

# **COIMBATORE INSTITUTE OF TECHNOLOGY**

(Government Aided Autonomous Institution Affiliated to Anna University, Chennai)

**COIMBATORE - 641 014, TAMILNADU, INDIA**

**DIAMOND JUBILEE**

(1956 - 2016)



**DEPARTMENT OF MANAGEMENT STUDIES**

**MBA DEGREE PROGRAMME**

**Curriculum and Syllabi**

**Under Choice Based Credit System**

(For the students admitted during 2023 - 2024 and onwards)

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# **COIMBATORE INSTITUTE OF TECHNOLOGY**

(Government Aided Autonomous Institution Affiliated to Anna University, Chennai)

## **VISION AND MISSION OF THE INSTITUTE**

### **VISION**

The Institute strives to "inculcate a sound knowledge in engineering along with realized social responsibilities to enable its students to combat the current and impending challenges faced by our country and to extend their expertise to the global arena".

### **MISSION**

The mission of CIT is to "impart high quality education and training to its students to make them world - class engineers with a foresight to the changes and problems, and pioneers to offer innovative solutions to benefit the nation and the world at large".

# **COIMBATORE INSTITUTE OF TECHNOLOGY**

(Government Aided Autonomous Institution Affiliated to Anna University, Chennai)

## **DEPARTMENT OF MANAGEMENT STUDIES (MBA)**

### **VISION AND MISSION OF DEPARTMENT OF MANAGEMENT STUDIES (MBA)**

#### **VISION**

The Department of Management Studies at Coimbatore Institute of technology endeavors to be a School Management nurture highly capable, engaged and ethical leaders with flair to create dynamic & positive changes in the world of Business and Society.

#### **MISSION**

The Mission of the Department of Management Studies is to develop graduates with new-age Management perspectives skills and business Strategies with ethical implications. Empower the MBA graduates with techno - managerial skills to optimise resources, leverage technology and harness business intelligence.

#### **OBJECTIVES**

To teach students the foundations of general management and develop skills in problem solving and decision making in a business environment along with honing their skills in leveraging technology for disruptive innovation/entrepreneurship.

# COIMBATORE INSTITUTE OF TECHNOLOGY

(Government Aided Autonomous Institution Affiliated to Anna University, Chennai)

## DEPARTMENT OF MANAGEMENT STUDIES (MBA)

### MASTER OF BUSINESS ADMINISTRATION REGULATIONS - 2023

#### CHOICE BASED CREDIT SYSTEM

#### **PROGRAMME EDUCATIONAL OBJECTIVES (PEOs):**

MBA Programme curriculum is designed to prepare the post graduate students,

- I. To have a thorough understanding of the core aspects of the business.
- II. To provide the learners with the management tools to identify, analyze and create business opportunities as well as solve business problems.
- III. To prepare them to have a holistic approach towards management functions.
- IV. To motivate them for continuous learning.
- V. To inspire and make them practice ethical standards in business.

#### **PROGRAMME OUTCOMES (POs):**

On successful completion of the programme,

1. Ability to apply the business acumen gained in practice.
2. Ability to understand and solve managerial issues.
3. Ability to communicate and negotiate effectively, to achieve organizational and individual goals.
4. Ability to upgrade their professional and managerial skills in their workplace.
5. Ability to explore and reflect about managerial challenges, develop informed managerial decisions in a dynamically unstable environment.
6. Ability to take up challenging assignments.
7. Ability to understand one's own ability to set achievable targets and complete them.
8. Ability to pursue lifelong learning.
9. To have a fulfilling business career.
10. Ability to have financial literacy.
11. Ability to fulfill social out reach.
12. Ability to understand business analytics.

# COIMBATORE INSTITUTE OF TECHNOLOGY

(Government Aided Autonomous Institution Affiliated to Anna University, Chennai)

## DEPARTMENT OF MANAGEMENT STUDIES (MBA)

### REGULATIONS - 2023 & ONWARDS

FOR THE STUDENTS ADMITTED DURING 2023 - 24 & ONWARDS

### CHOICE BASED CREDIT SYSTEM

### MASTER OF BUSINESS ADMINISTRATION (FULL - TIME)

### PROGRAMME STRUCTURE

#### SEMESTER - I

Sl. No	Course Code	Course Title	Category	Periods Per Week			Total Contact Periods	Credits
				L	T	P		
<b>THEORY</b>								
1.	23MBA111	Statistics for Management	PCC	3	0	0	3	3
2.	23MBA112	Management Concepts and Organizational Behavior	PCC	3	0	0	3	3
3.	23MBA113	Managerial Economics	PCC	3	0	0	3	3
4.	23MBA114	Accounting for Decision Making	PCC	3	0	0	3	3
5.	23MBA115	Business Environment and Legal Aspects	PCC	3	0	0	3	3
6.	23MBA116	Information Management	PCC	3	0	0	3	3
7.	23MBA117	Marketing Management	PCC	3	0	0	3	3
<b>PRACTICALS</b>								
8.	23MBA121	AI & ML for Business (Seminar)	EEC	0	0	4	4	2
9.	23MBA122	Business Communication (Practicals)	EEC	0	0	4	4	2
10.	23MBA123	Computer Applications for Business (Lab)	EEC	0	0	2	2	1
<b>TOTAL</b>				<b>21</b>	<b>0</b>	<b>10</b>	<b>31</b>	<b>26</b>

**SEMESTER – II**

Sl. No	Course Code	Course Title	Category	Periods Per Week			Total Contact Periods	Credits
				L	T	P		
<b>THEORY</b>								
1.	23MBA211	Quantitative Techniques for Decision Making	PCC	3	0	0	3	3
2.	23MBA212	Financial Management	PCC	3	0	0	3	3
3.	23MBA213	Human Resource Management	PCC	3	0	0	3	3
4.	23MBA214	Operations Management	PCC	3	0	0	3	3
5.	23MBA215	Business Research Methods	PCC	3	0	0	3	3
6.	23MBA216	Business Analytics	PCC	3	0	0	3	3
7.		Non-Functional Elective	NEC	3	0	0	3	3
8.		Value Added Course One Credit Course – I	VAC	1	0	0	1	1
<b>PRACTICALS</b>								
9.	23MBA221	Data analysis and Business Modeling (Lab)	EEC	0	0	4	4	2
10.	23MBA222	Rural Community Engagement	EEC	0	0	2	2	1
11.		Value Added Course One Credit Course – II	VAC	0	0	2	2	1
<b>TOTAL</b>				<b>22</b>	<b>0</b>	<b>8</b>	<b>30</b>	<b>26</b>

**NOTE:**

- i. In the second semester Students need to choose one elective from the Non-Functional Stream.
- ii. In the second semester, Students are allowed to opt 2 Value Added Courses (One credit courses) offered by the department.
- iii. Students have to undergo a summer internship for minimum of 4 weeks in an organization at the end of second semester.

**SEMESTER – III**

Sl. No	Course Code	Course Title	Category	Periods Per Week			Total Contact Periods	Credits
				L	T	P		
<b>THEORY</b>								
1.	23MBA311	Strategic Management	PCC	3	0	0	3	3
2.		Elective I	PEC	3	0	0	3	3
3.		Elective II	PEC	3	0	0	3	3

4.		Elective III	PEC	3	0	0	3	3
5.		Elective IV	PEC	3	0	0	3	3
6.		Elective V	PEC	3	0	0	3	3
7.		Elective VI	PEC	3	0	0	3	3
<b>PRACTICALS</b>								
9.	23MBA321	Business Simulation Lab	EEC	0	0	4	4	2
10.	23MBA322	Summer Internship	EEC	0	0	4	4	2
<b>TOTAL</b>				<b>21</b>	<b>0</b>	<b>8</b>	<b>29</b>	<b>25</b>

**NOTE: In the third semester Students need to choose - Four electives from Primary Specialization and Two electives from Secondary Specialization.**

#### SEMESTER – IV

Sl. No	Course Code	Course Title	Category	Periods Per Week			Total Contact Periods	Credits
				L	T	P		
<b>THEORY</b>								
1.	23MBA411	International Business	PCC	3	0	0	3	3
2.		Elective VII	PEC	3	0	0	3	3
3.		Elective VIII	PEC	3	0	0	3	3
<b>PRACTICALS</b>								
4.	23MBA421	Project Work	EEC	0	0	18	18	9
<b>TOTAL</b>				<b>9</b>	<b>0</b>	<b>18</b>	<b>27</b>	<b>18</b>

**TOTAL NO. OF CREDITS: 95**

**NOTE**

(i) During the fourth semester Students need to choose - one elective from Primary Specialization and one elective from Secondary Specialization.

(ii) During the fourth semester students will attend classes for one and half months in campus. They will be with an organization for three months for their project work. They will report back to campus for 15 days on account of compiling and preparing their project report.

**PCC – Professional Core Course**

**PEC - Professional Elective Course**

**EEC – Employability Enhancement Course**

**NEC – Non-Functional Elective Course**

**VAC - Value Added Course**



**COIMBATORE INSTITUTE OF TECHNOLOGY**  
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Coimbatore – 641 014

**DEPARTMENT OF MANAGEMENT STUDIES**

Applicable for students admitted from 2023 - 24 & onwards

**LIST OF ELECTIVES**

**NON - FUNCTIONAL ELECTIVES**

Sl. No.	Course Code	Subject
1.	23MBAE101	Entrepreneurship Development
2.	23MBAE102	Corporate Governance
3.	23MBAE103	Event Management
4.	23MBAE104	Micro and Small Business Management
5.	23MBAE105	Fuzzy logic for Management Decision Making
6.	23MBAE106	Intellectual Property Rights
7.	23MBAE107	Sustainable Management
8.	23MBAE108	Managing the Start-Ups

**FUNCTIONAL ELECTIVES**

**STREAM / SPECIALIZATION: FINANCIAL MANAGEMENT**

Sl. No.	Course Code	Subject
1.	23MBAE109	Security Analysis and Portfolio Management
2.	23MBAE110	Financial Markets
3.	23MBAE111	Banking and Financial Services
4.	23MBAE112	Financial Derivatives
5.	23MBAE113	Financial Modelling
6.	23MBAE114	Business Analysis and Valuation
7.	23MBAE115	International Finance
8.	23MBAE116	Behavioral Finance
9.	23MBAE117	Fintech and Block chain Applications in Finance

**STREAM / SPECIALIZATION: OPERATIONS MANAGEMENT**

Sl. No.	Course Code	Subject
1.	23MBAE118	Supply Chain Management
2.	23MBAE119	Quality Management
3.	23MBAE120	Materials Management
4.	23MBAE121	Services Operations Management
5.	23MBAE122	Process Management
6.	23MBAE123	Supply Chain Analytics
7.	23MBAE124	Project Management
8.	23MBAE125	Product design
9.	23MBAE126	Lean Six Sigma
10.	23MBAE127	Robust Design

