:T:P:J:2:2:1:1	**CIA Marks: 50**
Exam Hours: 03	**SEA Marks: 50**

Course Objectives:

1. To explain fundamental accounting concepts, basic accounting vocabulary and accounting equation
2. To prepare basic entries for business transactions and present the data in an accurate and meaningful manner
3. To prepare financial statements of companies and explain the contents of the statements
4. To analyze a company's financial statements and come to a reasoned conclusion about the financial position of the company
5. To familiarize students with the emerging trends in accounting

Contents of the Module	Hours	COs
Module -1: Introduction to Financial Accounting		
Need and Objectives of Accounting, Branches of Accounting, Types of business ownership, Accounting Terminologies, Classification of Accounts, Accounting Concepts and Conventions, GAAP and Accounting Standards, Introduction to IFRS	**8**	**CO1**
Self-study - Identify a list of transactions for a business organization and classify each associated account as an Asset, Liability, Equity, Revenue, or Expense with reasons	**2**	
Module- 2: Preparation of Books of Accounts		
Accounting Cycle, recording of transactions - Journalizing, Ledger posting, Preparation of Trial Balance	**6**	**CO2**
Module -3: Preparation of Financial Statements		
Components of Financial Statements; Preparation of Financial Statements of companies as per Schedule III of Companies Act, 2013: Statement of Profit and Loss, Balance Sheet and Notes to Financial Statements; Limitation of Financial statements; (Problems on preparation of final accounts with basic adjustments); Concepts & Methods of depreciation -SLM & WDV	**12**	**CO3**
Practical Component - Preparation of books of accounts for a hypothetical business organisation	**3**	
Module -4: Analysis of Financial Statements		

Meaning and Purpose of Financial Statement Analysis, Trend Analysis, Comparative Analysis, Financial Ratio Analysis, Cash and Fund Flow Statement Analysis	**10**	**CO4**
Practical Component - Financial Statement Analysis using MS Excel (Problems on Trend Analysis, Comparative analysis and Ratio Analysis)	**2**	
Project work – Perform Financial Statement analysis for an existing listed joint stock company and comment on the financial status of the business		
Module 5: Emerging Trends Digital transformation in Accounting – Cloud Accounting, Inflation accounting, Human Resource Accounting, Forensic Accounting, sustainability Accounting	**6**	**CO5**
Self-study: Comparative analysis of traditional and modern accounting practices	**1**	

Course Outcomes: At the end of the course the student will be able to:

CO No	Statement
CO1	Understand accounting concepts and accounting equation
CO2	Apply journal, ledger and trial balance
CO3	Analyse and evaluate financial statements of companies
CO4	Create financial reports by analysing financial statements
CO5	Understand and apply emerging accounting trends

Suggested Case Studies

- WORLDCOM, INC. – CAPITALIZED COSTS AND EARNINGS QUALITY
- ROCKY MOUNTAIN CHOCOLATE FACTORY FINANCIAL STATEMENTS
- EXAMINATION OF EQUITY ON THE BALANCE SHEET

Text Books:

Sl . No.	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Accounting for Management: Text & Cases	S.K.Bhattacharya & John Dearden	Vikas Publishing House Pvt. Ltd.	3/e, 2018
2	Financial Accounting	S.N.Maheshwari, Suneel K. Maheshwari, & Sharad K. Maheshwari	Vikas Publishing House Pvt. Ltd.	6/e, 2020
3	Financial Accounting	Tulsian, P. C.	Pearson Education	1/e, 2018
4	Accounting for Managers	Madegowda J; Inchara P.M. Gowda	Himalaya Publishing House	3/e, 2021

MARKETING MANAGEMENT

Course Code: 24MBA13	**Credits: 4**
L:T:P:J: 3:0:2:0	**CIA Marks: 50**
Exam Hours: 03	**SEA Marks: 50**

Course Objectives:

1. To make students understand the impact of the environment on marketing function and fundamental concepts guiding new age marketing.
2. To acquaint students with marketing strategies for influencing consumer buying behavior in B2B, B2C and Rural contexts.
3. To provide conceptual understanding of marketing efforts related to products, services and brands.
4. To make students understand the essentials of pricing and promotion functions.
5. To provide students with insights on marketing plans and distribution efforts of organizations.

Contents of the Module	Hours	COs
Module-1 Introduction to marketing		
Marketing v/s Selling, Customer lifetime Value, Marketing Myopia. Marketing Environment Components – Micro and Macro. **New-age Marketing:** Cause and Social Marketing, 3V concepts of Nirmalaya Kumar, Ambush Marketing, Viral Marketing, Influencer Marketing, Green Marketing, Sustainable and Ethical Marketing.	**6**	**CO1**
Practical Component – Prepare a report on Contemporary Indian Marketing Environment & Social Responsibility	**2**	
Self-Study – Personalized marketing and its strategies and benefits.	**2**	
Module-2 Analyzing Consumer behavior		
Connecting with consumers and customers, Factors influencing Consumer Behavior Consumer Buying Decision Process, Buying Roles, Buying Motives. **Market Segmentation:** Market Segmentation, Targeting & Positioning (STP), Requisites of Effective Segmentation, Bases for Segmenting Consumer Markets, Target marketing strategies-Undifferentiated, differentiated, concentrated, micromarketing strategies; Positioning-Unique Selling Proposition, Types of positioning, Perceptual Mapping Indian Consumer - Characteristics of Indian consumer, Strategies to build consumer trust. Consumer buying and Business buying; Rural Vs Urban consumer behaviour.	**8**	**CO2**
Practical Component - Preparation and demonstrating their exposure on consumer behavior through live project.	**2**	
Module-3 Product, Brand & services marketing		

Product Marketing- Product hierarchy, product line, product mix, product mix strategies. Managing PLC of product, new product development and **Branding-** Concept and Types. selecting brand name, selecting logo, brand extension- effects, packaging & role of labeling in packing. **Services Marketing** & its Characteristics – 7Ps of services marketing, brand building in services.	**8**	**CO3**
Self-Study – Product differentiation: What is it & How it works?	**2**	
Module-4 Pricing and Promotion:		
Pricing: Significance and objectives of pricing, factors influencing pricing, Pricing Strategies. **Integrated Marketing Communications:** Sales Promotion: Tools and Techniques of sales promotion, Push-pull strategies of promotion. Personal selling: Publicity/Public Relation-word of mouth, sponsorships. Advertising: Objectives, Advertising Budget, Advertising Copy, AIDA model, Traditional Vs Modern Advertising. **Digital marketing**: Basic concept and importance of digital marketing.	**8**	**CO4**
Self-Study – Latest trends in Digital marketing & its scope in India.	**2**	
Module-5 Marketing Planning and Distribution		
Marketing Planning: Steps involved in Marketing planning. Components of Marketing Audit. **Marketing Analytics**. Identifying market information needs, Types of marketing analytics, Tools for marketing analytics, Significance of Marketing Research **Marketing Channels:** Roles and purpose of Marketing Channels, Factors Affecting Channel Choice, Channel Design, Channel Management Decision, Channel Conflict, Designing a physical Distribution System and Network Marketing. **Product Distribution Logistics:** Product distribution Concept. Distinction between distribution logistics and Supply Chain Management. Direct marketing: Concept and Scope.	**8**	**CO5**
Practical Component – Case Study FedEx: Using Marketing Channels to create value for customers.	**2**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand the impact of the environment on marketing function and fundamental concepts guiding new age marketing.
CO2	Develop marketing strategies for influencing consumer buying behavior in B2B, B2C and Rural contexts.
CO3	Analyse the marketing efforts related to products, services and brands.
CO4	Analyze and apply the concepts of pricing and promotion functions.

CO5	Evaluate marketing plans and distribution efforts of a given organization.

MOOCS:

https://onlinecourses.nptel.ac.in/noc22_mg47/preview

Suggested Case Studies

Case Studies in Marketing Management, 1/e by S. Ramesh Kumar. https://www.pearsoned.co.in/prc/book/s-ramesh-kumar-case-studies-marketing-management-1e--1/9788131761397

Case Studies in Marketing Management. (n.d.). Google Books. https://books.google.co.in/books?id=hau6_kC6HhUC&newbks=0&printsec=frontcover&hl=en&source=newbks_fb&redir_esc=y#v=onepage&q&f=false

Text Books

- E Marketing Management- Indian Context, Global Perspective, Ramaswamy & Namakumari, SAGE, 6th Edition
- Marketing Management: A South Asian Perspective, Kotler, Keller, Koshy & Jha, Pearson Education Latest edition
- New Product Management, Merle Crawford and Anthony Di Benedetto, McGraw-Hill ,Latest Editon
- Advertisement Brands & Consumer Behaviour, Ramesh Kumar, Sage Publications ,2020

Reference Books

- Marketing in India: Text and Cases, Neelamegham S, Vikas Latest edition
- Marketing, Lamb, Hair, Mc Danniel, Cengage Learning, Latest edition
- Marketing Management: A South Asian Perspective, Philip Kotler, 14th edition, Pearson Learning

Practical Component

- Developing new product or service in selected industry.
- Analyzing the PLC of a selected product, service or a brand.

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand the impact of the environment on marketing function and fundamental concepts guiding new age marketing.
CO2	Develop marketing strategies for influencing consumer buying behavior in B2B, B2C and Rural contexts.
CO3	Analyse the marketing efforts related to products, services and brands.
CO4	Analyze and apply the concepts of pricing and promotion functions.
CO5	Evaluate marketing plans and distribution efforts of a given organization.

MOOCS:

https://www.my-mooc.com/en/mooc/social-media-in-public-relations/

Social media in Public relations.

https://www.my-mooc.com/en/mooc/manage-your-customer-relationships-with-crm/

Manage your customer relationships with CRM

https://www.my-mooc.com/en/mooc/neuromarketing/

An Introduction to Neuroscience and Neuro marketing

https://www.my-mooc.com/en/mooc/ethical-social-media/

Ethical social media

Suggested Case Studies

- The Teen market: Youth will be served – Principles of Marketing: Kotler & Armstrong
- Kellogg's Cornflakes sales promotion techniques
- Enterprise Rent a car: measuring Service Quality. Principles of Marketing: Kotler & Armstrong.
- Flumist (HBR) and Saffola journey.

Text Books

Sl. No.	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Marketing Management- Indian Context, Global Perspective	Ramaswamy & Namakumari	Sage	6/e 2020
2	Principles of Marketing	Philip Kotler, Gary Armstrong, Prahlad Agnihotri	Pearson Education	17/e 2021
3	New Product Management	Merle Crawford and Anthony Di Benedetto	McGraw-Hill Education	11/e 2020
4	Advertisement Brands & Consumer Behaviour	Ramesh Kumar S; Anup Krishnamurthy	Sage Publications	2020

Reference Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Marketing in India: Text and Cases	Neelamegham S	Vikas	4/e 2012

2	Fundamentals of Marketing Management	Etzel M J, BJ Walker & William J Stanton	Tata McGraw Hill	14/e 2007
3	Understanding digital marketing	Damian Ryan& Calvin Jones	Kogan Page Ltd.	4/e 2016
4	Social media marketing	Tracy Tuten &Micheal Solomen	Sage Publication	2017

Additional Practical Component

1. Students should choose a service industry of their choice and apply 7p's.
2. Visit Marketing audit firm and gain deep insights on marketing planning.
3. Learn basic tools of digital marketing.

BUSINESS STATISTICS

Course Code: 24MBA14	**Credits: 3**
L:T:P:J: 2:2:0:0	**CIA Marks: 50**
Exam Hours: 03	**SEA Marks: 50**

Course Objectives:

1. To introduce students to basic statistical tools and techniques like Central Tendency in decision making.
2. To Familiarize the students with measures of Dispersion to evaluate the data
3. To Equip the students to evaluate relationship between variables using correlation and Regression techniques
4. To train the students to Forecast the values using Regression analysis
5. To develop analytical skills in students to be applied on data following Probability distribution

Contents of the Module	Hours	COs
Module -1: Introduction and Measures of central tendency		
Collection and presentation of data, frequency distribution, measures of central tendency - Mean, Median, Mode.	**7**	**CO1**
Self-Study : Meaning and Definition, functions, scope and limitations,	**2**	
Practical Component: Measures of Central tendencies using JMP	**1**	
Module-2: Measures of Dispersion		
Standard Deviation – Variance-Coefficient of Variance - Comparison of various measures of Dispersion	**8**	**CO2**
Practical Component: Measures of Dispersion using JMP	**1**	
Module -3: Correlation Analysis		
Scatter Diagram, Karl Pearson correlation, Spearman's Rank correlation (one way table only), Concurrent Deviation Method	**6**	**CO3**
Practical Component: Correlation analysis using JMP	**1**	
Module -4: Regression Analysis		
Simple and multiple regressions (problems on simple regression only).	**5**	**CO4**
Practical Component: Regression model building using JMP	**2**	
Module -5: Probability Distribution		
Concept and definition - Rules of probability –Theoretical probability distributions: Binomial, Poisson, Normal– (Problems only on Binomial, Poisson and Normal).	**7**	**CO5**

Course Outcomes: At the end of the course the student will be able to:

CO1	Evaluate and apply basic statistical tools and techniques like Central Tendency in decision making
CO2	Apply measures of Dispersion to evaluate the data
CO3	Evaluate relationship between variables using correlation
CO4	Estimate the values using Regression Analysis
CO5	Analyze data following Probability distribution and interpret the outcomes

Text Books:

Sl. No.	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Fundamentals of Statistics	S. C. Gupta	Himalaya Publications	2019
2	Statistical Methods	S. P. Gupta	Sultan Chand Publications	2017
3	Business Statistics and Analytics	Pannerselvam, Nagesh, Senthilkumar	Cengage Learning,	2018

Reference Books:

Sl. No.	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Business Statistics	J. K. Sharma	Vikas Publishing	5/e, 2019
2	Statistics for Managers Using Microsoft Excel	David M. Levin; et al	Pearson Education	8/e, 2018
3	BSTAT : A South-Asian Perspective	Erald Keller; Hitesh Arora	Cengage Learning	2016

MANAGERIAL ECONOMICS

Course Code:24MBA15	**Credits: 3**
L:T:P:J:2:2:0:0	**CIA Marks: 50**
Exam Hours: 03	**SEA Marks: 50**

Course Objectives:

1. To introduce the fundamentals, tools and theories of managerial economics& to evaluate and apply Economic concepts in business decision making and problem solving.
2. To apply various components of demand and supply in managerial decision-making.
3. To analyse and apply the various concepts relating to production and cost.
4. To apply and evaluate the various determinants of profit and break-even analysis.
5. To understand the various forms of market structures and pricing practices with respect to firm and industry.

Contents of the Module	Hours	COs
Module -1: Introduction		
Managerial Economics: Meaning, Nature, Scope, & Significance of Managerial Economics, Role and Responsibilities of Managerial Economist. Fundamental Principles of Managerial Economics: Opportunity Cost, Incremental, Time Perspective, Discounting and Equi-marginal Principle.	**5**	**CO1**
Self-Study Types of Ownership, Objectives of the firm	**2**	
Module -2: Demand Analysis		
Law of Demand, Exceptions to the Law of Demand, Elasticity of Demand – Classification of Price, Income & Cross elasticity, Advertising and promotional elasticity of demand. Uses of elasticity of demand for Managerial decision making, Measurement of elasticity of demand (Simple problems) Demand forecasting: Meaning & Significance, Methods of demand forecasting. (only theory).	**7**	**CO2**
Module -3: Production analysis		
Concepts of Production, production function with one variable input - Indifference Curves, ISO-Quants & ISO-Cost line, Least cost combination factor, Economies of scale, Diseconomies of scale. Technological progress and production function.	**7**	**CO3**
Module -4: Cost Analysis		
Types of cost, Cost curves, LAC curve. Break Even Analysis – Meaning, Assumptions, Determination of BEA, Limitations, Uses of BEA in Managerial decisions (with simple Problems).	**7**	**CO4**
Module -5: Market Structures		

Perfect Competition, Features, Determination of price under perfect competition, Monopoly: Features, Pricing under monopoly, Price Discrimination. Monopolistic Competition: Features, Pricing Under monopolistic competition, Product differentiation. Oligopoly: Features, Kinked demand Curve.	**7**	**CO5**
Group Discussion on Topics related to Management, Current affairs and Society	**5**	**CO6**

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand the fundamentals, tools and theories of managerial economics. Students will be able to evaluate and apply Economic concepts in business decision making and problem solving
CO2	Apply various components of demand and supply to arrive at managerial decisions.
CO3	Analyse and apply the various concepts relating to production and cost.
CO4	Apply and evaluate the various determinants of profit and break-even analysis.
CO5	Evaluate the various forms of market structures and pricing practices with respect to firm and industry.

MOOCs

Introduction to Managerial Economics- https://www.iimbx.edu.in/courses/course-v1:IIMBx+ES101x+2019BL1/about

Suggested Case Studies

- Automobile Industry in India: New Production paradigm. Source: Managerial Economics – Geethika, Ghosh& Choudhury
- Dabur India Limited: Growing Big and Global.
- David Fights Goliath: The Nirma Story.

Text Books:

Sl. No.	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Managerial Economics	Geethika, Ghosh & Choudhury	McGraw Hill Education	3/e, 2021
2	Managerial Economics	Dominick Salvatore; et al.	Oxford University Press	8/e, 2016
3	Managerial Economics	Dwivedi D. N.	Vikas Publishing House	8/e, 2018

Reference Books:

Sl. No.	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Managerial Economics	R. Panneerselvam, P., Sivasankaran, P. &Senthilkumar	Cengage Learning	2018
2	Managerial Economics	Samuelson, William F., & Marks, Stephen G.	Wiley India Pvt. Ltd.	6/e, 2020
3	Managerial Economics	D.M. Mithani	HPH	2021
4	Managerial Economics	H.L Ahuja &Ahuja Amit	S.Chanda	9/e, 2020

Additional Practical Component

- Assessment of Demand Elasticity – Price, Income, Cross, Advertising.
- Demand Forecasting: Application of qualitative and quantitative methods of demand forecasting to various sectors (Automobile, Service, Pharmaceutical, Information Technology, FMCG, Hospitality etc.) in India.
- Knowledge Point presentations on Latest topics from Technology, Business and Economics

HUMAN RESOURCE MANAGEMENT

Course Code: 24MBA16	**Credits: 3**
L: T:P: J: 2:1:1:0	**CIA Marks: 50**
Exam Hours: 03	**SEA Marks: 50**

Course Objectives:

1. To enable students, understand HRM functions, principles, theory, and practices**.**

2. To develop the ability to analyse the importance of Human Resources Planning

3. To be able to understand the importance of training and development in the organization.

4. To be able to understand different performance appraisal, compensation, and rewards techniques and employee retention strategies.

5. To be able to understand the process of employee grievance and the importance of employee welfare in retention of the employees.

Contents of the Module	Hours	COs
Module-1: Introduction to HRM		
Human Resource Management and Personnel Management, The Importance of HRM, Evolution of HRM, Models of HRM, The Factors Influencing Human Resource Management, Human Resource Managers and Line Managers, The HR Competencies.	**6**	**CO1**
Self-Study: Recent Practices in HR- Employee Experience, HR practices post pandemic	**2**	
Module -2: Human Resource Planning		
Importance of HR Planning, Factors Affecting HRP, Benefits of HRP, HRP Process, Tools for Demand Forecasting, Attributes of Effective HR Planning, Barriers to HRP, Meaning, Process and design of Job Analysis, and Job Evaluation. **Recruitment and Selection**: Importance of Recruitment, Recruitment Policies, Recruitment Process, Sources, Evaluation of Recruitment Process, Recruitment Strategy, Selection Process; Selection Tests; Factors Influencing Selections, Challenges in Selection.	**8**	**CO2**
Self-Study: Factors Influencing Recruitment and Future Trends in Recruitment,	**2**	
Module- 3: Training and Development:		
Training, Learning, and Development, Learning Theories, The Future of Training, Process of training and Techniques of Training	**8**	**CO3**
Module – 4: Performance Management and Appraisal		

Objectives of Performance Management, Performance Management and Performance Appraisal, Common Problems with Performance Appraisals, Performance Management Process, Types of Performance Rating Systems, and Future of Performance Management. **Compensation and Benefits**: Introduction, Definitions, Total Compensation, Total Rewards System, Forms of Pay, Theories of Compensation, External Factors, Internal Factors, Establishing Pay Rates, Employee Benefits. **Employee Turnover & Employee Retention Strategies:** Meaning, Strategies to manage employee turnover, Employee retention strategies.	**9**	**CO4**
Practical Component - Exercise on Designing CTC	**1**	
Module-5: Employee Welfare		
Introduction, Types of Welfare Facilities, and Statutory Provisions in India. **Employee Grievance:** Employee Grievance procedure, Grievances Management in Indian Industry.	**10**	**CO5**
Self-Study: Industrial Relations: International Labor Organization (ILO), Objectives of Industrial Relations, Industrial Relations and Human Resource Management, Reasons for Industrial Disputes, Resolution of Industrial Disputes, Meaning and functions of Trade Union, Major Trade Unions in India.	**4**	**CO5**

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand HRM functions, principles, theory, and practices**.**
CO2	Ability to analyze the importance of Human Resources Planning
CO3	Identify the various training methods and design a training program.
CO4	Analyze performance appraisal methods, employee retention techniques, and compensation practices along with the regulations governing employee benefits practices.
CO5	Understand the process of employee grievance and the importance of employee welfare in retention of the employees and the importance of industrial relations and specific Labor Laws.

MOOCs

NPTEL Human Resource Management –I course - https://nptel.ac.in/courses/122/105/122105020/

Suggested Case Studies

Case Study on "Training Program at ABC Cement", Human Resource Management, Angelo S Denis / Ricky W Griffin / Anita Sarkar, Cengage Learning, Page 140 – **Module 3 Learning and Development**

Case Study on "Jayram's Dilemma", Human Resource Management, Angelo S Denis / Ricky W Griffin / Anita Sarkar, Cengage Learning, Page 123. – **Module 2 HRP and Recruitment and Selection**

Text Books:

Sl. No.	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Human Resource Management:	R. C. Sharma, &	Sage Publication	2019

	Theory and Practices,	Nipun Sharma	India Pvt. Ltd.	
2	Human Resource Management: Concepts	Amitabha Sengupta	Sage Publication India Pvt. Ltd.	2021
3	Leadership: Theory and Practices	Peter G. Northouse	Sage Publication	7/e, 2019
4	Human Resources Management	T.P RenukaMurthy	HPH	1/e, 2017

Reference Books:

Sl. No.	**Title of the book**	**Name of the Author/s**	**Publisher Name**	**Edition and year**
1	Human Resources Management: A South Asian Perspective	Denski/Griffin/Sarkar	Cengage Learning	2012
2	The HR Answer Book: An Indispensable Guide for Managers and Human Resources Professionals	Shawn Smith & Rebecca Mazin	AMACOM	2011
3	Performance Management and Appraisal Systems HR Tools for Global Competitiveness	T. V. Rao	Sage Publishing India Ltd.	1/e, 2004
4	Human Resource Management	Appasaba L.V & KadakolA M	College Book House	2016
5	Human Resource Management	V.S.P Rao	Cengage Learning	2019

Practical Component:

- A visit to the organization and interact with the HR Manager and list out the roles played by the HR manager. (Class Presentation)
- Give a job analysis case and ask the students to prepare a job description and job specification
- Give a case and ask the students to prepare the recruitment advertisement for a newspaper.
- Expose students to standard selection tests followed in various sectors**.**
- Exploring performance appraisal practices in various sectors
- Meet the Training and Development Manager and list out various training given to employees; the basis of the training program; Needs analysis. (Class Presentation)

MANAGERIAL COMMUNICATION

Course Code:24MBA17	**Credits: 3**
L: T:P: J: 1:0:2:2	**CIA Marks: 50**
Exam Hours: 03	**SEA Marks: 50**

Course Objectives:

1. To enable the students to become aware of their communication skills and sensitize them to their potential to become successful managers.
2. To help the students understand and apply the components of speech appropriately.
3. To help them understand the importance of being a good listener and to enhance the reading ability through activity-oriented learning
4. To enable the students demonstrate writing processes through invention, organization, drafting, revision, editing, and presentation.
5. To develop skills to conduct business meetings and to create and present professional reports.

Contents of the Module	Hours	COs
Module -1: Introduction		
Meaning and importance, Process of communication, types of communication with special attention to non-verbal communication, barriers of effective communication, 7Cs of effective communication, importance of cross-cultural communication.	**4**	**CO1**
Self-Study: Levels of communication, Communicating Networks in Organizations.	**1**	
Module-2: Speaking Skills		
Oral communication: Components of speech - Volume, pitch, tone, modulation, pauses and stresses. Key aspects of effective presentation skills	**2**	**CO2**
Practical Component – Practice exercises on usage of appropriate Volume, pitch, tone, modulation, pauses and stresses.	**2**	
Module -3: Listening and Reading skills		
Importance of listening, process of listening, tips for effective listening. Stages in reading, tips to improve vocabulary, Business Case Analysis: Characteristics of Case and its Analysis, Process of Case Analysis, Requirements of Case analysis, The structure of written cases analysis.	**4**	**CO3**
Practical Component – • Analysis and presentation of a case study	**8**	

• Classroom activity on barriers to listening • Book review		
Self-Study: Reading Skills for Effective Business Communication: Types of reading, SQ3R Technique of Reading	**1**	
Module -4: Writing skills		
Principles of effective writing, 3X3 writing process for business communication, Writing Positive, Neutral, Persuasive and Negative Messages	**3**	**CO4**
Practical Component: Writing exercises – Emails, Business letters, Memos, Business Proposals, Blogs	**7**	
Module – 5: Business Reports and Meetings		
Business Reports: Purpose, Kinds and Objectives of reports – Organization &Preparing reports, short and long reports Writing, writing executive summary. Meeting Documentation: Notice, Agenda, and Resolution &Minutes, Business Meetings: Format, planning, facilitating, participating and follow-up	**4**	**CO5**
Practical Component – Plan & implement a meeting (including documentation)	**2**	
Self-Study: Levels of communication, Communicating Networks in Organizations. Reading Skills for Effective Business Communication: Types of reading, SQ3R Technique of Reading	**2**	
Project component – Draft an analytical report on a given topic		

Course Outcomes: At the end of the course the student will be able to:

CO1	Identify ethical, legal, cultural, and global issues affecting business communication and apply business communication strategies and principles to prepare effective communication for domestic and international business situations.
CO2	Deliver an effective oral business presentation
CO3	Practice the art of active listening and develop the comprehending ability by practicing reading skills.
CO4	Utilize the mechanics of writing and compose business letters in English precisely and effectively
CO5	Select appropriate organizational formats and channels used in developing and presenting business messages.

Text Books:

Sl . No.	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Communicating in Business: With Course Mate	Ober, Scot & Newman, Amy	Cengage Learning	8/e, 2015
2	BCOM : A South-Asian Perspective	Lehman, Dufrene, Sinha	Cengage Learning	2/e, 2012
3	Business Communication	P. D. Chaturvedi &Mukesh Chaturvedi	Pearson Education	4/e, 2017
4	Business and Professional Communication	Kelly M., Quintanilla & Shawn T. Wahl	Sage Publications	2011

Reference Books:

Sl. No.	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Communicating in Business	Williams, Karen Logan, Merrier	Cengage Learning	8/e, 2017
2	Business Communication: Process	Mary Ellen Guffey	Cengage Learning	3/e, 2002
3	Business Communication	Lesikar, Flatley, Rentz, Pande	McGraw Hill Education	13/e, 2015

APPLICATION OF MS OFFICE

Course Code: 24MBA18	**Credits: 2**
L:T:P:J: 1:0:1:1	**CIA Marks: 50**
Exam Hours: 2 Hours	**SEA Marks: 50**

Course Objectives:

1. To familiarize the students with the basics of computer and techniques of creating a power point presentation.
2. To explain to the students the importance and application of MS Word for various academic and professional purposes.
3. To train students apply MS Excel techniques for various academic and professional purposes.

Contents of the Module	Hours	COs
Module-1:Introduction to Computers and MS Office		
Creating effective presentations using MS Power point - Opening, viewing, creating, and printing slides, applying auto layouts, adding custom animation, using slide transitions, graphically representing data: Charts & Graphs, Creating Professional Slide for Presentation.	**7**	**CO1**
Self-Study : Introduction to computers, role of computers, software and application, internet and its uses.	**3**	
Module-2: M S Word		
Creating, editing, saving and printing text documents, Font and paragraph formatting, Simple character formatting, inserting tables, smart art, page breaks, using lists and styles, working with images, Using Spelling and Grammar check, understanding document properties, Inserting citation and bibliography	**8**	**CO2**
Module-3: M S Excel		
Spreadsheet basics, Creating, editing, saving and printing spreadsheets, working with functions & formulas, modifying worksheets with color & auto-formats, graphically representing data: Charts & Graphs, speeding data entry: Using Data Forms, analyzing data: Data Menu, Subtotal, Filtering Data, use of data analysis tools available on excel, formatting worksheets, Securing & Protecting spreadsheets	**12**	**CO3**
Project Component: Students will be given with an unformatted raw data. They are expected to use their excel skills to segregate, format, analyze (or any other operations required)and present it in an organized way		

Course Outcomes: At the end of the course the student will be able to:

CO1	To Understand and apply the basics of computer and techniques of creating a power point presentation.
CO2	To Understand the importance and apply the techniques of MS Word for various academic and professional purposes.
CO3	To apply MS excel techniques for various academic and professional purposes.

MOOC Course

1. Introduction to computers and office productivity software - https://www.coursera.org/learn/introduction-to-computers-and-office-productivity-software

2. Excel skills for business specialization – https://www.coursera.org/specializations/excel

Text Books:

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Computer Applications in Management	Niranjan Shrivastava	Dreamtech Press	2012
2	Computer Applications in Business	Sudalaimuthu S. S. Anthony Raj	HPH	2/e 2012

Reference Books:

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Computer fundamentals – Introduction to computers	FaitheWempen	John Wiley and Sons Inc.	2015
2	Computer and Financial Accounting with Tally 9.0 Course Kit	Vikas Gupta	Dreamtech Press	2012

Additional Practical Components:

- Students may be asked to list down latest business trends, cases etc. and can present it using PPT.
- Students are expected to prepare activity reports using MS word and excel applications.
- With the help of a sample survey data and faculty can demonstrate how to perform basic data analysis using excel

Semester- II

STRATEGIC MANAGEMENT

Course Code: 24MBA21	**Credits: 4**
L:T:P:J: 3:0:2:0	**CIA Marks: 50**
Exam Hours: 03	**SEA Marks: 50**

Course Objectives:

1. To provide a framework for students to understand strategic management concepts and conduct external analysis for competitive advantage.
2. To help students develop a thorough understanding of principles and models related to an organization's internal analysis.
3. To help students understand the different strategy options available for organizations in a complex and dynamic environment.
4. To acquaint students with essential factors in strategy implementation.
5. To provide basic understanding of how to establish and exert strategic control.

Contents of the Module	Hours	COs
Module-1 Introduction to Strategic Management and External Analysis		
Meaning and Characteristics of Strategic Management; The Strategic Management Process. **External Analysis** Strategically Relevant Components of a Company's External Environment – Environment Threat and Opportunity Profile (ETOP); Industry Analysis – Porter's Dominant Economic Features, Porter's Five Forces Model, Entry and Exit Barriers, Strategic Group Mapping; Industry Key Success Factors, Key Performance Indicators and Key Result Areas.	**7**	**CO1**
Practical component – Identify Key Success Factors, Key Performance Indicators and Key Result Areas of a chosen Industry.	**2**	
Self-Study – PESTLE analysis.	**1**	
Module-2 Internal Analysis		
Strategic Vision, Mission, Goals, Long-Term and Short-Term Objectives and their Value to the Strategic Management Process; Organizational Capability Profile –Resource Based View of the firm (RBV) and VRIN; Business Portfolio Analysis – BCG / Growth Share Matrix, GE 9 Cell Model; Balanced Score Card, SWOC Analysis, Value Chain Analysis, Benchmarking.	**8**	**CO2**

Practical component – Analyse SWOC of a chosen Company.	**2**	
Module-3 Strategy Formulation		
Business Strategies: Porter's Generic Strategies – Low Cost, Differentiation, Best Cost, Focused Low Cost and Focused Differentiation **Corporate Strategies:** Growth Strategies – Internal Growth, External Growth (Integration, Diversification, Mergers, Joint Ventures, Strategic Alliances), Product/Market Expansion grid / Ansoff's Matrix; Stability Strategies – No-Change, Profit and Proceed with Caution; Retrenchment Strategies – Turnaround, Divestment and Liquation; International Business Level Strategies.	**8**	**CO3**
Self-Study – Strategic Management in Non-Profit and Government Organizations; Blue ocean and Red ocean strategy.	**4**	
Module-4: Strategy Implementation		
Facilitators for implementation of strategy: Organisational Structures – matching structure to strategy, McKinsey's 7S, Changing structure and processes (Business Process Reengineering, Six Sigma); Strategic Leadership; Organisational Culture – Learning organisations, MBO, TQM; Barriers to implementation of strategy. Strategy and Innovation: Introduction to Innovation – Process, Product and Platform; Creative Destruction and Disruptive Technologies; Open Innovation and Open Strategy.	**10**	**CO4**
Module-5: Strategic Control		
Focus of Strategic Control, Establishing Strategic Controls (Premise Control, Strategic Surveillance, Special Alert Control, Implementation Control), Exerting Strategic Control (through Competitive Benchmarking, Performance and Formal and Informal Organisations).	**5**	**CO5**
Practical component – Students work in groups to develop strategic control plan for a selected company, including KPIs, monitoring processes, feedback mechanisms, and corrective actions.	**3**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand strategic management concepts and how to conduct external analysis for competitive advantage.
CO2	Apply selected models of internal analysis to evaluate an organization.
CO3	Understand and analyse the different strategy options available for organizations in a complex and dynamic environment.
CO4	Appreciate the essential factors in strategy implementation.
CO5	Understand how to establish and exert strategic control.

MOOCs:

1. NPTEL: Strategic Management IIT Kharagpur

   https://nptel.ac.in/courses/122/105/122105024/

2. NPTEL: Strategic Management IISc Bangalore

   https://nptel.ac.in/courses/110/108/110108047/

3. SWAYAM: Strategic Management

   https://onlinecourses.swayam2.ac.in/imb20_mg33/announcements?force=true

4. COURSERA: Strategic Management https://www.coursera.org/learn/strategic-management

5. COURSERA: Strategic Management and Innovation

   https://www.coursera.org/specializations/strategic-management

Suggested Case Studies:

1. TATA Steel, JIO, Zoom`s Rise Amidst the COVID-19 Pandemic
2. Swiggy: Delivering on Business Continuity amidst COVID-19
3. Rise of Adani Group through different corporate strategies.