**STREAM / SPECIALIZATION: MARKETING MANAGEMENT**

<b>Sl. No.</b>	<b>Course Code</b>	<b>Subject</b>
1.	23MBAE128	Retail Marketing
2.	23MBAE129	Consumer Behavior
3.	23MBAE130	Integrated Marketing Communications
4.	23MBAE131	Services Marketing
5.	23MBAE132	Sales and Distribution Management
6.	23MBAE133	Product and Brand Management
7.	23MBAE134	Digital Marketing
8.	23MBAE135	International Marketing
9.	23MBAE136	Marketing Analytics
10.	23MBAE137	B2B & B2C Sales & Marketing

**STREAM / SPECIALIZATION: HUMAN RESOURCE MANAGEMENT**

<b>Sl. No.</b>	<b>Course Code</b>	<b>Subject</b>
1.	23MBAE138	Strategic Human Resource Management
2.	23MBAE139	Industrial Relations and Labour Legislations
3.	23MBAE140	Social Psychology
4.	23MBAE141	Organizational, Design, Change and Development
5.	23MBAE142	Managerial Behavior and Effectiveness
6.	23MBAE143	Negotiation and Conflict Management
7.	23MBAE144	Reward and Compensation Management
8.	23MBAE145	Personal Effectiveness
9.	23MBAE146	International Human Resources Management
10.	23MBAE147	Human Resource Analytics
11.	23MBAE148	Talent Acquisition and Management

**STREAM / SPECIALIZATION: SYSTEMS MANAGEMENT**

<b>Sl. No.</b>	<b>Course Code</b>	<b>Subject</b>
1.	23MBAE149	e-business
2.	23MBAE150	Internet of Things
3.	23MBAE151	Cloud Computing
4.	23MBAE152	Enterprise Resource Planning
5.	23MBAE153	Software Project and Quality Management
6.	23MBAE154	Data Mining for Business Intelligence
7.	23MBAE155	Big Data Analytics
8.	23MBAE156	Deep Learning & Artificial Intelligence
9.	23MBAE157	R Programming
10.	23MBAE158	Python Programming

**STREAM / SPECIALIZATION: BUSINESS ANALYTICS**

<b>Sl. No.</b>	<b>Course Code</b>	<b>Subject</b>
1.	23MBAE159	Data Mining for Business Intelligence
2.	23MBAE160	Big Data Analytics
3.	23MBAE161	Deep Learning & Artificial Intelligence
4.	23MBAE162	R Programming
5.	23MBAE163	Python Programming
6.	23MBAE164	Block Chain Technology
7.	23MBAE165	Social Media Web Analytics
8.	23MBAE166	Stochastic Modelling
9.	23MBAE167	Time Series Analysis
10.	23MBAE168	Multivariate Data Analysis
11.	23MBAE169	Logistics & Supply Chain Management

**VALUE ADDED ONE CREDIT COURSES**

<b>Sl. No.</b>	<b>Course Code</b>	<b>Subject</b>
1.	23MBAV201	Negotiation Skills
2.	23MBAV202	Transactional Skills
3.	23MBAV203	Emotional Intelligence
4.	23MBAV204	Python Programming
5.	23MBAV205	Data Visualization for Managers

# 23MBA111 - STATISTICS FOR MANAGEMENT

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

- CO1:** Facilitate objective solutions in business decision-making.
- CO2:** Understand and solve business problems.
- CO3:** Apply statistical techniques to data sets, and correctly interpret the results.
- CO4:** Develop skill-set that is in demand in both the research and business environment.
- CO5:** Enable the students to apply statistical techniques in a work setting.

### INTRODUCTION

Basic definitions and rules for probability, conditional probability independence of events, Baye's theorem, and random variables, Probability distributions: Binomial, Poisson, Uniform and Normal distributions. **(9)**

### SAMPLING DISTRIBUTION AND ESTIMATION

Introduction to sampling distributions, sampling distribution of mean and proportion, application of central limit theorem, sampling techniques. Estimation: Point and Interval estimates for population parameters of large sample and small samples, determining the sample size. **(9)**

### TESTING OF HYPOTHESIS - PARAMETRIC TESTS

Hypothesis testing: one sample and two sample tests for means and proportions of large samples (z-test), one sample and two sample tests for means of small samples (t-test), F - test for two sample standard deviations. ANOVA - one and two way. **(9)**

### NON-PARAMETRIC TESTS

Chi-square test for single sample standard deviation, Chi-square tests for independence of attributes and goodness of fit, Sign test for paired data. Rank sum test. Kolmogorov - Smirnov - test for goodness of fit, comparing two populations. Mann - Whitney U test and Kruskal Wallis test - One sample run test. **(9)**

### CORRELATION AND REGRESSION

Correlation - Coefficient of Determination - Rank Correlation - Regression - Estimation of Regression line - Method of Least Squares - Standard Error of estimate. **(9)**

**TOTAL: 45**

### TEXTBOOKS

1. Ken Black, *Applied Business Statistics, 7th Edition, Wiley India Edition, 2022.*
2. Prem. S. Mann, *Introductory Statistics, Wiley Publications, 9th Edition, 2020.*

### REFERENCES

1. T N Srivastava and Shailaja Rego, *Statistics for Management, Tata McGraw Hill, 3rd Edition, 2018.*
2. Richard I. Levin, David S. Rubin, Masood H.Siddiqui, Sanjay Rastogi, *Statistics for Management, Pearson Education, 8th Edition, 2017.*
3. N. D. Vohra, *Business Statistics, Tata McGraw Hill, 2017.*
4. David R. Anderson, Dennis J. Sweeney, Thomas A.Williams, Jeffrey D.Camm, James J.Cochran, *Statistics for business and economics, 13th edition, Thomson (South - Western) Asia, Singapore, 2016.*

# 23MBA112 - MANAGEMENT CONCEPTS AND ORGANIZATIONAL BEHAVIOR

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Understand the various management concepts and skills required in the business world.

**CO2:** Develop an In-depth knowledge of various functions of management in a real time management context.

**CO3:** Understand the complexities associated with management of individual behavior in the organizations.

**CO4:** Develop the skillsets to manage group behaviour in Organizations.

**CO5:** Develop Insights about the current trends in managing organizational behavior.

### NATURE AND THEORIES OF MANAGEMENT

Evolution of management Thought - Classical, Behavioral and Management Science Approaches. Management - meaning, levels. Management as an art or science, Managerial functions and Roles, Evolution of Management Theory - Contribution of F.W. Taylor, Henri Fayol, Neo-Classical - Mayo & Hawthorne Experiments. Modern era - system & contingency approach - Managerial Skills. **(9)**

### PLANNING AND ORGANISING

Planning - Steps in Planning Process - Scope and Limitations - Forecasting and types of Planning - Characteristics of a sound Plan - Management by Objectives (MBO) - Policies and Strategies - Scope and Formulation - Decision Making - Types, Techniques and Processes.

Organisation Structure and Design - Authority and Responsibility Relationships - Delegation of Authority and Decentralisation - Interdepartmental Coordination - Impact of Technology on Organisational design - Mechanistic vs Adoptive Structures - Formal and Informal Organisation. Control: meaning, function, Process and types of Control. **(9)**

### INDIVIDUAL BEHAVIOUR

Meaning of Organizational behavior, contributing disciplines, importance of organizational behavior, Perception and Learning - Personality and Individual Differences - Motivation theories and Job Performance - Values, Attitudes and Beliefs - Communication – Types - Process - Barriers - Making Communication Effective. **(9)**

### GROUP BEHAVIOUR

Groups and Teams: Definition, Difference between groups and teams, Stages of Group Development, Group Cohesiveness, Types of teams, Group Dynamics-Leadership-Styles.

Power and Politics - Organisational Structure - Organisational Climate and Culture, Conflict: concept, sources, Types, Stages of conflict, Management of conflict - Organisational Change and Development. **(9)**

### EMERGING ASPECTS OF ORGANIZATIONAL BEHAVIOUR

Comparative Management Styles and approaches - Japanese Management Practices. Organisational Creativity and Innovation Organizational behavior across cultures - Conditions affecting cross cultural organizational operations, Managing International Workforce, Productivity and cultural contingencies, Cross cultural communication, Management of Diversity. **(9)**

**TOTAL: 45**

## **TEXTBOOKS**

1. *Organizational Behavior | 9th Edition*, by Steven L. McShane, Mary Ann Von Glinow, et al, Mcgraw Hill 2022.
2. *Principles and Practice of Management*, LM Prasad, Sulthan Chand & Sons, 2021.

## **REFERENCES**

1. Samuel C. Certo and S. Trevis Certo, *Modern Management: Concepts and Skills*, Pearson education, 15th Edition, 2018.
2. Charles W.L Hill and Steven L McShane, "Principles of Management, McGraw Hill Education, Special Indian Edition, 2017.
3. Robert Konopaske, John M Ivancevich, Michael T Matteson, *Organizational Behavior and Management*, 11th Edition, Tata McGraw Hill, 2017.
4. Andrew J. Dubrin, *Essentials of Management*, Thomson Southwestern, 10th Edition, 2016.
5. Stephen P. Robbins, David De Cenzo and Mary Coulter, *Fundamentals Of Management*, Prentice Hall of India, 9th Edition, 2016.

# 23MBA113 - MANAGERIAL ECONOMICS

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Introduce the concepts of scarcity and efficiency;

**CO2:** Explain principles of microeconomics relevant to managing an organization

**CO3:** Describe principles of macroeconomics

**CO4:** Understand the concepts of economic environment of business.

**CO5:** Assess the policies that regulates economic variables

### INTRODUCTION

The themes of economics - scarcity and efficiency - three fundamental economic problems - society's capability - Production possibility frontiers (PPF) - Productive efficiency Vs economic efficiency - economic growth & stability - Micro economies and Macroeconomics - the role of markets and government - Positive Vs negative externalities. **(9)**

### CONSUMER AND PRODUCER BEHAVIOUR

Market - Demand and Supply - Determinants - Market equilibrium - elasticity of demand and supply - consumer behaviour - consumer equilibrium - Approaches to consumer behavior - Production - Short-run and long-run Production Function - Returns to scale - economies Vs diseconomies of scale - Analysis of cost – Short – run and long-run cost function - Relation between Production and cost function. **(9)**

### PRODUCT AND FACTOR MARKET

Product market - perfect and imperfect market - different market structures - Firm's equilibrium and supply - Market efficiency - Economic costs of imperfect competition - factor market - Land, Labour and Capital - Demand and supply - determination of factor price - Interaction of product and factor market - General equilibrium and efficiency of competitive markets. **(9)**

### PERFORMANCE OF AN ECONOMY - MACRO ECONOMICS

Macro-economic aggregates - circular flow of macroeconomic activity - National income determination - Aggregate demand and supply - Macroeconomic equilibrium - Components of aggregate demand and national income - multiplier effect - Demand side management - Fiscal policy in theory. **(9)**

### AGGREGATE SUPPLY AND THE ROLE OF MONEY

Short - run and Long - run supply curve - Unemployment and its impact - Okun's law - Inflation and the impact - reasons for inflation – Demand Vs Supply factors - Inflation Vs Unemployment tradeoff - Phillips curve – short - run and long - run - Supply side Policy and management - Money market - Demand and supply of money – money - market equilibrium and national income - the role of monetary policy. **(9)**

**TOTAL: 45**

### TEXTBOOKS

1. Paul A. Samuelson, William D. Nordhaus, Sudip Chaudhuri and Anindya Sen, *Economics, 19th Edition, Tata McGraw Hill, New Delhi, 2011*
2. William Boyes and Michael Melvin, *Textbook of Economics, Biztantra, 7th Edition, 2008.*

## REFERENCES

1. N. Gregory Mankiw, *Principles of Economics, 8th Edition*, Thomson learning, New Delhi, 2017.
2. Keat Paul K Young Philip, Erfle Steve College Dickinson *Managerial Economics, 7th Ed*, Pearson, 2017.
3. Karl E. Case and Ray C. Fair, *Principles of Economics, 12th Edition*, Pearson, Education Asia, New Delhi, 2017.
4. Richard Lipsey and Alec Chrystal, *Economics, 13th Edition*, Oxford, University Press, New Delhi, 2015.
5. Panneerselvam. R, *Engineering Economics, 2nd Edition*, PHI Learning, 2014.

# 23MBA114 - ACCOUNTING FOR DECISION MAKING

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Have a thorough grounding of financial accounting concepts.

**CO2:** Prepare the various financial statements.

**CO3:** Understand the management and cost accounting techniques.

**CO4:** Apply the management and cost accounting techniques for decision-making.

**CO5:** Assess the accounting standards and practices in India.

### FINANCIAL ACCOUNTING

Introduction to Financial, Cost and Management Accounting - Generally accepted accounting principles - Double Entry System - Preparation of Journal, Ledger and Trial Balance by using Tally - Preparation of Final Accounts: Trading, Profit and Loss Account and Balance Sheet by using Tally - Reading the financial statements in Tally. **(9)**

### ANALYSIS OF FINANCIAL STATEMENTS

Financial ratio analysis by using Tally - Interpretation of ratio for financial decisions- Dupont Ratios - Comparative statements - common size statements. Cash flow (as per Accounting Standard 3) and Funds flow statement analysis by using Tally - Trend Analysis. **(9)**

### COST ACCOUNTING

Cost Accounts - Classification of costs - Job cost sheet - Job order costing - Process costing - (excluding Interdepartmental Transfers and equivalent production) - Joint and By Product Costing - Activity Based Costing, Target Costing. **(9)**

### MARGINAL COSTING

Marginal Costing and profit planning - Cost, Volume, Profit Analysis - Break Even Analysis - Decision making problems - Make or Buy decisions - Determination of sales mix - Exploring new markets - Add or drop products - Expand or contract. **(9)**

### BUDGETING AND VARIANCE ANALYSIS

Budgetary Control - Sales, Production, Cash flow, fixed and flexible budget - Standard costing and Variance Analysis - (excluding overhead costing) - Accounting standards and accounting disclosure practices in India. **(9)**

**TOTAL: 45**

### TEXTBOOKS

1. Narayanaswamy R, *Financial Accounting, PHI, 7<sup>th</sup> Edition, 2022.*
2. M.Y. Khan & P.K. Jain, *Management Accounting, Tata McGraw Hill, 8th Edition, 2021.*

### REFERENCES

1. N.M. Singhvi, Ruzbeh J. Bodhanwala, *Management Accounting - Text and cases, 3rd Edition PHI Learning, 2018*
2. Jan Williams, Susan Haka, Mark S. Bettner, Joseph V. Carcello, *Financial and Managerial Accounting - The basis for business Decisions, 18th Edition, Tata McGraw Hill Publishers, 2017.*
3. Earl K. Stice & James D. Stice, *Financial Accounting, Reporting and Analysis, 8th Edition, Cengage Learning, 2015.*
4. T.S. Reddy & A. Murthy, *Financial Accounting, Margham Publications, 2014.*
5. Charles T. Horngren, Gary L. Sundem, David Burgstahler, Jeff Schatzberg, *Introduction to Management Accounting, PHI Learning, 16<sup>th</sup> Edition, 2014.*

# 23MBA115 - BUSINESS ENVIRONMENT AND LEGAL ASPECTS

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Develop understanding and fundamental knowledge about the business environment.

**CO2:** Gain knowledge on opportunities and challenges of the contemporary global business environment.

**CO3:** Appraise the need for ethics in business and the issues, challenges involved under globalization.

**CO4:** Understand the fundamental legal principles in developing various contracts and commercial laws in the business world.

**CO5:** Identify the various acts in the smooth conduct of business.

### INDICATORS OF INTERNAL AND EXTERNAL BUSINESS ENVIRONMENT

(9)

Environmental Factors, Environmental scanning and risk assessment; Concepts of Economic systems; New Industrial Policy-1991; Recent Financial and Economic Reforms, Recent Monetary and Fiscal Policy and their impact on Business Environment, Issues of sustainable business environment, Role of NITI Aayog in Economic Development of India.

### GLOBALIZATION OF BUSINESS ENVIRONMENT

(9)

Opportunities and challenges for MNCs in India; Foreign investment in India; Indian Foreign Trade and its Impact on Balance of Payment, Exchange rate Movements and India's Competitiveness in the world economy; World Trade Trends and Economic Integration. Contemporary Issues: Climate change, Food security, Geopolitics Sustainable Development and De-Globalization; Emerging business trends and challenges.

### ETHICS IN BUSINESS ENVIRONMENT

(9)

Introduction to Business Ethics - Values, Norms and Beliefs; Employees and Business Ethics; Consumers and Business Ethics; the ethical issues and challenges under globalization- Ethical aspects in Marketing, Finance, HR, Ethical decision making.

### LEGAL ENVIRONMENT

(9)

The Indian Contract Act 1872: Formation of a contract, breach of contract and its remedies, Quasi contracts - Contract of Agency: Nature of agency, Creation and types of agents, Authority and liability of Agent and principal: Rights and duties of principal and agents, termination of agency; The Sale of Goods Act 1930; Negotiable Instruments Act 1881; IPR, Copyright, Patent Act, Trademark.

### COMPANIES ACT AND E-GOVERNANCE

(9)

Companies Act, 1956 & 2013, Formation, Memorandum and Articles of Association, Prospectus, Power, duties and liabilities of Directors, winding up of companies; Competition Act 2002; Corporate Tax Planning, Corporate Taxes and Overview of Latest Developments in Indirect tax Laws relating to GST; Consumer Protection Act, 1986—Cyber-crimes, IT Act 2000 and 2002, Secure Electronic Record and Digital Signature, Electronic Governance, Right to Information Act, 2005.

**TOTAL: 45**

### TEXTBOOKS

1. Francis Cherunilam, *Business Environment: Text & Cases*, HPH. K, 2019.
2. Ravinder Kumar, *Legal Aspects of Business*, New Delhi: Cengage Learning, 2016.

### REFERENCES

1. Ian Wirthington, *The Business Environment*; Pearson Education Ltd., England. Chris Britton, 2019.
2. Akhileshwar Pathak, *Legal Aspects of Business*, Tata McGraw Hill, 6th ed., 2018.
3. Richard Stim, *Intellectual Property- CopyRights, Trade Marks, and Patents*, Cengage Learning, 2017.
4. M.G. Velasquez, *Business Ethics Concept and Cases*, Pearson, 2016.
5. Aswathappa, *Essentials of Business Environment*, Himalaya Publication House, 2011.

# 23MBA116 - INFORMATION MANAGEMENT

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Learn the basics of data and information system.

**CO2:** Understand the system development methodologies.

**CO3:** Understand the database management system and its types.

**CO4:** Learn the various technologies in information system and its security.

**CO5:** Gain knowledge on effective applications of information systems in business.

### INTRODUCTION

Data, Information, Information System, evolution, types based on functions and hierarchy, Enterprise and functional information system.

**(9)**

### SYSTEM ANALYSIS AND DESIGN

System development methodologies, Systems Analysis and Design, Data flow Diagram (DFD), Decision table, Entity Relationship (ER), Object Oriented Analysis and Design (OOAD), UML diagram.

**(10)**

### DATABASE MANAGEMENT SYSTEMS

DBMS - types and evolution, RDBMS, OODBMS, RODBMS, Data warehousing, Data Mart, Data mining.

**(8)**

### INTEGRATED SYSTEMS, SECURITY AND CONTROL

Knowledge based decision support systems, Integrating social media and mobile technologies in Information system, Security, IS Vulnerability, Disaster Management, Computer Crimes, Securing the Web.

**(9)**

### NEW IT INITIATIVES

Introduction to Deep learning, Big data, Pervasive Computing, Cloud computing, Advancements in AI, IoT, Block chain, Crypto currency, Quantum computing.

**(9)**

**TOTAL: 45**

### TEXTBOOKS

1. Panneerselvam R, *Advanced Database Management Systems Including Python Matplotlib for Data Mining, Kindle Edition, 2022.*
2. Abraham Silberschatz, Henry F Korth and Sudarshan S, *Database System Concepts, McGraw Hill, 7th Edition, 2021.*

### REFERENCES

1. Kenneth C Laudon and Jane P Laudon, *Management Information Systems - Managing the Digital Firm, 16th Edition, 2019.*
2. Panneerselvam. R, *Database Management Systems, 3rd Edition, PHI Learning, 2018.*
3. Robert Schultheis and Mary Sumner, *Management Information Systems - The Manager's View, Tata McGraw Hill, 2008.*

# 23MBA117 - MARKETING MANAGEMENT

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Apply knowledge of contemporary marketing theories to the demands of business and management practice.