Text Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Crafting and Executing Strategy: The Quest for Competitive Advantage – Concepts and Cases	Arthur A. Thompson Jr. Margaret A. Peteraf John E. Gamble A. J. Strickland III Arun K. Jain	McGraw Hill Education	19th Ed, 2017
2	Contemporary Strategy Analysis	Robert M Grant	Wiley	11th Ed, 2021
3	Contemporary Strategic Management	Robert M Grant	Wiley India	6th Ed, 2011
4	Strategic Management: A South-Asian Perspective	Michael A. Hitt R. Duane Ireland Robert E. Hoskisson S. Manikutty	Cengage Learning	9th 2016

Reference Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Strategy: Theory & Practice	Stewart Clegg Chris Carter Marting Kornberger Jochen Schweitzer	Sage	3rd Ed, 2020
2	Strategy Management: Theory & Practice	John Parnell	Biztantra	2004
3	Strategic Management: Planning for Domestic and Global Competition	John A. Pearce Richard B. Robinson	McGraw Hill Education	14th Ed, 2015
4	Contemporary Strategic Management Case Studies	Robert M Grant	Wiley India	2009

Additional Practical Component:

- Analyzing the Mission and Vision statements of selected Indian companies.
- Applying Michael Porter's model to an industry (Retail, Telecom, Infrastructure, FMCG, Insurance, Banking etc (Industry Note to be submitted).
- Pick a company that has performed very badly compared to its competitors. Collect information on why the company failed. What were the issues in strategy formulation and execution that were responsible for the company's failure in the market. Analysis to be done keeping in mind the internal and external factors impacting the company.
- Map out GE 9-cell matrix and BCG matrix for some companies and compare them.

FINANCIAL MANAGEMENT

Course Code: 24MBA22	**Credits: 4**
L:T:P:J: 3:0:2:0	**CIA Marks: 50**
Exam Hours: 03	**SEA Marks: 50**

Course Objectives:

1. To familiarize the students with basic concepts of financial management and apply the concept of time value of money and its implication
2. To analyse the concept of cost of capital and its relevance
3. To evaluate the investment proposals through capital budgeting techniques
4. To analyse capital structure and dividend decisions
5. To understand the management of working capital in an organization

Contents of the Module	Hours	COs
Module- 1: Introduction to Financial Management		
Meaning and objectives/ goals of Financial Management; Functions of Financial Management; Interface of Financial Management with other functional areas. **Time value of money** – Simple interest & Compound interest; Future value of Single cash flow & Annuity; Present value of single cash flow; Annuity & Perpetuity; Loan amortization. (Problems on PV, FV, Annuity and Loan Amortization schedule)	**8**	**CO1**
Practical Component – Finding out rate of return generated by different financial instruments; Preparing loan amortization scheme for a loan offered by bank	**4**	
Module- 2: Cost of capital		
Sources of Financing: Shares, Debentures, Term loans, Lease financing, Hybrid financing, Venture Capital, Angel investing and Private equity, Convertibles. **Cost of Capital:** Cost of debenture capital; Cost of preferential capital; Cost of term loans; cost of equity capital - Dividend discounting and CAPM model; Determination of Weighted average cost of capital (WACC) and Marginal cost of capital (Problems on WACC)	**8**	**CO2**
Self-Study - Sources of Financing -Long term and Short-term	**2**	
Module- 3: Capital Budgeting (Investment decision)		
Capital budgeting: Importance; Process of Capital Budgeting, Estimation of Cash Flows; Investment evaluation techniques – Payback period, Accounting rate of return, Discounted payback period, Net present value, Internal rate of return, Profitability index, (Problems on evaluation of new projects)	**10**	**CO3**

Practical Component – Study the cash flows projection and capital budgeting method employed by a small or medium sized business firm	**2**	
Module- 4: Capital structure and Dividend decisions		
Capital structure - Capital structure planning and factors affecting capital structure policy; Leverage Analysis, EBIT and EPS analysis. **Dividend Decision**– Factors affecting the dividend policy (Theories of capital structure and dividend NOT included) (Problems on leverages and EPS analysis)	**6**	**CO4**
Practical Component: Study the capital structure and dividend policy of any two listed companies	**1**	
Module- 5: Working Capital Management		
Meaning and Objectives; Estimation of working capital requirements of a firm. (Does not include Cash, Inventory & Receivables Management). (Problems on operating cycle and cash cycle)	**6**	**CO5**
Self-Study - Factors influencing working capital requirements; Determination of operating cycle and cash cycle	**3**	

Course Outcomes: At the end of the course, the student will be able to:

CO1	Understand the basic concepts of financial management and apply the time value of money concept
CO2	Analyse the various sources of finance and computation of weighted average cost of capital
CO3	Evaluate the investment decisions of a business
CO4	Analyze the capital structure and dividend decisions
CO5	Estimate working capital requirements of a business

Text Books:

Sl. No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Financial Management: Text, Problems and Cases	Khan M. Y.& Jain P. K	TMH	8/e, 2019
2	Financial Management	Prasanna Chandra	TMH	9/e, 2017
3	Financial Management	Prahlad Rathod, Babitha Thimmaiah & Harish Babu	HPH	1/e, 2015

Reference Books:

Sl. No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Financial Management	I. M. Pandey	Vikas Publishing	11/e, 2012
2	Principles of Corporate Finance	Brealey, Myers, Allen & Mohanty	McGraw Hill Education	11/e, 2014
3	Cases in Financial Management	I. M. Pandey & Ramesh Bhat	McGraw Hill Education	3/e, 2015
4	Corporate Finance	Vishwanath S. R	Sage Publications	3/e, 2019

BUSINESS RESEARCH METHODS

Course Code: 24MBA23	**Credits: 4**
L:T:P:J: 3:0:1:1	**CIA Marks: 50**
Exam Hours: 03	**SEA Marks: 50**

Course Objectives:

1. To familiarize the students with basic concepts of Research and its process.
2. To help students gain insight into the various Research Designs to choose the most appropriate one.
3. To train students apply the correct sampling technique and data collection method.
4. To equip students, develop testable hypothesis, evaluate it using the right tests to draw meaningful conclusions.
5. To empower students evaluate data using JMP Pro and present results for decision making.

Contents of the Module	Hours	COs
Module -1: Introduction to Research		
Meaning, Types, Process of research, Defining the research problem, Formulating the research hypothesis, Developing the research proposals, Research design, sampling design, Planning, and collecting the data for research, Data analysis and interpretation, Features of good research study.	**8**	**CO1**
Module-2: Research Design		
Meaning, Significance and Types of research design- Exploratory, Conclusive, Descriptive, Experimental, Case Study, Mixed -method	**7**	**CO2**
Practical Component – Research review paper on any topic of your choice. Review of literature (Journal) and present the same.	**6**	
Module-3: Sampling and Data Collection		
Sampling: Concepts- Types of Sampling – Errors in sampling. Primary and Secondary data- meaning and various techniques of the data collection and their pros and cons. Questionnaire design, Measurement and Scaling Techniques: Basic measurement scales, Attitude measurement scale.	**8**	**CO3**
Module-4: Data Formatting and Hypothesis Testing		
Data Formatting for testing. Hypothesis testing: Types, characteristics, source, formulation of hypotheses, errors in hypotheses. Parametric and Non-Parametric Tests- t-test, z-test, f-test, Chi square, KW test, Normality, and reliability of hypothesis. Statistical analysis- Bivariate and Multivariate Analysis- ANOVA-one-way and two-way classification, and problems on it	**10**	**CO4**

Self-Study – Construct a questionnaire for a research topic of interest	**2**	
Module -5: **Inferential Statistics using JMP Pro and Report Writing**		
Report writing and presentation of results: guidelines for effective documentation.	**1**	**CO5**
Practical Component – Parametric and Non-Parametric Tests- t-test, z-test, f-test, Goodness of fit, Normality and reliability of hypothesis. Statistical analysis, Bivariate and Multivariate Analysis- ANOVA-one-way, two-way classification, and problems on it. Analysis and interpretation using Minitab	**4**	
Self Study: Importance and Types of research report, Report structure,	**2**	
Project work –Research topic of interest and test hypothesis, analyze and present a research proposal for the topic chosen.	**2**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand the basic concepts of Research and its process.
CO2	Gain insight into the various Research Designs to choose the most appropriate one.
CO3	Apply the correct sampling technique and data collection method.
CO4	Develop testable hypothesis, evaluate it using the right tests to draw meaningful conclusions.
CO5	Evaluate data using JMP Pro and present results for decision making.

Text Books

Sl No	**Title of the book**	**Name of the Author/s**	**Publisher Name**	**Edition and year**
1	Business Research Methods	Donald R. Cooper & Pamela s Schindler	TMH	12/e, 2018
2	Research Methods	M M. Munshi& K Gayathri Reddy	HPH	1/e, 2015
3	Research Methods	Naresh K Malhotra	Pearson Education	7/e,2022
4	Research Methodology	C R Kothari	New Age International	4/e, 2019
5	Statistics for business & economics,	Anderson, D.R., Sweeny, D.J., Williams, T.A., Camm, J.D., Cochran, J.J.	Cengage Learning	13/e, 2017

Reference Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Statistics for management	Levin, R.I., Rubin, D. S., Rastogi S., Siddiqui, M.H	Prentice Hall India Publications	Prentice Hall India Publications
2	Research Methodology	Ranjit Kumar	Sage Publications	3/e, 2013
3	Research Methodology	Deepak Chawla and Neena Sondhi	Vikas Publications	2/e, 2018

OPERATIONS RESEARCH

Course Code: 24MBA24	**Credits: 4**
L:T:P:J: 4:0:0:0	**CIA Marks: 50**
Exam Hours: 03	**SEA Marks: 50**

Course Objectives:

1. To familiarize the students with the basics of Operation Research.
2. To train the students evaluate the various techniques to minimize the transportation cost.
3. To develop capability among students to mathematically formulate a linear program and solve graphically
4. To provide an understanding of the various environments of Decision making and apply sequencing techniques to complete the jobs effectively.
5. To equip students to apply the simulation techniques and Game theory to obtain the optimal solutions

Contents of the Module	Hours	COs
Module -1:Introduction		
Characteristics, advantages and limitations. Quantitative approach to decision making models (Theory Only)	**6**	**CO1**
Self-Study : Definition, scope of Operations Research	**2**	
Module-2: Transportation and Assignment Problem		
General structure of transportation problem, methods of finding initial basic feasible solution (NWCM, LCM & VAM), Degeneracy, Optimality Test using Stepping stone and MODI Methods (theory only). Assignment problems - Introduction, General structure. Problems on minimization & maximization.	**12**	**CO2**
Module -3: Linear Programming Problem		
Structure of linear program model, Assumption, Advantages, Limitations, General mathematical model, Guidelines for formulation of linear programming model, Formulation of problems, graphical method.	**10**	**CO3**
Module -4: Decision Theory and Job Sequencing		
Decision under uncertainty- Maxmin& Minmax, Decision under Risk- Expected Value, decision tree. (Only theory). Job Sequencing- N Jobs-two machines and N Jobs-three machines (Problems)	**7**	**CO4**
Self-Study : Decision under uncertainty and 2 jobs-M machines cases. (Only theory)	3	
Module -5: Simulation and Game Theory		

Process of simulation, types of simulation, steps in simulation process, Monte Carlo simulation, Simple problems on Simulation applications in Inventory, Queuing, finance problems, Advantages & Disadvantages. Game Theory: Formulation of game models, Two-person Zero sum games & their solution, 2 x N and M x 2 games, pure strategy games with saddle point, Mixed strategies (Graphical and algebraic methods), Limitations of game theory.	**10**	**CO5**

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand the basics of Operations Research
CO2	Apply transportation techniques to minimize cost
CO3	Mathematically formulate the Linear Problem and solve graphically
CO4	Understand the various decision-making environment and sequence the jobs to minimize the idle time
CO5	Simulate problems and apply game theory to obtain optimal solution

Text Books:

Sl. No.	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Operation Research: An Introduction	H.A. Taha	Pearson Education	9/e, 2014
2	Operation Research	J. K. Sharma	Trinity Press	2017

Reference Books:

Sl. No.	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Quantitative Techniques in management	N. D. Vohra	McGraw Hill	4/e, 2015
2	Introduction to Operations Research	Hiller, Frederick S. ; et al	Tata McGraw Hill	9/e, 2012

Practical Component

- Learn and use TORA Software for analysis of all the OR Techniques and Real-life Problems.
- Student should demonstrate the application of the techniques covered in this course.

ADVANCED STATISTICAL TOOLS

Course Code: 24MBA25	**Credits: 3**
L:T:P:J: 1:0:4:0	**CIA Marks: 50**
Exam Hours: 03	**SEA Marks: 50**

Course Objectives:

1. To provide an understanding of apply statistical and logical functions in M S Excel
2. To provide students an understanding and application of the financial functions in MS Excel
3. To train the students Forecast time series data using MS Excel
4. To give students insights to perform descriptive statistics analysis and visualization using Jamovi.
5. To equip students Perform Inferential Statistics using Jamovi.

Contents of the Module	Hours	COs
Module 1: Basics and Reference functions using MS Excel		
Practical Component: Look-up and Reference function: V Look up and H Look up; Formula errors **Logical Functions –** If, And, Or, Count if and Sum if	**6**	**CO1**
Module 2: Financial functions and Pivot table in MS Excel		
Practical Component: Finance Functions –Loan amortization with suitable case **Pivot table:** Using Pivot table for data analysis; Create database for Pivot; Analyzing data with Pivot tables; Solver and Goal Seek	**8**	**CO2**
Module 3: Time Series Forecasting using MS Excel		
Practical Component: Time Series Plots, Trend Analysis, Seasonality, Moving Averages and Exponential Smoothing	**6**	**CO3**
Self-Study : Introduction to Time series , components of time series	**2**	
Module 4: Measures of central tendency and dispersion in Jamovi		
Measurement of Central tendency and Measurement of Dispersion	**2**	**CO4**
Practical Component: Installing JAMOVI and Navigating JAMOVI Measures of Central Tendency and Measures of Dispersion (Mean, Mode, Median; Variance, SD) **Data visualization:** Histograms, Bar graphs and Scatterplots	**6**	
Module 5: Hypothesis testing in Jamovi		
Practical Component: Correlation and Regression **Parametric and non-parametric tests:** t-test, Z Test, F Test**,** Chi Square test, One Way ANOVA, Two Way ANOVA	**6**	**CO5**
Self-Study: Meaning, Null and Alternative Hypothesis, Parametric and Non-Parametric tests	**4**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Demonstrate basic statistical and logical concepts in M S Excel
CO2	Analyze financial concepts in MS Excel
CO3	Create time series forecasting using MS Excel
CO4	Analyze data using Measures of central tendency and dispersion using Jamovi
CO5	Evaluate hypothesis using Jamovi

Text Books

Sl No	**Title of the book**	**Name of the Author/s**	**Publisher Name**	**Edition and year**
1	Statistics for Managers Using Microsoft Excel	David M. Levin; et al	Pearson Education	8/e, 2018
2	BSTAT: A South-Asian Perspective	Erald Keller; Hitesh Arora	Cengage Learning	2016
3	Learning Statistics with Jamovi	Danielle J. Navarro & David R. Foxcroft	E book	2022

ECONOMIC ENVIRONMENT OF BUSINESS

Course Code: 24MBA26	**Credits: 2**
L:T:P:J: 1:2:0:0	**CIA Marks: 50**
Exam Hours: 03	**SEA Marks: 50**

Course Objectives:

1. To make students understand the essential economic indicators of the domestic economic environment.
2. To acquaint students with conceptual understanding of economic growth and development.
3. To provide students with a basic understating of the economic policies of India.
4. To make students understand the essential economic indicators of the international economic environment.
5. To make students develop insights on the way international businesses work.

Contents of the Module	**Hours**	**COs**
Module-1 Domestic Economic Environment		
Macro Environment of Business; Economic system: Capitalism and Socialism; Macroeconomic Scenario: Growth, Saving and Investment, Inflation (sources, types and impact), Fiscal Imbalance, Balance of Payment; Prosperity, Recession, Depression and Stagflation; Economic Roles of the State and Central Government in India; Economic Policies: Industrial policy, Trade Policy, Monetary Policy and Fiscal Policy.	**5**	**CO1**
Self-Study – Industrial Policy of Karnataka Government and New Trade Policy.	**1**	
Module-2 Economic Growth and Development		
Concepts, Factors and Models (Keynesian and IS/LM Model); Economic Planning and Control; Circular Flow of Income in an Economy: Two-sector, Three-sector and Four-sector Model; National Income Measurement: Concepts and Methods; Gross Domestic Product and Gross National Product.	**5**	**CO2**
Practical component – Write an evaluative note on GDP and GNP of India. Students shall interpret major news on Indian economy during the semester.	**1**	
Module-3 Economic Policies of India		
Fiscal Policy: Instruments, Objectives, Issues: Fiscal Imbalance; Monetary Policy: Instruments, Objectives: Control of Currency and Control of Credit, Issues; New Industrial Policy; National Manufacturing Policy (Make in India); New Trade Policy, FERA.	**5**	**CO3**
Self-Study – Analysis of the latest Fiscal and Monetary Policy and submission of report. Classroom discussion on the pros and cons of different economic policies.	**1**	
Module -4 International Economic Environment		

Important Factors in International Economic Environment: Global Competitiveness, Balance of Payments GDP, GNP, Purchase Power Parity, Exchange Rate, Per Capita Income, Employment, Poverty, Growth Rate. International Economic Collaboration: International Institutions (Relevance of IMF, World Bank and WTO), Trade Agreements (FTAs, RCEP, ASEAN, SARC, BRICS, NATO, G20).	**5**	**CO4**
Practical component – Compare and contrast one developed, one developing and one underdeveloped economy. Students can analyze the economic parameters of different countries and see how each country is faring	**1**	
Module-5 International Business		
Meaning, Parties involved, Modes of Entry; Foreign Capital: Need and Components; Investing in countries abroad-Opportunities and Challenges; Repatriation of Profits.	**5**	**CO5**
Self-Study – Modes of Entry of any 5 Fortune 500 Companies (Including at least one Indian Company)	**1**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand the essential economic indicators of the domestic economic environment.
CO2	Analyze the factors of economic growth and development.
CO3	Analyze the economic policies of India.
CO4	Assess the essential economic indicators of the international economic environment.
CO5	Develop insights on the way international businesses work.

Text Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Economic Environment of Business	V K Puri S K Mishra	HPH	11th Rev ed., 2019
2	International Business: Competing in the Global Marketplace	Charles W L Hill	McGraw Hill	14th ed. 2023

ARTIFICIAL INTELLIGENCE FOR MANAGERS

Course Code: 24MBA27	**Credits: 2**
L:T:P:J: 1:2:0:0	**CIA Marks: 50**
Exam Hours: 03	**SEA Marks: 50**

Course Objectives:

1. To familiarize the students with fundamentals and history of AI
2. To Orient the students with the process for framing an AI initiative
3. To provide an understanding of the application of AI in automation and robotics
4. To provide students insights of Machine learning and deep learning
5. To train the students with the basics and working of Prompt engineering

Contents of the Module	Hours	COs
Module-1:Introduction to AI		
Introduction to AI Introduction to AI, History and Evolution of AI, Economics of AI, AI Practices in real Business, Future of AI, AI & Ethics, Trolley Problem	**5**	**CO1**
Module-2: Foundations of AI intelligent agents		
Foundations of AI Intelligent agents, Search, AI Canvas, 7-step process for framing an AI initiative	**5**	**CO2**
Self-Study: Architecture and working of AI	**3**	
Module-3: Robotic process automation		
Robotic Process, Automation Robotic Process, Automation & Cognitive AI	**5**	**CO3**
Module-4: Machine learning and Deep Learning		
Machine Learning modeling process, ML systems and models. ML and Business Applications, Fundamentals of Natural Language Processing, Fundamentals of Computer Vision. Applications of Deep Learning in Business	**6**	**CO4**
Module -5: Prompt Engineering		
Meaning. 5 Principles of Prompt Engineering, Working of AI, Proven Prompting techniques, Prompt optimization and Evals	**6**	**CO5**

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand the fundamentals and history of AI
CO2	Evaluate the process for framing an AI initiative
CO3	Know the role of AI in automation and robotics
CO4	Understand the concepts of Machine learning and deep Learning
CO5	Importance and application of Prompt engineering

Text Books

Sl. No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1.	Artificial Intelligence Basics	Taulli, T	Apress.	2019
2.	Prediction Machines	Agarwal, A., Gans, J. & Goldfarb, A.	Harvard Business Review Press.	2018
3.	Artificial Intelligence: A Modern Approach	Russell, S., Norvig, P	Prentice Hall.	2010

Reference Books

Sl. No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1.	The Age of AI: Artificial Intelligence and the future of Humanity	Tacker, J.	Zondervan	2020

PROJECT OF SOCIAL CONCERN

Course Code: 24MBA28	**Credits: 2**
L:T:P:J: 0:0:0:4	**CIA Marks: 50**
	SEA Marks: 50

COURSE OBJECTIVES

- To sensitize students towards social issues.
- To bring awareness of multiple perspectives on a given topic of social concern among students.
- To encourage students to understand the cause and effects of social problems and find research-based solutions for them.
- To foster team work, punctuality and presentation skills among students.

General Guidelines

- The Project of social Concern (24MBA28) is compulsory for all the students perusing MBA Course
- The project work shall be spread over 2nd Semester with an emphasis on field survey.
- The project shall be done by a group of 3 students.
- The students shall identify a topic of social concern of his / her interest / passion through life experiences and / or through external sources.
- The students shall get associated with an organization (NGO, Social Enterprise, Government Department, CSR wing of a Corporate), working for the cause.
- The students are expected to identify the organization in consultation with the guide.
- The students shall seek guidance of the internal guide on a continuous basis, and the guide shall give a certificate to the effect that the candidate has worked satisfactorily under his/her guidance.
- No two groups shall work in the same area/topic
- The student group shall submit a report on their work at the organization / evaluation studies.
- The group shall present the report to a committee of internal and external evaluators.

IDENTIFYING TOPICS

Topics of social concern can be classified into:

1. Social problems (Climate change, illiteracy, unemployment, poverty, malnutrition, health and hygiene, homelessness, domestic violence, inter-group conflicts, terrorism, etc).
2. Economic and social justice (ageism, racism, income disparity, gender bias and other types of discrimination).
3. Social ideals (empowerment, equality, democracy, etc.).

Format and Contents of the report

- The Project report shall not exceed 50 pages.
- The Project report shall be prepared using word processor viz. MS-Word in Times New Roman font, font size 12.
- All the reports shall be printed in A4 size sheet leaving 1" margin on all the sides.
- Students should submit the Project Report in both electronic form (Non editable PDF) and two hard copies (One for the student and other for the institute).
- A certificate by the guide, HOD and Head of the institution indicating the bonafide performance of the project by the student to be enclosed.
- An undertaking by the student to the effect that the work is independently carried out by him/her.
- Certificate from the organization.

Evaluation: Project of Social Concern carries 100 marks as shown below.

Rubrics for Project of Social Concern

Sl.No	Particulars	Marks Allotted
1	Progress Review (Internal Assessment)	**25**
2	Report Evaluation by the Guide	**25**
3	Report Evaluation by the External Examiner	**25**
4	Viva-Voce Examination (Joint Evaluation)	**25**
Total		**100**

A. Progress Review by the Guide

Sl. No	Aspects	Marks Allotted
1	Progress Review Evaluation I	**25**
2	Progress Review Evaluation II	**25**
3	Progress Review Evaluation III	**25**
Average of all 3		**25**

B. Report Evaluation by the Guide & External Examiner.

SL No	Aspects	Marks Allotted
1	Introduction and Relevance to the project of social concern	**5**
2	Theoretical Background & Literature Review	**5**
3	Research Design/ Volunteering work	**5**
4	Analysis, Interpretation & Findings	**5**
5	Learning outcomes & conclusion	**5**
Total		**25**

C. Viva-Voce Examination

SL No	Aspects	Marks Allotted
1	Presentation skills	**5**
2	Communication skills	**5**
3	Knowledge about the chosen Social Concern & the Organisation	**5**
4	Objectives of the study and Research Design	**5**
5	Learning outcomes and appropriate suggestions	**5**
Total		**25**

Contents of the Project Report

- Cover page
- Certificate from the Organization
- Certificate from the guide, HOD and Head of the Institution
- Declaration by the student
- Acknowledgement
- Table of contents
- List of figures, tables and graphs

Chapter 1: Introduction
Introduction to the project: The cause identified, The organization chosen, Nature of Work carried out.

Chapter 2: Organization profile
Nature of the organization (NGO, Social Enterprise, Government Department, CSR wing of a Corporate), History, Promoters, Vision, Mission, Core values, Products / service profile, Areas of operation, Other organizations involved in the cause, SWOC Analysis, Impact of the organization's activities, Awards and recognitions, Future growth and prospects.

Chapter 3: Theoretical Background and Literature Review

Theoretical background of the issue / problem identified (Major theories, models, policy initiatives, Laws and propositions). Review of literature regarding the reasons and solutions for the identified cause.

Chapter 4: Research Design, Analysis and Findings
Statement of the problem, Need for the study, Objectives of the study, Scope of the study, Research methodology; Analysis and interpretation of the data collected with relevant tables and graphs, Summary of findings and Suggestions.
Projects involving volunteering work:
Nature of work / engagement; Methodology adopted / Plan of action; Ground Report; Feedback from the beneficiary / beneficiary organization; Impact / Outcome of the work / engagement; Challenges encountered in carrying out the work.

Chapter 5: Experience, Learning Outcome and Conclusion
Include experience, learnings from the engagement with the NGO / working for the cause, and conclusion.

Bibliography: Books, Articles names, etc. to be mentioned as per APA style.

Course Outcomes: At the end of the course the student will be able to:

CO1	Identify and define core social issues / problem
CO2	Understand the causes and effects of the social problems
CO3	Develop research-driven strategies to solve the existing social problems
CO4	Exhibit team work, punctuality and presentation skills

CORPORATE READINESS AND SOFT SKILLS

Course Code: 24MBA29	**Credits: 2**
L:T:P:J: 0:0:2:2	**CIA Marks: 50**
	SEA Marks: 50

Course Objectives:

1. To develop the ability to communicate effectively in groups.
2. To help the students develop the ability to ace the employment interviews.
3. To make students more employment ready by enhancing their problem solving and decision making through numerical aptitude, reasoning aptitude and verbal aptitude skills.

Contents of the Module	Hours	COs
Module -1: Group Discussion		
Group Discussion with special attention to content, team dynamics, body language and various components of oral communication skills.	**4**	**CO1**
Module -2: Employment communication		
Employment communication: Preparing your resume, writing covering letters and Inquiry Emails, preparing for a Job Interview, Conducting Yourself during the Interview, Grooming etiquettes. Essential aspects of virtual interviews.	**6**	**CO2**
Practical component – Conduct Mock interviews and provide one on one feedback	**2**	
Project Work: Prepare resume in the below shared formats – • One-page resume in pdf format • Resume in image format • Create a video resume professionally		
Module -3: Aptitude skills		
Numerical aptitude – Problems on Basic number system, Time, speed and distance, Time and work, Profit and loss, Percentages, Simple and compound interest, Logical Reasoning – Problems on Blood relation analysis, Direction sense, Analytical reasoning, Syllogisms, Series completion, Coding and decoding English proficiency – Parts of speech, Verbal Analogies, Synonyms and antonyms, Reading comprehension, Error spotting, Sentence correction and completion.	**18**	**CO3**

Course Outcomes: At the end of the course the student will be able to:

CO1	Develop the ability to communicate effectively in groups.
CO2	Develop the art of articulating well during the interviews
CO3	Understand and apply various techniques and shortcuts to solve problems during employment aptitude tests.

Text Books:

Sl. No.	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Communicating in Business: With Course Mate	Ober, Scot & Newman, Amy	Cengage Learning	8/e, 2015
2	Business Communication	P. D. Chaturvedi & Mukesh Chaturvedi	Pearson Education	4/e, 2017
3	Quantitative Aptitude	Dr. R S Aggarwal	S. Chand & Company Ltd.	Revised latest edition
4	Verbal and Non-verbal Reasoning	Dr. R S Aggarwal	S. Chand & Company Ltd.	Revised latest edition

B.N.M. Institute of Technology

Master of Business Administration

Scheme and Syllabus

2024 Scheme

Second Year (3rd and 4th sem)

B.N.M. Institute of Technology

An Autonomous Institution under VTU

Master of Business Administration
Summary of Semester wise Credits

Semester	2022 Scheme	2023 Scheme	2024 Scheme	2025 Scheme
I	• 5 courses of 4 credits • 1 course of 3 credits, • 1 course of 2 credits • 1 course of 1 credit **26 Credits**	• 3 courses of 4 credits • 4 courses of 3 credits • 1 course of 2 credit **26 Credits**	• 3 courses of 4 credits • 4 courses of 3 credits • 1 course of 2 credit **26 Credits**	• 4 courses of 4 credits • 2 courses of 3 credits • 2 courses of 2 credit **26 Credits**
II	• 5 courses of 4 credits • 1 course of 3 credits, • 1 course of 2 credit • 1 course of 1 credit **26 Credits**	• 4 courses of 4 credits • 1 course of 3 credits • 4 courses of 2 credit **27 Credits**	• 4 courses of 4 credits • 1 course of 3 credits • 4 courses of 2 credit **27 Credits**	• 3 courses of 4 credits • 3 courses of 3 credits • 3 courses of 2 credit **27 Credits**
III	• 6 courses of 3 credits • 2 courses of 2 credits • Organization Study of 4 credits **26 Credits**	• 7 courses of 3 credits • 1 course of 2 credits • Organization Study of 4 credits **27 Credits**	• 8 courses of 3 credits • Organization Study of 3 credits **27 Credits**	
IV	• 4 courses of 3 credits • Project Work of 10 credits **22 Credits**	• 4 courses of 3 credits • Project Work of 8 credits **20 Credits**	• 4 courses of 3 credits • Project Work of 8 credits **20 Credits**	

SEMESTER–III

FINANCE SPECIALISATION

Sl. No	Type of Course	Course Code	Course Title	Teaching Hours/ Week					Credits	Assessment		Total Marks
				Lecture (L)	Tutorial (T)	Practical (P)	Project (J)	Hours/ week		CIA	SEA	
1.	PCC	24MBA31	Operations and Project Management	2	0	2	0	4	3	50	50	**100**
2.	PBL	24MBA32	Tableau & Power BI	1	0	2	2	5	3	50	50	**100**
3.	PEC	24MBAF33	Data Analytics in Finance	2	0	2	0	4	3	50	50	**100**
4.	PEC	24MBAF34	Investment Management	2	0	2	0	4	3	50	50	**100**
5.	PEC	24MBAF35	Direct Taxation	2	0	2	0	4	3	50	50	**100**
6.	PEC	24MBAF36	AI&ML for Financial Services (Certification Course)	2	0	1	1	4	3	50	50	**100**
7.	PEC	24MBAF37	Indirect Taxation	2	2	0	0	4	3	50	50	**100**
8.	PEC	24MBAF38	FinTech (Certification Course)	2	0	2	0	4	3	50	50	**100**
9.	PLP	24MBAO39	Organisation Study	0	0	3	3	6	3	50	50	**100**
				15	**2**	**16**	**6**	**39**	**27**	**450**	**450**	**900**

PCC- Professional Core Course
PEC- Professional Elective Course
PBL - Project Based Learning
PLP- Professional Learning with Project

SEMESTER–IV
FINANCE SPECIALISATION

Sl. No	Type of Course	Course Code	Course Title	Teaching Hours/ Week					Credits	Assessment		Total Marks
				Lecture (L)	Tutorial (T)	Practical (P)	Project (J)	Hours/ week		CIA	SEA	
1	PEC	24MBAF41	Banking and Financial Services	2	0	1	1	4	3	50	50	100
2	PEC	24MBAF42	Risk Management and Derivatives	2	0	2	0	4	3	50	50	100
3	PEC	24MBAF43	International Financial Management	2	0	2	0	4	3	50	50	100
4	PEC	24MBAF44	Insurance Management (Certification Course)	4	0	0	0	4	3	50	50	100
5	PLP	24MBAP45	Project Work	0	0	4	4	8	8	50	50	100
			Total	**10**	**0**	**9**	**5**	**24**	**20**	**250**	**250**	**500**

PEC- Professional Elective Course

PLP- Professional Learning with Project

SEMESTER–III

BUSINESS ANALYTICS

Sl. No	Type of Course	Course Code	Course Title	Teaching Hours/ Week					Credits	Assessment		Total Marks
				Lecture (L)	Tutorial (T)	Practical (P)	Project (J)	Hours/ week		CIA	SEA	
1.	PCC	24MBA31	Operations and Project Management	2	0	2	0	4	3	50	50	**100**
2.	PBL	24MBA32	Tableau and Power BI	1	0	2	2	5	3	50	50	**100**
3.	PEC	24MBAB33	Principles of Business Analytics	2	0	2	0	4	3	50	50	**100**
4.	PEC	24MBAB34	Tech Tools for Managers	1	0	2	2	5	3	50	50	**100**
5.	PEC	24MBAB35	Data visualization	1	0	2	2	5	3	50	50	**100**
6.	PEC	24MBAB36	Digital Transformation and Block chain	2	2	0	0	4	3	50	50	**100**
7.	PEC	24MBAB37	Data Privacy and Data Security	2	2	0	0	4	3	50	50	**100**
8.	PEC	24MBAB38	Business Intelligence (Certification)	2	0	2	0	4	3	50	50	**100**
9.	PLP	24MBAO39	Organization Study	0	0	3	3	6	3	50	50	**100**
				13	**4**	**15**	**9**	**41**	**27**	**450**	**450**	**900**

PCC- Professional Core Course
PEC- Professional Elective Course
PLP- Professional Learning with Project
PBL - Project Based Learning

SEMESTER–IV

BUSINESS ANALYTICS

Sl. No	Type of Course	Course Code	Course Title	Teaching Hours/ Week					Credits	Assessment		Total Marks
				Lecture (L)	Tutorial (T)	Practical (P)	Project (J)	Hours/ week		CIA	SEA	
1	PEC	24MBAB41	Predictive Analytics (Certification)	1	0	2	2	5	3	50	50	100
2	PEC	24MBAB42	Generative and Agentic AI	1	0	2	2	5	3	50	50	100
3	PEC	24MBAB43	Advanced Analytics	2	0	2	0	4	3	50	50	100
4	PEC	24MBAB44	Exploratory Data Analysis using R	2	0	2	0	4	3	50	50	100
5	PLP	24MBAP45	Project Work	0	0	4	4	8	8	50	50	100
			Total	**6**	0	**12**	**8**	**26**	**20**	**250**	**250**	**500**

PEC- Professional Elective Course

PLP- Professional Learning with Project

SEMESTER–III
DIGITAL STRATEGY AND APPLIED MARKETING

Sl. No	Type of Course	Course Code	Course Title	Teaching Hours/ Week					Credits	Assessment		Total Marks
				Lecture (L)	Tutorial (T)	Practical (P)	Project (J)	Hours/ week		CIA	SEA	
1.	PCC	24MBA31	Operations and Project Management	2	0	2	0	4	3	50	50	**100**
2.	PBL	24MBA32	Tableau & Power BI	1	0	2	2	5	3	50	50	**100**
3.	PEC	24MBAM33	Consumer Behavior & Neuro Marketing	2	0	2	0	4	3	50	50	**100**
4.	PEC	24MBAM34	Marketing Analytics	2	0	1	1	4	3	50	50	**100**
5.	PEC	24MBAM35	E-Commerce and Retail Management	2	0	2	0	4	3	50	50	**100**
6.	PEC	24MBAM36	Advanced Digital Marketing and AI tools	1	0	2	2	5	3	50	50	**100**
7.	PEC	24MBAM37	Sales and Distribution Management	2	0	2	0	4	3	50	50	**100**
8.	PEC	24MBAM38	Social Media Marketing and Search Marketing	2	0	2	0	4	3	50	50	**100**
9.	PLP	24MBAO39	Organisation Study	0	0	3	3	6	3	50	50	**100**
				14	**0**	**18**	**8**	**40**	**27**	**450**	**450**	**900**