**CO2:** Enhance knowledge of marketing strategies for consumer and industrial marketing.

**CO3:** Understand the choice of marketing mix elements and managing integrated marketing channels.

**CO4:** Analyze the nature of consumer buying behavior.

**CO5:** Understand the marketing research and new trends in the arena of marketing.

### INTRODUCTION

Defining Marketing - Core concepts in Marketing - Evolution of Marketing - Marketing Planning Process - Scanning Business environment: Internal and External - Value chain - Core Competencies - PESTEL - SWOT Analysis - Marketing interface with other functional areas - Production, Finance, Human Relations Management, Information System - Marketing in global environment. International Marketing - Rural Marketing - Prospects and Challenges. **(9)**

### MARKETING STRATEGY

Marketing strategy formulations - Key Drivers of Marketing Strategies - Strategies for Industrial Marketing - Consumer Marketing Services marketing - Competition Analysis - Analysis of consumer and industrial markets - Influence of Economic and Behavioral Factors - **Strategic Marketing Mix components.** **(9)**

### MARKETING MIX DECISIONS

Product planning and development - Product life cycle - New product Development and Management - Defining Market Segmentation - Targeting and Positioning - Brand Positioning and Differentiation - Channel Management - Managing Integrated Marketing Channels - Managing Retailing, Wholesaling and Logistics - Advertising and Sales Promotions - Pricing Objectives, Policies and Methods. **(9)**

### BUYER BEHAVIOUR

Understanding Industrial and Consumer Buyer Behavior - Influencing factors - Buyer Behaviour Models - Online buyer behavior - Building and measuring customer satisfaction - Customer relationships management - Customer acquisition, Retaining, Defection - Creating Long Term Loyalty Relationships. **(9)**

### MARKETING RESEARCH & TRENDS IN MARKETING

Marketing Information System - Marketing Research Process - Concepts and applications: Product - Advertising - Promotion - Consumer Behaviour - Retail research - Customer driven organizations - Cause related marketing - Ethics in marketing - Online marketing trends - Social media and Digital marketing. **(9)**

**TOTAL: 45**

### TEXTBOOKS

1. Paul Baines, Chris Fill, Kelly Page, *Marketing, Asian Edition, Oxford University Press, 5th Edition, 2019.*
2. Ramasamy, V.S, Namakumari, S, *Marketing Management: Global Perspective Indian Context, Macmillan Education, New Delhi, 6th Edition, 2018.*

### REFERENCES

1. Philip Kotler, Gay Armstrong, Prafulla Agnihotri, *Principles of marketing, 17th Edition, 2018.*

2. Philip T. Kotler and Kevin Lane Keller, *Marketing Management*, Prentice Hall India, 15th Edition, 2017.
3. KS Chandrasekar, *"Marketing management-Text and Cases"*, Tata McGraw Hill Education, 2012.
4. Lamb, Hair, Sharma, Mc Daniel- *Marketing - An Innovative approach to learning and teaching-A south Asian perspective*, Cengage Learning, 2012.
5. A. NAG, *Marketing successfully- A Professional Perspective*, Macmillan, 2008.

## 23MBA121 - AI & ML FOR BUSINESS (SEMINAR)

L	T	P	C
0	0	4	2

### ASSESSMENT: PRACTICAL

#### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Understand the fundamental concepts of AI and ML in functional areas.

**CO2:** Analyze real-world AI and ML applications in functional areas.

**CO3:** Assess the ethical implications of AI and ML.

**CO4:** Foster a culture of AI-driven innovation and Mitigate risks and challenges associated with AI and ML.

**CO5:** Apply knowledge and skills to leverage AI and ML effectively in solving real-world business challenges.

#### NOTE:

- The following is the list of Artificial Intelligence and Machine Learning (AIML) based topics suggested for preparation and presentation by students twice during the semester.
- This will be evaluated by the faculty member(s) handling the course and the final marks are consolidated at the end of the semester. No end semester examination is required for this course.

#### GENERAL

(10)

1. Introduction to AI & ML
2. AI Concepts, Terminology, and Application
3. The Future with AI, AI in Action, AI with Real World Impact
4. AI Issues, Concerns and Ethical Considerations
5. Generative AI (Gen AI)
6. AI in Education
7. Explainable AI (XAI)
8. Artificial general intelligence (AGI)
9. Application of AI in various industries
10. AI Using Companies (Top 10 Companies Globally)
11. AI Generated Content (plagiarism)
12. IoT Startup
13. Voice-based Virtual Assistant for Windows
14. Video and Audio Analytics
15. Data Management for Machine Learning

#### FINANCE

(10)

1. Block Chain and Crypto currency
2. Internet of Things
3. Fintech
4. Fraud Detection and Prevention
5. Risk Management
6. Financial Data Analytics
7. Fine-tuning Credit Scores, Retail and Commercial Credit Scoring
8. Personal Finance and Corporate Finance
9. Loan Risk Assessment and Prediction
10. Robo-Advisory and Managing Finances
11. Regulatory Compliance
12. Preventing Cyber Attacks

13. Eradicating Human Error
14. AI in Consumer Finance
15. Insurance Pricing and Claim Processing

## **OPERATIONS**

**(10)**

1. Impact of AI on Business Operations
2. Wrapping up – AI in logistics
3. Supply Chain Optimization
4. logistics Demand Prediction
5. The future of automated delivery systems
6. Warehouse Management with Chabot
7. Future of Process Automation
8. Examples of Artificial Intelligence in Supply Chain
9. AIML in World-Class Manufacturing Practices
10. Sourcing and procurement
11. Operations and resource planning
12. Product development
13. Use of AI in Quality inspection
14. AI in Quality Management: the future of Quality Assurance
15. Enhancing Quality Control

## **MARKETING**

**(10)**

1. Relevance of AI to Marketers
2. Behavior Analysis and Predictive Analytics in Marketing
3. Responsible AI & Democratized AI
4. Marketing Analytics
5. Augmented Intelligence
6. Examples of AI in Marketing in real world companies
7. Types of AI Marketing
8. Benefits of using AI for Marketing
9. Data-driven AI to improve customer engagement.
10. Use of AI to increase sales and improve consumer experience
11. Application of AI to customer segmentation.
12. Market Basket Analysis
13. Use of AI to create content tailored to a group.
14. Best AI Marketing Tools and their Use Cases
15. Challenges to AI implementation in Marketing

## **HUMAN RESOURCE**

**(10)**

1. Introduction to Artificial Intelligence (AI) and Machine Learning (ML) in HR: An Overview
2. The Impact of AI and ML on HR Practices: Opportunities and Challenges
3. AI-powered Talent Acquisition
4. Bias and Fairness in AI-based HR Systems: Ethical Considerations
5. Improving Employee Engagement through AI and ML-driven Personalization
6. Employee Training and Up skilling
7. Performance Management
8. Automating HR Operations with AI
9. Natural Language Processing (NLP) in HR
10. Diversity and Inclusion Initiatives in the Workplace
11. Employee Sentiment Analysis
12. Employee Retention and Turnover Prediction
13. HR Analytics
14. Explainable AI in HR

15. Chatbots and Virtual Assistants in HR
16. Workplace Safety and Wellbeing
17. AI and ML Applications in Employer Branding and Reputation Management
18. The Future of AI and ML in HR: Trends and Predictions

**SYSTEM**

**(10)**

1. Reinforcement Learning
2. Natural Language Processing (NLP)
3. Data Mining techniques
4. Deep Learning with application using AI
5. Web and Text Mining
6. Cloud Computing
7. Data Visualization Tools
8. Cyber security (Filter the content and identify spam using AI)
9. Human Computer Interaction
10. Digital twins drive the industrial metaverse
11. Types of Machine Learning Models (Regression Model, Decision Tree, Clustering, Neural Network, KNN, Logistic Regression)
12. Forecasting and Time series Analysis
13. Optimization Techniques
14. Support Vector Machine
15. Fuzzy Logic

**TOTAL: 60**

**TEXTBOOKS**

1. *David Brown, Artificial Intelligence for Business: Understand Neural Networks and Machine Learning for Robotics. A Step-By-Step Method to Develop AI and ML Projects for Business, 2020.*

# 23MBA122 - BUSINESS COMMUNICATION (PRACTICALS)

L	T	P	C
0	0	4	2

## ASSESSMENT: PRACTICAL

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Speak fearlessly in English with the peers as well as with the superiors.

**CO2:** Develop good presentation skills.

**CO3:** Enhance Team Building skills.

**CO4:** Write flawless letters and reports in English in a lucid manner.

**CO5:** Prepare Business reports.

### SELF REALIZATION AND EFFECTIVE SELF INTRODUCTION

Self-Analysis of SCOT. Realizing individual potential, Effective Self Introduction, Body Language and Non-Verbal Communication, Goal Setting, Importance of Soft Skills. **(12)**

### EFFECTIVE SPEAKING AND PRESENTATION

Pep Talks both prepared and ex-tempore, Effective presentation of Ideas and Concepts, Art of Public Speaking and basics of Professional PowerPoint Presentation. **(12)**

### TEAM BUILDING

Group Discussion, Group Tasks on Presentation / Seminar, Team Building Activities – Key dimensions of Team Communication, Understanding cultural diversity, improving intercultural communication skills, Interview Skills. **(12)**

### WRITTEN COMMUNICATION

Basics: Sentence making and sentence correction in English, Avoiding redundancy and common errors in writing, paraphrasing and essay writing, Email Etiquette, Email Writing.

Professional: Business Letters, Professional letter writing, Writing Memos and Interoffice Communication, Minutes of Meeting, Resume Writing. **(12)**

### GROUP DISCUSSION AND GROUP TASKS

Group Assignments, Report Writing, Book Reviews, Business Etiquettes, Case Study. **(12)**

**TOTAL: 60**

**Note:** The emphasis of the entire subject should be on practical aspects.

### TEXTBOOKS:

1. Lesikar and Flatley, *Basic Business Communication*, Tata McGraw Hill.
2. Monippally M M (2013), *Business Communication – from Principles to Practice*, McGraw Hill Education (India) Pvt Ltd.,
3. Pfeiffer, W S and Padmaja (2013), T V S, *Technical Communication – A Practical Approach*, Pearson Education, 6th Edition
4. Taylor, S and Chandra V (2013), *Communication for Business: A Practical Approach*, Pearson Education, 4th Edition.
5. R. C. Sharma, Krishna Mohan, *Business Correspondence & Report Writing*, Tata McGraw Hill, 5th Edition, 2017
6. Malcolm Goodale, *Developing Communication Skills, 2nd Edition Professional Presentations*, Cambridge University Press
7. *Supplementary Reading Material Business Communication - Harvard Business Essentials Series*, HBS Press.

**WEB RESOURCES:**

1. <https://www.mbaskool.com/business-concepts/marketing-and-strategy-terms/7049-group-communication.html>
2. <https://www.mindtools.com/a99x19o/interview-skills>

# 23MBA123 - COMPUTER APPLICATIONS FOR BUSINESS (LABORATORY)

## ASSESSMENT: PRACTICAL

L	T	P	C
0	0	2	1

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Acquire a fundamental understanding of Microsoft word in formatting business documents.

**CO2:** Demonstrate the key concepts and functions of Microsoft Excel in using formulas and functions.

**CO3:** Apply Microsoft Excel to analyze and manipulate business data.

**CO4:** Analyze complex data sets using advanced Excel features like pivot tables and charts.

**CO5:** Use PowerPoint to design effective presentations for various business purposes.

Experiment No.	Topic & Description	Duration
1	MS Word Basics and Formatting Text	3
2	Working with Objects	3
3	Header and Footer	3
4	Tables	3
5	Mail merge	3
6	Excel Basics and Customizing Excel	3
7	Formatting and Cell Referencing	3
8	Basic Excel Functions	3
9	Logical Functions	3
10	Sorting and Filtering	3
11	Data Validation	3
12	Lookup Functions	3
13	What If Analysis	3
14	Pivot Tables	3
15	Charts and Slicers, Excel Dashboard	3
16	VBA Macros	3
17	Power Point Basics	3
18	Visual Communication: using graphics and images	3
19	Multimedia: using audio and video	3
20	Animations	3

**TOTAL: 60**

### TEXTBOOKS

- Rose, Angela. *Microsoft Word In 30 Minutes: Make a Bigger Impact with Your Documents and Master the Writing, Formatting, and Collaboration Tools in Word for Microsoft 365 and Word for the Web.* United States, I30 Media Corporation, 2022.
- LeCorps, Rudy. *Microsoft Excel Fundamentals: A Practical Workbook for Small Businesses.* United States, RGL Learning, 2002.
- Held, Bernd, et al. *Microsoft Excel Functions and Formulas with Excel 2019/Office 365.* United States, Mercury Learning and Information, 2019.
- Kusleika, Dick. *Data Visualization with Excel Dashboards and Reports.* United Kingdom, Wiley, 2021.
- Dillon, Alan. *Excelling in Spreadsheets: For Microsoft Excel 2016 and 2019.* Ireland, Boru Press Limited, 2020.
- Atkinson, Cliff. *Beyond Bullet Points: Using PowerPoint to Tell a Compelling Story that Gets Results.* United States, Pearson Education, 2018.

# 23MBA211 - QUANTITATIVE TECHNIQUES FOR DECISION MAKING

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORYCOURSE

### COURSE OUTCOME

Upon completion of the course students will be able to solve,

- CO1:** Linear programming in product mix decisions.
- CO2:** Transportation and assignment in logistics and job allocation scenarios.
- CO3:** Game theory and heuristics of decision making in real time decisions.
- CO4:** Inventory management and job sequencing in manufacturing context.
- CO5:** Queuing and replacement theories in real time scenario optimization.

### INTRODUCTION TO LINEAR PROGRAMMING (LP)

Relevance of quantitative techniques in management decision making. Linear Programming - formulation, solution by graphical and simplex methods (Primal - Penalty, Two Phase), Special cases. Sensitivity Analysis. **(9)**

### LINEAR PROGRAMMING EXTENSIONS

Transportation Models (Minimising and Maximising Problems) - Balanced and unbalanced Problems - Initial Basic feasible solution by N-W Corner Rule, Least cost and Vogels approximation methods. Check for optimality. Solution by MODI / stepping stone method. Case of Degeneracy. Transshipment Models.

Assignment Models (Minimising and Maximising Problems) - Balanced and Unbalanced Problems. Solution by Hungarian and Branch and Bound Algorithms. Travelling Salesman problem. Crew Assignment Models. **(9)**

### DECISION AND GAME THEORIES

Decision making under risk - Decision trees - Decision making under uncertainty.

Game Theory – Two - person Zero sum games - Saddle point, Dominance Rule, Convex Linear Combination (Averages), methods of matrices, graphical and LP solutions. **(9)**

### INVENTORY AND JOBS EQUENCING MODELS

Inventory Models - EOQ and EBQ Models (With and without shortages), Quantity Discount Models.

Job Sequencing algorithm (Johnson') - n jobs thro' 2 machines, n jobs thro' 3 machines and n jobs thro' m machines. **(9)**

### QUEUING THEORY AND REPLACEMENT MODELS

Queuing Theory – single and multi - channel models - infinite number of customers and infinite calling source. Replacement Models - Individuals replacement Models (With and without time value of money) - Group Replacement Models. **(9)**

**TOTAL: 45**

### TEXTBOOKS

1. Vohra N D and Hitesh Arora, *Quantitative Techniques in Management*, Tata Mcgraw Hill, 6th Edition, 2021.
2. Hamdy A Taha, *Introduction to Operations Research*, Prentice Hall India, Tenth Edition, Third Indian Reprint, 2019.

### REFERENCES

1. Srinivasan G, *Operations Research: Principles and Applications*, PHI Learning, 3rd Edition, 2017.
2. Bernard W Taylor, *Introduction to Management Science*, Pearson Education, 12th Edition, 2016.

3. *Frederick & Mark Hillier, Introduction to Management Science - A Modeling and case studies approach with spreadsheets, Tata Mcgraw Hill, 2010.*
4. *Paneerselvam R., Operations Research, Prentice Hall of India, Fourth Print, 2008.*
5. *Nagraj B, Barry R and Ralph M. S Jr., Managerial Decision Modelling with Spreadsheets, Second Edition, 2007, Pearson Education.*

# 23MBA212 - FINANCIAL MANAGEMENT

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Identify the concepts of financial decision of an organization.

**CO2:** Recognize the time value of money.

**CO3:** Learn the capital budgeting and cost of capital techniques.

**CO4:** Understand how to decide the decision of capital structure and distribution of dividend.

**CO5:** Assess the short – term and long-term sources of finance.

### FOUNDATIONS OF FINANCE

Introduction to finance- Financial Management - Nature, scope and functions of Finance, organization of financial functions, objectives of Financial management, Major financial decisions - Time value of money - features and valuation of shares and bonds - Concept of risk and return in Single Asset and Portfolio. **(9)**

### INVESTMENT DECISIONS

Capital Budgeting: Principles and techniques - Nature of capital budgeting - Identifying relevant cash flows - Evaluation Techniques: Payback, Accounting rate of return, Net Present Value, Internal Rate of Return, and Profitability Index - Comparison of DCF techniques - Concept and measurement of cost of capital - Specific cost and overall cost of capital. **(9)**

### FINANCING AND DIVIDEND DECISION

Leverages - Operating and Financial leverage - measurement of leverages - degree of Operating & Financial leverage - Combined leverage, EBIT - EPS Analysis - Indifference point.

Capital structure - Theories - Net Income Approach, Net Operating Income Approach, MM Approach - Determinants of Capital structure.

Dividend decision- Issues in dividend decisions, Importance, Relevance & Irrelevance theories- Walters - Model, Gordon's model and MM model. - Factors determining dividend policy - Types of dividend policies - forms of dividend. **(9)**

### WORKING CAPITAL MANAGEMENT

Principles of working capital: Concepts, Needs, Determinants, issues and estimation of working capital - Receivables Management - Inventory management - Cash management - Working capital finance: Commercial paper, Company deposit, Trade credit, Bank finance. **(9)**

### LONG TERM SOURCES OF FINANCE

Indian capital market - New issues market - Secondary market - Long term finance: Shares, debentures and term loans, lease, hire purchase, venture capital financing, Private Equity - Loan Schemes of Commercial Banks in India **(9)**

**TOTAL: 45**

### TEXTBOOKS

1. I M. Pandey *Financial Management*, Vikas Publishing House Pvt. Ltd., 12th Edition, 2021.
2. Prasanna Chandra, *Financial Management*, 10th Edition, Tata McGraw Hill, 2019.

### REFERENCES

1. M.Y. Khan and P.K. Jain *Financial management, Text, Problems and cases* Tata McGraw Hill, 8th Edition, 2018.
2. Brigham, Ehrhardt, *Financial Management Theory and Practice*, 14th Edition, Cengage Learning, 2015.
3. James C. Vanhorne - *Fundamentals of Financial Management* - PHI Learning, 13th Edition, 2014.
4. Srivatsava, Mishra, *Financial Management*, Oxford University Press, 2012.
5. Aswath Damodaran, *Corporate Finance Theory and practice*, John Wiley & Sons, 2011.

# 23MBA213 - HUMAN RESOURCE MANAGEMENT

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Understand the concepts on various aspects of HRM.

**CO2:** Assess the supply and demand of human resources in an organization.

**CO3:** Acquire the knowledge on training and Development in an organization.

**CO4:** Develop compensation plan and strategies for career management in the workplace.

**CO5:** Analyze performance of the employees and provide effective control system in the organization.

### PERSPECTIVES IN HUMAN RESOURCE MANAGEMENT

Evolution of human resource management - The importance of the human capital - Role of human resource manager - Challenges for human resource managers - Trends in Human resource policies - Computer applications in human resource management - Human resource accounting and audit. **(9)**

### HUMAN RESOURCE PLANNING AND RECRUITMENT

Importance of Human Resource Planning - Forecasting human resource requirement - Matching supply and demand - Internal and External sources, Organizational Attraction - Recruitment, Selection, Induction and Socialization - Theories, Methods and Process. **(9)**

### TRAINING AND DEVELOPMENT

Types of training methods – purpose – benefits - resistance. Executive Development Programme - Common practices - Benefits – Self - development - Knowledge Management. **(9)**

### EMPLOYEE ENGAGEMENT

Compensation plan - Reward - Motivation - Application of theories of motivation - Career management - Mentoring - Development of mentor - Protege relationships - Job Satisfaction, Employee Engagement, Organizational Citizenship Behavior, Theories, Models. **(9)**

### PERFORMANCE EVALUATION AND CONTROL

Method of performance evaluation - Feedback - Industry practices. Promotion, Demotion, Transfer and Separation - Implications of job change. The control process – Importance - Methods - Requirement of effective control systems grievances - Causes - Implications - Redressal methods. **(9)**

**TOTAL: 45**

### TEXTBOOKS

1. Gary Dessler and Biju Varkkey, *Human Resource Management*, Pearson Education Limited, 2020.
2. David A. Decenzo, Stephen P Robbins, and Susan L. Verhulst, *Human Resource Management*, Wiley, International Student Edition, 12th Edition, 2016.

### REFERENCES

1. Luis R Gomez-Mejia, David B Balkin, Robert L Cardy, *Managing Human Resource*, PHI Learning, 2012.
2. Bernadin, *Human Resource Management*, Tata McGraw Hill, 8th Edition, 2012.
3. Wayne Cascio, *Managing Human Resource*, McGraw Hill, 2015.
4. Ivancevich, *Human Resource Management*, McGraw Hill, 2012.
5. Uday Kumar Haldar, Juthika Sarkar, *Human Resource management*, Oxford, 2012.

# 23MBA214 - OPERATIONS MANAGEMENT

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Understand the evolution of operations management practices and world class manufacturing processes.