PCC- Professional Core Course
PEC- Professional Elective Course
PLP- Professional Learning with Project
PBL - Project Based Learning

SEMESTER–IV

DIGITAL STRATEGY AND APPLIED MARKETING

Sl. No	Type of Course	Course Code	Course Title	Teaching Hours/ Week					Credits	Assessment		Total Marks
				Lecture (L)	Tutorial (T)	Practical (P)	Project (J)	Hours/ week		CIA	SEA	
1	PEC	24MBAM41	Services Marketing	2	0	1	1	4	3	50	50	100
2	PEC	24MBAM42	Advertising & Brand Management	2	0	1	1	4	3	50	50	100
3	PEC	24MBAM43	Logistics and Supply Chain Management	2	0	2	0	4	3	50	50	100
4	PEC	24MBAM44	Digital Marketing Tools and Channels	1	0	2	2	5	3	50	50	100
5	PLP	24MBAP45	Project Work	0	0	4	4	8	8	50	50	100
			Total	**7**	0	**10**	**8**	**25**	**20**	**250**	**250**	**500**

PEC- Professional Elective Course
PLP- Professional Learning with Project

SEMESTER–III
HUMAN CAPITAL MANAGEMENT

Sl. No	Type of Course	Course Code	Course Title	Teaching Hours/ Week					Credits	Assessment		Total Marks
				Lecture (L)	Tutorial (T)	Practical (P)	Project (J)	Hours/ week		CIA	SEA	
1.	PCC	24MBA31	Operations and Project Management	2	0	2	0	4	3	50	50	100
2.	PBL	24MBA32	Tableau & Power BI	1	0	2	2	5	3	50	50	100
3.	PEC	24MBAH33	Performance Management Systems and Assessment Centers	2	0	2	0	4	3	50	50	100
4.	PEC	24MBAH34	Talent Management	2	0	0	2	4	3	50	50	100
5.	PEC	24MBAH35	Industrial Relations and Labour Legislations	2	2	0	0	4	3	50	50	100
6.	PEC	24MBAH36	HR Payroll Certification	3	0	0	0	3	3	50	50	100
7.	PEC	24MBAH37	Compensation and Benefits	2	0	2	0	4	3	50	50	100
8.	PEC	24MBAH38	Conflict Management and Negotiation	2	0	2	0	4	3	50	50	100
9.	PLP	24MBAO39	Organisation Study	0	0	3	3	6	3	50	50	100
				16	**2**	**13**	**7**	**38**	**27**	**450**	**450**	**900**

PCC- Professional Core Course
PEC- Professional Elective Course
PBL - Project Based Learning
PLP- Professional Learning with Project

SEMESTER–IV
HUMAN CAPITAL MANAGEMENT

Sl. No	Type of Course	Course Code	Course Title	Teaching Hours/ Week					Credits	Assessment		Total Marks
				Lecture (L)	Tutorial (T)	Practical (P)	Project (J)	Hours/ week		CIA	SEA	
1	PEC	24MBAH41	Human Resource Analytics	2	0	2	0	4	3	50	50	100
2	PEC	24MBAH42	Strategic HR practices and Agile Workforce Management	2	0	0	2	4	3	50	50	100
3	PEC	24MBAH43	International Human Resource Management	2	0	2	0	4	3	50	50	100
4	PEC	24MBAH44	HRIS (certification course)	3	0	0	0	3	3	50	50	100
5	PLP	24MBAP45	Project Work	0	0	4	4	8	8	50	50	100
			Total	**9**	**0**	**8**	**6**	**23**	**20**	**250**	**250**	**500**

PEC- Professional Elective Course

PLP- Professional Learning with Project

SEMESTER–III
SUPPLY CHAIN MANAGEMENT

Sl. No	Type of Course	Course Code	Course Title	Teaching Hours/ Week					Credits	Assessment		Total Marks
				Lecture (L)	Tutorial (T)	Practical (P)	Project (J)	Hours/ week		CIA	SEA	
1.	PCC	24MBA31	Operations and Project Management	2	0	2	0	4	3	50	50	100
2.	PBL	24MBA32	Tableau & Power BI	1	0	2	2	5	3	50	50	100
3.	PEC	24MBAS33	Fundamentals of Supply Chain Management and Logistics	2	1	1	0	4	3	50	50	100
4.	PEC	24MBAS34	Inventory & Warehousing Management	2	0	2	0	4	3	50	50	100
5.	PEC	24MBAS35	Transportation and Distribution Management	2	0	1	1	4	3	50	50	100
6.	PEC	24MBAS36	Purchasing Management	2	0	2	0	4	3	50	50	100
7.	PEC	24MBAS37	Export And Import Management	2	0	2	0	4	3	50	50	100
8.	PEC	24MBAS38	Supply Chain for E-Commerce	2	0	1	1	4	3	50	50	100
9.	PLP	24MBAO39	Organisation Study	0	0	3	3	6	3	50	50	100
				15	**1**	**16**	**7**	**39**	**27**	**450**	**450**	**900**

PCC- Professional Core Course
PEC- Professional Elective Course
PBL - Project Based Learning
PLP- Professional Learning with Project

SEMESTER–IV
SUPPLY CHAIN MANAGEMENT

Sl. No	Type of Course	Course Code	Course Title	Teaching Hours/ Week					Credits	Assessment		Total Marks
				Lecture (L)	Tutorial (T)	Practical (P)	Project (J)	Hours/ week		CIA	SEA	
1	PEC	24MBAS41	Agile Supply Chain Management	2	0	2	0	4	3	50	50	100
2	PEC	24MBAS42	Global Logistics Management	2	1	1	0	4	3	50	50	100
3	PEC	24MBAS43	Data Analytics in Supply Chain	2	0	1	1	4	3	50	50	100
4	PEC	24MBAS44	Ports & Terminals Management	2	0	0	2	4	3	50	50	100
5	PLP	24MBAP45	Project Work	0	0	4	4	8	8	50	50	100
			Total	**8**	**1**	**8**	**7**	**24**	**20**	**250**	**250**	**500**

PEC- Professional Elective Course

PLP- Professional Learning with Project

CORE SUBJECTS
III and IV Semester

III Semester

B.N.M. Institute of Technology

An Autonomous Institution under VTU, Approved by AICTE

Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: III

Course: OPERATIONS AND PROJECT MANAGEMENT

Course Code: 24MBA31

L: T:P : J	**2:0:2:0**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To familiarize students with the basics of Operations Management and mathematically forecast production requirements
2. To train students to select the right layout and location for a facility
3. To provide insights and orient students to choose the right inventory strategy
4. To study various structures of Projects and learn project risk mitigation plans
5. To train students design network models using CPM and PERT techniques to complete a project in the shortest time possible

Contents	No. of hours	COs
Module-1:Introduction & Forecasting		
Introduction to Operations Management., Characteristics of Modern Operations function, Recent Trends in Operations Management Forecasting: Forecasting as a planning tool, forecasting time horizon, types of forecasting, qualitative forecasting techniques, quantitative forecasting models (Simple Problems)	**L:05**	**CO1**
Practical Component: • Watch video tour of factories, logistics hub • Research and present on recent trends in operations	**P:02**	
Module-2:Facility Planning		
Facilities location decisions, factors affecting facility location decisions and their relative importance for different types of facilities, Facility location models, Facility layout planning, types of plant layouts Factors influencing layout changes (Theory Only	**L:05**	**CO2**
Practical Component: To analyze the Layouts used in various types of Industries	**P:02**	
Module-3:Materials Management		
Materials Management – materials, Types, Objectives, Planning, Budgeting and Control. Purchasing(P2P) – Objectives, Functions, Policies, Procurement procedures, RFQ, Lead time, EOQ, Vendor rating Inventory Management: Concepts of inventory, Classification, ABC, VED, Inventory costs, and Inventory models. (Theory and Problems)	**L:05**	**CO3**
Self-Study: To estimate the Ideal Inventory for data available at organization Overview of Materials Management Information Systems (MMIS)	**02**	

Practical Component: To Visit Different Manufacturing Companies to understand the Material handling process	**P:02**	
Module-4:Project Management		
Definition of project, characteristics of projects, understand projects, types of projects, Structure of projects, phases of project management, Project Risk Planning: Risk Management Planning, risk identification, risk analysis, risk response planning, communicate project management plan	**L:05**	**CO4**
Practical Component: Introduction to Microsoft Project Interface Creating a Work Breakdown Structure (WBS), Task Scheduling & Dependencies Resource Allocation, Cost Estimation & Budgeting, Tracking & Baseline Comparison	**P:03**	
Module-5: Network Analysis		
Introduction, network construction - rules, Fulkerson's rule for numbering the events, AON and AOA diagrams; Critical path method (CPM) to find the expected completion time of a project, floats; PERT for finding expected duration of an activity and project, determining the probability of completing a project, predicting the completion time of project,	**L:07**	**CO5**
Practical Component: To model, analyze, and interpret project timelines using PERT & CPM	**P:02**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Apply basic components of Operations Management & mathematically forecast the Production
CO2	Evaluate and decide on the right layout and location for afacility
CO3	Evaluate and choose the right inventory strategy
CO4	Learn types of projects and risk management techniques, and develop project scheduling skills using Microsoft Project
CO5	Create network models using CPM and PERT techniques to complete a project in the shortest time possible

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBA31.1	3					2			
24MBA31.2						3		2	
24MBA31.3	3					3		3	
24MBA31.4	2	3						2	
24MBA31.5		3						3	
AVERAGE	3	3				3		3	

Text Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Production and Operations Management	Ashwathappa K, &Sridhar Bhat	K,Himala ya	2/e

			Publicatio ns	
2	Operations Management	Mahadevan	Pearson	2/e
3	Operations Management	Norman Gaither,Greg Frazier	Cengage learning	9/e

Reference Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Production and Operations Management: Text and cases	Upendra kachru,	Excel Books	1/e
2	Operations Now	Byron J. Finch	Tata Mc-GrawHill	3/e

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 5 marks each-average of two	5 Marks
	Practical	Practical/Project – Mini Project, Discussion, Presentation Demonstration Video, Practical activities, Simulation, Survey followed by report preparation and viva Project Report Evaluation- 15 marks & Project Viva- 5 marks	15+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	Theory Exam	The question paper will have 8 full questions each of 20 marks. Part A will have 7 questions of 20 marks each. The student will have to attempt 4 full questions out of 7 questions. Part B of the question is compulsory (Case study based) Students have to answer 5 full questions including the mandatory 8th question.)	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

B.N.M. Institute of Technology

An Autonomous Institution under VTU, Approved by AICTE

Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: III

Course: TABLEAU & POWER BI

Course Code: 24MBA32

L: T:P : J	**1:0:2:2**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To introduce students to the principles of data visualization and apply them effectively.
2. To enable students to navigate and utilize Tableau for data visualization.
3. To empower students to design and develop interactive charts, graphs, and dashboards using Tableau.
4. To equip students with hands-on skills to create interactive dashboards, visual analytics, and storytelling techniques using Power BI.
5. To provide an understanding on connecting Power BI to SQL Server using SQL queries

Contents	No. of hours	COs
Module-1: Foundations of Data Visualization and Business Intelligence Lifecycle		
Principles of Data Visualization, Visual Perception, Types of Charts and Graphs Design Ethics and Cognitive Load, Data Analytics Lifecycle, Storytelling with Data, Tools Overview	**L:04**	**CO1**
Practical Component: Types of Charts and Graphs, Design Ethics and Cognitive Load, Critique visualizations from real dashboards and Create basic visuals from datasets like Ecommerce, Employees, or sales data**.**	**P:06**	
Module-2: Tableau Essentials & Data Handling		
Tableau Interface, Connecting Data (Live/Extract), Joins, Unions, Blends*,G Measures and Dimensions, Filters, Parameters*, G Data Interpreter and cleaning workflows	**L:02**	**CO2**
Practical Component: Dashboard, Maps and Stories practical applications **,** Create various types of Charts for imported Datasets. Create social Media Dashboard, Super store Dashboard, Dashboard, showing Stock price Trends	**P:08**	
Module-3: Visual Analytics & Dashboarding in Tableau		
Charts: Bar, Line, Pie, Combo, Scatter, Tree Maps*, Aggregated vs Disaggregated views*,Maps, Parameters, and Calculated Fields*, Building Interactive Dashboards and Stories	**P:05**	**CO3**
Project Component: Build dashboards for social media insights, stock price trends, superstore sales, Create a story sequence showing business KPIs		
Module-4: Power BI – Visualization & Report Building		
Power BI Desktop Interface, Power Query Editor, Data Loading and Transformation, DAX Basics – Measures, Calculated Columns, Visualizations, Filters, Cards, Slicers, Report Pages	**P:08**	**CO4**

Project Component: ● Build dashboards for HR analytics, campaign ROI, and retail sales using Power BIE ● Explore real-time dashboards using Power BI Service		
Module-5: Integration & Capstone Project		
Connecting Tableau & Power BI to SQL Server, using custom SQL queries and data gateways, setting up scheduled refresh and publishing dashboards	**L:03**	**CO5**
Practical Component: SQL-connected dashboard with KPIs	**P:04**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Apply the fundamental concepts of data visualisation
CO2	Create visualisations using Tableau
CO3	Create Interactive dashboards using Tableau
CO4	Handle Power BI and create Interactive dashboards using Power BI
CO5	Deploy dashboards on Power BI by integrating with SQL

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBA32.1		2		2					
24MBA32.2		3		2				3	
24MBA32.3		3		3				3	
24MBA32.4		3		3				3	
24MBA32.5		3		3				2	
AVERAGE		3		3				3	

Text Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Data Visualization with Tableau and Power BI: Unleash the Power of Tableau and Power BI	Thompson Carter	Lincoln	1e, 2024
2	Mastering Tableau 2021	Meier, Marleen	Packt Publishing	2e, 2021
3	Microsoft Power BI	Alberto Ferrari and Marco Russo	Microsoft Press	1e, 2016

Reference Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year

1	Microsoft Power BI Complete Reference: Bring your data to life with the powerful features of Microsoft Power BI	Brett Powell, Brian Knight, Devin Knight, Manuel Quintana, Mitchell Pearson	Packt Publishing	1e, 2018
2	Microsoft Power BI Cookbook	Deckler Greg	Packt Publishing Limited	2e, 2017
3	Mastering Tableau 2023: Implement advanced business intelligence techniques, analytics, and machine learning models with Tableau	Marleen Meier, Christina Stathopoulos, David Sigerson	Packt Publishing Limited	4e, 2023

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Lab Test**	2 IA tests - Each of 50 Marks (Include both Theory and Practical components)	Average of 2 tests – scaled down to 25 Marks
	Lab Report	Lab Report/Lab Record assessed i.e 3 Continuous Evaluations of 5 marks each averaged to 5 marks	5
	Project	Mini Project Report	10
	Viva	Project Viva/Presentation	10
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	Lab Exam	Execution & Report Evaluation	50
	Viva	VIVA	50
SEA Total Marks			**50**
Total Marks for the course			**100**

B.N.M. Institute of Technology

An Autonomous Institution under VTU, Approved by AICTE

Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: III

Course: ORGANISATION STUDY

Course Code: 24MBAO39

L: T:P : J	**0:0:3:3**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To enable students to understand & evaluate the nature and functioning of the industry and company.
2. To train students to apply Mckinsey's 7S framework and Porter's Five Force Model to organisation under study.
3. To train students to analyze the financial performance of the organisation.
4. To enable them to evaluate the overall functioning of the organisation and offer relevant suggestions.
5. To facilitate students to prepare a report based on the study undertaken and explain the work through an oral presentation.

General Guidelines

- The organisation study, which is compulsory in nature, shall be for a period of 4 weeks, taken up immediately after the completion of 2nd semester-end assessments and before the commencement of the 3rdsemester classes.
- Organisation study shall be organization specific in nature and shall be undertaken at public or private limited companies.
- The student undertaking organization study shall do so under the supervision of two guides, an internal guide from the Institution and an external guide from the organization where the student is undertaking the study.
- No two students shall undertake organisation study in the same organization.
- The student shall log a minimum of 50 hours and a minimum period of 10 days in the organization.
- The work log duly signed by the internal and external guide to be included in the report.
- Internal assessment is done by the guide.
- Report evaluation shall be done by the internal guide and an external examiner separately and the marks awarded by the two Examiners shall be considered for the final evaluation marks.
- The viva–voce examination shall be conducted by a faculty member from the department and Industry expert jointly.

Case Study:

- The student shall prepare / develop a descriptive case study based on problems identified / practices followed in the organization and include the same in the final report
- The case study should be of 1500-2000 words.

- Case study format: Synopsis (100-150 words), Introduction to the case (200-250 words), Findings (500-650 words), Discussion (500-650 words), Conclusion (100-150 words), Recommendations (100-150 words), References, Appendices (if any).
- Case study evaluation is included in the viva-voce examination

Format of Report

Chapter 1- Industry profile

An overview and Background of the Industry, Size and growth rate of the industry (Contribution to GDP), Major players and market share, Regulatory environment and policies, Key challenges and opportunities, Technological trends impacting the industry, Future outlook of the industry.

Chapter 2- Organization Profile

Background of the Organisation, Nature of the business, Vision, Mission, and core values, Organizational structure, Product/service profile (Work flow model), Departments and functions, Ownership pattern (Key Management Personnel), Achievements/Awards, SWOC analysis and Future growth & prospects

Chapter 3- McKinsey's 7S framework and Porter's Five Force Model

McKinsey's 7S framework: Strategy, Structure, Systems, Shared Values, Style, Staff, Skills (With respect to Organisation)

Porter's Five Force Model: Industry Rivalry, Threat of New Entrants, Bargaining Power of Suppliers, Bargaining Power of Buyers, Threat of Substitutes (With respect to Industry)

Chapter 4- Analysis of financial statements

Key financial statements: Balance Sheet, Income Statement, Cash Flow Statement, Ratio analysis: Liquidity, profitability, solvency, and efficiency ratios, Trend analysis (2–3 years), Comparative analysis, Interpretation and conclusion based on financial analysis

Chapter 5- Case Study and Learning experience

Case study:

* The student shall prepare / develop a descriptive case study based on problems identified / practices followed in the organization and include the same in the final report

*The case study should be of 1500-2000 words.

*Case study format: Synopsis (100-150 words), Introduction to the case (200-250 words), Findings (500-650 words), Discussion (500-650 words), Conclusion (100-150 words), Recommendations (100-150 words), References, Appendices (if any).

*Case study evaluation is included in the viva-voce examination

Learning experience:

Learning from organizational practices and culture including skills and knowledge,

challenges faced during the project, Suggestions for improvement and Conclusion

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand & evaluate the nature and functioning of the Industry and company.
CO2	Apply Mckinsey's 7S framework and Porter's Five Force Model to organisation under study.
CO3	Analyze the financial performance of the organisation.
CO4	Evaluate the overall functioning of the organisation and offer relevant suggestions.
CO5	Submit a report based on the study undertaken and explain the work through an oral presentation

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAO39.1	3			3				3	
24MBAO39.2	3	3		3				3	
24MBAO39.3	3	3		3				3	
24MBAO39.4		3		3		3			3
24MBAO39.5	3					3			3
AVERAGE	3	3		3		3		3	3

Marks Distribution for Assessment and evaluation:

Evaluation: Organisation study carries 100 marks, the details of which are as shown below.

Rubrics for Organisation Study

SL No	Particulars	Marks Allotted	Component
1	Internal Assessment by Internal Guide	25	CIA
2	Report Evaluation by Internal Guide	25	
3	Report Evaluation by Internal Examiner	25	SEA(100 reduced to 50)
4	Report Evaluation by External Examiner	25	
5	Viva-Voce Examination (Joint Evaluation)	50	
	Total Marks	100	

A. Internal Assessment by the Guide

SL No	Aspects	Marks Allotted
1	First Presentation	5
2	Second Presentation	5
3	Case Writing and Analysis	5
4	Report Preparation	10
Total		**25**

B. Project Report Evaluation

SL No	Aspects	Marks Allotted
1	Industry profile and Organisation profile- Study of Functional Departments	5
2	Mc kinsey's 7S framework and Porter's Five Force Model	5
3	Analysis of financial statements and Learning experience	5
4	Introduction and findings	5
5	Discussion, Conclusion and recommendations	5
Total		**25**

C. Viva-Voce Examination (Joint evaluation by internal and external guide for 50 Marks)

	Aspects	Marks Allotted
1	Presentation skills	10
2	Communication skills	10
3	Subject knowledge (including case study)	10
4	Query handling	10
5	Overall Impression	10
Total		**50**

Work Log Format:

Day	*Date*	*Hours logged*	*Work Done/ Progress*	*Signature of External Guide*	*Signature of Internal Guide*
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
Total Hours					

IV Semester

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Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: IV

Course: PROJECT WORK

Course Code: 24MBAP45

L: T:P : J	**0:0:4:4**	**CIA**	**: 50**
Credits:	**08**	**SEA**	**: 50**
Hours:	**90**	**SEA Duration**	**: 03 Hours**

General Guidelines

- The project work which is compulsory in nature, shall be for a period of 8 weeks, taken up immediately after the completion of 4th semester classes.
- Project shall be organization specific project or freelance project (Based on problem identified by the student).
- Student undertaking organization specific project shall do so under the supervision of both internal guide from the Institution and an external guide from the organization where the student is undertaking the Project. In case of a freelance project, they shall work under the supervision of the internal guide from the Department.
- In case of organization specific project, no two students shall work on the same problem in the same organization.
- The research findings are expected to be presented and published in Conference organized by institution of repute or published in a peer reviewed Journal is compulsory.

All project reports shall go through the plagiarism check and the plagiarism index has to be <=10% (Plagiarized content up to 10% is allowed in the project work and report should consist 90% of original content/work).

Project Assessment Committee (PAC): For each student, department shall constitute a Project Assessment Committee. PAC comprises of internal guide and two senior faculty members of the department. The PAC shall meet from time to time to guide the student in the research process.

Evaluation: The evaluation of project work shall be based on the progress of the student in the work assigned by the project guide, periodically evaluated. Project work carries 100 marks as shown below.

- Internal assessment is done by project guide in consultation with members of PAC.
- External valuation shall be done by a faculty member from a reputed Institution / Industry with minimum of 10 years' experience.
- The viva –voce examination shall be conducted by the respective Senior faculty member and an expert drawn from a reputed Institution / Industry with minimum of 10 years' experience.

Format of Report

Chapter 1: Introduction

Introduction to the project, Industry profile and company profile – Business Canvas Model

Chapter 2: Conceptual background and Literature review

Theoretical background of the study, Literature review followed by research gap

Chapter 3: Research Design
Statement of the problem, Need for the study, Objectives, Scope of the study, Research methodology, Hypotheses, Limitations of the study, Chapter scheme.
Chapter 4: Analysis and Interpretation
Analysis and interpretation of the data collected with relevant tables and graphs.
Chapter 5:Findings, Conclusion and Suggestions
Summary of findings, Conclusion and Suggestions / Recommendations.

Rubrics for Project Work

Sl. No	Particulars	Marks Allotted	Total Marks
1	Internal Assessment by the Guide- Based on three Presentations, overall progress and publication by Students	50	CIA 50
2	Report Evaluation by Internal Examiner	25	SEA (Total 100 Marks reduced to 50)
3	Report Evaluation by External Examiner	25	
4	Viva-Voce Examination to be conducted by the Guide and an External examiner from the Industry / Institute (Joint Evaluation)	50	
Total			**100**

Rubrics for Project Work

A. Internal Assessment by the Guide

SL No	Aspects	Marks Allotted
1	First Presentation	10
2	Second Presentation	10
3	Third Presentation	10
4	Project report (25 marks reduced to 10)	10
5	Quality of publication	10
Total		**50**

B. Project Report Evaluation

SL No	Aspects	Marks Allotted
1	Introduction & Relevance of the project	5
2	Conceptual background,literature review and Research design	5
3	Analysis and interpretation	10
4	Summary of findings, suggestions and conclusion	5
Total		**25**

C. Viva-Voce Examination

SL No	Aspects	Marks Allotted
1	Presentation skills	10
2	Communication skills	10
3	Subject knowledge	15
4	Query handling	15
Total		**50**

Course Outcomes: At the end of the course the student will be able to:

CO1	Evaluate the nature and functioning of the Industry and Company.
CO2	Apply theoretical background of the study and review the relevant literature.
CO3	Design research to find appropriate solutions to the problem identified
CO4	Analyse and interpret the data collected
CO5	Critically evaluate the findings of the study and offer relevant suggestions.

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAP45.1	3			3				3	
24MBAP45.2	3	3		2				3	
24MBAP45.3		3				3	3		3
24MBAP45.4		3				3			3
24MBAP45.5		3	3	2		3		3	3
AVERAGE	3	3	3	3		3	3	3	3

FINANCE

III and IV Semester

III Semester

B.N.M. Institute of Technology

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Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: III

Course: DATA ANALYTICS IN FINANCE

Course Code: 24MBAF33

L: T:P : J	**2:0:2:0**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To familiarize students with the essentials of financial analytics and its application using excel.
2. To facilitate the application of descriptive statistics in analysis of financial data.
3. To enable the students to analyse the time series data by using forecasting techniques.
4. To train the students in financial predictive modelling using MS Excel.
5. To acquaint students to evaluate reports with the help of Power BI.

Contents	No. of hours	COs
Module-1: Essentials of Financial Analytics & Financial Functions in Excel		
Introduction to Business Analytics: Meaning, Business Analytics in Decision Making, PIVOT Tables, Excel Function - IFS Function, SWITCH Function, TEXTJOIN, OFFSET and XMATCH Function, Recap of Date functions in Excel, Financial Functions in Excel, Loan Scheduling in Excel, Data Modelling using Power Pivot, Data Transformation using Power Query, Application of VLOOKUP & HLOOKUP, IF functions using financial data.	**L:04**	**CO1**
Module-2: Statistical Concepts		
Descriptive Statistics for Finance, Probability Distribution, Inferential Statistics using Hypothesis Testing, Optimizing Stock Portfolio using Efficient Frontier method	**L:07**	**CO2**
Practical Component- Numerical problems on Descriptive statistics using Excel.	**P:01**	
Module-3: Time – Series Analysis		
Components of time series data - Trend Analysis, Seasonality and cyclical behaviour; Concept of Stationary process; Smoothing Methods- Moving Average, Weighted Moving Average, Prediction of business costing using Time series analysis - ARIMA, Time Series Optimization using Exponential Smoothing Method	**L:06**	**CO3**
Practical Component- Identify, collect and evaluate financial data from NSE/BSE/MCX or Company website.	**P:02**	
Self-Study: Basics of Econometrics using stock market data	**04**	
Module-4: Financial Predictive Modelling		
Introduction to Predictive analytics, Prediction of inventory management using Regression techniques, Prediction of loan default using classification models, Evaluation of Regression and Classification Models, Model Improvement Technique.	**L:08**	**CO4**
Module-5: Data Visualization and Reporting using Power BI		
KPI Designing – Internal vs External, Visualization of financial data using Power BI, preparing financial dashboard, Storytelling using Power Query, DAX Expressions.	**L:08**	**CO5**

Course Outcomes: At the end of the course the student will be able to:

CO1	Analyse essentials of financial analytics and its application using excel.
CO2	Apply descriptive statistics in analysis of financial data.
CO3	Analyse the time series data by using forecasting techniques.
CO4	Evaluate financial predictive modelling using MS Excel.
CO5	Evaluate reports with the help of Power BI.

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAF33.1				3				3	
24MBAF33.2	3	3		3				3	
24MBAF33.3	3	3		3		3		3	
24MBAF33.4	3	3		3		3		3	
24MBAF33.5	3	3		3		2		3	
AVERAGE	3	3		3		3		3	

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each- average of two	10 Marks
	Practical	Report on Data Analytics & Presentation	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	Lab based Theory Exam	The question paper will have Multiple Choice Questions along with subjective questions **Part A** is compulsory 1M X 30 Questions **Part B** is compulsory 2M X15 Questions **Part C** 10M X 4 Questions (Answer any two) 20 M X 2 Questions (Answer any one)	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

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Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: III

Course: INVESTMENT MANAGEMENT

Course Code: 24MBAF34

L: T:P : J	**2:0:2:0**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1.To familiarize students with nuances of capital market and various instruments for investment.
2. To enable students to evaluate and analyse the risk and return relationship of securities
3. To train students to understand the impact of macro-economic and industry variables on stock price.
4. To facilitate students in analysing equity and debt valuation techniques.
5. To enable students to evaluate the theories of portfolio management and to demonstrate the knowledge of managing portfolios.

Contents	No. of hours	COs
Module-1: Introduction to Investment		
Investment Avenues, Features of a good Investment, Investment Process. Financial Instruments, Securities Market: Primary Market, Secondary Market. Stock Market Indices-Types (only Theory).	**L:04**	**CO1**
Self-Study Alternative Investments and strategies including REITS, Block chain technology-Crypto currency.	**04**	
Module-2: Return and Risk Concepts		
Concept of return, individual security returns, concept of Risk, Calculation of Return and Risk of Individual Security and Portfolio (Theory & Problems).	**L:07**	**CO2**
Practical Component – Students should study the stock market pages from business press and calculate the risk and return of selected companies. Calculation of standard deviation, correlation and beta using MS Excel.	**P:01**	
Module-3: Fundamental and Technical Analysis		
Macro-Economic and Industry Analysis: Fundamental analysis- Economy Analysis, Industry Analysis, Company Analysis (EIC framework) **Technical Analysis** – Concept, Theories- Dow Theory, Eliot Wave theory. Charts-Types, Trends and Trend Reversal Patterns. Mathematical Indicators –Moving Average Convergence-Divergence, Relative Strength Index. **Market Efficiency:** Efficient Market Hypothesis, Forms of Market Efficiency. (Theory only).	**L:06**	**CO3**
Practical Component – Virtual on-line trading account can be opened for the student and they can invest, monitor and evaluate their investment decision. Industry and company analysis for specific sectors can be done using profitability and liquidity ratios.	**P:02**	

Module-4: Valuation of Securities		
Bond features, types & determinants of interest rates, Bond Valuation, Bond Duration, Bond Management Strategies (Theory & Simple Problems). Equity Shares- Concept, Valuation, Dividend Valuation Models, Discounted Cash Flow Model, Relative valuation model. (Only Theory)	**L:08**	**CO4**
Module-5: Modern Portfolio Theory & Portfolio Performance		
Markowitz Model- Diversification, Portfolio Return, Portfolio Risk, Efficient Frontier, Capital Asset Pricing Model: Assumptions, CAPM Equation, Capital Market Line, Security Market Line. Arbitrage Pricing Theory: Equation. **Mutual Funds-**functions, types, **Portfolio Management Strategies-**Objectives, Performance plans, Sharpe, Treynor and Jensen's measure (Theory & Problems).	**L:08**	**CO5**

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand the capital market and various instruments for investment.
CO2	Evaluate and analyse risk and return relationship of securities.
CO3	Understand the impact of macro-economic and industry variables on stock price.
CO4	Analyse the various techniques of equity, debt and mutual funds valuation.
CO5	Evaluate the theories of portfolio management and to demonstrate the knowledge of managing portfolios.

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAF34.1	3	3							3
24MBAF34.2		3					3	3	
24MBAF34.3	3	3		3				3	
24MBAF34.4	3	3		3				3	2
24MBAF34.5	3	3						3	
AVERAGE	3	3		3			3	3	3

Text Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Investment Analysis and Portfolio management	Prasanna Chandra	Tata McGraw Hill Education	6/e, 2021
2	Investments	Zvi Bodie, Kane, Marcus & Mohanty	Tata McGraw Hill Education	11/e, 2019
3	Security Analysis & Portfolio Management	J Kevin	Tata McGraw Hill Education	2/e, 2015

Reference Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Analysis of Investments & Management	Reilly & Brown	Cengage Publications,	10e/2017
2	Security Analysis & Portfolio Management	Punithavathy Pandian	Vikas Publications	2/e, 2018
3	Investment management (Security Analysis and & Portfolio Management)	Bhalla V.K.	Vikas Publications	19/e, 2018

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each- average of two	10 Marks
	Practical	Portfolio Construction & Presentation	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	The question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: 4 × 20 = 80 marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

B.N.M. Institute of Technology

An Autonomous Institution under VTU, Approved by AICTE

Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: III

Course: DIRECT TAXATION
Course Code: 24MBAF35

L: T:P : J	**2:0:2:0**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To provide students with an understanding of the direct taxation system and the process of determining residential status.
2. To enable students to analyze the tax provisions relating to Income from Salary and Income from House Property.
3. To train students to compute Income from Business and Profession in accordance with relevant provisions.
4. To equip students to compute Income from Capital Gains and Income from Other Sources.
5. To help students critically evaluate various deductions available under the Income Tax Act.

Contents	No. of hours	COs
Module -1 Introduction to Taxation		
Income Tax Act of 1961, Basic Concepts and definitions, Residential Status and Incidence of Tax, Incomes exempted under section 10, (Problems on residential Status of Individual Assessee).	**L:06**	**CO1**
Self-study: Tax planning, tax evasion and tax management and Residential status of Assessee other than individuals	**01**	
Module -2 Income from Salary and House property		
Introduction, Meaning of Salary, Allowances, Valuation & Taxability of Perquisites, Deductions against Salary (Problems on salary Income). Income from House Property (Theory only).	**L:08**	**CO2**
Practical Component: Students need to collect Form 16 and 26AS from a salaried employee, analyze their tax return, and suggest tax planning measures.	**P:02**	
Module -3 Income from Business and Profession		
Introduction to business and Profession income, Deductions/ allowance from business Income, Depreciation. (Problems on computation of income from business/ profession of Individual Assessee and Depreciation). Introduction to Corporate taxation with special reference to MAT.	**L:09**	**CO3**
Self-study: Set off and carry forward of losses.	**01**	
Module -4 Income from Capital Gain and Other sources		
Income under capital gain, basis of charge, inclusion & exclusion from capital asset. Income from Other Sources (Theory Only). (Problems on computation of Income from capital gain)	**L:05**	**CO4**
Module -5 Deductions and Total Income		
Permissible deductions under section 80C to 80U, computation of tax liability of Individuals. (Problems on Computation of taxable Income and tax liability of Individuals).	**L:05**	**CO5**

Self-study: Comparative analysis of old and new tax regime	**02**	
Practical Component- Online filing of tax return	**P:01**	

Course Outcomes: At the end of the course the student will be able to:

COs	Statement
CO1	Understand direct taxation system and process of determining residential status
CO2	Compute Income from salary and House property
CO3	Compute Income from business and profession.
CO4	Compute Income from capital gain
CO5	Critically evaluate various deductions under Income tax act and compute total income.

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO 1	PSO 2
24MBAF35.1	3			3				3	
24MBAF35.2	3	3		3				3	
24MBAF35.3	3	3		3				3	
24MBAF35.4		3		3				2	
24MBAF35.5	3	3		3		3			3
AVERAGE	3	3		3		3		3	3

Text Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Direct Taxes Law and practice	Vinod Singhania and Kapil Singhania	Taxman Publications	Latest Edition
2	Students Guide to Income Tax	Vinod Singhania and Kapil Singhania	Taxman Publications	Latest Edition

Reference Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Students Guide to Income Tax	T N Manoharan	Snow White	Latest Edition
2	Direct Tax	Lal & Vashisht	Pearson	Latest Edition

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each- average of two	10 Marks
	Practical	Collection of Form 16 of individual assesses and analyse the various sources of income and suggest the appropriate tax regime and presentation	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	The question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: 4 × 20 = 80 marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

B.N.M. Institute of Technology

An Autonomous Institution under VTU, Approved by AICTE

Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: III

Course: AI AND ML FOR FINANCIAL SERVICES

Course Code: 24MBAF36

L: T:P : J	**2:0:1:1**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1.To familiarize students with fundamentals of AI and ML and its role in financial services
2. To enable students to apply AI and ML in finance, trading and investment.
3. To train students to analyse risk and to detect fraud using AI and ML.
4. To facilitate students to apply AI in customer service and personalization in Finance.
5. To enable students to understand ethical and regulatory challenges in AI and ML for finance.

Contents	No. of hours	COs
Module-1: Introduction to AI and Machine Learning in Finance		
Fundamentals of AI and ML: Meaning and evolution of AI and ML, Key concepts: Supervised, unsupervised, and reinforcement learning, Role of AI and ML in data-driven decision-making in finance. Tools and Techniques for AI and ML in Finance: Overview of AI and ML tools: Python, R, TensorFlow, and scikit-learn, Data preprocessing techniques for financial data, Building and deploying AI models for financial applications	**L:06**	**CO1**
Self-study: Case Studies: India: HDFC Bank's AI-powered chatbot for customer service. International: JPMorgan's COiN program for contract review using AI.	**01**	
Practical Component: Implement a simple ML model using Python for financial data analysis.	**P:02**	
Module-2: AI and ML in Trading and Investment		
Algorithmic Trading and AI: Role of AI in algorithmic trading and high-frequency trading (HFT), Predictive modeling for stock price movements using ML algorithms, AI-powered trading bots and automated trading strategies **Portfolio Management and Robo-Advisors:** Machine learning models for portfolio optimization and risk analysis, AI-driven robo-advisors: Personalized investment strategies and asset allocation, The role of AI in asset pricing and forecasting	**L:06**	**CO2**
Self - study: • **India**: Zerodha's AI-powered trading tools for retail investors. • **International**: Goldman Sachs' use of AI for high-frequency trading. • **India:** Groww's use of AI for personalized investment advice. • **International**: Betterment's AI-powered robo-advisory platform	**01**	
Module-3: Risk Management and Fraud Detection Using AI and ML		
AI in Risk Management: Predictive analytics for credit risk assessment and loan default prediction, AI-driven models for market risk, operational risk, and liquidity risk, Stress testing and scenario analysis using machine learning algorithms. **Fraud Detection and Prevention Using ML:** How AI and ML detect patterns of fraud in real-time financial transactions, Use of AI in anti-money laundering (AML) and KYC processes, AI tools for identifying suspicious activities and preventing fraud in financial institutions.	**L:07**	**CO3**

Practical Component – • **Case Studies:** **India:** AI-based risk assessment in SBI's loan approval process. **International:** Moody's use of AI for credit risk analysis. • **Case Studies:** **India:** AI-based fraud detection systems in ICICI Bank. **International:** PayPal's use of AI for fraud prevention in global payments.	**P:02**	
Project Work: • Mini Project: Analyze a dataset of stock prices (CSV format). Create a data frame, perform cleaning, and categorize stock movements using factors using python • Optional Add-on: Create a reusable Python script that classifies companies into sectors using factor levels.		
Module-4: AI in Customer Service and Personalization in Finance		
AI in Financial Customer Service: AI-powered chatbots for customer engagement and support in banking and financial services, Natural language processing (NLP) applications in automated customer service, AI-driven personalization for enhancing customer experience in finance. **Personalization of Financial Products Using AI:** AI-driven personalized financial products: Customized loans, credit offers, and insurance, Behavioral analytics using AI to offer tailored financial solutions, AI tools for personalized financial planning and advisory services**.**	**L:06**	**CO4**
Self-study: • **Case Studies:** **India:** Axis Bank's use of AI-driven chatbots to handle customer queries. **International:** Bank of America's "Erica" virtual assistant powered by AI. • **Case Studies:** **India:** Bajaj Finserv's use of AI for personalized credit scoring. **International:** Citibank's AI-driven personalized credit card offers	**01**	
Module-5: Ethical and Regulatory Challenges in AI and ML for Finance		
Ethical Considerations in AI for Finance: Ethical concerns: Algorithmic bias, transparency, and accountability in AI systems, Data privacy issues in AI-driven financial services, Ethical frameworks for responsible AI use in the financial industry. **Regulatory Compliance for AI and ML in Finance:** Regulatory frameworks for AI and ML in finance: India's Personal Data Protection Bill, GDPR, and other global regulations, Compliance challenges: KYC/AML and regulatory technology (RegTech) in AI-driven financial systems, Ensuring fairness and transparency in AI models through regulatory oversight.	**L:06**	**CO5**
Self-Study: • **Case Studies:** **India:** Ethical dilemmas in AI-powered lending and credit scoring. **International:** Issues of bias in AI models used for mortgage approval in the U.S • **Case Studies**: **India**: RBI's guidelines for AI use in financial services. **International**: European Commission's AI regulations and their impact on financial institutions.	**02**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand the fundamentals of AI and ML and its role in financial services.
CO2	Apply AI and ML in finance, trading and investment.
CO3	Analyse risk and to detect fraud using AI and ML.
CO4	Apply AI in customer service and personalization in Finance.

CO5	Understand ethical and regulatory challenges in AI and ML for finance.

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAF36.1	3	3							3
24MBAF36.2	2	3		3				3	
24MBAF36.3		3						3	
24MBAF36.4	3			2					
24MBAF36.5				3				3	
AVERAGE	3	3		3				3	3

Text Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	The 4th Industrial Revolution: Responding to the Impact of Artificial Intelligence on Business.	Hovsepian, F., Skilton, M.	Germany: Springer International Publishing	1st Edition, 2017
2	Big Data Science in Finance	Aldridge, I., Avellaneda, M	United States: Wiley.	(2021).
3	Machine Learning for Asset Management:	New Developments and Financial Applications	United States: Wiley.	(2020).
4	Advances in Financial Machine Learning	Marcos López de Prado	Wiley	1st Edition, 2018
5	Artificial Intelligence in Finance	Yves Hilpisch	O'Reilly Media	1st Edition, 2020

Reference Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Machine Learning and Data Science Blueprints for Finance	Brad Lookabaugh, Sahil Puri, Hariom Tatsat	O'Reilly Media	1st Edition, 2020
2	Advances in Distributed Computing and Machine Learning	Li, Sarkar, Sahoo, Tripathy, Chinara (eds.)	Springer Singapore	1st Edition, 2020
3	Machine Learning for Asset Management	Emmanuel Jurczenko (ed.)	Wiley	1st Edition, 2020
4	Machine Learning for Factor Investing: R Version	Thierry Guida & Guillaume Coqueret	CRC Press	1st Edition, 2020

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each- average of two	10 Marks
	Practical	Analyze a dataset of stock prices using ML and Python and presentation	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	The question paper shall be divided into two parts: Part A and Part B. **Part A** contains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: 4 × 20 = 80 marks. **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totaling to 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

B.N.M. Institute of Technology

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Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: III

Course: INDIRECT TAXATION
Course Code: 24MBAF37

L: T:P : J	**2:2:0:0**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To provide students an understanding of GST system in India with special emphasis on Levy and collection.
2. To familiarize students with Time, Value and Place of Supply concepts for GST levy.
3. To enable students to comprehend the Input tax credit and registration process relating to GST.
4. To provide students an understanding of customs duty valuation methods.
5. To train students to understand Import and export procedure.

Contents	No. of hours	COs
Module-1: Introduction to GST		
Indirect Taxes in India – An Overview, Pre GST-Tax Structure and Deficiencies, Introduction to GST**,** GST Tax Act, Dual GST Model - GSTN, GST Council, Exemption from GST, (Theory Only)	**L:04**	**CO1**
Self-Study: Rate of GST applicable on important goods and services.	**01**	
Module-2: Supply, Levy and collection		
Scope of Supply, Composite and Mixed Supply**,** Time of Supply, Place of Supply and Value of Supply. (Problems on Time, Value and place of supply).	**L:09**	**CO2**
Self - Study: classification of Goods and services under GST	**01**	
Module-3: ITC and registration process		
Introduction and Eligibility to avail Input Tax Credit (ITC). Introduction to Reverse charge mechanism and Composition Levy scheme. (Problems on ITC and CLS)	**L:06**	**CO3**
Self-Study: Registration under GST	**01**	
Practical Component: Online Filing of GSTR1, GSTR2 and GSTR3	**P:01**	
Module-4: Customs duty		
Introduction to Customs Duty. Definitions, Types of Duties and Exemptions. Valuation under customs: Valuation of Imported Goods and Valuation of Exported Goods) Concept of Baggage. (Problems on Customs duty calculation and Baggage)	**L:10**	**CO4**
Module-5: Import and Export Procedure		
Documents related to Import & Exports, Import procedure & Export procedure(Theory).	**L:05**	**CO5**
Self-Study: Penalty/Late Fee under customs, classification of Goods under Customs	**02**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand GST system in India.
CO2	Analyze Supply, levy and collection under GST
CO3	Comprehend the Input tax credit and registration process relating to GST

CO4	Apply customs duty valuation methods.
CO5	Understand Import and export procedure

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAF37.1	3			3		3		3	
24MBAF37.2	3	3		3					
24MBAF37.3		3		3					3
24MBAF37.4	3	3		3				3	
24MBAF37.5	3			3				2	
AVERAGE	3	3		3		3		3	3

Text Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Indirect Taxes Law and practices	V S Datey	Taxman Publications	Latest Edition
2	GST & Customs Law (University Edition)	K.M Bansal	Taxman Publications	Latest Edition

Reference Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Principles of GST & Customs Law	V.S. Datey and Dr. Krishnan Sachdeva	Taxman Publications	Latest Edition
2	Indirect Taxation	Raj K Agrawal &Shivangi Agrawal	Bharat Law House Pvt. Ltd	Latest Edition

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each- average of two	10 Marks
	AAT	MOOCs on GST & Presentation	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	The question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total	100 Reduced to 50

		equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: 4 × 20 = 80 marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.	
SEA Total Marks			**50**
Total Marks for the course			**100**

IV Semester

B.N.M. Institute of Technology

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Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: IV

Course: BANKING AND FINANCIAL SERVICES
Course Code: 24MBAF41

L: T:P : J	**2:0:1:1**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To provide students with an understanding of the structure of Indian financial system and the role of the Reserve Bank of India (RBI).
2. To acquaint students with performance of Banks and components of ALM
3. To provide students an understanding of recent trends and digitalization in banking
4. To enable students to comprehend merchant banking, NBFCs, and evaluate leasing and hire purchase
5. To facilitate students in analyzing the role of credit rating, securitization and venture capital in financial system

Contents	No. of hours	COs
Module -1 Overview of Indian Financial System		
Indian Financial System: introduction and structure. Banking System: Reserve Bank of India – Role and Quantitative and Qualitative Measures of Credit Control. Types of Banks. Commercial Bank – characteristics and functions.	**L:06**	**CO1**
Self - study: RBI's measures on financial inclusion	**01**	
Module -2 Performance of Banks		
Credit Risk in Banking system, management of Non-Performing Assets (NPAs), DuPont model for evaluating bank performance. Basel III norms. Asset Liability Management (ALM) in banks- objectives and significance of Asset Liability management.	**L:06**	**CO2**
Practical Component – Preparation of Altman's Z Score for Public Sector Banks	**P:02**	
Project Work: Students will submit a report on the analysis of banks by using either the CAMELs, EAGLEs or DuPont Model		
Module -3 Digital Banking		
Neo banking, Payment banking, EFT Systems, Core banking solutions, Digital lending platforms, Account Aggregator, Robo-advisors and Role of Fintech in Banking. Merits and Demerits of digital banking	**L:05**	**CO3**
Practical Component –Visit a bank's website and understand different types of transactions that can be done online	**P: 01**	
Module -4 Merchant Banking and NBFCs		
Merchant Banking: Services offered, Issue management – Pre and Post issue management, Book Building Vs. Fixed price issues. (Theory) **Leasing and Hire Purchase-** Concept, Types, Evaluation (Problems on financial evaluation of leasing) **NBFCs:** An Overview -Types of NBFCs in India. Micro-finance, Mutual Benefit Financial Companies (MBFC)	**L:08**	**CO4**

Practical Component: Analyze a real company's lease vs. buy decision using available financial data. Compute the Net Advantage to Leasing (NAL) and justify the decision based on cost-benefit analysis	**P:01**	
Self – study: study recent IPOs in Indian perspective	**01**	
Module -5 Financial services		
Financial Services: features and Types - Fund Based and Fee Based Financial Services Credit Rating: Meaning, Process, Methodology, Agencies and Symbol Venture Capital: Concept, features, Process, Stages. Securitization of Debt: Meaning, feature, special purpose vehicle, process, Types, Benefits.	**L:07**	**CO5**
Self-study: SEBI's regulations for credit rating agencies (CRAs) and compliance requirements**.**	**02**	

Course Outcomes: At the end of the course the student will be able to:

COs	Statement
CO1	Understand the structure of the Indian financial system and explain the regulatory role of the RBI.
CO2	Evaluate the performance of banks and analyse the components and significance of Asset Liability Management (ALM).
CO3	Examine recent trends and innovations in banking and assess the impact of digitalization.
CO4	Analyze the functions of merchant banking and NBFCs, and evaluate the financial viability of leasing and hire purchase.
CO5	Interpret the role of credit rating, securitization, and venture capital in the financial system.

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAF41.1	3			3				3	
24MBAF41.2	3	3		2				3	
24MBAF41.3	3			2				3	
24MBAF41.4	3	3		3				3	
24MBAF41.5	3			3			3	3	
AVERAGE	3	3		3			3	3	

Text Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Principles and practices of Banking	IIBF	Macmillan, New Delhi.	5/e 2021
2	Banking Theory: Law & Practice	Dr. S Guruswamy	Vijay Nicole Imprints	4/e 2022
3	Financial services	Khan M Y	McGraw Hill.	7/e, 2023
4	Banking and Financial Services	Mukund Sharma	Himalaya Publishing House	1/e, 2015

Reference Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Banking Theory, Law and practice	Sundaram and Varshney	Sultan Chand & Sons, New Delhi.	20/e 2019
2	Financial Markets and Services	Gordon & Natarajan	Himalaya publishing	7/e, 2020

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each- average of two	10 Marks
	Project	Project Report Evaluation on CAMELS, EAGLES and DuPont Analysis & Project Viva	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	The question paper shall be divided into two parts: Part A and Part B. **Part A** contains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: $4 \times 20 = 80$ marks. **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totaling to 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

B.N.M. Institute of Technology

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Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: IV

Course: RISK MANAGEMENT AND DERIVATIVES

Course Code: 24MBAF42

L: T:P : J	**2:0:2:0**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1.To familiarize students with nuances of risk management.
2. To enable students to evaluate various types of financial derivatives.
3. To train students to apply the concepts of futures and forwards.
4. To facilitate students to analyse option contracts.
5. To enable students to evaluate the financial swaps.

Contents	No. of hours	COs
Module-1: Risk Management		
Types of Risks, Sources of Risk, Risk Identification and evaluation, Risk Assessment and Management and Control.	**L:04**	**CO1**
Self-Study: Risk Assessment of Self and Family and Methods to handle them	**01**	
Module-2: Financial Derivatives		
Meaning, features of financial derivatives; Types of Derivatives; Participants, Functions of derivatives market; Factors causing growth of derivatives & Derivatives market in India. (Theory)	**L:06**	**CO2**
Self - Study: Analyse the derivative products available on NSE/BSE	**02**	
Module-3: Futures and Forwards		
Meaning, features, and types of futures/forwards - Commodity, Stock and Index); Mechanics of buying and selling futures/forwards; Arbitrage Process; Valuation of futures/forwards, Stock and Index Futures; Hedging using stock index futures contacts (Numerical problems on MTM, Futures/ forwards Pricing, Hedging through Futures).	**L:08**	**CO3**
Practical Component: Study of margin requirement of equity futures traded on NSE/BSE	**02**	
Module-4: Option Contracts		
Options Contract: meaning, characteristics and types, Option positions; Option Trading Strategies- Spreads, Combinations **Valuation of options**: Factors affecting Option prices, put call parity, Option valuation Models-Binomial model, the Black and Scholes Model. (Numerical problems Time value and Intrinsic Value, Option Valuation)	**L:10**	**CO4**
Practical Component: Study on option premium charged on NSE/BSE	**02**	
Module-5: Financial Swaps		
Financial swaps: meaning, features, types and advantages; Mechanics of interest rate swaps (Numerical problems on Interest rate swaps).	**L:03**	**CO5**
Self-Study: Credit Risk and Credit Derivatives	**02**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand the concepts of risk management.
CO2	Evaluate various types of financial derivatives.
CO3	Apply the concepts of futures and forwards.
CO4	Analyse option contracts.
CO5	Evaluate the financial swaps.

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAF42.1	3						3	3	
24MBAF42.2	3	3							
24MBAF42.3	3	3							
24MBAF42.4	2	3							
24MBAF42.5	3	3		3					
AVERAGE	3	3		3			3	3	

Text Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Options, Futures & Other Derivatives	John C. Hull Sankarshan Basu	Pearson Education	9/e, 2016
2	Financial Derivatives-Text and Cases	Prakash Yaragol	Vikas Publishing House Pvt. Ltd.	1/e, 2019

Reference Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Options & Futures	Vohra & Bagri	TMH	2/e, 2017
2	Derivatives-Principles and Practice	Sundaram & Das	McGraw Hill	Latest
3	Derivatives and Risk Management	Rajiv Srivastava	Oxford University	2010

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each- average of two	10 Marks
	Practical	Collect MTM of selected companies and analyse its impact on reduction of default risk and presentation	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	The question paper shall be divided into two parts: Part A and Part B. **Part A** contains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: $4 \times 20 = 80$ marks. **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling to 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

B.N.M. Institute of Technology

An Autonomous Institution under VTU, Approved by AICTE

Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: IV

Course: INTERNATIONAL FINANCIAL MANAGEMENT

Course Code: 24MBAF43

L: T:P : J	**2:0:2:0**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To provide students with an understanding of the Indian Financial Environment.
2. To acquaint students with functions and transactions of Foreign Exchange Market.
3. To provide students an understanding of exchange rate determination.
4. To enable students to comprehend transactional exposure and multinational capital budgeting.
5. To facilitate students to analyze the various instruments of international financial markets.

Contents	No. of hours	COs
Module-1: International Financial Environment		
Globalization and the Multinational Firm: Importance of International Finance, Goals of International Financial Management, International Business methods. Balance of Payments (BoP). The Current Account Deficit and Surplus, Capital Account Convertibility and official reserve accounts. International Monetary System: Evolution, Gold Standard, Bretton Woods system, the flexible exchange rate regime, the current exchange rate arrangements.	**L:04**	**CO1**
Practical Component – Assessment of BOP of various countries.	**P:02**	
Module-2: Foreign Exchange Market		
Foreign Exchange Market: Origin of the concept of foreign exchange, Function and Structure, participants, Types of transactions and Settlements Dates, Exchange rate quotations, Arbitrage in foreign exchange market. Foreign exchange Derivative instruments. (Theory & Problems)	**L:07**	**CO2**
Practical Component – Study of historical exchange rate movement.	**P:01**	
Module -3 Exchange rate Determination		
Factors influencing exchange rates, interest rate parity, purchasing power parity and the International Fisher effect. Forecasting Foreign Exchange rate, measuring exchange rate movements, Exchange rate equilibrium, Concept of International Arbitrage, (Theory & Problems)	**L:07**	**CO3**
Self-Study: Types of Arbitrage – Locational, Triangular and Covered Interest Arbitrage.	**02**	
Module -4 Foreign exchange Exposure Management		
Types of exposure, Management of Transaction exposure, Translation exposure and Economic exposure. Multinational Capital Budgeting (Problems on Translation exposure and Multinational capital budgeting)	**L:07**	**CO4**
Practical Component – Analysis of Foreign exchange exposure reporting through annual reports of listed companies.	**P:02**	
Module-5: International Financing		
International Financial Markets and Instruments: - Foreign Direct Investment	**L:06**	**CO5**

and Portfolio Investment. International Bond & Equity market. GDR, ADR, International Financial Instruments: Foreign Bonds & Eurobonds, Global Bonds. Floating rate Notes, Zero coupon Bonds, International Money Markets,		
Self-Study: International Banking services –Correspondent Bank, Representative offices, Foreign Branches.(Theory)	**02**	

Course Outcomes: At the end of the course the student will be able to:

COs	Statement
CO1	Understand the Indian Financial Environment
CO2	Evaluate the functions and transactions of Foreign Exchange Market.
CO3	Understand the determination of exchange rate.
CO4	Comprehend transactional exposure and multinational capital budgeting.
CO5	Analyse the various instruments of international financial markets.

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAF43.1	3			3				3	
24MBAF43.2	2	3		3					
24MBAF43.3	3	3						3	
24MBAF43.4	3	3		3					
24MBAF43.5	3	2		3				3	
AVERAGE	3	3		3				3	

Text Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	International Financial Management	Madhu VIJ	Excel Books	Sep, 2010
2	International Financial Management	P G Apte, Sanjeevan Kapse	Mc Graw Hill	8th Edition, 2020

Reference Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	International Financial Management	Jeff Madura	South Western College Publishing	12th Edition, 2013
2	International Financial Management	H R Machiraju	Himalaya Publishing House	4th Edition

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each- average of two	10 Marks
	Practical	2 Practical Assignments and presentation	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	The question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: 4 × 20 = 80 marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

BUSINESS ANALYTICS

III and IV Semester

III Semester

B.N.M. Institute of Technology

An Autonomous Institution under VTU, Approved by AICTE

Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: III

Course: PRINCIPLES OF BUSINESS ANALYTICS

Course Code: 24MBAB33

L: T:P : J	**2:0:2:0**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To familiarize students with the meaning and importance of Business Analytics and Data Science.
2. To help students identify key concepts in data management and the data science project life cycle.
3. To train students to understand the basic concepts of data mining.
4. To assist students in understanding the relationship between data analytics and machine learning.
5. To help students recognize the applications of business analytics across various industries.

Contents	No. of hours	COs
Module-1:Introduction to Business Analytics		
Introduction, Historical Overview, Data Scientist vs. Data Engineer vs. Business Analyst, Career in Business Analytics, what is data science, Why Data Science, Applications for data science, Data Scientists Roles and Responsibility	**L:05**	**CO1**
Practical Component: Import and explore a simple business dataset (e.g., sales, HR, or marketing) using Excel.	**P:01**	
Module-2:Data Collection and Management		
Data: Data Collection and Management, Big Data Management, Organization/sources of data, Importance of data quality, Dealing with missing or incomplete data, Data Visualization and Classification	**L:04**	**CO2**
Practical Component: Evaluate a messy dataset for accuracy, completeness, consistency, and validity. Document findings	**P:03**	
Module-3:Data Science and its Future		
Data Science Project Life Cycle: Business Requirement, Data Acquisition, Data Preparation, Hypothesis and Modeling, Evaluation and Interpretation, Deployment, Operations, Optimization. Future Scope of Data Science, Impact of Deep Learning, AR and VR on Data Science	**L:05**	**CO3**
Self-Study: Global trends in Data Science.	**01**	
Practical Component: Translate a business question into a data science problem with clear goals ,Collect tweets, weather data, or financial data	**P:03**	
Module-4: Basics of Machine learning		
History and Evolution, AI Evolution, Statistics Vs Data Mining Vs, Data Analytics Vs, Data Science, Supervised Learning, Unsupervised Learning, Reinforcement Learning, Frameworks for building Machine Learning Systems.	**L:05**	**CO4**
Self-Study: Understand the working of AR and VR	**01**	

Practical Component: Analyze how AI evolved in one sector (e.g., retail, banking, healthcare). USE AutoML (RapidMiner, KNIME, Google Cloud AutoML) to build and evaluate a model without code.	**P:03**	
Module-5:Application of Business Analytics		
Application of Business Analysis: Retail Analytics, Marketing Analytics, Financial Analytics, Healthcare Analytics, Supply Chain Analytics, HR Analytics	**L:05**	**CO5**
Self-Study: List various metrics used in various domains such as marketing, healthcare, HR etc	**02**	
Practical Component: Using publicly available datasets (Kaggle, government data portals, open-source projects) analyze the situation of the organization in chosen functional area	**P:02**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand the meaning and importance of Business analytics and data science.
CO2	Analyze business data using statistical and analytical tools.
CO3	Explain the core concepts, evolution, and interdisciplinary nature of data science
CO4	Apply basic machine learning algorithms to structured data.
CO5	Apply descriptive, predictive, and prescriptive analytics techniques to solve real-world business problems.

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAB33.1	3	3						3	
24MBAB33.2		3				2		3	
24MBAB33.3	2	3						2	
24MBAB33.4	3	3				3		2	
24MBAB33.5		3				3		3	
AVERAGE	3	3				3		3	

Text Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1.	Essentials of Business Analytics: An Introduction to the methodology and its application	Bhimasankaram, Pochiraju, Sridhar Seshadri	Springer	1E, 2019

Reference Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1.	An Introduction to Business Analytics	Ger Koole	Lulu Press	1E, 2019

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each-average of two	10 Marks
	Practical	Demonstration Video using ML and Evolution of AI using AI tools.	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	The question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: 4 × 20 = 80 marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

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Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: III

Course: TECH TOOLS FOR MANAGERS

Course Code: 24MBAB34

L: T:P : J	**1:0:2:2**	**CIA**	**: 50**
Credits:	**3**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To enable students to understand the role of analytics managers in driving data-driven decision-making within organizations.
2. To facilitate students to recognize the importance of technical proficiency in SQL and Python for effective analytics leadership.
3. To help students gain proficiency in writing complex SQL queries involving multiple tables, subqueries, and joins.
4. To Develop skills to perform exploratory data analysis using Python libraries.
5. To acquaint students in creating visualizations using Matplotlib or Seaborn to communicate insights effectively

Contents	No. of hours	COs
Module-1:Foundations of Data Management and Analytics Technologies		
Importance of Data: Understanding how data drives decision-making in business contexts. Analytics Technologies Overview: Exploring the role of analytics technologies in extracting insights from data for strategic advantage. Data Storage and Types: Introducing different data storage methods (databases, data warehouses) and types (structured, unstructured, semi-structured). Highlighting the significance of data quality and integrity.	**L:06**	**CO1**
Self-Study : Learn how to extract data from different sources, Read the important content and clean data	**02**	
Module-2:SQL Fundamentals and Data Retrieval		
Relational Databases Basics: Explaining the concept of relational databases, tables, rows, and columns. SQL Syntax: Covering the basic structure of SQL statements, including SELECT, FROM, WHERE, and ORDER BY. Data Retrieval: Writing SQL queries to retrieve specific data from a single table. JOINS and Multi-table Queries: Understanding how to combine data from multiple tables using different types of JOINS (INNER, LEFT, RIGHT, FULL)	**P:08**	**CO2**
Module-3:Advanced SQL and Data Manipulation		
Aggregation and Grouping: Learning how to perform aggregate functions (SUM, AVG, COUNT) and group data using GROUP BY. Sub queries: Exploring sub queries to break down complex problems into manageable parts and create more dynamic queries. Data Modification: Introducing data modification statements (INSERT, UPDATE, DELETE) to manipulate data within databases	**L:06**	**CO3**

Practical Component: Learn How to handle SQL queries for real data and write queries for different operations	**P:04**	
Module-4: Python Basics for Data Analysis		
Introduction to Python: Familiarizing students with Python as a programming language and its relevance in data analysis. Python Environment Setup: Setting up Python environments using integrated development environments (IDEs) and Jupyter Notebooks. Python Data Structures: Covering essential data structures such as lists, dictionaries, and tuples to store and manipulate data.	**L:02**	**CO4**
Practical Component: Reading and Writing Data: Using Python to read data from various sources (CSV, Excel) and write data to files	**P:02**	
Module-5:Data Manipulation and Visualization with Python		
Data Manipulation with Libraries: Utilizing libraries like NumPy and Pandas to perform data cleaning, transformation, and merging. Data Visualization Introduction: Introducing data visualization principles and its role in conveying insights effectively. Visualization Libraries: Exploring data visualization libraries such as Matplotlib and Seaborn to create various types of plots and charts.	**P:06**	**CO5**
Self-Study: Communicating Insights: Demonstrating how to use visualizations to effectively communicate complex insights to non-technical stakeholders	**04**	
Project Work: Students will submit a report on the analysis of data and its dashboard creation		

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand the role of analytics managers in driving data- driven decision-making within organizations
CO2	Recognize the importance of technical proficiency in SQL and Python for effective analytics leadership
CO3	Gain proficiency in writing complex SQL queries involving multiple tables, subqueries, and joins
CO4	Develop skills to perform exploratory data analysis using Python libraries
CO5	Create visualizations using Matplotlib or Seaborn to communicate insights effectively

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAB34.1	3	2						3	
24MBAB34.2		2				3			
24MBAB34.3		3				2			
24MBAB34.4		3				2		2	
24MBAB34.5		3				3			
AVERAGE	3	3				3		3	

Text Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year

1.	SQL for Dummies	Allen G. Taylor	John Wiley & Sons	3E, 2018
2.	Learning SQL: Generate, Manipulate, and Retrieve Data	Alan Beaulieu	O'Reilly Media	3E
3.	Think Python: How to Think Like a Computer Scientist	Allen B. Downey	O'Reilly Media	2E

Reference Books

Sl. No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1.	SQL Performance Explained	Markus Winand	Markus Winand (2012)	2012
2,	Learning Python	Mark Lutz Edition	O'Reilly Media	5E

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each- average of two	10 Marks
	Project	Mini Project on Data Analysis using SQL and Python Project Report Evaluation- 10 marks & Project Viva- 5 marks	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	Lab based Theory Exam	The question paper will have Multiple Choice Questions along with subjective questions **Part A** is compulsory 1M X 30 Questions **Part B** is compulsory 2M X15 Questions **Part C** 10M X 4 Questions (Answer any two) 20 M X 2 Questions (Answer any one)	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

B.N.M. Institute of Technology

An Autonomous Institution under VTU, Approved by AICTE

Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: III

Course: DATA VISUALIZATION

Course Code: 24MBAB35

L: T:P : J	**1:0:2:2**	**CIA**	**: 50**
Credits:	**3**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To communicate the concepts of data visualization effectively to students.
2. To organize and compare the principles of data visualization to enhance understanding.
3. To discuss and reorganize the process of de-cluttering in data visualization for better clarity.
4. To familiarize the students to Identify pre attentive visual features (e.g., color, shape, orientation, motion) and how they drive rapid perception.
5. To express the application of data visualization in presenting information and creating interactive graphics.

Contents	No. of hours	COs
Module-1:Introduction		
Introduction to data visualizations – The importance of context Exploratory vs. explanatory – analysis – Illustrate: Who, What & How – Storyboarding	**L:06**	**CO1**
Self-Study: Importance , Advantages and disadvantages	**01**	
Module-2:Basic Principles of Visualization		
Visually encoding data – Choosing graphic Forms – A Grain of Salt – Organizing the Display – Exploring Data with Simple Charts – Visualizing Distributions – Seeing Relationships – Mapping Data. Analysis Approach: Deriving New Columns, Analysis Approach: Summarizing Rows, Pyramid Principle, Logical Flows and Usage of Words, Importance of Visualization, Visual Design Principles and Storyboarding	**L:06**	**CO2**
Self-Study: Visualization of Qualitative Variables, Five Patterns of Insights	**01**	
Practical Component: Hands-on practice selecting appropriate chart types, Explore data distributions and variable relationships visually, Explore tactile storytelling via data physicalization	**P:02**	
Module-3:Eliminating the Clutter		
Clutter – Gestalt principles of visual perception – Lack of visual order – Non-strategic use of contrast – De-cluttering: Step-by-step.	**L:05**	**CO3**
Practical Component: Identify and apply core Gestalt laws to make visuals more coherent, Strip, order, then rebuild visuals methodically, Use contrast to direct attention and reduce visual noise.	**P:03**	
Module-4:Cognition		
The EYE and the Visual brain – Visualizing for the mind – Images in the Head – Creating Information Graphics – Interactive Graphics.	**L:05**	**CO4**
Practical Component: Create simple charts (e.g., scatter, bar), then adjust attributes (color, size, orientation) to optimize pre-attentive detection .	**P:02**	
Module-5:Data Representation, Business Problem Solving, Insights and		

Storytelling		
Data Visualization through Tableau Purpose of data visualization, Installing Tableau-Bar, Line Area, Box, Hierarchy, Pie, Grouping and tree maps, Dashboards, Joints and Splits, Histogram, Scatter plots, Dual Axis,, Top N Parameters and calculated fields, Stacked Bar chart, Dashboards-II	**P:07**	
Self-Study: guiding principles of Visualization - Good & Bad representation	**02**	**CO5**
Project Component: Gather a sample survey data and use appropriate data visualization tools for representation.		

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand the concepts of data visualization
CO2	Apply basic principles to create visualizations.
CO3	Analyze and clear the clutter to create clear visualizations.
CO4	Analyze the various visual features that affects the perception
CO5	Apply the visualization techniques to present the information and story telling

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAB35.1	3	2						3	
24MBAB35.2	2							2	
24MBAB35.3	3	3						2	
24MBAB35.4						2		3	
24MBAB35.5		3				3		3	
AVERAGE	3	3				3		3	

Text Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Data Visualization: A Practical Introduction	Kieran Healy	PUP, New Jersey	1E, 2019
2	The Truthful Art: Data, Charts, and Maps for Communication	Alberto Cairo	New Riders	1E
3	Story Telling with Data: A Data visualization Guide for Business Professionals	Cole Nussbaumer Knaflic	Wiley, New Jersey	1E,2015

Reference Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Show Me the Numbers	Stephen Few	Analytics Press	2E, 2012

2	Good Charts: the HBR Guide to Making Smarter, more persuasive Data Visualization	Scott Berinato	HBR.	1E,2016

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each-average of two	10 Marks
	Practical	Two Practical Assignments	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	The question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: 4 × 20 = 80 marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

An Autonomous Institution under VTU, Approved by AICTE

Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: III

Course: DIGITAL TRANSFORMATION AND BLOCKCHAIN

Course Code: 24MBAB36

L: T:P : J	**2:2:0:0**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To communicate the concepts of digital transformation and analyze its impact on businesses and industries.
2. To orient students, apply digital transformation strategies to create new business models and products.
3. To train students develop skills to lead and facilitate digital transformation initiatives effectively.
4. To organize and compare the history, types, and applications of Blockchain technology.
5. To explain the operations and architecture of Blockchain, and reconstruct its key components.