**CO2:** Gather knowledge about capacity planning, strategic sourcing and procurement in organizations.

**CO3:** Enhance the understanding of product development and design process.

**CO4:** Forecast demand and overcome bottlenecks.

**CO5:** Provide insight to Quality management tools and practices.

### INTRODUCTION TO OPERATIONS MANAGEMENT

Operations Management - Nature, Importance, historical development, transformation processes, differences between services and goods, a system perspective, functions, challenges, current priorities, recent trends. Operations Strategy - Strategic fit, framework. Productivity; World - class manufacturing practices. **(9)**

### OPERATIONS AND THE VALUE CHAIN

Capacity Planning - Long range, Types, Developing capacity alternatives, tools for capacity planning. Facility Location - Theories, Steps in Selection, Location Models. Sourcing and procurement - Strategic sourcing, make or buy decision, procurement process, managing vendors. **(9)**

### DESIGNING OPERATIONS

Product Design - Criteria, Approaches. Product development process – stage - gate approach - tools for efficient development. Process - design, strategy, types, analysis. Facility Layout - Principles, Types, Planning tools and techniques. **(9)**

### PLANNING AND CONTROL OF OPERATIONS

Demand Forecasting - Need, Types, Objectives and Steps - Overview of Qualitative and Quantitative methods. Operations planning - Resource planning - Inventory Planning and Control. Operations Scheduling - Theory of constraints - bottlenecks, capacity constrained resources, synchronous manufacturing. **(9)**

### QUALITY MANAGEMENT

Definitions of quality, The Quality revolution, quality gurus; TQM philosophies; Quality management tools, certification and awards. Lean Management - philosophy, Elements of JIT manufacturing, continuous improvement. Six Sigma. **(9)**

**TOTAL: 45**

### TEXTBOOKS

1. M Senthil, *Fundamentals of Production and Operations Management*, Vijay Nichole Imprints Private Limited, 2022.
2. Richard B. Chase, Ravi Shankar, F. Robert Jacobs, *Operations and Supply Chain Management*, McGraw Hill Education (India) Pvt. Ltd, 14th Edition, 2014.

### REFERENCES

1. Cecil C. Bozarth, Robert B. Handfield, *Introduction to Operations and Supply Chain Management*, Pearson, 4th Edition, 2016.
2. Mahadevan B, *Operations management: Theory and practice*, Pearson Education India, 2015.
3. Norman Gaither and Gregory Frazier, *Operations Management*, South Western Cengage Learning, 9th Edition, 2015.
4. Panneer selvam R, *Production and Operations Management*, 3rd Edition, PHI Learning, 2012.
5. William J Stevenson, *Operations Management*, Tata McGraw Hill, 9th Edition, 2009.

# 23MBA215 - BUSINESS RESEARCH METHODS

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

CO1: Understand and appreciate scientific inquiry.

CO2: Write research proposals.

CO3: Undertake a systematic outlook towards business situations for the purpose of objective decision making, and the method of conducting scientific inquiry to solve organizational problems.

CO4: Analyze data and find solutions to the problems.

CO5: Prepare a research report.

### INTRODUCTION

Business Research - Definition and Significance - the research process - Types of Research - Exploratory and causal Research - Theoretical and empirical Research - Cross-Sectional and Time - series Research - Research questions / Problems - Research objectives - Research hypotheses - characteristics - Research in an evolutionary perspective - The role of theory in research. (9)

### RESEARCH DESIGN AND MEASUREMENT

Research design - Definition - types of research design - exploratory and causal research design - Descriptive and experimental design - different types of experimental design - Validity of findings - internal and external validity - Variables in Research - Measurement and scaling - Different scales - Construction of instrument - Validity and Reliability of instrument. (9)

### DATA COLLECTION

Types of data - Primary Vs Secondary data - Methods of primary data collection - Survey Vs Observation - Experiments - Construction of questionnaire and instrument - Types of Validity - Sampling plan - Sample size - Determinants optimal sample size - Sampling techniques - Sampling methods. (9)

### DATA PREPARATION AND ANALYSIS

Data Preparation - Editing - Coding - Data entry - Validity of data - Qualitative Vs Quantitative data analyses - Applications of Bivariate and Multivariate statistical techniques, Factor analysis, Discriminant analysis, Cluster analysis, Multiple regression and Correlation, Multidimensional scaling - Conjoint Analysis - Application of statistical software for data analysis. (9)

### REPORT DESIGN, WRITING AND ETHICS IN BUSINESS RESEARCH

Research report - Types - Contents of report - Need for executive summary - chapterization - contents of chapter - report writing - the role of audience - readability - comprehension – tone - final proof – report format - title of the report – ethics in research – Ethics in research - Subjectivity and Objectivity in research. (9)

**TOTAL: 45**

### TEXTBOOKS

1. Donald R. Cooper, Pamela S. Schindler and J K Sharma, *Business Research methods*, 12th Edition, Tata McGraw Hill, New Delhi, 2018.
2. Uma Sekaran and Roger Bougie, *Research methods for Business*, 7th Edition, Wiley India, New Delhi, 2016.

### REFERENCES

1. Panneer Selvam. R, *Research Methodology*, 2nd Edition, PHI Learning, 2014.
2. William G Zikmund, Barry J Babin, Jon C Carr, Atanu Adhikari, Mitch Griffin, *Business Research methods, A South Asian Perspective*, 8th Edition, Cengage Learning, New Delhi, 2012.

3. *Alan Bryman and Emma Bell, Business Research methods, 3rd Edition, Oxford University Press, New Delhi, 2011.*

# 23MBA216 - BUSINESS ANALYTICS

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Understand the role of Business Analytics in decision making.

**CO2:** Identify the appropriate tool for the analytics scenario.

**CO3:** Apply the descriptive analytics tools and generate solutions.

**CO4:** Understand of Predictive Analytics and applications.

**CO5:** Gain Knowledge of Prescriptive Analytics and demonstrate business process improvement.

### INTRODUCTION TO BUSINESS ANALYTICS (BA)

Business Analytics - Terminologies, Process, Importance, Relationship with Organisational Decision Making, BA for Competitive Advantage. (9)

### MANAGING RESOURCES FOR BUSINESS ANALYTICS

Managing BA Personnel, Data and Technology. Organisational Structures aligning BA. Managing Information policy, data quality and change in BA. (9)

### DESCRIPTIVE ANALYTICS

Introduction to Descriptive analytics - Visualising and Exploring Data - Descriptive Statistics - Sampling and Estimation - Probability Distribution for Descriptive Analytics - Analysis of Descriptive analytics. (9)

### PREDICTIVE ANALYTICS

Introduction to Predictive analytics- Logic and Data Driven Models - Predictive Analysis Modeling and procedure - Data Mining for Predictive analytics. Analysis of Predictive analytics. (9)

### PRESCRIPTIVE ANALYTICS

Introduction to Prescriptive analytics - Prescriptive Modeling- Non Linear Optimisation - Demonstrating Business Performance Improvement. (9)

**TOTAL : 45**

### TEXTBOOKS

1. Marc J Schniederjans, Dara G Schniederjans and Christopher M Starkey, "Business Analytics Principles, Concepts, and Applications - What, Why and How", Pearson Ed, 2022.
2. Christian Albright S and Wayne L. Winston, "Business Analytics - Data Analysis and Decision Making", Fifth Edition, Cengage Learning, 2019.

### REFERENCES

1. Ramesh Sharda, Dursun Delen, Efraim Turban Business Intelligence And Analytics: Systems For Decision Support, Pearson 2022.
2. James R. Evans, "Business Analytics - Methods, Models and Decisions", Pearson, 2019.

## 23MBA221 - DATA ANALYSIS AND BUSINESS MODELING (LABORATORY)

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>0</b>	<b>0</b>	<b>4</b>	<b>2</b>

**ASSESSMENT: PRACTICAL**

### COURSE OUTCOME

*Upon completion of the course students will be able to*

- CO1:** Gain deep knowledge about the nature of data and conducting hypothesis testing using various data analysis techniques.
- CO2:** Identify the relationship between variables using data analytical tools.
- CO3:** Understand about forecasting in real time business world using analytical tools.
- CO4:** Conduct Risk and sensitivity analysis and portfolio selection based on business data.
- CO5:** Enhances knowledge about networking, inventory models and queuing theory using data analytical tools.

S.No.	Exp. No.	Details of Experiments	Duration
1	1	Descriptive Statistics	4
2	2	Parametric Tests	4
3	3	Non-parametric Tests	4
4	4	Correlation & Regression	4
5	5	Forecasting	4
6	-	Extended experiment – 1	4
7	6	Portfolio Selection	4
8	7	Risk Analysis & Sensitivity Analysis	4
9	8	Revenue Management	4
10	-	Extended experiment – 2	4
11	9	Transportation & Assignment	4
12	10	Networking Models	4
13	11	Queuing Theory	4
14	12	Inventory Models	4
15	-	Extended experiments – 3	4

- Spreadsheet Software and Data Analysis Tools

**TOTAL: 60**

### TEXTBOOKS

1. Hansa Lysander Manohar, *Data Analysis and Business Modelling using Microsoft Excel*, PHI, 2017.
2. Minnick, C. *WebKit for Dummies*. John Wiley & Sons, 2012.
3. David R. Anderson, et al, *An Introduction to Management Sciences: Quantitative approaches to Decision Making*, 13th ed., South-Western College Pub, 2011.
4. David M. Levine et al, *Statistics for Managers using MS Excel (6th Edition)* Pearson, 2010.
5. William J. Stevenson, Ceyhun Ozgur, *Introduction to Management Science with Spreadsheet*, Tata McGraw Hill, 2009.

## 23MBA222 - RURAL COMMUNITY ENGAGEMENT

L	T	P	C
0	0	2	1

### ASSESSMENT: PRACTICAL

#### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Understand the social, economic, political and cultural framework of the rural society.

**CO2:** Address the challenges with suitable solutions in the identified rural issues.

**CO3:** Engage in rural community development programmes.

**CO4:** Create community awareness on health and hygiene and disaster management.

**CO5:** Gain knowledge on establishing professional intervention.

#### COURSE CONTENT

1. Dynamics of Rural Society: Social, Economic, political and cultural (3)
2. Community Goal setting: Inner Engineering (3)
3. Participatory Learning and social mapping: Approaches and methods, community project proposal and project management, concept and steps, Thematic maps (6)
4. Village development including aspects and process of preparation of village disaster management plan (3)
5. Resource Mapping: Natural and Human resource mapping and management (3)
6. Rural Institutions: Engagement with school/ street/ Health centre / Panchayat / SHGs (3)
7. Community Awareness: Health & Hygiene/ Rights/ Policies & Programmes / Corruption (3)
8. Disaster Management: Disaster Preparedness - Risk reduction, Rehabilitation - Physical and Psychological aspects (3)
9. Professional Intervention- Partnership with Public, Private and Non-governmental organizations (3)

**TOTAL: 30**

#### TEXTBOOKS

1. Common core curriculum for Rural Engagement, National council of Rural Institutes, MHRD, GOI.
2. Katarsingh and Anil Shishodia, Rural Development: Principles, Policies and Management, Sage Publications, 2016.
3. A Azeez & S.M.J Akhtar, Rural Development in India, Kalpaz publications, 2016
4. Transforming Rural India, Ministry of Rural Development, GOI.

# 23MBA311 - STRATEGIC MANAGEMENT

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

- CO1:** Acquire knowledge on Strategic management process and social responsibility of business organizations.
- CO2:** Understand the need for developing competitive advantage for organizations.
- CO3:** Provide insights into various corporate and business level strategies.
- CO4:** Identify the various control systems required for organizational strategy implementation process.
- CO5:** Enhance the cognitive knowledge about various strategic issues and development of new business models.