Contents	No. of hours	COs
Module-1:Introduction to Digital Transformation		
Meaning and importance, Drivers of digital transformation, Impact of digital transformation on businesses and industries, Challenges of digital transformation **Business Models and Digital Transformation:** Influence of digital transformation on business models, designing new business models for the digital age	**L:06**	**CO1**
Practical Component: Case studies of successful digital transformations	**P:02**	
Module-2: Technology and Digital Transformation		
The role of technology in digital transformation, – AI and ML, Augmented, Virtual and Mixed Reality and others. Choosing the right technologies for digital transformation	**L:05**	**CO2**
Self-Study: Emerging technologies that are driving digital transformation	**03**	
Module-3: Managing a digital transformation		
Leading and managing a digital transformation, role of the CEO and other decision makers in digital transformation, role of the business units in digital transformation, handling employee resistance during transformation.	**L:03**	**CO3**
Module-4: Introduction to blockchain technology		
Distributed Ledger, Blockchain Categories – Public, Private, Consortium, Blockchain Network and Nodes, Peer-to-Peer Network, Mining Mechanism, Generic elements of Blockchain, and Types of Blockchain.	**L:05**	**CO4**
Practical Component: Create a Public Ledger vs. Private Ledger with the various attributes like Access, Network Actors, Native token, Security, Speed and examples.	**P:03**	
Self-Study: History, Definition, Features of Blockchain	**01**	
Module -5: Blockchain architecture and operation		
Operation of Bitcoin Blockchain, Blockchain Architecture – Block, Hash, Distributer P2P, Structure of Blockchain- Consensus mechanism: Proof of Work (PoW), Proof of Stake(PoS), Byzantine Fault Tolerance(BFT), Proof of Authority (PoA) and Proof of Elapsed Time (PoET). The Ethereum Enterprise Alliance- Block chainas-a-Service- Initial Coin Offering (ICO): Project setup for ICO implementation- Token contracts- Token sale contracts-	**L:10**	**CO5**

Contract security and testing the code.		
Self-Study: Public versus private and permissioned versus permission less blockchains	**02**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand the concepts of digital transformation and analyze the impact of digital transformation on businesses and industries
CO2	Apply digital transformation to create new business models and products
CO3	Apply the skills developed in leading and managing digital transformation
CO4	Understand the history, types and analyze the applications of Blockchain
CO5	Understand the operations and architecture of Blockchain

Mapping of COs with POs & PSOs:

Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAB36.1	3	3		3				3	
24MBAB36.2		2		2				2	
24MBAB36.3		2		3				3	
24MBAB36.4		3		3				2	
24MBAB36.5		3		2				3	
AVERAGE	3	3		3				3	

Text Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Mastering Blockchain: Distributed Ledger Technology, decentralization, and smart contracts explained	Imran Bashir	Packt Publishing Ltd	2/e 2018
2	Blockchain By Example: A developer's guide to creating decentralized, applications using Bitcoin, Ethereum, and Hyperledger	Bellaj Badr, Richard Horrocks, Xun (Brian) Wu	Packt Publishing Limited	2018
3	Leading Digital: Turning Technology into Business Transformation	George Westerman, Didier Bonnet, and Andrew McAfee	Harvard Business Review Press	2018

Reference Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Mastering Bitcoin: Unlocking Digital Cryptocurrencies	Andreas M. Antonopoulos	O'Reilly Media Inc	2015
2	Bitcoin and Cryptocurrency Technologies: A	Arvind Narayanan, Joseph Bonneau, Edward Felten,	Princeton University Press	2016

	Comprehensive Introduction	Andrew Miller and Steven Goldfeder		

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each- average of two	10 Marks
	AAT	Oral /Online Quizzes and Presentations	10 + 5 Marks
CIA Total Marks			**51**
SEA	**Component**	**Description**	**Marks**
50	Theory Exam	The question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: 4 × 20 = 80 marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

B.N.M. Institute of Technology

An Autonomous Institution under VTU, Approved by AICTE

Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: III

Course: DATA PRIVACY AND DATA SECURITY

Course Code: 24MBAB37

L: T:P : J	**2:2:0:0**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To familiarize with basic concepts of security and privacy, their definitions, applications and current advances in research community and industry
2. To evaluate data protection legislations of India
3. To familiarize students with the concepts of contracts being a part of law of obligations
4. To provide insights to the proposed bill regarding the data privacy and security laws
5. To provide understanding of blockchain technology

Contents	No. of hours	COs
Module-1: Introduction to Data Protection cycle		
Concept of data protection, Definitions under Information Technology Act, 2000 – Computer, Computer Network, Computer Resource, Computer System, Data, Electronic form, Electronic Record, Information. Data Privacy Taxonomy and alternative Privacy Frameworks	**L:06**	**CO1**
Module-2: Data Protection Legislation in India		
Objectives of the Information Technology Act, 2000. Electronic records and its legality, Authentication of electronic record and its retention. Electronic signature and its legal recognition. Service provider and delivery. Audit of Electronic record. Right to Privacy under Act. 21 of the Constitution of India with reference to Justice K.S Puttaswamy v. Union of India. Justice B.N Srikrishna Committee report on Free and fair digital economy.	**L:08**	**CO2**
Module-3: Contracts		
Introduction and formation of Contracts, Types of Contracts, Essentials of a valid Contract, Validity of contracts through electronic means, Secure electronic record, secure electronic signature. Encryption and its methods. Public key infrastructure and Private key infrastructure. Breach of Contract, compensation for failure to protect data. Criminal liability for failure to protect data. Security practices and procedures pertaining to sensitive personal data or information.	**L:08**	**CO3**
Module-4: Intermediaries and Data Protection in India		
An overview of the Data Protection Bill of 2019. Obligations of data fiduciary, rights of an individual, grounds for processing personal data, social media intermediaries. Data Protection Authority, Transfer of data outside India. Exemption clauses, offences. Sharing of non-personal data with the Government. Definition of intermediary, exemption from liability of intermediary. Information Technology (Intermediary Guidelines) Rules, 2011. Preservation and retention of information by intermediaries	**L:08**	**CO4**
Self-Study: Bit coin transactions, Data Protection Bill of 2019, Brief study on cyber crime, E- Transactions and EU General Data Protection Regulation	**04**	

Module-5: Blockchain		
Blockchain and its characteristics viz., ledger, permanent, secure, chronological, and immutable. Public and private participation. Anonymity, Pseudonymity and privacy. GDPR and CNIL guidance. Alternative data encryption and destruction approaches. Blockchain privacy management. Smart contract development, supply chain management, asset registers and record keeping tools. Cross border data transfer.	**L:06**	**CO5**

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand and interpret the concept of data protection
CO2	Appreciate the legislative part pertaining to data security issues in India.
CO3	Understand the nuances of law of contract in relation to data privacy through E contracts
CO4	Critically evaluate the proposed bill pertaining to the data privacy and security
CO5	Analyse the concept of blockchain technology in India and its applicability.

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAB37.1		2		2					
24MBAB37.2		3		2				3	
24MBAB37.3		3		3				3	
24MBAB37.4		3		3				3	
24MBAB37.5		3		3				2	
AVERAGE		3		3				3	

Text Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Data Protection Law in India	Duggal Pavan	Lexis Nexis	2016
2	The Ultimate GDPR Practitioner Guide	Stephen Massey	Fox Red Risk	Illustrated edition 2017
3	The Basics of Bitcoins and Blockchains.	Lewis Antony	Two Rivers Distribution	2019

Web Resources (with URL):

1. https://unctad.org/page/data-protection-and-privacy-legislation-worldwide
2. https://digitalindia.gov.in/writereaddata/files/6.Data%20Protection%20in%20India.pdf
3. https://www.meity.gov.in/writereaddata/files/National_BCT_Strategy.pdf

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each- average of two	10 Marks
	AAT	Oral /Online Quizzes and Presentations	10 + 5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	Theory Exam	The question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: 4 × 20 = 80 marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.full questions including the mandatory 8th question.)	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

B.N.M. Institute of Technology

An Autonomous Institution under VTU, Approved by AICTE

Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: IV

Course: PREDICTIVE ANALYTICS

Course Code: 24MBAB41

L: T:P : J	**1:0:2:2**	**CIA**	**: 50**
Credits:	**3**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To orient students the role of predictive analytics in the decision-making process.
2. To determine relation between variable using correlation and Regression analysis.
3. To demonstrate advanced regression techniques using MS Excel
4. To study the association between variables using Logistics Regression
5. To familiarize students with time series analysis and various forecasting techniques

Contents	No. of hours	COs
Module-1:Introduction to Predictive Analytics		
Types of analytics: Descriptive vs Predictive vs Prescriptive, Role of predictive analytics in decision-making, Types of predictive models: classification vs. regression, Overview of data-driven modelling workflow	**L:03**	**CO1**
Self-Study: Probability theory, probability distributions (Binomial, Normal), and inferential statistics (sampling, Central Limit Theorem, Estimation, Hypothesis testing (p-values, Z-test, T-test).	**02**	
Practical Component: Identify and present real-life problems that could benefit from predictive analytics (e.g., predicting customer churn, loan defaults, equipment failure).	**P:03**	
Module 2: Correlation and Regression using MS Excel		
Regression analysis, Different types of regressions, Identification of regression type. Regression analysis using Excel, Covariance, Correlation, Pearson vs. Spearman correlation, Creating scatter plots to visualize relationships	**L:03**	**CO2**
Self-Study: Pros & cons of using statistical tools for Business Decision Making	**01**	
Practical Component: Regression analysis using Excel	**P:04**	
Module 3: Advanced Regression Techniques		
Polynomial Regression, Model Assumptions, Analysis and interpretation of output, building a predictive model. Introduction to Quantile Regression, Model assumptions, , Analysis, and interpretation of output,	**L:04**	**CO3**
Self-Study: Non-linear Regression, Advantages of Quantile Regression	**01**	

Practical Component: Sales forecasting for multiple regions using advanced regression.	**P:03**	
Module-4: Logistics Regression		
Introduction to logistic regression, differences from linear regression, interpretation of coefficients, assumptions, model fitting, evaluation metrics – Confusion matrix, Accuracy, Recall, F1 score, AUC, ROC curve.	**L:04**	**CO4**
Practical Component: Predict likelihood of loan default, Estimate conversion probability in marketing campaigns, Health risk classification based on patient data in Excel.	**P:04**	
Module-5:Forecasting and Time series Analysis		
Time series data, Trend, Seasonality, Cyclicity, Irregularity, Moving averages (simple, weighted), Exponential smoothing techniques, Forecasting Accuracy	**L:07**	**CO5**
Self-Study: Time series components, Quantitative Forecasting technique	**01**	
Project Component: Select an industry and a company and Forecast using smoothing techniques, visualize time series plots using Excel		

Course Outcomes: At the end of the course the student will be able to:

CO1	Apply Descriptive and Inferential Statistics in decision making
CO2	Analyse outcomes using Regression analysis
CO3	Apply Correlation and Regression analysis to understand the relationship between variables using MS Excel
CO4	Evaluate data using Logistic regression technique in Excel
CO5	Evaluate the historical time series data and make prediction

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAB41.1	2	2							
24MBAB41.2		2				2			
24MBAB41.3	3	3				2			
24MBAB41.4		3				3			
24MBAB41.5		3				3		3	
AVERAGE	3	3				3		3	

Text Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year

1	An Introduction to Statistical Learning: with Applications in R	James, WiMen, Hastie and Tibshirani	Springer.	1 E, 2013
2	Open Intro Statistics Textbook	Christopher D. Barr, David M. Diez, and Mine Çe,nkaya-Rundel	Open Intro, Inc.	4 E, 2019

Reference Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Predictive Analytics: The Power to Predict Who Will Click, Buy, Lie, or Die Elements of Statistical Learning	Eric Siegel	Wiley	1E, 2016
2	Applied Predictive Modeling	Max Kuhn, Kjell Johnson	Springer	2E,2013

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each- average of two	10 Marks
	Project	Mini Project on Data Analysis using Excel	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	Lab based Theory Exam	The question paper will have Multiple Choice Questions along with subjective questions **Part A** is compulsory 1M X 30 Questions **Part B** is compulsory 2M X15 Questions **Part C** 10M X 4 Questions (Answer any two) 20 M X 2 Questions (Answer any one)	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

B.N.M. Institute of Technology

An Autonomous Institution under VTU, Approved by AICTE

Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: IV

Course: GENERATIVE AND AGENTIC AI

Course Code: 24MBAB42

L: T:P : J	**1:0:2:2**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To introduce students to foundational architectures of generative and agentic AI.
2. To train students with prompt engineering strategies and fine-tuning techniques
3. To orient students of the application of each technical component to real business values.
4. To familiarize students of the Business applications of Gen AI and Agentic AI
5. To articulate what context engineering is and how it goes beyond basic prompt engineering

Contents	No. of hours	COs
Module-1:Foundations & Concepts		
Generative AI: large language models (LLMs), GANs, VAEs, **Agentic AI**: Autonomous, goal-driven AI systems capable of planning and acting Distinction: reactive generative models vs. proactive agentic systems, Industry overview: from internal operations to customer-facing agents.	**L:06**	**CO1**
Self Study: Definition, evolution		
Module-2:Prompt Engineering & Fine-Tuning		
Advanced prompt strategies: zero/one/few-shot, CoT, role-based prompts, Domain-specific fine-tuning workflows (e.g., GPT-2 on custom corpus).	**L:07**	**CO2**
Practical Component: Hands-on: experiment with ChatGPT, Bard, Peer review of prompt performance.	**P:05**	
Project Component: Design and test a Prompt Engineering strategy, Select an Industry of choice , fetch FAQ and test the various prompt strategies to refine the outcome.		
Module-3:Technical Foundations & Tools		
Core technologies: Transformers, RAG, prompting, memory management, Reinforcement learning for autonomy, multi-agent orchestration	**L:07**	**CO3**
Module-4:Business Applications		
Generative AI in business: Content generation, research assistance, ideation, Legal, marketing, and operational use cases **Agentic AI in action**: Workflow automation, personalized assistants, finance bot, Corporate pilots	**L:06**	**CO4**
Practical Component: Apply Generative AI to realistic business tasks(Generate a marketing email campaign, Draft a simple blog outline and refine it),Use a tool like Zapier or Microsoft Power Automate to automate a workflow (e.g., new form response → auto email → update sheet.	**P:03**	

Module-5:Context Engineering		
Context sources and Types, Building context pipelines,	**L:04**	**CO5**
Self-Study: Definition, evolution, Introduction, Importance.	**02**	
Project Component: Pick an industry (e.g., Retail, Healthcare, Travel). and list possible context sources for that industry		

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand **foundational architectures** of generative and agentic AI
CO2	Apply prompt engineering strategies to generate content
CO3	Evaluate the application of technical components to real business values.
CO4	Understand the business applications of Gen AI and Agentic AI
CO5	Apply context engineering concepts in real time scenarios

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAB42.1	3							3	
24MBAB42.2						3		3	
24MBAB42.3		3				2			
24MBAB42.4	2	3				3		3	
24MBAB42.5	3	2		3				2	
AVERAGE	3	3		3		3		3	

Text Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Generative Deep Learning: Teaching Machines to Paint, Write, Compose, and Play	David Foster	O'Reilly Media	2nd, 2022
2	Introduction to Generative AI	Numa Dhamani & Maggie Engler	Manning Publications	1st, 2024
3	Designing Bots: Creating Conversational Experiences	Amir Shevat	O'Reilly Media	1st, 2017

Reference Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Context-Aware Computing and Self-Managing Systems	Gabriel Riva, Fabrizio Sebastiani, W. Chen, S. Kirn	CRC Press, Taylor & Francis Group	1st Ed, 2006

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each-average of two	10 Marks
	Project	Practical activity demonstration using Gen AI tools and Report Submission	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	The question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: 4 × 20 = 80 marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

B.N.M. Institute of Technology

An Autonomous Institution under VTU, Approved by AICTE

Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: IV

Course: ADVANCED ANALYTICS

Course Code: 24MBAB43

L: T:P: J	**2:0:2:0**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To familiarize students to various forms of social media data using Google Analytics
2. To train students to apply concepts of Human Resource Management in Analytics
3. To orient students, analyze the financial time series data using MS Excel
4. To provide insights of the fundamental concepts of text analytics and its emerging trends
5. To provide an understanding of image and audio data processing techniques

Contents	No. of hours	COs
Module-1:Social Media Analytics		
Estimated Data sources and Factual Data Sources, Public and Private data, data gathering in social media analytics. How Google Analytics works, setting up GA, Navigating the interface, Setting up different views with filters.	**L:04**	**CO1**
Practical Component: Data Collection from Social Media Platforms, Text Preprocessing & Cleaning	**P:03**	
Module-2:HR Analytics		
HR Metrics **Workforce metrics-** Headcount metrics, Absenteeism metrics, Turnover metrics **Recruitment Metrics-** Candidate call back rate, application completion rate, candidates per hire, cost per hire, quality of hire, first year retention rate, time to hire, sourcing channel effectiveness **Training & Development Metrics -** Percentage of employee trained**,** Internally and externally trained**,** Training hours and cost per employee, ROI calculation, Training NPS, Course completion rate, Learner drop off rate **Diversity Metrics** – Hiring & Recruiting, Equal pay, Promotions, Retention **Career Progression Metrics-**Career path ratio	**L:05**	**CO2**
Self Study: Introduction. Meaning, benefits of HR Analytics; Pitfalls of HR Analytics, Future of HR Analytics. The Scope of Big Data in HR Analytics.	**01**	

Practical Component: Recruitment Funnel Analysis, Compensation & Pay Equity Analysis	**P:02**	
Module-3:Financial Analytics		
Concept of Stationary process; Smoothing Methods- Moving Average, Weighted Moving Average ,Prediction of business costing using Time series analysis - ARIMA, Time Series Optimization using Exponential Smoothing Method	**L:05**	**CO3**
Self Study: Components of time series data - Trend Analysis,Seasonality and cyclical behavior.	**02**	
Practical Component: Analyze stock price trends, returns, and volatility, Analyze Sharpe Ratio and diversification	**P:02**	
Module-4:Text Analytics		
Introduction to Text Analysis, Raw text vs. structured data, Key concepts and terminology, Digital Tools for Text Analysis, Quantitative Text Analysis, Emerging trends in text analytics, Ethical considerations in text data analysis, Applications and Challenges in text data analysis	**L:07**	**CO4**
Practical Components: Classify text as positive, negative, or neutral	**P:01**	
Module-5:Video & Audio Analytics		
Fundamentals of Digital Video and Audio, Audio Data Processing, Audio signal characteristics, Feature extraction, Audio classification and clustering, Speech recognition fundamentals, Image processing fundamentals, Face detection and recognition, Optical character recognition (OCR), Combining video and audio features	**L:06**	**CO5**
Practical Components: Detect people, cars, objects and human activities in video	**P:02**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Analyze various forms of social media data using google analytics
CO2	Apply concepts of Human Resource Management in Analytics
CO3	Analyze the Financial time series data using MS Excel
CO4	Apply Text analytics on qualitative data to draw inferences
CO5	Analyze image and audio data using Video & Audio Analytic techniques

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAB43.1		3						3	
24MBAB43.2	3	3				3		3	

24MBAB43.3	3	2				3		2	
24MBAB43.4	2					2			
24MBAB43.5	2					3			
AVERAGE	3	3				3		3	

Text Books

Sl No	**Title of the book**	**Name of the Author/s**	**Publisher Name**	**Edition and year**
1	Social Media Analytics: Techniques and Insights for Extracting Business Value Out of Social Media.	Matthew Ganis, Avinash Kohirkar	Pearson Education	2015
2	Predictive HR Analytics Mastering the HR Metric	Martin R Edwards, Kirsten Edwards	Koganpage	2E, 2019
3	Financial Econometrics	Oliver Linton	Cambridge University Press	1E, 2019
4	Speech and Language Processing	Daniel Jurafsky and James H. Martin	Pearson	2E,2008
5	The Text Mining Handbook: Advanced Approaches in Analyzing Unstructured Data	Ronen Feldman, James Sanger	Cambridge University Press	1E, 2007

Reference Books

Sl No	**Title of the book**	**Name of the Author/s**	**Publisher Name**	**Edition and year**
1	Applying Advanced Analytics to HR Management Decisions: Methods for Selection, Developing Incentives and Improving Collaboration	Sesil James, C	Pearson, New Jersey	2017
2	Spreadsheet skills for Finance Professionals	Pitabas Mohanty	Taxmann's	2nd, 2020

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each-average of two	10 Marks
	Practical	Two Practical Assignments	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	The question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: 4 × 20 = 80 marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

B.N.M. Institute of Technology

An Autonomous Institution under VTU, Approved by AICTE

Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: IV

Course: EXPLORATORY DATA ANALYSIS USING R

Course Code: 24MBAB44

L: T:P : J	**2:0:2:0**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To familiarize students with the basics of R Programming
2. To provide insights into various concepts of R for Exploratory data analysis
3. To train students to perform descriptive Statistical analysis using R
4. To equip students to evaluate the relationship between variables using Correlation and Regression analysis using R
5. To train students to perform Inferential Statistical Analysis for decision-making using R

Contents	No. of hours	COs
Module-1:Introduction to R		
Familiarization of environments in R, Basic math and stat using R	**L:04**	**CO1**
Practical Component –To Install R studio and learn the basics of R Programming	**P:02**	
Module-2:Exploratory Data Analysis		
Essential Summaries of EDA, Graphical Techniques in EDA, Data visualization using advanced library in R	**L:04**	**CO2**
Module-3:Descriptive Statistics & Probability using R		
Basic statistical functions in R, Basic set operations, Classical Probability Theory Probability Distributions	**L:04**	**CO3**
Module-4:Correlation and Regression Analysis in R		
Correlation analysis- Pearsons method, Visualizing the relationship, Correlation Matrix, Regression Analysis- Computing Linear Regression.	**L:04**	**CO4**
Practical Component– Using R, Perform the Descriptive statistical analysis and create data visualization	**P:08**	
Module-5:Inferential Statistics & Testing of Hypothesis		
Study of Confidence Intervals for Means of Large and Small Samples, Large Sample Tests Small Sample Tests, F- Test, Chi-Square Test	**L:06**	**CO5**
Practical Component– To perform various Hypothesis testing using R, extract real-time data and perform statistical tests using R, and submit as a Report	**P:06**	
Self-Study: Basics of Hypothesis, Errors, Steps in Testing Hypothesis	**02**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand the basics of R Programming
CO2	Apply the concepts of R for Exploratory data analysis
CO3	Perform descriptive Statistical analysis using R
CO4	Study the relationship between variables using Correlation and Regression analysis using R
CO5	Perform Inferential Statistical Analysis for Decision making using R

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAB44.1		3		3				3	
24MBAB44.2		3		2				3	
24MBAB44.3		2		2				2	
24MBAB44.4		3		3				3	
24MBAB44.5		3		3				3	
AVERAGE		3		3				3	

Text Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Exploratory Data Analysis with R	Ronald K	Pearson	1st e
2	Introduction to data Science with r and Python	B Uma Maheshwari and R Sujatha	Wiley	1st e

Reference Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Exploratory Data Analysis with R	Chapman and Hall	O'Reilly Media Inc	2015

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each-average of two	10 Marks
	Practical	Practical assignment using R and Presentation	10+5 Marks

CIA Total Marks			50
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	The question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: 4 × 20 = 80 marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

DIGITAL STRATEGY AND APPLIED MARKETING SPECIALISATION

III and IV Semester

SEMESTER–III

B.N.M. Institute of Technology

An Autonomous Institution under VTU, Approved by AICTE

Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: III

Course: CONSUMER BEHAVIOR AND NEURO MARKETING

Course Code: 24MBAM33

L: T: P: J	**2:0:2:0**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To facilitate the students to understand consumer behavior and consumer decision making process.
2. To develop ability of students on evaluate the consumer's need, motivation, personality and perception on the consumer behavior.
3. To help students understand the role of learning, attitude & persuasive communication that influences consumer behavior.
4. To familiarize the students with factors affecting consumer behavior.
5. To provide insights on key concepts of neuromarketing and their relevance in consumer behavior.

Contents	No. of hours	COs
Module-1 Introduction to Buyer behavior and Consumer decision making		
Meaning; Difference between Consumer & Customer, Consumerism: meaning and Influence Consumer Decision Making: Consumer Buying Decision Process, Levels of Consumer Decision Making–Four views of consumer decision making. Behavioral Nudging and its role in Consumer Behavior and Decision-making Situational Influences on Consumer Decision Making	**L:04**	**CO1**
Practical component – Visit a retail store (eg., IKEA, Starkbucks and observe how situational factors affect consumer purchase decisions and submit a report on it.	**P:02**	
Self-Study – Analyze the nature & characteristics of Indian consumers and Indian consumption pattern by 2030.	**02**	
Module-2 Individual determinants of consumer behavior		
Consumer needs and Motivation: Consumer needs & motivation, Rational Vs Emotional motives, Motivation Process - Maslow's Hierarchy of Needs **Consumer Personality and buying behaviour:** Personality theories (Freudian, neo-Freudian, trait theory) and self-concept **Role of Consumer perception in buying:** Perceptual processes and factors influencing perception, Gestalt principles	**L:05**	**CO2**
Practical Component – Interview consumers to create a perceptual map to study consumer perception of competing brands.	**P:02**	
Module-3 Consumer learning, attitude and persuasive communication		
Elements of Consumer Learning, Marketing Applications of Behavioral Learning Theories: Classical Conditioning – Pavlovian Model, Neo Pavlovian Model, Instrumental Conditioning. **Attitude:** Models of Attitude and Marketing Implications, (Tri- component Model of attitude, Multi attribute attitude models. Elaboration Likelihood Model). **Persuasive Communication:** Communications strategy, Target Audience, Media Strategy, Message strategies, Message structure and presentation.	**L:06**	**CO3**

Practical Component – Analyze advertisements to understand the application of classical conditioning and instrumental theory.	**P:02**	
Module-4: External Influences on Consumer Behavior		
Social Class: Social Class and its Impact on the buying behavior **Culture:** Factors affecting culture, Role of customs, values and beliefs in Consumer Behavior. Subculture: consumption pattern in India. Cross-cultural influence **Groups:** Family decision making and consumption related roles, Dynamics of husband-wife decision making, The family life cycle & marketing strategy, Reference Groups: Types of reference groups, Factors that affect reference group influence. **Opinion Leadership:** Dynamics of opinion leadership process, Market Mavens, Difference between opinion leader and market maven	**L:06**	**CO4**
Practical Component – Conduct a field-study to analyze the influence of family, culture and social class on purchase decisions.	**P:02**	
Module-5: Introduction to Neuromarketing		
Neuromarketing and Consumer Neuroscience - definition, Interdisciplinary Nature of Neuro Marketing, Neuromarketing Versus Traditional Methods, Pros and cons of traditional and neuromarketing methods, Consumer Neuroscience research methods and tools - EEG, fMRI, eye-tracking, measurement of galvanic skin responses, etc., Mapping the Brain. Attention and Consciousness, Sensory Neuromarketing, Learning and Memory.	**L:05**	**CO5**
Practical Component – Analyze advertisements that utilizes sensory neuromarketing for grabbing the consumer's attention, engage them emotionally and generate associative memories.	**P:02**	
Self-Study – Analyze the potential future applications and advancements in neuromarketing.	**02**	

Course Outcomes: At the end of the course the student will be able to:

CO1	To analyze the consumer behavior and consumer decision making process.
CO2	To assess the impact of consumer's need, motivation, personality and perception on the consumer behavior.
CO3	To interpret the role of learning, attitude & persuasive communication that influences consumer behavior.
CO4	To evaluate the factors affecting consumer behavior.
CO5	To analyze the key concepts of neuromarketing and their relevance in consumer behavior.

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAM33.1	3	3						3	3
24MBAM33.2	3					3		3	3
24MBAM33.3	3	3		3				3	
24MBAM33.4	3	3				3		3	
24MBAM33.5	2	2		3		2		2	
AVERAGE	3	3		3		3		3	3

Text Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Consumer Behavior	Leon G Schiffman Joseph Wisenblit S. Ramesh Kumar	Pearson	12/e 2018
2	Consumer Behavior: Building Marketing Strategy	David Mothersbaugh Delbert Hawkins Susan Bardi Kleiser Roger Best	McGraw Hill	14/e 2020
3	Consumer Behaviour in Indian Perspective	Suja R Nair	Himalaya Publishing House	2/Reve 2015
4	Consumer Behavior And Neuromarketing	Dr. D. Krishna Kumar , Ms. K. Deepika Rani	Thakur publicatio n pvt ltd	ISBN-978-93-90460-24-3
5	Introduction to Neuromarketing and Consumer Neuroscience	Ramsoy, T. Z.	Naurons Inc. Press	2015

Reference Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Consumer Behavior: Text and Cases	Satish K Batra S H H Kazmi	Excel Books	2/e 2009
2	Advertisement Brands & Consumer Behavior: The Indian Context	S Ramesh Kumar Anup Krishnamurthy	Sage	2020
3	The Buying Brain: Secrets for selling to the subconscious mind	Pradeep, A. K.	Wiley	2010

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each-average of two	10 Marks
	Practical	Consumer Survey followed by report preparation and viva Project Report Evaluation- 10 marks & Project Viva- 5 marks	10+5
	CIA Total Marks		**50**

SEA	Component	Description	Marks
50	**Theory Exam**	The question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: 4 × 20 = 80 marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

B.N.M. Institute of Technology

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Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: III

Course: MARKETING ANALYTICS

Course Code: 24MBAM34

L:T:P:J	**2:0:1:1**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To help students explore how data, big data, analytical tools and infrastructure drive strategic marketing decisions.
2. To equip students for application of classical and financial marketing metrics for evaluating campaign performance and managerial decisions.
3. To enable students to compute and interpret key digital marketing metrics for assessing online campaign effectiveness and engagement.
4. To acquaint students with analytical marketing methods for data-driven marketing and better market performance.
5. To train students in digital tools for visualizing, optimizing, and reporting marketing data for strategic decision-making.

Contents	No. of hours	COs
Module-1: Introduction to Marketing Analytics, Role of data and big data in marketing		
Fundamentals of Marketing Analytics – Principles of Consumer Behaviour and Marketing Strategy, Marketing Funnel, Role of insight, Data-driven marketing decisions, Steps to implement data driven marketing, Reasons for failure of data driven marketing, Overcoming the obstacles to data-driven marketing. Infrastructure for data driven marketing, creating a data driven marketing infrastructure portfolio. Introduction to Big data**,** getting big impact from big data, Putting Big Data and advanced analytics to work.	**L:07**	**CO1**
Module-2: Marketing Metrics		
Classical marketing metrics, the five essential marketing metrics: Brand awareness, Test drive, Churn, CSAT and Take rate. Finance for Marketing Managers: Profit, NPV, IRR, Payback, Return on Marketing Investment (ROMI), CLV, Framework for Management Decisions. Stress-Test the Numbers: Sensitivity Analysis. [Manual calculations of the metrics].	**L:10**	**CO2**
Self-study – Application of classical marketing metrics and financial metrics using MS-Excel	**P:02**	
Module-3: Internet Marketing Metrics		
Cost per Click (CPC), Transaction Conversion Rate (TCR), Return on Ad Dollars Spent (ROA), Bounce Rate, Hyper targeting display advertising in social media and Word of Mouth (WOM) Social Media Marketing Engagement. [Manual calculations of the metrics]	**L:05**	**CO3**

Module-4: Analytics for Better Market Performance		
Using Near-Time Data to Improve Performance. Approaches to Analytic Marketing: Propensity Modeling, A/B Testing, Market Basket Analysis, Decision Tree.	**L:04**	**CO4**
Practical Component – Conducting market basket analysis and creating decision trees.	**P:02**	
Module-5: Using Digital Tools for Marketing Analytics		
Creating dashboards in Excel, Slicing and Dicing Marketing data with Pivot Tables, Using Charts and Functions to Summarize Marketing Data. Excel Solver to optimize price.	**L:07**	**CO5**
Project – Analyzing marketing data of selected companies using excel functions and presenting it in the form of report and presentation.	**P:03**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Examine how data, big data, analytical tools and infrastructure drive strategic marketing decisions.
CO2	Apply classical and financial marketing metrics for evaluating campaign performance and managerial decisions.
CO3	Compute and interpret key digital marketing metrics for assessing online campaign effectiveness and engagement.
CO4	Apply and assess the analytical marketing methods for data-driven marketing and better market performance.
CO5	Construct and optimize data visualizations and reporting frameworks using digital tools to support marketing decisions.

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAM34.1	3	3							3
24MBAM34.2	3	3						3	
24MBAM34.3		3	3		3	3		3	
24MBAM34.4	3	3				3		3	
24MBAM34.5		3		3	3	3		3	
AVERAGE	3	3	3	3	3	3		3	3

Text Books:

Sl. No.	Title of the Book	Name of the Author(s)	Publisher Name	Edition and Year
1	Data-Driven Marketing: The 15 Metrics Everyone in Marketing Should Know	Mark Jeffery	Wiley	2012
2	Marketing Analytics: Data-Driven Techniques with Microsoft Excel	Wayne L. Winston	Wiley	2014
3	Marketing and Sales: Big Data, Analytics, and the Future of Marketing and Sales	Court, Perry, McGuire, Gordon and Spillecke	McKinsey & Company	e-book, 2015

Reference Books:

Sl. No.	Title of the Book	Name of the Author(s)	Publisher Name	Edition and Year
1	Marketing Analytics: A practical guide to improving consumer insights using data techniques	Mike Grigsby	Kogan Page	2/e, 2018

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each- average of two	10 Marks
	Project	Project Report Evaluation – 10 Marks+5 Marks for Presentation of findings	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	The question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: 4 × 20 = 80 marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

B.N.M. Institute of Technology

An Autonomous Institution under VTU, Approved by AICTE

Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: III

Course: E-commerce and Retail Management

Course Code: 24MBAM35

L: T:P : J	**2:0:2:0**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1.To provide insights on various e-commerce business models and architectures in real-world business scenarios.
2. To help students understand the components of e-commerce infrastructure.
3.The familiarize the students with role of e-market research, e-marketing, and mobile marketing for designing effective marketing activities.
4. To develop the concept of retailing and analyze the retail space management.
5. To enable the students to gain insights on retail models and international retailing to evaluate the practices.

Contents	No. of hours	COs
Module-1:Introduction to E-Commerce		
Electronic commerce: Introduction, Business Models for E-commerce, Advantages and Disadvantage, Types of E-commerce, Architectural Framework for E-commerce, Applications of E-commerce, Issues in E-commerce - Security, Legal and Ethical.	**L:06**	**CO1**
Practical Component – Report on your e-commerce consumption journey narrating how your usage and experience has changed over the last 5 years.	**P:02**	
Module-2: E-Commerce Infrastructure		
Infrastructure for E-commerce: Logistics, E-fulfillment, Communication networks, Electronic Payment system, Electronic Payment Technology, E- commerce Security, Electronic Data Interchange (EDI) Technology and its application in business, E-Commerce Infrastructure Development Checklist.	**L:06**	**CO2**
Practical Component – Analyze an E-Commerce Dashboard :Amazon India, Flipkart, Meesho.	**P:02**	
Module-3: E-Marketing and Mobile Marketing		
E-Marketing: Introduction to E-Markets and E-Marketing, E-Marketing Techniques, Electronic Advertising, E-Market research – Data collection, organizing and analyzing data, Data warehouses and Data Mining, Electronic CRM Applications, E-business revenue models. Mobile Marketing: Mobile Marketing features - Location based services, social marketing on mobile; Mobile Advertising Networks, Formats and Business Models; QR Codes, Augmented Reality, Gamification; Mobile Marketing Toolkit; Mobile Analytics.	**L:06**	**CO3**

Practical Component –Demonstration of mobile marketing and its effectiveness (group of students to choose one mobile marketing campaign and discuss its effectiveness in the class).	**P:02**	
Module-4: Introduction to Retail and Space Management		
Introduction to Retail: meaning, characteristics, functions of retailing, introduction of retailing in organization Retail Space Management: Definition of space management, store layout, design, visual merchandising, POP displays, category management.	**L:04**	**CO4**
Self-Study – Challenges and opportunities of retailing, trends in retailing, Indian retailing scenario.	**P:01**	
Project work: Analyze the space management (store layout, visual merchandising, POP displays and category management) of a retail outlet and submit a report	**J:01**	
Module-5: Retail Models and International Retailing		
Retail Models: Wheel of retailing, the retail accordion, melting point theory, polarization theory, Business models in retail - classification based on ownership, Merchandise offered, Franchising, Non-store Retailing, Direct selling, Direct response Marketing, Telemarketing, Fairs and road shows, Event management, automated vending, kiosks, the cash & carry, credit marketing. Effect of retail models on branding. International Retailing: international retail environment- social, economic, political, legal, technological, issues in international retailing.	**L:08**	**CO5**
Self-Study – Evaluation of Contemporary Retailing in India against global practices (report submission).	**P:02**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Apply various e-commerce business models and architectures in real-world business scenarios.
CO2	Analyze the components of e-commerce infrastructure.
CO3	Evaluate the role of e-market research, e-marketing, and mobile marketing for designing effective marketing activities.
CO4	Examine the concept of retailing and analyze the retail space management.
CO5	Apply the retail models and international retailing to evaluate the practices.

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAM35.1	3		3				3		
24MBAM35.2		3			3		3		
24MBAM35.3		3		3		3	2	3	
24MBAM35.4	3	2					3		3
24MBAM35.5	3			3		3	3		
AVERAGE	3	3	3	3	3	3	3	3	3

Text Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Essentials of E-Commerce Technology	V Rajaraman	PHI Learning Pvt Ltd. 2015	2015
2	E-Commerce and Mobile Commerce Technologies	Dr. U S Pandey Dr. Saurabh Shukla	S. Chand	2015
3	Retail Marketing Management	David Gilbert	Pearson	2/e 2006
4	Retailing management	Micheal Levy ,Barton Weitz , Ajay Pandit	Mc Graw hill 8/e 2012	8/e 2012
5	Managing Retailing	Piyush Kumar Sinha , Dwarika Prasad Uniyal	Oxford	2010

Reference Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Brand story telling –put customers at the heart of your brand	Miri Rodriguez	Kogan Page Limited	2020
2	Markeing 4.0: Moving from Traditional to Digital	Philip Kotler, Hermawan Kartajaya, Iwan Setiawan	Wiley	2017
3	Retailing management	Micheal Levy ,Barton Weitz , Ajay Pandit	Mc Graw hill	8/e 2012

Additional Practical Component:

1.Analyze an e-commerce business against the E-commerce checklist.
2.Create a mobile marketing initiative using mobile marketing toolkit.
3.Ask your friends if they would buy certain goods like groceries, vegetables, socks, mobile, pens etc from the roadside vendor as against a regular shop. Group the products into low risk and high-risk ones. Does this buying behaviour also depend on the personality of the individual doing the buying? Or the one doing the selling?

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each-average of two	10 Marks
	Practical	Report Generation on E-commerce consumption journey and presentation.	15+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	The question paper shall be divided into two parts: Part A and Part B.	100 Reduced to 50

		Part A contains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: 4 × 20 = 80 marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.	
SEA Total Marks			**50**
Total Marks for the course			**100**

B.N.M. Institute of Technology

An Autonomous Institution under VTU, Approved by AICTE

Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: III

Course: SALES AND DISTRIBUTION MANAGEMENT

Course Code: 24MBAM37

L: T:P : J	**2:0:2:0**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To help the students with concepts, and approaches in sales management and personal selling.
2. To enable the students with the skills in organizing and managing sales force.
3. To familiarize students with the knowledge of sales budget, targets, sales forecast, territories and quota to control the sales effort.
4. To train the students on the working and management of distribution channels.
5. To develop students with unique features of sales and distribution in rural and international markets.

Contents	No. of hours	COs
Module-1: Introduction to sales management and Personal Selling		
Sales Management: Introduction, meaning, importance , objectives, types of sales organization, from sales and distribution to 'Go to market', sales management and financial results. **Personal selling:** Meaning, Scope of Personal Selling, Buyer Seller Dyad, Diversity of Personal Selling Situation, Theories of Personal Selling, Personal Selling Process, SPIN Selling Prospecting, Sales Resistance and Closing Sales.	**L:06**	**CO1**
Practical Component – Personal selling exercise in class (include sales resistance and closing sales), Simple problems on sales management and financial results.	**P:02**	
Self-Study: Analyze the case study related to sales management and personal selling	**02**	
Module-2: Organization and Management of Sales Force		
Functions of Salesperson, Qualities of Effective Sales Executive, Purpose of Sales Organization, Setting up a Sales Organization, Types of Sales Organization Structure, Centralization Versus Decentralization in Sales Force Management	**L:06**	**CO2**
Practical Component – Conduction of effective Sales Executive role play.	**P:01**	
Self-study: Analyze the Relationship of sales executive with Top Management.	**01**	
Module-3: Controlling the Sales Effort		
Sales Budget: Purpose, Form and content, Procedure; Sales target and Sales Forecast; Sales Quota - Objective in Using Quotas, Procedure of Setting Quota, Limitations of Quota System; Sales Territory - Concept, Need for Establishment and Revision of Sales Territory, Assignment of Sales Personnel to Territories	**L:06**	**CO3**
Practical Component – Establish sales territory and assign sales quota for a new FMCG product targeting Indian Urban or Rural population for a given budget, sales target and forecast (report submission).	**P:03**	

Module-4: Distribution Channel and Management		
Distribution Channel, Channel Members and Channel Functions, Designing Market Channels, Selecting Channel partners, Channel Intensity; Costs and Margins in the Marketing Channel; Managing the Channel Conflict. Channel Information System – Stages, Elements, Designing Channel Information System.	**L:05**	**CO4**
Practical Component:- List 3 real-life products and map out their distribution channels from manufacturer to consumer. Identify one challenge in managing these channels and suggest a possible solution**.**	**P:02**	
Module-5 Distribution in Rural and International Markets		
Distribution in Indian Rural Markets: Distribution Channels in Rural India – Traditional distribution methods, Major issues in rural distribution channels, Indian Rural distribution models, Channel Management for Rural Markets. **International Marketing:** Selecting an International Market, International Orientations, The Mode of Entry, Selection of International Distribution Partners, Documents in International Trade.	**L:05**	**CO5**
Self-Study: Analyze the Current trends in rural distribution channels.	**01**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand the concepts of sales management and personal selling and apply the knowledge of personal selling in real time.
CO2	Understand how to organize and manage the sales force and exhibit the characteristics of an effective sales executive.
CO3	Apply the knowledge of sales budget, targets, sales forecast, territories and quota to control the sales effort.
CO4	Evaluate the working and management of distribution channels.
CO5	Assess the unique features of sales and distribution in rural and international markets.

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAM37.1	3							3	
24MBAM37.2	3	3			3			3	3
24MBAM37.3				3	2	3		3	3
24MBAM37.4		3			3			3	2
24MBAM37.5			3	2			3	3	
AVERAGE	3	3	3	3	3	3	3	3	3

Text Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1.	Sales and Distribution Management	Richant R Still Edward W Cundiff Norman A P Govoni Sandeep Puri	Pearson	6/e 2017
2.	Sales & Distribution Management: Text and Cases	Krishna K. Havaldar & Vasant M. Cavale	McGraw Hill	3/e 2017

3.	Sales & Distribution Management	Tapan K. Panda Sunil Sahadev	Oxford University Press	3/e 2019

Reference Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Brand story telling –put customers at the heart of your brand	Miri Rodriguez	Kogan Page Limited	2020
2	Social media marketing workbook-How to use social media for business.	Jason Mc Donald	Independently Published	2020
3	Markeing 4.0: Moving from Traditional to Digital	Philip Kotler, Hermawan Kartajaya, Iwan Setiawan	Wiley	2017

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each- average of two	10 Marks
	Practical	Conducting research on Distribution Channels and Presentation on topics related to Sales Management	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	The question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: 4 × 20 = 80 marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

B.N.M. Institute of Technology
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Department of Business Administration
Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: III

Course: SOCIAL MEDIA MARKETING & SEARCH MARKETING

Course Code: 24MBAM38

L: T:P : J	**2:0:2:0**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1.To understand the fundamentals of social media marketing to create impactful social media campaigns.
2. To provide insights on various advertising models and viral marketing strategies and adopt appropriate strategies to promote content.
3.To familiarize the students with platform-specific content strategies to enhance reach and engagement.
4.To develop students knowledge on SEO techniques and evaluate the effectiveness of SEM strategies
5.To train students on performance of search and display marketing efforts using appropriate metrics and optimization techniques.

Contents	No. of hours	COs
Module-1: Social Media Strategy for Effective Communication		
Social media fundamentals; 3C framework of social media; Creating social media campaigns; Social media strategies for Facebook, Instagram, LinkedIn, Twitter, YouTube and Snap chat; Monitoring social media with AI. Applying social media best practices to enhance brand.	**L:06**	**CO1**
Practical component – Create a social media campaign for a social cause on any one social media platform and submit report on its impact.	**P:02**	
Module-2: Advertising models and Viral marketing strategies		
Social media advertising – Introduction and types.Advertising models: Cost-per-click (CPC), cost-per-view (CPV), cost-per- impression (CPM).Power of word of mouth and social networks; Creating viral marketing content using internet, video and guerrilla marketing.	**L:05**	**CO2**
Practical Component – Create a blog and podcast of individual interest and use viral marketing strategy to promote it.	**P:02**	
Module-3:Creating and developing Social Media Identity		
Using Facebook for running an advertising campaign; creating page, boosting campaign, tracking and monitoring.-LinkedIn Marketing; Using LinkedIn for professional networking; Creating professional LinkedIn profile; Identifying job or part-time opportunities -Instagram Marketing- How to become an influencer; Post and hashtag strategy; Using Instagram for business opportunities-YouTube- Creating a channel on YouTube; Increasing impression & reach; How to increase followers	**L:06**	**CO3**
Self Study: Create youtube channel of your interest and increase reach and impression	**P:02**	
Module-4: Strategies for Building and tracking SEO and SEM		

Monitoring SEO process; Preparing SEO Reports; On page SEO, OFF page SEO; Link building- tools, types, benefits; back analysis tool, keyword research tool, technical SEO tool, Setting up SEM strategy. Analysis of the efficiency of SEM strategy. Measuring Search Traffic, Tying SEO to Conversion and ROI, Competitive and Diagnostic Search Metrics, Key Performance Indicators for Long Tail SEO, leveraging the long tail of keyword demand, trending, seasonality fluctuations in keyword demand SEO.	**L:08**	**CO4**
Module-5: Search Advertising and Display Marketing		
Search Basics, Google's Take on Auction Ads, Bidding, Audiences and Tools; Google Ads Campaigns, The Opportunities in Vertical Search, Optimizing for Local Search, optimizing for Image and Product Search, Optimizing for News, Blog, and Feed Search, Others: Mobile, Video/Multimedia Search.	**L:07**	**CO5**
Self Study: Google Ads Certification.	**P:02**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Determine the fundamentals of social media marketing to create impactful social media campaigns.
CO2	Assess various advertising models and viral marketing strategies and adopt appropriate strategies to promote content.
CO3	Analyze platform-specific content strategies to enhance reach and engagement.
CO4	Apply SEO techniques and evaluate the effectiveness of SEM strategies
CO5	Evaluate the performance of search and display marketing efforts using appropriate metrics and optimization techniques.

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAM38.1	3			3				3	
24MBAM38.2	3	3		3		3		3	3
24MBAM38.3	3	3	3	2			3	3	3
24MBAM38.4	3	3		3	3	3			
24MBAM38.5		2				2			3
AVERAGE	3	3	3	3	3	3	3	3	3

Text Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Digital Marketing	Seema Gupta	McGraw Hill Edu	3/e 2022
2	Social Media Marketing	Tracy L Tuten, Michael R Solomon	Sage	2/e 2018
3	SEO: Search Engine Optimization Bible	Jerri L. Ledford	John Wiley & Sons	2/e 2007

4	Marketing 4.0: Moving from Traditional to Digital	Philip Kotler	Wiley	2016

Reference Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Social media marketing workbook-How to use social media for business.	Jason Mc Donald	Independently Published	2020
2	SEO Warrior: Essential Techniques for Increasing Web Visibility"	John I Jerkovic	O'Reilly Media	2009
3	Understanding Digital Marketing: Marketing Strategies for Engaging the Digital Generation	Damian Ryan and Calvin Jones	Kogan Page	2008

Additional Practical Component:

1.Create social media content for college event.
2. Create buzz marketing for a college event.
3.To analyze and create classroom blog in Medium
4.Application of SEO in various websites such as E-comm, hotel websites.

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each-average of two	10 Marks
	Practical	Creating social media campaign on a social cause and submit report on its impact	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	The question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: 4 × 20 = 80 marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totaling 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

IV Semester

B.N.M. Institute of Technology

An Autonomous Institution under VTU, Approved by AICTE

Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: IV

Course: SERVICES MARKETING

Course Code: 24MBAM41

L: T:P : J	**2:0:1:1**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To familiarize service characteristics and challenges and apply different models of services marketing.
2. To train students on conducting research on customer expectations and requirements from services and analyze retention strategies for building long-term relationships.
3. To provide insights on service offering and propose physical evidence to match the standards and expectations of customers.
4. To understand the role played by customers and employees in delivering services and suggest strategies to overcome the constraints faced by them due to demand-capacity issues.
5. To help students design communication, pricing, and recovery strategies for managing and keeping service promises.

Contents	No. of hours	Cos
Module-1: Introduction to Services Marketing		
Meaning, Types of Service Sectors, distinctive characteristics of Services. Search, experience and credence properties. Services Marketing Mix and challenges in services marketing. Models of Services Marketing: Services Marketing Triangle, Servicescape Model, Servqual Model, STP Marketing Model, flower of service, GAPs Model.	**L:06**	**CO1**
Practical Component – Illustrate services marketing triangle for a service industry. Create SERVQUAL and GAPs model for a service organization.	**P:01**	
Module-2: Service Expectation		
Customer Expectations of Services: Two levels of expectations and Zone of Tolerance, Factors influencing customer expectations of services. Customer Perception of Services: Factors influencing customer perception and Strategies to influence customer perception of services. **Understanding Customer Requirements:** Listening to customers through research, Types of service marketing research and graphical representation of data. **Building customer relationship through retention strategies**: Relationship marketing, Customer profitability segments, relationship development strategies and Relationship challenges.	**L:07**	**CO2**
Project Component – Select a service sector of student's interest and an associated organization. Analysis of the operations and challenges faced by the organization. Evaluation of the root causes of the identified problems. Designing and proposing the practical solutions to address those problems. Presenting the findings in a structured report.	**J:01**	
Module-3: Aligning Service Design and Standards		
Service Innovation and Design: Types of service innovation, service blueprinting components. Customer defined services standards: types of customer-defined service standards	**L:06**	**CO3**

Physical Evidence and the Servicescape: What is Physical evidence? How it affects the customer experience? Types of service scape, strategic roles of the service scape.		
Practical Component – Create a Service Blue Print for any Service organization	**P:01**	
Self-study – Path-breaking service innovations of 21st Century	**01**	
Module-4: Delivering and Performing Service		
Employees' Roles in Service delivery: Boundary-spanning roles of employees, Strategies for delivering services quality through people. Customers' Roles in Service delivery: Customers' roles, Self-Service Technologies for ultimate customer participation, Strategies for enhancing customer participation. Managing Demand and Capacity: Lack of inventory capability in services, capacity constraints, demand patterns, strategies for matching demand and capacity, waiting line strategies.	**L:07**	**CO4**
Practical Component – Draw demand curve for a service organization, analyzes it and suggest strategies for matching demand and supply.	**P:01**	
Self-Study – analyze the Successful Strategies adopted by service providers in Air lines and Hospitality Industry to reduce performance gap.	**01**	
Module-5: Managing Service Promises		
Challenges in service communication and strategies to match service promise with delivery. Pricing of Services: Ways in which service prices are different for customers, value definitions and strategies for pricing services. Service Recovery: Impact of service failure and recovery, Types of complainers, service recovery strategies.	**L:06**	**CO5**
Practical Component – Propose viable and suitable communication, pricing and recovery strategy for wellness industry.	**P:01**	
Self-Study – analyze the Pricing strategies used by service aggregators in India. Analyze the greatest service recovery stories of airline Industry.	**01**	

Course Outcomes: At the end of the course the student will be able to:

CO1	To understand service characteristics and challenges and apply different models of services marketing.
CO2	To conduct research on customer expectations and requirements from services and analyze retention strategies for building long-term relationships.
CO3	To analyze a service offering and propose physical evidence to match the standards and expectations of customers.
CO4	To recognize the role played by customers and employees in delivering services and suggest strategies to overcome the constraints faced by them due to demand-capacity issues.
CO5	To design communication, pricing, and recovery strategies for managing and keeping service promises.

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAM41.1					3			3	
24MBAM41.2		3	3			3		3	
24MBAM41.3	3			3			3	3	3
24MBAM41.4		2	3	3				3	3
24MBAM41.5	3			2	3			3	
AVERAGE	3	3	3	3	3	3	3	3	3

Text Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Services Marketing	Zeithaml, V. A. et al	McGraw Hill Publishing	7/e 2018
2	Services Marketing	Wirtz, J. et al	Pearson Education	8/e 2017

Reference Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Services Marketing- The Indian Context	Srinivasan, R.	PHI Learning Pvt. Ltd., New Delhi	4/e 2014

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each- average of two	10 Marks
	Practical	Research on Servqual Framework and Project Report Evaluation- 10 Marks+5 Marks for Presentation of findings	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	The question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: 4 × 20 = 80 marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

B.N.M. Institute of Technology

An Autonomous Institution under VTU, Approved by AICTE

Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: IV

Course: ADVERTISING AND BRAND MANAGEMENT
Course Code:24MBAM42

L: T:P : J	**2:0:1:1**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1.To familiarize students with the basic concepts of advertising.
2. To train students understand the creative strategy used in advertising.
3. To help students understand the strategies for positioning and managing brands.
4. To provide insights on various strategies involved in building superior brands and use them for creating strong brands
5. To enable students ability on digital media campaigns for effective branding and advertising.

Contents	No. of hours	COs
Module-1: Introduction to Advertising and Organizing for advertising		
Advertising: Introduction, Meaning, Reasons, Types, Benefits and Need; Advertising as a part of IMC; Mediums and Tools of advertising. Organizing for Advertising: Role of Ad agencies and other marketing communication organizations.	**L:04**	**CO1**
Practical Component – Make a video edit of different types of advertisements for the same product.	**P:02**	
Module-2: Creative Strategy: Implementation and Evaluation		
Advertisement appeals in different stages of life cycle; Advertising execution; Creative tactics for different mediums; Copywriting; Client evaluation and approval of creative work. Media Planning and Strategy: Introduction, Basic terms and concepts; Developing a media plan-Market analysis, Establishing media objectives, media strategy development and implementation, Evaluation and follow- up	**L:06**	**CO2**
Practical Component – Advertising copy creation for a social cause, evaluation and correction of the same	**P:02**	
Module-3: Brands and Brand Management		
Meaning of Brand, Role of Brand for consumers and manufacturers, What can be branded? Brand Portfolio Management; Branding Challenges and Opportunities; Strategic Brand Management Process; Laws of Branding. Understanding consumer segmentation and targeting for branding, Identifying and establishing brand positioning; Positioning guidelines.	**L:06**	**CO3**
Self-Study – Defining and establishing brand mantras; Brand audits.	**P:04**	
Module-4: Brand Equity, Brand Promotion and Advertisements		

Customer-based brand equity; Making a brand strong; Sources of brand equity; Brand building; creating customer value; Choosing brand elements to build brand equity – criteria and options. Advertising and Integrated Brand Promotion: Role of Advertising in brand development and management; The evolution of promoting and advertising brands.	**L:06**	**CO4**
Practical Component – Create CBBE model and network model for given brands.	**P:02**	
Project work: Brand perception survey report.	**J:01**	
Module-5: Digital branding and advertising		
Advertising and integrated brand promotion on the internet; Social media marketing, Content Marketing and Email Marketing; Media Management.	**L:05**	**CO5**
Practical Component – Designing digital brand promotion for a product / service of your choice. Create a conventional and digital personal branding plan	**P:02**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Apply the basic concepts of advertising.
CO2	Apply creative strategy for creating effective advertising.
CO3	Assess how to position and manage brands in industry.
CO4	Assess various strategies involved in building superior brands and use them for creating strong brands.
CO5	Design digital media campaigns for effective branding and advertising.

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAM42.1	3							3	
24MBAM42.2	3			3	3			3	
24MBAM42.3	3			2			3	3	3
24MBAM42.4		3	3					3	3
24MBAM42.5	2							3	
AVERAGE	3	3	3	3	3		3	3	3

Text Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Advertising and Promotion – An IMC Perspective	George E Belch Michael A Belch Keyoor Purani	Tata McGraw Hill Education	9/e 2013
2	Advertising Management	Virender S Poonia	genNext Publication	2010
3	Strategic Brand Management	Kevin Lane Keller M G Parameswaran Isaac Jacob	Pearson	4/e 2018

4.	Advertising & Integrated Brand Promotion	Thomas C. O' Guinn Chris T Allen Angeline C Scheinbaum	Cengage	8/e 2018

Additional Practical Component

· Students can study the top 5 ad agencies in India and present their profile infographic.

· Students can make a collage of advertisement with different appeals.

· Students can submit an evaluation of brand positioning of a brand of their choice.

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each- average of two	10 Marks
	Project	Mini Project on advertisement with different appeals, & Project Viva- 5 marks	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	The question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: 4 × 20 = 80 marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totaling 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

B.N.M. Institute of Technology

An Autonomous Institution under VTU, Approved by AICTE

Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: IV

Course: Logistics and Supply Chain Management

Course Code: 24MBAM43

L: T:P: J	**2:0:2:0**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To familiarize the students to the basic concepts of Logistics management
2. To provide insights on Pillars of Logistics
3. To enable students gain insight on SCM and its principles
4. To develop students' ability to interpret and implement demand forecasting strategies.
5. To help students explore how supply chains drive value in digital and B2B ecosystems

Contents	No. of hours	COs
Module-1: Introduction to Logistics		
Logistics Management - Definition, Evolution, Importance. The concepts of logistics, Logistics relationships. Functional applications – HR, Marketing, Operations, Finance, IT. Logistics Organization	**L:07**	**CO1**
Self-Study : Learn about Logistics in different industries	**01**	
Module-2 : Integrated Logistics Systems and Strategic Supply Chain Functions		
Pillars of Logistics, Customer Service, Material Handling, order processing, information handling and procurement, Transportation and Packaging. Third party and fourth party logistics - Reverse Logistics	**L:06**	**CO2**
Practical Component: Make a presentation on Global Logistics , Make a report on Warehousing and Material Storage after an industry visit	**P:04**	
Module-3 : Fundamentals of Supply Chain		
Introduction to Supply Chain basics and Importance, Development of SCM concepts and Definitions Supply chain strategy, Strategic Supply Chain Management and Key components. Drivers of Supply Chain Performance – key decision areas – External Drivers of Change.	**L:06**	**CO3**
Module- 4 : Demand Management and Forecasting		
Demand as an Inventory, Aggregate Planning in a Supply Chain: role, aggregate planning problems, strategies, role of IT, creating responsive supply chains, lean and agile supply chain and its characteristics.	**L:06**	**CO4**
Self-Study : Software used for demand management and forecasting	**02**	
Module- 5 : Role of Supply Chain in e-business and B2B context		
Framework and Role of Supply Chain in e-business and B2B context. Value of information in logistics & SCM - E-logistics, E-Supply Chains - Role of government in international logistics and Principal characteristics of logistics in various countries and regions.	**L:06**	**CO5**
Practical Component: Case study on International and global issues in logistics	**P:02**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand fundamental concepts and functions of logistics management.
CO2	Provide insights on pillars of logistics.
CO3	Analyze supply chain management principles and their business applications.
CO4	Interpret demand patterns and apply basic forecasting techniques.

CO5	Evaluate the role of supply chains in e-commerce and B2B ecosystems.

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAM43.1	3							3	
24MBAM43.2	3							3	
24MBAM43.3				3				3	3
24MBAM43.4	3	3						3	
24MBAM43.5		2						3	
AVERAGE	3	3		3				3	3

Text Books:

Sl. No.	Title of the Book	Name of the Author(s)	Publisher Name	Edition and Year
1	Operations and Supply Chain Management: The Core	F. Robert Jacobs & Richard B. Chase	McGraw-Hill	17/e, 2023
2	Supply Chain Management for Dummies	Daniel Stanton	Wiley	3/3, 2023
3	Global Logistics and Supply Chain Management – Indian Adaptation	John Mangan, Chandra Lalwani, Ram Singh	Wiley India	2024
4	Logistics and Supply Chain Management	S.P. Shobha Devi, Dr. Bilal Ahmad Dar, Sharmila Fernandes, Dr. P. Mohan Kumar	The Write Order Publications	2022

Reference Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Flow: How the Best Supply Chains Thrive	Rob Handfield & Tom Linton	Notion Press	2022
2	The Supply Chain Revolution	Suman Sarkar	Wiley	2023

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each-average of two	10 Marks
	Practical	2 practical assignments	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	The question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: 4 × 20 = 80 marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

HUMAN CAPITAL MANAGEMENT

III and IV Semester

III Semester

B.N.M. Institute of Technology

An Autonomous Institution under VTU, Approved by AICTE

Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: III

Course: PERFORMANCE MANAGEMENT SYSTEMS AND ASSESSMENT CENTERS

Course Code: 24MBAH33

L: T:P: J	**2:0:2:0**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To introduce the concept of performance management systems
2. To help students understand process of performance management system
3. To develop the students' ability to apply the concept of competency-based assessment
4. To provide an understanding on the role of assessment and development centers
5. To create awareness of the contemporary practices in performance management system

Contents	No. of hours	COs
Module-1: Introduction to Performance management Systems		
Performance: Concept & Dimensions, Individual, team and organizational performance, approaches to measuring performance. Performance management system (PMS), objectives, importance of PMS, performance appraisal versus management, Implementing a performance management system	**L:06**	**CO1**
Self-study: KPA, KRA, PI	**02**	
Module-2: Process of Performance Management and Models		
Four pillars of PMS, Performance management process, performance execution and performance assessment, performance review, action plans to address poor performance. Eight-step model of elements and standards of a performance plan, modern methods – multi rater feedback systems – 360- degree feedback, MBO, Human Asset Accounting method, BARS, Assessment centre method, Mixed standard scales, Behavioral checklist method	**L:07**	**CO2**
Practical component - Interview a HR from a company to understand the performance management system adopted	**P:02**	
Module-3: Competency Based Assessments		
Competency – meaning and definition, different levels of competencies, Competency analysis, competency mapping, significance of competency-based performance management, theoretical foundations of competency management, competency-based performance management strategy, interventions and drivers.	**L:04**	**CO3**
Practical component - Identify competencies required for different jobs at different levels in various companies.	**P:02**	
Module-4: Assessment Centre and Development Centre		
Introduction to assessment centers and development centers, scope and objectives, application of assessment center – high potential identification, training needs identification, Leadership development, Leadership hiring and succession planning; evaluation tools used – in basket exercises, role plays, management games, competency-based interviewing, business presentations, leaderless and leader-led	**L:05**	**CO4**

group discussions, assessment process, role of assessor.		
Practical component - Conduct a classroom activity to understand the use of in basket exercises in appraising performance of individuals.	**P:01**	
Module-5: Contemporary Practices in Performance management System		
Rating-less appraisal, potential appraisal, managing team performance – including team performance in the performance management system, performance management of remote/virtual teams, e-performance management, Balanced scorecard, HR scorecard, Performance Management Audit – introduction, scope, checklist of performance audit, structure, steps of performance audit.	**L:7**	**CO5**
Practical component – Interview a HR manager to understand if and how they do performance management audit	**P:02**	
Self-study: Traditional methods of performance appraisal, e-tools used in performance management	**02**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand the concept of performance management systems
CO2	Analyse effectiveness of various types of performance management techniques
CO3	Understand and appreciate the use of competency-based assessments
CO4	Develop the ability to apply various performance evaluation tools
CO5	Understand the contemporary practices in performance management systems used by companies

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAH33.1	3			2	3			3	
24MBAH33.2	3	3	3	3	3	3		3	
24MBAH33.3	3	3		3	3	3		3	
24MBAH33.4	2	2		2	3			3	
24MBAH33.5	3	2			3		3	3	
AVERAGE	3	3	3	3	3	3	3	3	

Text Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Performance Management and Appraisal systems – HR Tool for Global Competitiveness	T V Rao	Sage Publications	2004
2	Performance Management systems and strategies	Dipak Kumar Bhattacharyya	Pearson	2011
3	Performance Management – Strategies, interventions, Drivers	Srinivas R Kandula	PHI	2006
4	Performance Management	Herman Aguinis	Pearson	2/e, 2010

Reference Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Performance management systems -An experiential approach	Arup Varma and Pawan Budhwar	Sage Publications	2019
2	Performance Management Towards Organizational Excellence	T V Rao	Sage Publications	2/e 2015
3	360 Degree feedback and assessment and development centres	T V Rao Nandini Chawla	Excel books	2005

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each- average of two	10 Marks
	Practical	Survey of contemporary Performance Management practices at selected organisation and presentation of the same.	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	The question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: 4 × 20 = 80 marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

B.N.M. Institute of Technology

An Autonomous Institution under VTU, Approved by AICTE

Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: III

Course: TALENT MANAGEMENT

Course Code: 24MBAH34

L: T: P : J	**2:0:0:2**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To introduce the concept and importance of talent management to student
2. To make the students understand the talent acquisition strategies in present-day organizations
3. To familiarize the concepts of succession planning and significance of talent development
4. To make the students understand the importance of talent engagement and retention
5. To create awareness regarding the latest talent management trends

Contents	No. of hours	COs
Module-1: Introduction to Talent Management		
Talent management Fundamentals – Introduction and overview, need for talent management, Key Process of Talent Management, Consequences of Failure. Talent Management System – Components, benefits, and challenges of Talent Management System, Tools for Managing Talent, Latest trends in talent management.	**L:05**	**CO1**
Self-Study: History, evolution and scope of talent management	**02**	
Module-2: Workforce planning and recruitment strategies		
Meaning, Need for Workforce Planning, forecasting workforce supply and demand, Strategic job redesign and its benefits; Strategic issues in recruitment. Pre-employment Testing and choosing suitable types of Interviews, Selection Errors & Minimizing Selection Errors, making a job offer, Induction, and Placement	**L:08**	**CO2**
Practical component – Create a workforce forecast plan for a hypothetical situation	**P: 01**	
Module-3: Talent planning and development		
Talent planning – Succession management process, Integrating succession planning and career planning, balanced scorecard, contingency plan for talent, compensation management within the context of talent management. **Talent development –** Talent development budget, potential identification and development, integrating training, development and coaching with talent management.	**L:08**	**CO3**
Self-Study: Building a talent reservoir, CEO succession planning.	**02**	
Module-4: Talent engagement and Retention		
Talent engagement – Meaning and importance of talent engagement. Factors influencing talent engagement, talent engagement strategies **Talent retention –** Importance, challenges and strategies of talent retention. Return on talent, Developing talent management information systems.	**L:08**	**CO4**

Project component – Conduct a company specific study and report the following – • Talent acquisition and retention strategies • Talent development and engagement strategies Conduct an interview with an HR professional if necessary.		
Module-5: Latest trends in Talent management		
Human Resource Information System (HRIS), Applicant tracking systems, Human Resource Accounting (HRA), Human Resource Audits, Contemporary Talent Acquisition Issues, and challenges, **employee experience management (EXM) – concept, benefits and challenges**, Managing Multigenerational workforce such as Gen Z, and Gen Alpha.	**L:06**	**CO5**

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand the concept, importance and components of talent management
CO2	Apply various contemporary talent acquisition techniques in their profession
CO3	Understand the importance of succession planning and talent development.
CO4	Develop the ability to apply talent engagement and retention
CO5	Understand the latest trends in talent management and develop the ability to handle multi-generational workforce.