### STRATEGY AND PROCESS

Conceptual framework for strategic management, the Concept of Strategy, and the Strategy Formation Process - Stakeholders in business - Vision, Mission and Purpose - Business definition, Objectives and Goals - Corporate Governance and Social responsibility-case studies. **(9)**

### COMPETITIVE ADVANTAGE

External Environment - Porter's Five Forces Model-Strategic Groups Competitive Changes during Industry Evolution - Globalisation and Industry Structure - National Context and Competitive advantage Resources - Capabilities and competencies - Core competencies - Low cost and differentiation. Generic Building Blocks of Competitive Advantage - Distinctive Competencies - Resources and Capabilities. Durability of competitive Advantage - Avoiding failures and sustaining competitive advantage - Case study. **(9)**

### STRATEGIES

The generic strategic alternatives - Stability, Expansion, Retrenchment and Combination strategies - Business level strategy - Strategy in the Global Environment - Corporate Strategy - Vertical Integration - Diversification and Strategic Alliances - Building and Restructuring the corporation - Strategic analysis and choice - Managing Growth - Environmental Threat and Opportunity Profile (ETOP) - Organizational Capability Profile - Strategic Advantage Profile - Corporate Portfolio Analysis - SWOT Analysis - GAP Analysis - Mc Kinsey's 7s Framework - GE 9 Cell Model - Distinctive competitiveness - Selection of matrix - Balance Score Card - case study. **(9)**

### STRATEGY IMPLEMENTATION & EVALUATION

The implementation process, Resource allocation, Designing organisational structure - Designing Strategic Control Systems - Matching structure and control to strategy - Implementing Strategic change – Politics - Power and Conflict - Techniques of strategic evaluation & control - case study. **(9)**

### OTHER STRATEGIC ISSUES

Managing Technology and Innovation - Strategic issues for Non Profit organisations. New Business Models and strategies for Internet Economy - case study. Challenges in Strategic Management: Introduction, Strategic Management as an Organisational Force, Dealing with Strategic Management in Various Situations, Strategic Management Implications and Challenges.

Recent Trends in Strategic Management: Introduction, Strategic Thinking, Organisational Culture and its Significance, Organisational Development and Change, Change Management, Strategic management in a new globalised economy. **(9)**

**TOTAL: 45**

## **TEXTBOOKS**

1. Azhar Kazmi, *Strategic Management and Business Policy, 5th Ed.*, Tata McGraw Hill, 2020.
2. Hill. *Strategic Management: An Integrated Approach, 12th Edition*, Wiley, 2016.

## **REFERENCES**

1. John A Parnell. *Strategic Management, Theory and practice Biztantra*, 2013.
2. Dr. Dharmabir Singh, *Strategic Management & Business Policy*, KoGent Learning Solutions Inc., Wiley, 2012.
3. John Pearce, Richard Robinson and Amitha Mittal, *Strategic Management*, McGraw Hill, 12th Edition, 2012.
4. Lawrence G. Hrebiniak, *Making strategy work*, Pearson, 2nd Edition, 2013.
5. Adriaan H. Aberberg and Alison Rieple, *Strategic Management Theory & Application*, Oxford University Press, 2008.

## 23MBA321 - BUSINESS SIMULATION LAB

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>0</b>	<b>0</b>	<b>4</b>	<b>2</b>

### ASSESSMENT: PRACTICAL

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Understand different perspectives on business decisions and develop intuition, judgment and be able to undertake critical analysis in a dynamic, uncertain and complex environment.

**CO2:** Evaluate data and information, determine its relevance and validity and apply this to develop an understanding of the simulated business environment and to guide their strategic decision making and creative thinking.

**CO3:** Demonstrate an ability to apply general management know-how as a member of a team in a simulated business setting.

**CO4:** Understand and be able to exercise managerial responsibility and work effectively as a team in an organizational setting, including issues of leadership and motivation.

**CO5:** Understand the interrelationship and interdependence of the separate functional aspects of business management in a Holistic/real world context, including conveying complex information to a range of audiences.

Experiment No.	Topic & Description	Duration
1	Introduction to Simulation	4
2	The aim, structure and function of business	4
3	Market Analysis	4
4	Understanding the Market and Competition	4
5	Marketing and Sales Strategy	4
6	Extended experiment –1	4
7	Understanding the financial statements	4
8	Extended experiment –1	4
9	Formulating Strategies and Business Plans	4
10	Strategic business decision making	4
11	Extended experiment –1	4
12	Statistical models in Simulation	4
13	Verification and Calibration of Models	4
14	Validation of Models	4
15	Extended experiment –1	4

**TOTAL: 60**

### TEXTBOOKS

1. Payne, James A.: *Introduction to simulation: Programming Techniques and Methods of Analysis*, McGraw-Hill International Editions, Computer Science services, New York 1998.
2. Gordon G.: *System simulation*, Prentice-Hall of India Pvt. Ltd. New Delhi 1993.
3. Narsingh Deo: *System Simulation with Digital Computer*, PHI New Delhi, 1993.
4. Neelankavil Frances: *Computer Simulation and Modelling*, John Wiley & Sons, New York, 1987.
5. Reitman Julian: *Computer Simulation Experiments*, Wiley Interscience 1971.

L	T	P	C
3	0	0	3

**ASSESSMENT: THEORY****COURSE OUTCOME**

Upon completion of the course students will be able to

**CO1:** Gain in depth knowledge of driving factors of international Business.

**CO2:** Understand theories of trade and investment practiced in the global world.

**CO3:** Gain deep Insights in to various market entry strategies followed by Global Organizations.

**CO4:** Identify the various global productions and supply chain issues and have an understanding of foreign exchange determination system.

**CO5:** Enhance the cognitive knowledge of managing business across the cultures.

**AN OVERVIEW OF INTERNATIONAL BUSINESS**

Definition and drivers of International Business - Changing Environment of International Business - Country attractiveness - Trends in Globalization - Effect and Benefit of Globalization - International Institution: UNCTAD Basic Principles and Major Achievements, Role of IMF, Features of IBRD, Role and Advantage of WTO. **(9)**

**THEORIES OF INTERNATIONAL TRADE AND INVESTMENT**

Theories of International Trade: Mercantilism, Absolute Advantage Theory, Comparative Cost Theory, Hecksher - Ohlin Theory - Theories of Foreign Direct Investment : Product Life Cycle, Eclectic, Market Power, Internationalization - Instruments of Trade Policy : Voluntary Export Restraints, Administrative Policy, Anti-dumping Policy, Balance of Payment. **(9)**

**GLOBAL ENTRY**

Strategic compulsions -- Strategic options - Global portfolio management - Global entry strategy, different forms of international business, advantages - Organizational issues of international business - Organizational structures - Controlling of international business, approaches to control - Performance of global business, performance evaluation system. **(9)**

**PRODUCTION, MARKETING, FINANCIALS OF GLOBAL BUSINESS**

Global production: Location, scale of operations - cost of production - Standardization Vs Differentiation - Make or Buy decisions - global supply chain issues - Quality considerations. Globalization of markets: Marketing strategy - Challenges in product development – pricing - production and channel management. Foreign Exchange Determination Systems: Basic Concepts - types of Exchange Rate Regimes - Factors Affecting Exchange Rates. **(9)**

**HUMAN RESOURCE MANAGEMENT IN INTERNATIONAL BUSINESS**

Selection of expatriate managers - Managing across cultures - Training and development – Compensation - Disadvantages of international business - Conflict in international business - Sources and types of conflict - Conflict resolutions - Negotiation - Ethical issues in international business - Ethical decision-making. **(9)**

**TOTAL: 45****TEXTBOOKS**

1. K. Aswathappa, *International Business, 5th Edition, Tata Mc Graw Hill, New Delhi, 2020.*
2. John D. Daniels and Lee H. Radebaugh, *International Business, Pearson Education Asia, New Delhi, 2021.*

**REFERENCES**

1. Charles W.I. Hill and Arun Kumar Jain, *International Business, 6th Edition, Tata McGraw Hill, New Delhi, 2017.*
2. Vyuptakesh Sharan, *International Business, 3rd Edition, Pearson Education in South Asia, New Delhi, 2011.*
3. Michael R Czinkota, Ilkka A Ronkainen and Michael H Moffet, *International Business, 7th Edition, Cengage Learning, New Delhi, 2010.*
4. Rakesh Mohan Joshi, *International Business, Oxford University Press, New Delhi, 2009.*

# **NON – FUNCTIONAL ELECTIVES**

## **23MBAE101 - ENTREPRENEURSHIP DEVELOPMENT**

L	T	P	C
3	0	0	3

### **ASSESSMENT: THEORY**

#### **COURSE OUTCOME**

*Upon completion of the course students*

CO1: *Will gain entrepreneurial competence to run the business efficiently.*

CO2: *Are able to undertake businesses in the entrepreneurial environment*

CO3: *Are capable of preparing business plans and undertake feasible projects.*

CO4: *Are efficient in launching and developing their business ventures successfully*

CO5: *Shall monitor the business effectively towards growth and development.*

#### **ENTREPRENEURIAL COMPETENCE**

Entrepreneurship concept - Entrepreneurship as a Career - Entrepreneurial Personality - Characteristics of Successful Entrepreneurs - Knowledge and Skills of an Entrepreneur. **(9)**

#### **ENTREPRENEURIAL ENVIRONMENT**

Business Environment - Role of Family and Society - Entrepreneurship Development. Training and Other Support - Organisational Services - Central and State Government Industrial Policies and Regulations. **(9)**

#### **BUSINESS PLAN PREPARATION**

Sources of Product for Business - Prefeasibility Study - Criteria for Selection of Product - Ownership - Capital Budgeting - Project Profile Preparation - Matching Entrepreneur with the Project - Feasibility Report Preparation and Evaluation Criteria. **(9)**

#### **LAUNCHING OF SMALL BUSINESS**

Finance and Human Resource Mobilisation - Operations Planning - Market and Channel Selection - Growth Strategies - Product Launching - Incubation, Venture capital, Start-ups. **(9)**

#### **MANAGEMENT OF SMALL BUSINESS**

Monitoring and Evaluation of Business - Business Sickness - Prevention and Rehabilitation of Business Units - Effective Management of small Business - Case Studies. **(9)**

**TOTAL: 45**

#### **TEXTBOOKS**

1. *Dr. P. Kowsalya Dr. Bhanu M. V. V , Dr. R. V. Suresh Dr. Veldandi Ramchander Rao, Entrepreneurship Development Paperback, 2022*
2. *S A Kumar, S C Poornima , M K Abraham , K Jayshree, Entrepreneurship Development Paperback, 2021.*

#### **REFERENCES**

1. *R.D.Hisrich, Entrepreneurship, Tata McGraw Hill, New Delhi, 2018.*
2. *Prasanna Chandra, Projects - Planning, Analysis, Selection, Implementation and Reviews, Tata McGraw-Hill, 8th Edition, 2017.*
3. *S.S.Khanka, Entrepreneurial Development, S.Chand and Company Limited, New Delhi, 2016.*
4. *Rajeev Roy, Entrepreneurship, Oxford University Press, 2nd Edition, 2011.*
5. *Donald F Kuratko, T.V Rao. Entrepreneurship: A South Asian perspective. Cengage Learning, 2012.*
6. *Arya Kumar. Entrepreneurship, Pearson, 2012.*

# 23MBAE102 - CORPORATE GOVERNANCE

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

- CO1:** Demonstrate a solid understating of the purpose and nature of corporations.
- CO2:** Evaluate different stakeholder's roles and significance in relations to corporate governance.
- CO3:** Explain the importance of regulation, markets and information in corporate governance.
- CO4:** Understand corporate governance methods and practices.
- CO5:** Critically assess governance concerns for Individual Corporation and their stakeholders.