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAH34.1					3			3	
24MBAH34.2		3		3	3			3	
24MBAH34.3		3		3	2			3	
24MBAH34.4		3		2	3			3	
24MBAH34.5		3		3	3			3	
AVERAGE		3		3	3			3	

Text Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Talent management	Gowri Joshi, Veena Vohra	Cengage Learning	2018
2	How to Recruit, Incentivize and Retain Millennials	Dheeraj Sharma	Sage Publications	2019
3	The talent Management handbook	Lance A. Berger & Dorothy R. Berger	Tata McGraw Hill	

Reference Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Human Resource Management	R. C. Sharma	Sage Publications	1/e 2019
2	Human Resource Management	Amitabha Sengupta	Sage Publications	1/e 2018

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each- average of two	10 Marks
	Project	Mini Project on talent acquisition and retention strategies followed by viva	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: $4 \times 20 = 80$ marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

B.N.M. Institute of Technology

An Autonomous Institution under VTU, Approved by AICTE

Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: III

Course: INDUSTRIAL RELATIONS AND LABOUR LEGISLATIONS
Course Code: 24MBAH35

L: T:P: J	**2:2:0:0**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To introduce Labor Laws regulating Industrial Relations in Organization
2. To familiarize the applicability of the factories, act and shops and commercial establishments act
3. To create an understanding on wage acts and their applicability
4. To familiarize with social security acts and redressal acts and their relevance
5. To help students understand employer-employee relations related acts

Contents	No. of hours	COs
Module-1: Fundamental Aspects of Industrial Relations		
Introduction and Approaches to Industrial Relations, The Participants of Industrial Relation Activities- Unions, State and Employer/Management Evolution of Labour Legislation in India - Role of ILO, Objectives of Labour Legislation, Types of Labour Legislations in India, Constitutional Provisions for the Protection of Labour Workforce in India, Rights of Woman Workers.	**L:05**	**CO1**
Module-2: Factories Act 1948 and Shops and Commercial Establishments Act,1961		
Factories Act 1948 - Introduction, Objectives, Scope, Approval, Licensing and Registration of Factories, Health, and Safety of Workers, Employment of Young Persons and Women, Annual Leaves with Wages, Penalties and Contingence of Offences, latest amendments. Shops and commercial establishments act (Karnataka, 1961) -Introduction, Objectives, Scope and Important Definitions, registration of establishments, hours of work, leaves, wages and compensation, enforcement and inspection, offense and penalties, latest amendments.	**L:06**	**CO2**
Self-Study - Provisions Related to Working Conditions, Hazardous Processes, Employee Welfare and Working Hours	**P:02**	
Module-3: Wage-related acts		
The Payment of Wages Act, 1936- Introduction, Objectives, Provisions for Payment of Wages, Deductions from Wages, Enforcement of the Act, Penalties, and Offences, Miscellaneous, Provisions of the Act the Payment of Bonus Act, 1965- Introduction, Objectives, Scope and Important Definitions of the Act, Eligibility, Disqualification and Amount of Bonus, Calculation of Bonus, Special and Miscellaneous Provisions, Dispute, Penalties, and Offences	**L:06**	**CO3**

Module-4: Social Security acts and Redressal act		
The Employees' Compensation Act, 1923- Introduction, Objectives, Scope, Eligibility, Rules for Workmen's Compensation, Amount and Distribution of Compensation, Notice, Claims and Other Important Provisions, Enforcement of Act and Provisions for Penalty The Employees' Provident Funds and Miscellaneous Provisions Act, 1952- Introduction, Objectives, Scope, Administration of the Schemes under the Act, Administration and Enforcement of the Act, Penalties and Offences, Miscellaneous Provisions of the Act, latest amendments The Payment of Gratuity Act, 1972- Introduction, Objectives, Scope, Payment and Forfeiture of Gratuity and Exemption, Compulsory Insurance and Protection of Gratuity, Enforcement of the Act, Penalties and Offences. Sexual harassment of women at work place (Prevention, prohibition, and redressal) act, 2013 – Introduction, Objectives, Scope and important definitions, constitution of internal complaints committee, administration of the act, important provisions, punishment, penalties, and determination of compensation	**L:10**	**CO4**
Module-5: Acts regulating Employer-Employee Relations		
Introduction, Objectives, applicability of the act, Maternity benefits act, 1961 – provisions, latest amendments, offenses and penalties. **POSH act, 2013**. The Industrial Disputes Act, 1947- Introduction, Objectives, Scope and Procedure for Settlement of Industrial Disputes and Authorities under the Act, Notice of Change in Conditions of Service, References of Disputes to Boards, Courts or Tribunals and Voluntary References, Award and Settlements, Strikes and Lockouts, Layoff and Retrenchment, Transfer and Closing Down of Undertakings, Unfair Labor Practices. The Trade Unions Act, 1926- Introduction, Objectives, Scope, Registration and Cancellation of Registration of Trade Unions, Rights and Duties of Registered Trade Unions, Amalgamation and Dissolution of Trade Union, Penalties.	**L:09**	**CO5**
Self-Study: About ILO, Role of ILO in shaping labour legislations in India	**P:02**	
Project: Conduct research on awareness of 'The prevention of sexual harassment at workplace' related act amongst employees in a particular company/industry and present an action plan to increase awareness of the same		

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand & analyse the concept of Industrial Relations and Labour legislation
CO2	Understand the applicability of the factories, act and shops and commercial establishments act
CO3	Understand and apply the acts related to wages
CO4	Identify and apply the acts related to social security
CO5	Understand and apply the acts related to employer-employee relations

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAH35.1	3			2		3		3	
24MBAH35.2	3			3		3		3	
24MBAH35.3	3	3		3		3		3	
24MBAH35.4	3		3			3		3	
24MBAH35.5	3		2		3	3	3	3	

AVERAGE	3	3	3	3	3	3	3	3	

Text Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Industrial Relations and Labour Laws for Managers	Parul Gupta	Sage Publication India Pvt. Ltd	1/e, 2019
2	The SAGE Handbook of Industrial Relations	Paul Blyton, Edmund Heery, Nicolas Bacon, Jack Fiorito	SAGE Publications	2008
3	Labour and Industrial Laws	P. K. PADHI	Prentice Hall India Pvt., Limited	4/e, 2019

Reference Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Bare Acts, Ministry of Labour, GOI	GOI	2019	Bare Acts, Ministry of Labour

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each- average of two	10 Marks
	AAT	Case Study and Quiz	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: $4 \times 20 = 80$ marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

B.N.M. Institute of Technology

An Autonomous Institution under VTU, Approved by AICTE

Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: III

Course: COMPENSATION AND BENEFITS
Course Code: 24MBAH37

L: T:P: J	**2:0:2:0**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To introduce the concept of compensation management
2. To make students understand wage administration and its application in India
3. To familiarize the use of reward practices
4. To help students analyze and evaluate pay for performance as a compensation strategy
5. To develop the ability to understand strategic pay issues in new business environment

Contents	No. of hours	COs
Module-1: Compensation Management		
Compensation: meaning, components, types, Importance of the Total Compensation, changing nature of work and its effect on compensation, Compensation Strategy, and Policy, The Psychological Contract, Factors Affecting Employee Compensation, compensation management, job and work evaluation and its effect on compensation.	**L:04**	**CO1**
Practical Component – Conduct a survey on compensation components for different types of employees in different companies.	**P:02**	
Module-2: Wage and Salary Administration		
Meaning of Wage, Essentials of a Satisfactory Wage System, National Wage Policy in India, Wage Policy at the Organizational Level, Wage surveys, Wage Problems in India. **Components of salary** -Fixed and variable components, salary determination, Salary, Survey data, Salary Costs, Planning, Budget and Control, Salary Reviews, Guidelines for Salary Review Process, Process of salary fixation, Method of Paying Salary, Flexibility, Pay Reviews, Procedures for Grading Jobs and Pay, Rates Fixation, Controlling Payroll Costs, Executive compensation	**L:07**	**CO2**
Self-Study - Types of wages, Methods of Wage Payment	**P:02**	
Module-3: Strategic Reward Practices		
Introduction, Management's Strategy, Introduction to rewards, Reward Policy, Types of rewards, Reward Management: Processes, Procedures& Evaluation, Fringe Benefits and Current Practices, Internal Audit of Compensation and rewards, hybrid reward systems for virtual organizations	**L:06**	**CO3**
Practical Component –Develop a framework to know the fringes benefits	**P:02**	

Module-4: Pay for performance and competence		
Competency-Based Pay, Skill-Based Pay, Team-Based Rewards , Gainsharing, Profit-Sharing Profit-Related Pay, Other Cash Payments and Allowances, Overtime Payments Attendance Bonuses, Shift Pay, Clothing Allowances, Honoraria, Payments for Qualifications, Pay for Person, Pay for Excellence, Managerial Compensation and Rewards, Sales Force Incentive Programs, Competency-based Pay- Framework, Model and Challenges; Pay for Performance: Steps involved in the design for pay for performance - Intent Eligibility; Participation; Performance and Goal Criteria-Measurements	**L:07**	**CO4**
Practical Component- List out factors or components responsible for total reward system in the organization.	**P:01**	
Module-5: Strategic Pay issues and pay in New Business Environment		
Compensating flexible workforce – The Contingent Workforce, Groups of Contingent Workers, Part-Time Employees, Temporary Employees, Leased Workers, Independent Contractors, Freelancers, and Consultants, flexible work schedules- Flextime Schedules, Compressed Workweek Schedules, Telecommuting Pay and employee benefits, WFH Pay issues, Strategic Issues and Choices in Using Contingent and Flexible Workers, Compensating Expatriates, Repatriation Pay Issues, pay, The Compensation-Productivity Gap, Pay Transparency.	**L:07**	**CO5**
Self-Study: Rewards in different countries/economies, Gender Pay Gap, Concept of work from home.	**P:02**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand the concept of compensation management
CO2	Understand wage and salary administration and its application in India
CO3	Appreciate the use of reward practices
CO4	Analyse and evaluate pay for performance as a compensation strategy
CO5	Understand the changing dynamics of compensation in the digital age

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAH37.1	3			3				3	
24MBAH37.2		3			3		2	3	
24MBAH37.3	3	3	3			3			3
24MBAH37.4					3			3	
24MBAH37.5	3					3	3		
AVERAGE	3	3	3	3	3	3	3	3	3

Text Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Investment Analysis and Portfolio management	Prasanna Chandra	Tata McGraw	6/e, 2021

			Hill Education	
2	Compensation and Benefit Design	Biswas, Bashker, D	Pearson	1/e, 2012
3	Managing Employees Performance and Rewards	Shields	Cambridge Press	2007
4	Strategic Compensation A Human Resource Management Approach	Joseph J. Martocchio	Pearson	10 /e, 2020

Reference Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Compensation & Reward Management,	BD Singh	Excel Books	2/e, 2012
2	Compensation	Milkovich & Newman	Irwin/McGraw-Hill	9/e, 2017 .

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each- average of two	10 Marks
	Practical	Practical assignment on designing CTC and presentation	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: 4 × 20 = 80 marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

B.N.M. Institute of Technology

An Autonomous Institution under VTU, Approved by AICTE

Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: III

Course: CONFLICT MANAGEMENT AND NEGOTIATION

Course Code: 24MBAH38

L: T: P : J	**2:0:2:0**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To introduce the concept of negotiations
2. To help the students understand the tools used in negotiations
3. To enable the students evaluate various methods of conflict management and appreciate its importance in organizations
4. To create an understanding on the concept of dispute resolution
5. To familiarize the theories of collective bargaining

Contents	No. of hours	COs
Module-1: Negotiations in the Contemporary Workplace		
Introduction to negotiations – meaning, definition, purpose, scope, characteristics of negotiations, negotiation theories and models – bargaining theory, social-psychological theory of bargaining, bargaining theory of wages, Key elements in managing negotiations within relationships -trust, emotions, justice; cognitive bias, power and persuasion	**L:06**	**CO1**
Self-Study: Skills needed for negotiations and ethics in negotiations, negotiations process	**04**	
Practical Component – Conduct a roleplay on negotiation in a particular scenario	**P:01**	
Module-2: Basic Tools of Negotiation		
Techniques used for favorable negotiation outcomes, types of negotiations -competitive and cooperative negotiations, bargaining strategies – distributive, integrative, mixed. Transactional Analysis in negotiations, alternatives when negotiations fail- mediation, arbitration – meaning, process.	**L:05**	**CO2**
Practical Component – Identify real time cases of organizations that have failed during negotiation and have undergone the process of arbitration or adjudication and present the same.	**P:02**	
Module-3: Conflict Management		
Conflict, traditional theory Vs contemporary theory, elements of conflicts, positive and negative effects of conflict, five stages of organizational conflict, conflict assessment, BATNA, WATNA, ZOPA, conflict management – meaning, process, styles - Thomas-Kilmann Conflict Mode Instrument (TKI), conflict resolution techniques like Logical Argument mapping, Vaaland's improvement model, conflict dynamics profile, Runde-Flanigan model	**L:08**	**CO3**
Practical Component – Demonstration of Thomas-Kilmann Conflict Mode Instrument (TKI)	**P:02**	

Module-4: Dispute resolution		
Dispute- meaning, types, impact of disputes on organizations, dispute resolution process -consensual and adjudicative, spectrum of dispute resolution, dispute prevention	**L:04**	**CO4**
Practical Component – Conduct research on the conflict/dispute resolution techniques used by different companies and across industries	**P:02**	
Module-5: Collective Bargaining		
Collective bargaining – definition and characteristics, importance of collective bargaining for workers and employers, functions, critical issues in collective bargaining, Theories of Collective Bargaining: Hicks' Analysis of Wages Setting under Collective Bargaining, Conflict-choice model of negotiation, A Behavioral Theory of Labor Negotiation., process of collective bargaining, effects of collective bargaining	**L:06**	**CO5**

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand the concept of negotiations
CO2	Ability to apply different negotiation tools at workplace
CO3	Apply different conflict management techniques for win-win outcome
CO4	Understand how dispute resolution works
CO5	Understand the concept of collective bargaining and analyse various bargaining theories

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAH38.1	3			3	2			3	3
24MBAH38.2	3	3						3	3
24MBAH38.3	3				3			2	3
24MBAH38.4	3	3		2				3	3
24MBAH38.5	3	3		2				2	3
AVERAGE	3	3		3	3			3	3

Text Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Essentials of Negotiation (Int'l Ed)	Roy Lewicki Bruce Barry David Saunders	McGraw-Hill Education / Asia	5/e, 2010
2	Conflict Management: A Practical Guide to Developing Negotiation Strategies	Barbara A. Budjac Corvette	Pearson	2013
3	Negotiation Closing Deals, Settling Disputes, and Making Team Decisions	David S. Hames	Sage Publications	2012

Reference Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Labor Relations and Collective Bargaining	Michael R. Carrell Christina Heavrin	Pearson	9/e 2010
2	Negotiating Essentials: Theory, Skills, and Practices	Michael R. Carrell Christina Heavrin	Pearson	2007

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each- average of two	10 Marks
	Practical	Role play and Interview on process of wage negotiation in manufacturing companies.	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: $4 \times 20 = 80$ marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

B.N.M. Institute of Technology

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Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: IV

Course: HUMAN RESOURCE ANALYTICS

Course Code: 24MBAH41

L: T:P : J	**2:0:2:0**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To help students develop an understanding of the rise of HR analytics and its relevance
2. To introduce different frameworks related to HR analytics
3. To provide an understanding of the application of HR Metrics
4. To introduce predictive analysis in HR
5. To familiarize the usage of tools for HR Analytics and gain an understanding of Data visualization in HR.

Contents	No. of hours	COs
Module-1: Rise of HR Analytics		
Meaning, benefits of HR Analytics; Pitfalls of HR Analytics; Evolution of HR Analytics, Levels of Analysis, Conducting HR Analytics, Future of HR Analytics, The Scope of Big Data in HR Analytics, Text Analytics, Sentiment analysis, **ethical and secure use of data in HR.**	**L:05**	**CO1**
Practical component – Exercises/demonstration of text analytics and sentiment analysis	**P:02**	
Module-2: HRA Frameworks		
Current approaches to measuring HR and reporting value from HR contributions, HR Scorecards & Workforce Scorecards and how they are different from HR Analytics, HR Maturity Framework: From level 1 to level 5, HR Analytics Frameworks: (a) LAMP framework; (b) HCM:21 Framework	**L:04**	**CO2**
Practical component – Present on the adaption of different HRA frameworks in different industries	**P:03**	
Self-Study: Strategic HR Metrics versus Benchmarking	**02**	
Module-3: HR Metrics		
Workforce metrics- Headcount metrics, Absenteeism metrics, Turnover metrics **Recruitment Metrics-** Candidate call back rate, application completion rate, candidates per hire, cost per hire, quality of hire, first year retention rate, time to hire, sourcing channel effectiveness **Training & Development Metrics -** Percentage of employee trained**,** Internally and externally trained**,** Training hours and cost per employee, ROI calculation, Training NPS, Course completion rate, Learner drop off rate **Diversity Metrics** – Hiring & Recruiting, Equal pay, Representation, Promotions, Retention **Career Progression Metrics-**Career path ratio	**L:06**	**CO3**
Practical component – Calculate different metrics for a given dataset	**P:02**	

Module-4: Predictive analytics in HR		
Predicting individual and team turnovers, Turnover costs for business implications, Selection decisions from previous performance data, Identifying flight-risk candidates, Correlation and regression analysis	**L:05**	**CO4**
Self-study: Process of report generation	**02**	
Practical component – Conduct predictive analytics for given dataset	**P:03**	
Module-5: HR Data visualization and Dashboard creation using power BI		
Overview of visualization, Graphics, Data Visualization best practices, Popular tools available for visualization, Storyboarding and importance of insights, Interactive and static dashboards and reports. **Dashboard creation Using Power BI -** Process of development of dashboard, Essential criteria, Leading and lagging indicators, Selection of appropriate metrics, Sources of data	**L:04**	**CO5**
Practical component – Build a dashboard for a given dataset	**P:02**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand the meaning of Analytics and visualization, need for implementing Analytics in an organization and challenges and pitfalls involved in implementing Analytics in the system.
CO2	Understand different HR Frameworks and its application in the field of Analytics
CO3	Gain knowledge and hands on experience of preparing HR metrics
CO4	Apply and analyse HR data for better decision making
CO5	Apply data visualization and dashboard creation for HR purposes

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAH41.1		3				3		3	
24MBAH41.2	3	3				3		3	
24MBAH41.3	2	3		2		2		3	
24MBAH41.4		3		3		3		3	
24MBAH41.5	2	3				3		3	
AVERAGE	3	3		3		3		3	

Text Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	HR Analytics- Understanding Theories and Applications	Bhattacharya, Dipak Kumar	Sage Texts, India	2017
2	Predictive HR Analytics Mastering the HR Metric	Martin R Edwards, Kirsten Edwards	Koganpage	2nd edition 2019
3	Human Resource Analytics	Swati Dhir Suparna Pal	Cengage	2020

	Theory and Application Techniques			
5	Winning on HR Analytics- Leveraging Data for Competitive Advantage	Ramesh, Soundarajan and Kuldeep Singh	Sage Publication India Pvt. Ltd.	2016
6	HR Analytics The What, Why and How...	Tracy Smith	Createspace Independent Pub	2013

Reference Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Applying Advanced Analytics to HR Management Decisions: Methods for Selection, Developing Incentives and Improving Collaboration	Sesil James, C	Pearson, New Jersey	2017

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each- average of two	10 Marks
	Practical	Practical assignment on HR Metrics and Presentation	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: 4 × 20 = 80 marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

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Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: IV

Course: STRATEGIC HR PRACTICES AND AGILE WORKFORCE MANAGEMENT

Course Code: 24MBAH42

L: T:P: J	**2:0:0:2**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To introduce the concept of strategic human resource management
2. To provide an understanding of the dimensions related to strategic HRM activities which contributes to an organization's competitive edge
3. To help the students apply agile principles and methodology in HR
4. To help the students analyze redundancies and agile risk management strategies
5. To develop an ability to analyze the forces shaping future of work

Contents	No. of hours	COs
Module-1: The Concept of Strategic Human Resource Management		
The Concept of Strategic Human Resource Management (SHRM), An Investment Perspective of HRM, Competencies of HR Professional in a SHRM Scenario, Emerging Issues in SHRM, HRM Environment, The Evolving Strategic Role of HR, The Concept of Human Capital, Intellectual Capital, Social Capital and Organizational Capital, Human Capital Measurement and Approaches to Measurement.	**L:07**	**CO1**
Self-Study: Objectives of SHRM, The evolutionary stages of Strategic HRM	**P:02**	
Module-2: Strategic HRM in in Action		
HR Strategy defined, Purpose, Types of HR Strategies, Formulating HR Strategy, Criteria for an Effective HR Strategy, Strategy formulation propositions, key concept and process issues, Implementing HR Strategy, SHRM: Aligning HR with Corporate Strategy, Integrating the Business strategies and HR Strategies for competitive advantage, Corporate Restructuring and SHRM, Corporate Ethics, Values and SHRM	**L:08**	**CO2**
Practical Component – Review research paper on strategic HR management	**P:02**	
Module-3: Introduction to Agile HR & Design Thinking		
Developing the agile mindset, the agile environment, Difference between Traditional Management & Agile management practices, building culture of Agility, Design thinking- Co-creating employee experience, Driving agility	**L:04**	**CO3**
Module-4: Organization design and Managing Redundancy& Risk		
Organization structure, Understand Agile Organizations, Dave Snowden's Cynefin model, Agile HR services, The Primacy of The Customer, Descaling Work for Small Teams, The Organization as Network Redundancy-Meaning, Sources of redundancy, Planning, Implementation, Impact of redundancy on organizations, Alternatives to Redundancy, Agile Risk management	**L:07**	**CO4**
Practical Component – Presentation on agile HR in practices in different companies /different sectors	**P:02**	

Module-5: Agile People Management Practices and The Future of work		
Redesigning Talent practices, People and agility-creating an agile workforce, Agile People Ops Framework (APF) Forces shaping future of work, Skill Shift-Automation and the future of workforce, Creative economy, Lean concepts for a creative economy, Emerging concepts of agile HR	**L:07**	**CO5**
Self-Study: Role of HR in the current context	**P:01**	
Project: Interview a senior manager of any three sectors to understand and compare the HR strategies they are implementing in their organizations and prepare a report on the same.		

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand the concept of strategic human resource management.
CO2	Understand the dimensions related to strategic HRM activities which contributes to an organization competitive edge.
CO3	Describe and contrast traditional organization structures with Agile organization design, discuss the pros and cons of each approach and explain the necessity of incorporating agile principles.
CO4	Comprehend Lean & Agile HR practices in strategy formulation &apply in Operations, culture assessment and behavioural change management and analyse existing organizational structure and develop an action plan for delivering value in an iterative agile method.
CO5	Evaluate talent elements needed to help support an Agile transition in an organization and explain how different contexts can influence the approach taken

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAH42.1	3			3				3	
24MBAH42.2		3			3			3	
24MBAH42.3		3				3			3
24MBAH42.4			3					3	
24MBAH42.5		3				3			
AVERAGE	3	3	3	3	3	3		3	3

Text Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Strategic Human Resource Management	Agarawala Tanuja	Oxford University Press	2007
2	Strategic Human Resource Management	Mello Jeffrey A	Thompson Press Publishing	2008

3	Agile People: A Radical Approach for HR & Managers (That Leads to Motivated Employees)	Pia-Maria Thoren	Lioncrest Publishing	2017
4	Human Resources Strategies: Balancing Stability and Agility in Times of Digitization	Armin Trost	Springer	2018

Reference Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Strategic Human Resource Management	Armstrong Michael	Kogan Page	2007
2	Agile Transformation: Structures, Processes and Mindsets for the Digital Age	Neil Perkin	Kogan page	2020

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each- average of two	10 Marks
	Project	Interview to understand contemporary HR practices and viva	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: $4 \times 20 = 80$ marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

B.N.M. Institute of Technology

An Autonomous Institution under VTU, Approved by AICTE

Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: IV

Course: INTERNATIONAL HUMAN RESOURCE MANAGEMENT

Course Code: 24MBAH43

L: T:P: J	**2:0:2:0**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To introduce the concept of international human resource management
2. To understand international staffing policies and practices
3. To appreciate knowledge management practices in international organizations and understand training and development in MNCs
4. To understand international performance management and rewards management
5. To appreciate and understand diversity management in organizations

Contents	No. of hours	COs
Module -1: Introduction to Industrial Relations		
Meaning and Definition IHRM: Objectives, IHRM Versus Single Nation-centric HRM IHRM: Approaches, ; Differences in HRM practice; Approaches to International Human Resource Management - Review of IHRM approaches, Factors affecting HRM approaches globally , Regulation and Multinational Corporations: The Changing Context of Global Employment Relations, Importance of regulation and political context, Political agendas to de-regulate, Political and institutional drivers of de-regulation, Problems with de-regulation in a global context.	**L:07**	**CO1**
Practical component – Research and present on the differences between MNCs and domestic companies with respect to their HR policies	**P:02**	
Module-2: International staffing		
Introduction Staffing policies, Motives for international transfers, Alternative forms of international assignments. The international assignment processes. Varieties of host country environments, Sustainability of divergent, employment arrangements Understanding how MNCs act in diverse host country, environments Host country effects on IHRM practices of MNC subsidiaries	**L:06**	**CO2**
Module-3: Knowledge management, Training, and development		
Managing Knowledge in Multinational Firms: Introduction, Different types of knowledge, Factors influencing knowledge sharing How to stimulate knowledge sharing Gaining access to external knowledge, Knowledge retention, Training and Development: Developing Global Leaders and Expatriates Training and Development: Domestic Versus International Organizations International Training Management: Leadership Training and Development in International Organizations	**L:06**	**CO3**
Practical Component – Conduct an interview with an expatriate to understand various training provided by the company	**P:01**	

Module-4: Performance management & Reward systems		
Global Performance Management - Introduction, Key components of PMSs Factors affecting PMSs Culture and PMSs, PMSs in six leading economies: China, India, Japan, South Korea, UK and USA, PMS for expatriates Total Rewards in the International Context Recap: differentiating between PCNs, TCNs and HCNs Introduction: the current state of total rewards Complexities faced by IHR managers, International total rewards objectives for the MNC Newer forms of international assignments, Taxation, Approaches to international compensation Repatriation issues, international trends in global total rewards.	**L:05**	**CO4**
Self-Study: Key components of global total rewards programs	**P:02**	
Practical Component – Understand and discuss latest compensation survey conducted by specific agency (for example Deloitte)	**P:02**	
Module -5: Diversity management and culture management:		
Equal opportunities, Diversity Management – meaning, types, practices; Work–life balance: practices and discourses; Inclusion – meaning, initiatives International Culture Management: Model Organizational Culture and Innovation, Models of Culture, Hofstede's Four, Cultural Dimensions, Trompenaars's Seven Cultural Dimensions, Globe's Nine Cultural Dimensions, Edgar Schein's Model of Culture Deal and Kennedy's Culture Model, Schneider's Culture Model, Cameron and Quinn's Model of Culture Charles Handy's Model of Culture Denison's Model of Culture	**L:07**	**CO5**
Self-Study: Cross culture management	**P:02**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Students will be able to understand concepts of international human resource management
CO2	Students will be able to understand and apply international staffing practices
CO3	Students will be able to appreciate knowledge management practices in international organizations and understand training and development in MNCs
CO4	Students will be able to understand international performance management and rewards management
CO5	Students will be able to appreciate and understand diversity management in organizations

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAH43.1	3			3				3	
24MBAH43.2		2		3	3			3	
24MBAH43.3	3	3		3	3	3		3	
24MBAH43.4	2	3		3	2	2		3	
24MBAH43.5	3		3	3	3			3	
AVERAGE	3	3	3	3	3	3		3	

Text Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	International Human Resource Management	Srinivas R. Kandula	Sage Publication India Pvt. Ltd.	2018
2	International Human Resource Management	Anne-Wil Harzing, Ashly H. Pinnington	Sage Publication India Pvt. Ltd	4/e, 2015
3	International Human Resource Management	Anne-Wil Harzing, Ashly Pinnington	Sage Publication India Pvt. Ltd	4/e, 2015

Reference Books

Sl No	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Strategic Human Resource Management: An International	Gary Rees, Paul E. Smith	Sage Publication India Pvt. Ltd.	2014
2	Diversity at Work	Diversity at Work	Cambridge University Press	2008

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each- average of two	10 Marks
	Practical	2 practical assignments and presentation	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: $4 \times 20 = 80$ marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

SUPPLY CHAIN MANAGEMENT

III and IV Semester

III Semester

B.N.M. Institute of Technology

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Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: III

Course: FUNDAMENTALS OF SUPPLY CHAIN MANAGEMENT AND LOGISTICS

Course Code: 24MBAS33

L:T:P:J	**2:1:1:0**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To help students understand the basic concepts, structure, and performance drivers of supply chains.
2. To provide insights on logistics operations, strategies, and global logistics challenges.
3. To familiarise students with sustainable and reverse logistics practices.
4. To equip students with knowledge of demand forecasting, planning and building responsive supply chains
5. To train students in strategic supply chain planning, global sourcing, and digital tools for better decision-making.

Contents	No. of hours	COs
Module-1: Supply Chain Fundamentals and Performance		
Concept, objectives, and importance of supply chains. Decision phases. Process views. Supply Chain Management: Definition, Evolution, Principles, Tasks. SCOR and SIPOC Frameworks, Benefits, Challenges, and Recent Trends. Performance Measures and Drivers. Human Resource Opportunities and Challenges in SCM. Supply Chain Performance in India.	**L:06**	**CO1**
Self-Study: Analyze supply chain performance in Indian sectors	**P:01**	
Practical Component: Create a SCOR-based dashboard for a chosen industry	**P:01**	
Module-2: Logistics Management and Global Operations		
Introduction to Logistics: Definition, Evolution, Scope, Objectives, and Importance. Logistics Processes, Types, and Key Activities. Logistics Strategy: Meaning and Focus, Types, Planning and Implementation, and Organizational Structures. Logistics Integration and Collaborative Relationships. Relationship between Logistics and Supply Chain Management. Global Logistics: Concept, Scope, Challenges, Opportunities and Digital Enablers.	**L:06**	**CO2**
Self-Study: Logistics applications in pharma / retail / automotive industry	**P:01**	
Practical Component: Presentation on global logistics trends	**P:01**	
Module-3: Integrated and Sustainable Logistics Systems		
7 Pillars of Logistics Systems. Integration in Logistics: Concept, Dimensions, Benefits and Barriers. Outsourced Logistics Services: 3PL and 4PL - Functions, Advantages, and Provider Selection Criteria. E-Commerce and Digital Logistics: Omnichannel Fulfilment, Last-Mile Delivery, and Automation Technologies. Reverse Logistics: Definition, Process, Impact on Customer Satisfaction and Cost Optimization. Green Logistics and Circular Economy.	**L:05**	**CO3**

Practical Component: Make a Field Report on reverse logistics process followed by Big Basket / Zepto / Similar organizations for perishable and non-perishable items, and cost implication for a given organization.	**P:03**	
Module- 4: Demand Planning and Responsive Supply Chains		
Demand Management and Forecasting Fundamentals. Aggregate Planning: Role, Problems, Network Planning and Strategies, Role of IT and Analytics in Planning. Creating Responsive, lean, and agile supply chains. Quick response logistics.	**L:06**	**CO4**
Self-Study: Explore demand forecasting tools (SAP IBP, Oracle Demantra)	**P:01**	
Practical Component: Simulate demand planning using Excel/software	**P:01**	
Module- 5: Strategic Supply Chain and Global Integration		
Strategic SCM Planning Process. Make or Buy Decisions. Strategic Sourcing, Supplier Selection, Development and Performance Management. Achieving Coordination in Supply Chain. Contract Negotiations and Relationship Governance. Global Supply Base: Opportunities and Risks. SCM in E-Commerce. Digital and B2B Supply Chains.	**L:06**	**CO5**
Self-study: Explore digital technologies in SCM (AI, Blockchain, IoT, Cloud-based SCM platforms) and their impact on transparency, traceability, and decision-making.	**P:01**	
Practical Component: Case study on Apple's iPhone production shift to India.	**P:01**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Explain supply chain concepts, objectives, decision phases, and performance factors in the Indian context.
CO2	Analyze logistics functions and strategies for improving supply chain performance locally and globally.
CO3	Assess integrated logistics systems, reverse logistics, and sustainable practices.
CO4	Apply forecasting and planning to build responsive, lean, and agile supply chains.
CO5	Evaluate global supply strategies, supplier management, and digital SCM practices.

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAS33.1	3			3				3	
24MBAS33.2	3	3		2		3			2
24MBAS33.3		3				3		2	
24MBAS33.4		3					2	3	
24MBAS33.5	3			3		2	3	3	3
AVERAGE	3	3		3		3	3	3	3

Text Books:

Sl. No.	Title of the Book	Name of the Author(s)	Publisher Name	Edition and Year
1	Supply Chain Management: Strategy, Planning and Operation	Sunil Chopra & Peter Meindl	Pearson	5/e, 2013

2	Supply Chain Management: Text and Cases	Janat Shah	Pearson	2/e, 2016
3	Supply Chain Management for Dummies	Daniel Stanton	Wiley	3/e, 2023
4	Logistics and Supply Chain Management	S.P. Shobha Devi, Dr. Bilal Ahmad Dar, Sharmila Fernandes & Dr. P. Mohan Kumar	The Write Order Publications	2022
5	Logistics and Warehousing Management		Indian Institute of Materials Management	e-book

Reference Books:

Sl. No.	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Logistics Management	V V Sople	Pearson	3/e, 2017
2	The Supply Chain Revolution	Suman Sarkar	Wiley	2023
3	Logistics & Supply Chain Management	Martin Christopher	Pearson	6/e, 2023
4	Global Logistics and Supply Chain Management	John Mangan & Chandra Lalwani	Wiley India	3/e, 2016

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each-average of two	10 Marks
	Project	Report preparation and viva	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	The question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: 4 × 20 = 80 marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

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Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: III

Course: INVENTORY AND WAREHOUSING MANAGEMENT

Course Code: 24MBAS34

L:T:P:J	**2:0:2:0**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To enable the students to understand the fundamentals of Inventory Management and its impact on Logistics
2. To acquaint the students with various models, tools and techniques of Inventory control and inventory management
3. To impart the students, knowledge of various inventory ranking methods, and how to use technology in inventory control
4. To acquaint the students with warehouse and order fulfilment strategies in modern logistics.
5. To impart knowledge about the standardization, codification, safety and security of inventory and the role of Information technology in warehouse management

Contents	No. of hours	COs
Module-1: Fundamentals of Inventory Management		
Introduction to Inventory: Definition, principles, role, functions and importance of Inventory, Types of Inventories, Inventory Costs, Impact of Inventory on total logistical cost. Inventory Management: Objectives, importance, symptoms of poor inventory management, improving effectiveness. Demand Forecasting: Types (Naïve, Weighted Average & Exponential smoothing), Forecasting errors & implications of tracking signal. Real-time Inventory Tracking, Dark Stores and Micro Fulfilment Centres, Cold Chain for E-grocery.	**L:07**	**CO1**
Practical Component: Case analysis of inventory issues, Excel models for inventory tracking.	**P:02**	
Module-2: Inventory Control and Modelling Techniques		
Classification of inventories, Importance and scope, Selective Inventory Control, EOQ, EBQ (Inc. numerical), ROL, P model, Q model, Two-bin system, Fair share allocation, MRP, ABC analysis (Inc. numerical), JIT. Modern methods: Kanban, DRP, ERP.	**L:05**	**CO2**
Practical Component: Study JIT practices at Toyota.	**P:01**	
Module-3: Inventory Valuation and Risk Management		
Inventory ranking methods, Quadrant technique, FIFO, LIFO, inventory under certainty and uncertainty, Risk management in inventory, Work-in-progress, finished goods, Spare parts inventories, Inventory method suiting client fulfilment needs.	**L:06**	**CO3**
Practical Component: Use of computers in inventory management – RFID, EDI, Satellite tracking systems.	**P:01**	
Module-4: Principles of Warehouse Management and Order Fulfilment		
Definition, principles, roles, importance of warehousing, Need for warehousing, Warehouse selection and planning, Functions and operations of a warehouse,		**CO4**

Warehouse location, layout, area, Factors affecting warehousing cost, Design principles. Order Fulfilment and Last Mile Delivery: Courier Aggregators and Route Optimization - Crowd-sourced Delivery Models; Human Consideration Challenges: Hire and Train Individuals.	**L:07**	
Practical Component: Workshop followed by industrial visit: Inbound and outbound warehousing, cross docking operations, labour efficiency and training, KPIs (identify Top 5 KPIs) to measure output, Space optimization, Safety and Environment considerations, and Warehouse & Cargo Security.	**P:04**	
Module-5: Material Handling in Warehousing		
Fundamentals and functions of material handling, Material handling process and principles, Performance measures of material handling systems, Types of material handling equipment, Selection of appropriate MHE for the given application; material flow, type of racking, Isle size, capacity requirement, HR & Training - Skilled labour requirement and sourcing of labour, Procurement: MHE Sourcing Considerations & Challenges. Introduction to Forklifts Fleet Management to improve efficiency.	**L:06**	**CO5**
Practical Component: Use of Different MHEs to improve output (Visit a 3PL).	**P:01**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand the core concepts of inventory management and its role in logistics.
CO2	Apply inventory control models and techniques to optimize stock levels.
CO3	Use inventory classification methods and digital tools for inventory control.
CO4	Assess warehouse functions and evaluate order fulfilment strategies in logistics.
CO5	Evaluate inventory safety practices and IT applications in warehouse operations.

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAS34.1	3							3	
24MBAS34.2	3	2						3	
24MBAS34.3	3	3				3		3	
24MBAS34.4	3	3	3		3	3		3	3
24MBAS34.5	3	3		3		2		3	3
AVERAGE	3	3	3	3	3	3		3	3

Text Books:

Sl. No.	Title of the Book	Name of the Author/s	Publisher Name	Edition and Year
1	Basics of Warehouse and Inventory Management: (The pillars of business Logistics) INDIA SPECIFIC EDITION	Villivalam Rangachari Rangarajan	Notion Press	2022
2	Essentials of Inventory Management	Max Muller	HarperCollins Leadership	3/e, 2023
3	Inventory Strategy: Maximizing Financial, Service and Operations Performance	Edward H. Frazelle	McGraw-Hill	2022

Reference Books:

Sl. No.	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Purchasing and Inventory Management	K.S. Menon & Sarika Kulkarni	Shroff Publishers	2011
2	Inventory Management	D. Chandra Bose	PHI Learning	2006

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each-average of two	10 Marks
	Practical	2 practical assignments	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	The question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: 4 × 20 = 80 marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

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Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: III

Course: TRANSPORTATION AND DISTRIBUTION MANAGEMENT

Course Code: 24MBAS35

L:T:P:J	**2:0:1:1**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To introduce core concepts of distribution channels and transportation modes.
2. To help students develop understanding of transportation planning, infrastructure, and stakeholders.
3. To facilitate learning network design principles and warehousing strategies in logistics.
4. To create awareness of transport risks, regulations, and sustainability practices.
5. To familiarize students with digital tools and automation in logistics.

Contents	No. of hours	COs
Module-1: Introduction to Transportation and Distribution		
Role of Distribution in Supply Chain, Distribution Channels – Functions, Resources, Operations in Distribution, Network Design; Transportation: Definition, Modes (Road, Rail, Air, Water, Pipeline), Intermodal and Multimodal Transportation, Transportation Cost Structures.	**L:06**	**CO1**
Practical Component: Case study on distribution channels of a company, Analyze different transportation modes for selected products	**P:02**	
Module-2: Transportation Operations and Infrastructure		
Key Stakeholders in Transportation, Transportation Planning and Scheduling, Carrier Selection and Freight Negotiation, Transportation Infrastructure (Ports, Terminals, Hubs), Routing and Fleet Management, Use of Incoterms in Transportation.	**L:06**	**CO2**
Practical Component: Study Incoterms with real shipment examples.	**P:02**	
Module-3: Distribution Network Design and Warehousing		
Principles of Distribution Network Design, centralized vs. Decentralized Distribution, Warehouse Location Decisions, Cross-Docking, Hub-and-Spoke Models, Role of 3PLs and 4PLs, Distribution Requirements Planning (DRP).	**L:06**	**CO3**
Practical Component: Analyze role of 3PL/4PL with case studies.	**P:02**	
Module-4: Risk, Regulation, and Sustainability in Transport		
Transportation and Distribution Risk Management, Legal and Regulatory Issues (National & International), Safety, Security, Compliance, Sustainable Transportation, Carbon Footprint and Emission Control, Future Trends (Electric Trucks, Hyperloop, Drones).	**L:05**	**CO4**
Project: Prepare a report on sustainable transport trends and innovations based on secondary research.	**P:03**	

Module-5: Technology in Transportation and Distribution		
Role of IT in Transport and Distribution, Transportation Management Systems (TMS), GPS, RFID, Barcoding, IoT in Logistics, Automation and Robotics in Distribution.	**L:06**	**CO5**
Self-Study: Explore automation examples in distribution centres through videos or virtual tours.	**P:02**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Describe distribution channels and compare key transportation modes.
CO2	Analyse transportation planning, infrastructure, and stakeholder roles.
CO3	Evaluate network design options and warehousing strategies in logistics.
CO4	Identify transportation risks and interpret regulatory and sustainability issues.
CO5	Examine logistics technologies including automation and digital tracking tools.

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAS35.1	3							3	
24MBAS35.2	3	2						3	
24MBAS35.3	3	3						3	
24MBAS35.4	3			3	3			3	
24MBAS35.5	3	3				3		3	
AVERAGE	3	3		3	3	3		3	

Text Books:

Sl. No.	Title of the Book	Name of the Author/s	Publisher Name	Edition and Year
1	The Handbook of Logistics and Distribution Management	Alan Ruston, Phil Croucher & Peter Baker	Kogan Page India, New Delhi	6/e, 2022
2	Logistics and Warehousing Management	IIMM (Indian Institute of Materials Management)	IIMM Publications	1/e, 2020
3	Supply Chain and Logistics Management Made Easy	Paul A. Myerson	Pearson FT Press	1/e, 2015
4	Logistics and Supply Chain Management	Martin Christopher	Pearson Education	5/e, 2016

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each- average of two	10 Marks
	Practical	Project Report Evaluation- 10 marks & Project Viva- 5 marks	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	The question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of	100 Reduced to 50

		the 7 questions. Total Marks from Part A: 4 × 20 = 80 marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.	
SEA Total Marks			**50**
Total Marks for the course			**100**

B.N.M. Institute of Technology

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Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: III

Course: PURCHASING MANAGEMENT

Course Code: 24MBAS36

L:T:P:J	**2:0:2:0**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To introduce students to the fundamentals, scope and strategic role of purchasing.
2. To help students understand procurement structures, workflows, and policy documentation processes.
3. To train students in vendor selection, evaluation and ethical sourcing.
4. To develop understanding of sourcing strategies using cost models and sustainability tools.
5. To familiarize students with legal, ethical, and digital procurement practices.

Contents	No. of hours	COs
Module-1: Introduction to Purchase Management		
Purchase Management: Definition and scope of purchasing, Procurement organization structure, Objectives of purchase management, Role in supply chain and logistics. Types of purchases: direct, indirect, capital equipment, and service.	**L:06**	**CO1**
Practical Component: Prepare a presentation on role of purchasing in complete supply chain process (from raw materials to final sale and reverse logistics).	**P:01**	
Module 2: Purchasing Policies and Procedure		
Procurement organizational authority and responsibility, Introduction to purchasing policy and procedure. Purchase process workflow and approvers; PO, BPO and Terms and Conditions.	**L:06**	**CO2**
Practical Component: Study company purchasing policies and prepare a report.	**P:02**	
Module 3: Vendor Management		
Supplier Selection and registration method, Vendor Performance Management, Rating: KPI's and Performance, and Business Reviews. Supplier development, Building long-term supplier relationships, SLA (Service Level Agreement) concept. Managing vendor conflict – types of conflicts, resolutions and final arbitrations, Code of Conduct for Suppliers, ESG Considerations (sustainable and ethical sourcing) and its impact on supplier selection process.	**L:08**	**CO3**
Practical Component: Conduct vendor rating exercise using sample data using MS Excel.	**P:01**	
Module 4: Strategic Sourcing and Procurement Planning		
Introduction to Strategic Procurement: Spend Analytics, Category management and 7-step vendor selection process [RFI, RFQ & Vendor Negotiations]; Make vs Buy analysis: TCO (Total Cost of Ownership) models, Strategic cost management, Green and circular procurement; Reverse Logistics, Make in India and Global sourcing trends.	**L:06**	**CO4**

Practical Component: Research green procurement practices, Prepare strategic sourcing plan for a sample product**.**	**P:02**	
Module 5: Legal and Regulatory Aspects of Procurement		
Legal and Regulatory aspects of procurement, Taxation and GST in purchasing, internal code of conduct for procurement professionals. E-Procurement (procure and pay) and Digital tools, Cost Analysis and Budgeting, Maverick purchasing and its impact on cost. Digital transformation using procurement industry 4.0.	**L:07**	**CO5**
Practical Component: Study GST impact on procurement, Practice negotiation role-play, Use an e-procurement tool demo or procure to pay simulation.	**P:01**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Explain the scope, types, and strategic role of purchasing in supply chains.
CO2	Describe procurement structures, workflows, and policy procedures including PO and BPO systems.
CO3	Apply vendor selection, performance metrics, and ESG-aligned ethical sourcing practices.
CO4	Develop sourcing strategies using cost models, analytics, and sustainable procurement tools.
CO5	Interpret procurement laws, digital tools, and compliance in Industry 4.0 context.

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAS36.1	3							3	
24MBAS36.2	3				2			3	
24MBAS36.3	2	3		3	3				3
24MBAS36.4	3	3	3	2		2		3	
24MBAS36.5	2			3		3		3	
AVERAGE	3	3	3	3	3	3		3	3

Text Books:

Sl. No.	Title of the Book	Name of the Author/s	Publisher Name	Edition and Year
1	Supply Chain Management	Sunil Chopra, Peter Meindl & D V Kalra	Pearson	6/e, 2016
2	Purchasing and Supply Chain Management	P. Fraser Johnson, Michiel Leenders & Anna Flynn	McGraw-Hill Education	16/e, 2020
3	Purchasing and Supply Management	Anna E. Flynn & P. Fraser Johnson	McGraw Hill	15/e, 2019
4	Procurement Principles and Management	Peter Baily, David Farmer, Barry Crocker, David Jessop & David Jones	Pearson Education	11/e, 2020

Reference Books:

Sl. No.	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Materials Management: Procedures, Text and Cases	A.K. Datta	PHI Learning	2/e, 2008
2	Understanding Sustainable Public Procurement: Reflections from India	Sanjay Kumar	Springer	1/e, 2022

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each-average of two	10 Marks
	Practical	2 practical assignments	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	The question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: 4 × 20 = 80 marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

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Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: III

Course: EXPORT AND IMPORT MANAGEMENT
Course Code: 24MBAS37

L:T:P:J	**2:0:2:0**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To provide foundation to EXIM logistics and institutional frameworks.
2. To help students understand global shipping and transport characteristics.
3. To enable students to learn export documentation and clearance procedures.
4. To develop understanding of import documentation and post-clearance logistics.
5. To familiarize students with shipping modes, freight forwarding, and compliance.

Contents	No. of hours	COs
Module-1: Introduction to EXIM Logistics		
Definition and importance. Foreign Trade Institutional Framework and Basics. Multinational Organizations & Structure, International Business Scenario. Role of logistics in EXIM operations, Key players in EXIM (Exporters, Importers, Freight Forwarders, CHA, etc.)	**L:06**	**CO1**
Practical Component: prepare a flowchart of the export-import process**.**	**P:01**	
Module 2: Characteristics of Modes of Transportation		
Logistics and Characteristics of Modes of Transportation, Characteristics of Shipping Industry, World Shipping, Containerization and Leasing Practices.	**L:05**	**CO2**
Practical Component: Compare modes of transport used in your region	**P:02**	
Module 3: Export Logistics Process		
Key Documents in EXIM. Pre-shipment procedures, Documentation for export (Invoice, Packing list, Shipping bill, etc.). Customs clearance procedures, Transportation – road, rail, sea, air.	**L:07**	**CO3**
Practical Component: Simulate customs clearance procedure.	**P:01**	
Module 4: Import Logistics Process		
Import documentation (Bill of Entry, Invoice, etc.), Customs clearance & duties, Role of ICEGATE and DGFT in import, post-clearance transportation, Handling bonded warehouses	**L:06**	**CO4**
Practical Component: Prepare a report on import documentation	**P:02**	
Module 5: Shipping and Freight Forwarding		
Modes of shipping (LCL, FCL, Bulk, RO-RO), Role of freight forwarders and NVOCCs, Container types and markings, Port and terminal handling . Regulatory Framework and Compliance, Risk Management & Insurance, Digital Tools and Systems	**L:08**	**CO5**

Practical Component: numerical on Slot Booking Cost Calculation & Container Allocation to Vessels	**P:02**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Elucidate EXIM logistics structure and roles of key stakeholders.
CO2	Compare characteristics of transportation modes and global shipping practices.
CO3	Describe export logistics procedures and key EXIM documentation.
CO4	Interpret import procedures, documentation, and customs systems.
CO5	Analyze shipping operations, freight forwarding, and regulatory frameworks.

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAS37.1	3			3				3	
24MBAS37.2	3	3		3				3	
24MBAS37.3	3			3				3	
24MBAS37.4	3			3				3	
24MBAS37.5	3	3		3				3	3
AVERAGE	3	3		3				3	3

Text Books:

Sl. No.	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Export Import Management	Justin Paul & Rajiv Aserkar	Oxford University Press India	2/e, 2013
2	Global Logistics and Supply Chain Management	John Mangan & Chandra Lalwani	Wiley	5/e, 2025
3	Export-Import and Logistics Management	Usha Kiran Rai	PHI Learning	2/e, 2010
4	Export and Import Management: Text and Cases	Ram Singh	SAGE Publications	1/e, 2021

Additional References:

1. Export Business-A Beginner's Guide: A practical guide for starting export business, Notion Press, 2020
2. India's Trade Analytics: Patterns And Opportunities, Sage India Pvt Ltd., 2019

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each-average of two	10 Marks
	Practical	2 practical assignments	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	The question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or	100 Reduced to 50

		3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: 4 × 20 = 80 marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.	
SEA Total Marks			**50**
Total Marks for the course			**100**

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Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: III

Course: SUPPLY CHAIN FOR E-COMMERCE
Course Code: 24MBAS38

L:T:P:J	**2:0:1:1**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To introduce students to e-commerce supply chain models and components.
2. To familiarize students with digital technologies in e-commerce logistics.
3. To help students understand inventory and last-mile delivery models.
4. To develop understanding of reverse logistics and sustainable returns.
5. To enable students to measure performance and address SCM challenges.

Contents	No. of hours	COs
Module-1: Introduction to E-Commerce and Supply Chain Management		
e-commerce business models and supply chain design, B2C vs B2B e-commerce supply chain - Cross-border e-commerce. Components of an E-commerce Supply Chain: Inventory Management, Order Processing Systems, Fulfilment Centres & Distribution Hubs, Role of 3PLs (Third Party Logistics), Integration with Payment & CRM Systems	**L:06**	**CO1**
Self-Study: Study an Indian cross-border e-commerce platform and its logistics network.	**P:01**	
Module-2: Digital Technologies in E-commerce SCM		
WMS (Warehouse Management Systems), TMS (Transportation Management Systems), EDI, APIs, and Cloud Platforms. Role of AI, IoT, Blockchain in E-commerce Logistics, 3PL and 4PL in e-commerce. Drone delivery model. Predictive shipping	**L:06**	**CO2**
Project Component : Drone delivery feasibility study	**P:04**	
Module-3 : Inventory and Warehouse Management in E-commerce		
Demand Forecasting, Real-time Inventory Tracking, Dark Stores and Micro Fulfilment Centres, Cold Chain for E-grocery. Order Fulfilment and Last Mile Delivery: Courier Aggregators and Route Optimization, Crowd-sourced Delivery Models	**L:06**	**CO3**
Practical Component: Study hyperlocal delivery using Zepto/Blinkit. Or any other similar applications.	**P:02**	
Module 4: Reverse Logistics and Returns Management		
Reverse Logistics Process, Impact on Customer Satisfaction, Sustainable Practices: Refurbishment and Resale Systems	**L:05**	**CO4**
Practical Component: evaluative Study on return practices of Flipkart/Amazon or any other similar applications.	**P:02**	
Module 5: Performance Metrics and Challenges		

Information security risks and cyber-attacks, Supply and Demand Disruptions in e-commerce supply chain. Key Performance Indicators (KPIs): Order Accuracy, On-time Delivery, Inventory Turnover, Customer Satisfaction Index. Challenges: Delivery Delays, Returns, Fraud, Inventory Visibility, Managing Peak Season Demand (Big Billion Days, etc.). Case studies	**L:07**	**CO5**
Practical Component: Identify KPIs for an e-commerce company.	**P:01**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Illustrate e-commerce supply chain models and key logistics components.
CO2	Analyse digital tools and emerging technologies in e-commerce logistics.
CO3	Evaluate inventory strategies and last-mile delivery innovations.
CO4	Assess reverse logistics practices and their impact on customer satisfaction.
CO5	Identify key performance metrics and challenges in e-commerce logistics.

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAS38.1	3							3	
24MBAS38.2	3	3						3	2
24MBAS38.3	3	2						3	3
24MBAS38.4	3			3				3	3
24MBAS38.5	3	3						3	3
AVERAGE	3	3		3				3	3

Text Books:

Sl. No.	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	E-Commerce Logistics & Supply Chain Management	Krishna Rungta	Notion Press	1/e, 2021
2	E-commerce: Business, Technology, Society	Kenneth C. Laudon & Carol Guercio Traver	Pearson	18/e, 2023
3	Digital Supply Networks: Transform Your Supply Chain and Gain Competitive Advantage	Amit Sinha, Ednilson Bernardes & Rafael Calderon	Wiley	1/e, 2020
4	E-Commerce and Logistics: Technology, Globalization and Strategy	Johan Schijns & Stef Weijers	Routledge	2021

Reference Books:

Sl. No.	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Digital Supply Networks: Transform Your Supply Chain and Gain Competitive Advantage with Disruptive Technology and Reimagined Processes	Thomas G. Goldsby, et al.	Pearson FT Press	2020
2	The Everything Store: Jeff Bezos and the Age of Amazon	Brad Stone	Little, Brown	2013
3	Unlocking E-Commerce Logistics in India	McKinsey / BCG / Deloitte Reports	Industry Reports	Various Years
4	Flipkart: Grappling with Product Returns (Case Study)	Sanjeev Prashar, Mukesh Kumar & Amit Kumar Mukul	Case Centre / IIM	2021

5	The Practical Enactment of Robotics and AI Technologies in E-Commerce, in Cyber Intelligence and Information Retrieval	Bala, S., Khalid, M. N., Kumar, H. & Shukla, V. K.	Springer, Singapore	2022

Additional Practical Component

- Analyses logistics challenges during Big Billion Days.
- Research cyber security in logistics.
- Analyses real-time inventory systems.
- Map a micro-fulfilment centre.

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each-average of two	10 Marks
	Practical	2 practical assignments	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	The question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: 4 × 20 = 80 marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

IV Semester

B.N.M. Institute of Technology

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Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: IV

Course: AGILE SUPPLY CHAIN MANAGEMENT

Course Code: 24MBAS41

L:T:P:J	**2:0:2:0**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To introduce lean thinking and supply chain flexibility.
2. To help students understand lean manufacturing and supplier integration.
3. To explore lean logistics and supporting digital systems.
4. To train students in lean, agile and collaborative supply chain strategies.
5. To familiarize students with Theory of Constraints and lean implementation.

Contents	No. of hours	COs
Module-1: Introduction to Lean Supply Chain		
Business Challenges in Supply Chains: Manufacturing, Procurement, Logistics, Information Technology. Agile Supply Chains: Implementation, Flexibility in Supply Chain Operations, Lean Thinking, Lean Supply Chains.	**L:05**	**CO1**
Practical Component: Present and Discuss Challenges of Supply Chains in India-Success Stories	**P:02**	
Module 2: Lean Manufacturing		
Toyota Production System (TPS): Lean Manufacturing – Tools for Waste Elimination, Lean Procurement, Lean Thinking for Suppliers, Values Creation by Suppliers, Lean in Vendor Managed Inventory. (VMI): Seven Wastes in Extended Value Stream, Applying 5S Tools in Lean Supply Management.	**L:06**	**CO2**
Practical Component: Industrial visit to observe TPS, Map waste elimination tools in real firms	**P:03**	
Module 3: Lean Logistics		
Lean Inbound Logistics – Lean Distribution Management. Information Technology for Lean Supply Chain: ERP Systems for Supply Chain, Manufacture Execution Systems (MES), QAD Lean Supply Chain Solution. Transportation Management Systems (TMS), Warehouse Management Systems (WMS)	**L:06**	**CO3**
Self-Study : Lean and Agile with ADC Technologies	**P:01**	
Practical Component: Industrial visit to understand and make a report on Warehousing Management	**P:02**	
Module 4 : Lean – Agile Supply Chain		
Characteristics of Agile Supply Chain – Agile and Lean Supply Chain Strategy, Collaborative Supply Chain, Quick Response Systems. Lean-Six-Sigma Integration Approach	**L:05**	**CO4**

Practical Component: Study and report on a collaborative lean-agile case (e.g., Dell, Zara); Presentation on lean-six-sigma integration	**P:03**	
Module 5: Lean – Theory of Constraints		
TOC and Lean Thinking-Supply Chain and Theory of Constraints in Distribution-Six Sigma, Lean and Theory of Constraints: A Comparison, Bottleneck in Assembly Operations. Lean Implementation Strategy: Lean Culture, Key Steps in Implementation, Lean Tools for Implementation	**L:05**	**CO5**
Practical Component: Report on lean implementation challenges in Indian SMEs.	**P:02**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Explain lean supply chain principles and operational challenges.
CO2	Apply lean tools and evaluate supplier-driven value creation.
CO3	Analyse lean logistics practices and supporting IT systems.
CO4	Implement lean, agile, and collaborative supply chain models.
CO5	Evaluate Theory of Constraints, lean tools, and implementation strategies.

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAS41.1	3							3	
24MBAS41.2	3	3						3	2
24MBAS41.3	3	3						3	3
24MBAS41.4	3	2		3				3	3
24MBAS41.5	3	3						3	3
AVERAGE	3	3		3				3	3

Text Books:

Sl. No.	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Lean Supply Chain and Logistics Management	Paul Myerson	McGraw Hill Education	1/e, 2023
2	The Lean Six Sigma Pocket Toolbook: A Quick Guide to Nearly 100 Tools...	Michael L. George et al.	McGraw Hill	1/e, 2004
3	Lean and Agile Supply Chains	R. V. Ramakrishnan	Productivity and Quality Publishing Pvt. Ltd	1/e, 2013
4	Lean Six Sigma Logistics – Strategic Development to Operational Success	Thomas J. Goldsby & Robert Martichenko	Ross Publishing	1/e, 2005

Reference Books:

Sl. No.	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	T. X−SCM: The New Science of Extreme Supply Chain Management	Harrington L., Boyson S. & Corsi T.	Routledge, New York	2011
2	Lean Management and Kaizen: Fundamentals from Cases and Examples	Marc Helmold	Springer Nature	1/e, 2020

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each-average of two	10 Marks
	Practical	2 practical assignments	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	The question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: 4 × 20 = 80 marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

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Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: IV

Course: GLOBAL LOGISTICS MANAGEMENT

Course Code: 24MBAS42

L:T:P:J	**2:1:1:0**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To familiarize the students about global supply chain strategy and integration.
2. To provide insights on globalization drivers and their impact on SCM.
3. To enable them to gain insight on global infrastructure and sourcing strategies,
4. To equip students to design global logistics strategies and distribution systems.
5. To make them understand risk management and sustainability in global logistics.

Contents	No. of hours	COs
Module 1: Establishing a Global Supply Chain Strategy		
Insight into global trade and global supply chains. Expertise in emerging markets and global supply chains- How to integrate global supply chain functions -Strategic benefits of global supply chains. Impact of geo political considerations such as Tariffs, Trade Wars, Sanctions, Commodity Prices, Calamities and War.	**L:06**	**CO1**
Self-study Component: Nike as a classic example of 100% outsourced manufacturing.	**P:02**	
Module 2: Implications of Industry Globalization		
Drivers for Supply Chains Ways to identify key market global drivers- Declining role of governments as producers and customers, how their new role adds value for global supply chains -The influence of competitive globalization drivers, increased "born-global" companies and the growth of global networks.	**L:06**	**CO2**
Practical Component: Prepare a presentation on born-global companies (e.g., Infosys and TCS).	**P:02**	
Module 3: Evaluating Global Supply Chain Infrastructure		
Analysis of transportation, communication, utilities and technology infrastructure- Global Sourcing and Procurement Strategies - Cross-Docking, Transloading, and Hub-Spoke Models - Global Distribution Channels and Demand Fulfilment.	**L:05**	**CO3**
Practical Component: Case Study on Inventory Management in Global Context (Safety Stock, JIT, EOQ)	**P:02**	
Module 4: Leveraging Logistics in Global Supply Chains		
How to design a global logistics strategy- Managing global inventory -Global packaging and materials handling - Understanding of global distribution centres Ocean, air, land and intermodal transportation	**L:06**	**CO4**
Practical Component: Compare logistics strategies in two countries	**P:02**	
Module 5 : Risk Management and sustainability in Global Logistics		

Risk Management in Global Logistics: Types of Risks: Political, Currency, Operational, Environmental - Risk Mitigation Strategies: Insurance, Hedging, Diversification **Sustainability and Technology in Global Logistics:** Green Logistics and Carbon Tracking - Digitization: Blockchain, AI, IoT in Cross-Border Logistics – Trade Tech Platforms: ULIP (India), PCS1x, GS1	**L:07**	**CO5**
Practical Component: Evaluation of a company's (Swiggy / Zomato / Amazon / Myntra) green logistics practices.	**P:02**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand strategic benefits and integration of global supply chains.
CO2	Evaluate globalization drivers and their influence on supply chain design.
CO3	Analyse infrastructure and sourcing models in global supply chains.
CO4	Compare logistics strategies and distribution models across countries.
CO5	Evaluate risk mitigation and sustainability practices in global logistics.

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAS42.1	3			3				3	2
24MBAS42.2	3	3		3				3	3
24MBAS42.3	3	2		3				3	3
24MBAS42.4	3	3		3				3	3
24MBAS42.5	3	3	3	3				3	3
AVERAGE	3	3	3	3				3	3

Text Books:

Sl. No.	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Global Logistics and Supply Chain Management	John Mangan, Chandra Lalwani & Agustina Calatayud	Wiley	4/e, 2020
2	Ecosystem aware Global Supply chain Management	N Viswanadham & S Kameshwaran	World Scientific Publishing	2013
3	Handbook of Global Supply Chain Management	John T. Mentzer, Matthew B. Myers &Theodore P. Stank	SAGE Publications	1/e, 2006
4	International Business	K Aswathappa	Tata McGraw Hill Education Pvt Ltd	6/e, 2017
5	Globalisation and International Business	Devendra Thakur	Balaji World of Books	2009

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each-average of two	10 Marks
	Practical	2 practical assignments	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**

50	**Theory Exam**	The question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: 4 × 20 = 80 marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

B.N.M. Institute of Technology

An Autonomous Institution under VTU, Approved by AICTE

Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: IV

Course: DATA ANALYTICS IN SUPPLY CHAIN

Course Code: 24MBAS43

L:T:P:J	**2:0:1:1**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To make students understand data analytics concepts and their role in SCM.
2. To train in application of descriptive and prescriptive analytics in SCM
3. To develop skills in data visualization and dashboarding for SCM data using tools like Excel and Power BI.
4. To equip students to explore AI/ML applications in supply chain analytics.
5. To expose students to tools, technologies, and real-world analytics cases.

Contents	No. of hours	COs
Module 1: Introduction to Data Analytics and SCM		
Overview of Supply Chain Management, Introduction to Data Analytics: Types & Applications, Data-Driven Decision Making in SCM, Data Sources in Supply Chains (ERP, WMS, TMS, IoT Devices)	**L:06**	**CO1**
Module 2: Descriptive and Prescriptive Analytics in Supply Chain		
Demand Trend Analysis, Inventory Movement Reports, Supplier and Customer Performance Dashboards, Visualization Tools: Excel, Power BI, Tableau (Intro). Inventory Forecasting Techniques, Supplier Risk Prediction	**L:07**	**CO2**
Practical Component: Case study to analyze past delivery data to find patterns.	**P:01**	
Self-Study: Learn Tools: Python (Pandas, Scikit-learn)	**P:01**	
Module 3: Data Visualization and Dashboarding		
Visualizing SCM Metrics with Power BI or Excel, Creating Interactive Dashboards (KPI Boards, Stock Charts), Communicating Insights to Stakeholders	**L:06**	**CO3**
Project Component: Create a live dashboard	**P:04**	
Module 4: Applications of AI/ML in Supply Chain		
Machine Learning for Demand Planning, Price Optimization and Dynamic Pricing, Fraud Detection in Logistics, Chatbots and Automation in Customer Service	**L:05**	**CO4**
Practical Component: Case Study: How Amazon or Flipkart use data science	**P:01**	
Module 5: Tools and Technologies Overview & Real-world Case Studies		
E-commerce Logistics, Cold Chain Monitoring with IoT + Analytics, Sustainability and Carbon Emission Tracking, WMS & TMS Analytics Modules, Data Sources: RFID, GPS, IoT.	**L:05**	**CO5**
Practical Component: Delivery Optimization using Data, Warehouse Slotting Optimization. SCM Apps, Cloud Platforms for SCM Data Storage & Analysis.	**P:04**	

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand key data analytics concepts and their relevance in supply chain management.
CO2	Apply descriptive and prescriptive analytics to analyse supply chain performance.
CO3	Design and interpret dashboards to visualize supply chain metrics using Excel or Power BI.
CO4	Evaluate AI/ML applications for demand forecasting, logistics, and customer service.
CO5	Assess analytics tools and technologies through real-world supply chain case studies.

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAS43.1	3	3						3	2
24MBAS43.2	3	3						3	3
24MBAS43.3	3	3		3				3	3
24MBAS43.4	3	3		3				3	3
24MBAS43.5	3	3		2				3	3
AVERAGE	3	3		3				3	3

Text Books:

Sl. No.	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Supply Chain Analytics: Using Data to Optimise Supply Chain Processes	Peter W. Robertson	Routledge	1/e, 2020
2	Business Analytics: Data Analysis and Decision Making	S. Christian Albright & Wayne L. Winston	Cengage	8/e, 2024
3	Supply Chain Analytics: Concepts, Techniques and Applications	Kurt Y. Liu	Palgrave Macmillan	1/e, 2022
4	Supply Chain Analytics: Strategies, Models and Solutions	Rabindranath Bhattacharya & A.M. Bhattacharyya	Springer	1/e, 2023

Reference Books:

Sl. No.	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Competing on Analytics: The New Science of Winning	Thomas H. Davenport & Jeanne G. Harris	Harvard Business Review Press	1/e (rev), 2017
2	Storytelling with Data: A Data Visualization Guide for Business Professionals	Cole Nussbaumer Knaflic	Wiley	1/e, 2015

Additional Practical Component

Case studies:

1. Amazon India and Flipkart – Last-mile delivery route optimization
2. BigBasket – Demand forecasting for fresh inventory
3. Indian Railways and CONCOR – Data-led freight corridor management
4. Amul – Cold chain visibility using analytics

Marks Distribution for Assessment:

CIA	Component	Description	Marks
50	**Test**	**IA Test**: 2 IA tests - Each of 50 Marks	Average of 2 tests – scaled down to 25 Marks
	Assignment	**Assignment –** 2 Assignment Tests for 10 marks each- average of two	10 Marks
	Practical	Project Report Evaluation- 10 marks & Project Viva- 5 marks	10+5 Marks
CIA Total Marks			**50**
SEA	**Component**	**Description**	**Marks**
50	**Theory Exam**	The question paper shall be divided into two parts: Part A and Part B. **Part A c**ontains 7 full questions, each carrying 20 marks. Each question should be divided into 2 or 3 sub-questions of 5 or 10 marks each, ensuring the total equals 20 marks. Students must answer any 4 out of the 7 questions. Total Marks from Part A: 4 × 20 = 80 marks **Part B** contains 1 compulsory Question carrying 20 marks. This question may be divided into 2, 3, or 4 sub-questions of 5 or 10 marks each, totalling 20 marks. Total Marks from Part B: 20 marks.	100 Reduced to 50
SEA Total Marks			**50**
Total Marks for the course			**100**

B.N.M. Institute of Technology

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Department of Business Administration

Choice Based Credit System (CBCS and Outcome Based Education (OBE)

Semester: IV

Course: PORTS AND TERMINALS MANAGEMENT
Course Code: 24MBAS44

L:T:P:J	**2:0:0:2**	**CIA**	**: 50**
Credits:	**03**	**SEA**	**: 50**
Hours:	**40**	**SEA Duration**	**: 03 Hours**

Course Learning Objectives:

1. To ensure a thorough knowledge and understanding of port and terminal management.
2. To familiarize students with port infrastructure, layout, and operations.
3. To train students in port management, PPP models, and performance metrics.
4. To make them understand Multimodal connectivity and first and last mile connectivity
5. To provide insight into customs, documentation, and maritime regulations.

Contents	No. of hours	COs
Module-1: Introduction to Ports and Maritime Transport		
Role of Ports in Global Trade, Types of Ports: Sea Ports, Inland Ports, Dry Ports Classification of Ports: Major vs Minor, Public vs Private, Key Stakeholders: Port Authority, Customs, Shipping Lines, Terminal Operators **Economic Impact:** Economic impact of ports on the regional economy, Location characteristics, Organization structure in Ports, Interface of Rail & Road infrastructure, Factors affecting the future of ports & terminals.	**L:08**	**CO1**
Project Component: Prepare a report comparing major and minor ports in India	**P:01**	
Module-2: Port Infrastructure and Layout		
Berths, Quay Walls, Jetties, Terminals, Warehouses, Container Yards, ICDs (Inland Container Depots), Dredging and Navigation Channels. Port Equipment: Cranes, Reach Stackers, RTGs, Straddle Carriers. **Port Operations**: Services rendered by ports & performance indicators, Terminal operations, Factors affecting Terminal productivity, Cargo handling equipment, Intermodal connections.	**L:06**	**CO2**
Project Component : Create a layout diagram of a typical port terminal; Identify types of port handling equipment and their uses.	**P:02**	
Module-3: Port Management and Administration		
Functions of Port Authorities, PPP Models in Port Development, Port Tariff and Revenue Models. Port Performance Metrics (Throughput, TEU, Dwell Time). Port Labour and Workforce Planning	**L:07**	**CO3**
Module- 4 : Port Logistics and Hinterland Connectivity		
EXIM Logistics & Port as a Node in the Supply Chain, Multimodal Connectivity (Road, Rail, IWT), Role of CFS (Container Freight Stations) and ICDs. Port Community Systems (PCS) - Last Mile and First Mile Connectivity	**L:06**	**CO4**
Self-Study: Analyze port labour and tariff structure of any Indian port.	**P:01**	
Module-5: Customs, Regulations, and Documentation		

Port and Shipping Documentation: IGM, EGM, BL, DO. Indian Customs Procedures, Role of DG Shipping, IPA, IMDG Code. International Maritime Conventions (IMO, SOLAS, MARPOL), Port Health, Safety, and Security Norms (ISPS Code), Digitization in port operations: EDI, PCS 1x (India-specific), AI and Blockchain, port asset tracking.	**L:09**	**CO5**

Course Outcomes: At the end of the course the student will be able to:

CO1	Understand port classifications, stakeholders, and their economic significance.
CO2	Identify key port infrastructure and evaluate terminal operations.
CO3	Analyse port administration, tariff models, and performance indicators.
CO4	Evaluate multimodal connectivity and port logistics integration.
CO5	Interpret port documentation, regulatory frameworks, and digital systems.

Mapping of COs with POs & PSOs:

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
24MBAS44.1	3				3			3	2
24MBAS44.2	3							3	3
24MBAS44.3	3	3		2				3	3
24MBAS44.4	3			3				3	3
24MBAS44.5	3	3		3				3	3
AVERAGE	3	3		3	3			3	3

Text Books:

Sl. No.	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Port Management and Operations	Alderton, P.	Routledge	2/e, 2017
2	Port Economics, Management and Policy	Theo Notteboom, Athanasios Pallis & Jean-Paul Rodrigue	Routledge	1/e, 2022
3	Maritime Logistics: A Guide to Contemporary Shipping and Port Management	Dong-Wook Song & Photis Panayides	Kogan Page	3/e, 2021
4	Port Infrastructure and Economic Development	P. K. Samanta & A. K. Mohanty	Kalpaz Publications, Global Media, Delhi	1/e, 2005

Reference Books:

Sl. No.	Title of the book	Name of the Author/s	Publisher Name	Edition and year
1	Port Development: A Handbook for Planners in Developing Countries	UNCTAD (United Nations Conference on Trade and Development)	United Nations	Rev.1, 1985
2	Excellence in Warehouse Management: How to Minimize Costs and Maximize Value	Stuart Emmett	Wiley	2013
3	Shipping and Logistics Management	Y. H. Venus Lun, Kee-hung Lai, T. C. Edwin Cheng & Dong Yang	Springer	2010

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SEA Total Marks			**50**
Total Marks for the course			**100**