### FUNDAMENTAL OF CORPORATE AND GOVERNANCE

Understanding Corporate Governance: Corporate governance - an overview, History of corporate governance - Concept of corporations - Concept of extended view of corporate citizenship, Owners and stakeholders, Types of owners, Rights and privileges of shareholders (Fernando, 4), Ownership structures and corporate governance - Pyramids and Tunneling: - Issues of corporate control and cash flow rights - Examples from restructure proposals of Vedanta group - Need for investor protection – Case Studies **(9)**

### THEORIES AND PRACTICE OF CORPORATE GOVERNANCE

Concepts of Corporate Governance - Theory & practices of corporate governance, corporate governance mechanism and overview - land marks in emergence of corporate governance. Perspectives on Corporate Governance - Market and control model of governance chain- Global Corporate Governance Practices - Anglo-American Model - German Model - Japanese Model - Board of Directors: Powerful Instrument of Governance - Types of Directors - Importance of Independent Directors - Case Studies **(9)**

### ADMINISTRATIVE AND AUDIT MECHANISM

Board Committees and Chairman - Separation of CEO & Board Chairman post - Nomination Committee - Board Selection - Boards Performance Evaluation - Executive Compensation - Role of Remuneration Committee - Human Side of Governance - Financial Oversight and Audit Mechanisms - Audit Committee - Disclosure mechanisms - Role of SEBI - Case Studies **(9)**

### GOVERNANCE METHODS AND RATING

Governance and Risk Management - Risk Management Committee - Corporate Misconduct & Mis – governance - Reasons for Corporate Misconduct - Whistle Blower's Protection - Factors Responsible for Obstructing Effective Corporate Governance Practices - Corporate Governance Rating - Standard & Poor's Corporate Governance Scores - Corporate Governance Rating Methodology (CRISIL) - Case Studies **(9)**

### GOVERNANCE ISSUES AND PRACTICES

Governance of Financial Organizations & PSU's - Organizational patterns of PSU's - Powers of PSU Boards - Governance issues in Entrepreneurial Firms - Unique issues among entrepreneurial forms - Choosing Board of Directors and Venture capitalists - Role of venture capitalists and buy - outs - Corporate Governance in Practice - Governance issues in MNC's & Joint Ventures - Case Studies **(9)**

**TOTAL: 45**

### TEXTBOOKS

1. Fernando, A.C, *Corporate Governance: Principles, Policies and Practices*, Pearson - New Delhi, 3rd Edition, 2018.
2. Mandal, S.K, *Ethics in Business and Corporate Governance*, McGraw Hill Education - New Delhi, 2nd Edition, 2017.

## REFERENCES

1. Chandratre, K R and A N Navare, *Corporate Governance - A Practical Handbook*, Bharat Law House Pvt. Ltd., 2010 Edition.
2. Jain, Arun K, *Corporate Governance: Strategy and Ethics*, New Delhi: McGraw Hill Education, 2010.
3. Cadbury, Adrian, *Corporate Governance and Chairmanship: a personal view*, Oxford University Press, 2003.
4. Saleem Sheikh & William Rees, *Corporate Governance & Corporate Control*, Cavendish Publishing Ltd., 1995.

# 23MBAE103 - EVENT MANAGEMENT

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

- CO1:** Learn about structure and code of ethics of events.
- CO2:** Explore and getting to know about event planning and regulations.
- CO3:** Understand about event marketing, planning and strategies.
- CO4:** Enhance professional skills in event management.
- CO5:** Analyze the safety measure of event management.

### EVENT CONTEXT

History & Evolution - Types of events - MICE - Types of Meeting, Trade Shows, Conventions, Exhibitions - Structure of event industry - Event Management as a profession - Perspectives on event: Government, Corporate & Community - Code of Ethics. **(9)**

### EVENT PLANNING & LEGAL ISSUES

Conceptualizing the event - Host, sponsor, Media, Guest, Participants, Spectators - Crew - Design of concept - Theme and content development - Visualization - Event objectives - Initial planning - Budgeting - Event design and budget checklist - Preparation of functional sheets - Timing - Contracts and Agreements - Insurance, Regulation, License and Permits - Negotiation. **(9)**

### EVENT MARKETING

Role of Strategic Marketing Planning - Pricing - Marketing Communication Methods & budget - Elements of marketing communication - Managing Marketing Communication - Role of Internet - Sponsorship - Event sponsorship - Strategy - Managing Sponsorships - Measuring & Evaluating sponsorship. **(9)**

### EVENT OPERATION

Site Selection - Types of location - Venue Requirements - Room, Stage, Audi - Visual, Lighting, Performers, Decors, Caterer, Photography & Videographer - Protocols - Guest list - Guest demographics - Children at event - Invitation - Media - Freelance Event Operation - Road show - Food & Beverage - Entertainment - Event Logistics - Supply of facilities - Onsite logistics - Control of event logistics - Evaluation & Logistics. **(9)**

### SAFETY & EVENT EVALUATION

Risk assessment - Safety officer, Medical Manager - Venue, Structural safety - Food safety - Occupational safety - Fire Prevention - Sanitary facilities - Vehicle traffic - Waste Management. Event Impact - Event Evaluation Process - Service Quality - Customer Satisfaction. **(9)**

**TOTAL: 45**

### TEXTBOOKS

1. John Beech, Sebastian Kaiser & Robert Kaspar, *The Business of Events Management*, Pearson Publication, 2019.
2. Lynn Van Der Wagen, *Event Management for Tourism, Cultural Business & Sporting Events*, 4 th Edition, Pearson Publications, 2018.

### REFERENCES

1. Judy Allen, *Event Planning 2nd Edition*, Wiley & Sons, Canada, 2014.
2. G.A.J. Bowdin, *Events Management*, Elsevier Butterworth, 2006.

3. *Judy, Event Planning Ethics and Etiquette: A Principled Approach to the Business of Special Event Management, 2014.*
4. *Shannon Kilkenny, The complete guide to successful event planning, 2011.*
5. *Julia Rutherford Silvers, Professional Event Coordination, The Wiley Event Management Series, 2012.*
6. *Allison, The Event Marketing Handbook: Beyond Logistics & Planning, 2012.*

# 23MBAE104 - MICRO AND SMALL BUSINESS MANAGEMENT

<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Gain knowledge in the concept of small business.

**CO2:** Develop In depth knowledge on small business opportunities and challenges.

**CO3:** Develop their Ability to devise plans for small business by building the right skills and marketing strategies.

**CO4:** Identify the funding source for small startups.

**CO5:** Perform Business evaluation for buying and selling of small firms.

### INTRODUCTION TO SMALL BUSINESS

Creation, Innovation, entrepreneurship and small business - Defining Small Business - Role of Owner - Manager - government policy towards small business sector - elements of entrepreneurship -evolution of entrepreneurship - Types of Entrepreneurship - Social, civic, corporate - Business life cycle - barriers and triggers to new venture creation - process to assist start-ups - small business and family business. (9)

### SCREENING THE BUSINESS OPPORTUNITY AND FORMULATING THE BUSINESS PLAN

Concepts of opportunity recognition; Key factors leading to new venture failure; New venture screening process; Applying new venture screening process to the early stage small firm- Role planning in small business - importance of strategy formulation - management skills for small business creation and development. (9)

### BUILDING THE RIGHT TEAM AND MARKETING STRATEGY

Management and Leadership - employee assessments - Tuckman's stages of group development - The entrepreneurial process model - Delegation and team building - Comparison of HR management in small and large firms - Importance of coaching and how to apply a coaching model.

Marketing within the small business - success strategies for small business marketing - customer delight and business generating systems - market research, - assessing market performance - sales management and strategy - the marketing mix and marketing strategy. (9)

### FINANCING SMALL BUSINESS

Main sources of entrepreneurial capital; Nature of 'bootstrap' financing - Difference between cash and profit - Nature of bank financing and equity financing – Funding - equity gap for small firms. Importance of working capital cycle - Calculation of break - even point - Power of gross profit margin - Pricing for profit - Credit policy issues and relating these to cash flow management and profitability. (9)

### VALUING SMALL BUSINESS AND CRISIS MANAGEMENT

Causes of small business failure - Danger signals of impending trouble - Characteristics of poorly performing firms - Turnaround strategies Concept of business valuation - Different valuation measurements - Nature of goodwill and how to measure it - Advantages and disadvantages of buying an established small firm - Process of preparing a business for sale. (9)

**TOTAL: 45**

## **TEXTBOOKS**

1. Justin G. Longenecker J. William Petty, *Small Business Management Launching & Growing Entrepreneurial Ventures*, Cengage Learning India, 2019.
2. S.S. Khanka, C.B. Gupta, *Entrepreneurship and Small Business Management*, Sultan Chand & Sons, 2023.

## **REFERENCES**

1. Hankinson A (2000). "The key factors in the profile of small firm owner-managers that influence business performance - The South Coast Small Firms Survey, 1997-2000" *Industrial and Commercial Training*, 32 (3):94-98.
2. Parker R (2000). "Small is not necessarily beautiful: An evaluation of policy support for small and medium-sized enterprise in Australia." *Australian Journal of Political Science* 35(2):239-253.

# 23MBAE105 - FUZZY LOGIC FOR MANAGEMENT DECISION MAKING

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Understand the basics and terminologies of fuzzy.

**CO2:** Understand the principles and relations of fuzzy.

**CO3:** Understand the applications of fuzzy.

**CO4:** Learn about the architecture of adaptive neuro fuzzy inference system.

**CO5:** Understand the neuro-fuzzy systems to management decision making situations.

### FUZZY SETS

Introduction - Definitions & Terminologies - Formulation and Parameterisation of Membership Functions - Fuzzy Union, Intersection and Complement. (9)

### FUZZY RULES AND REASONING

Extension Principle and Fuzzy Relations - Linguistic Variables and Fuzzy If - Then rules - Compositional rule of inference and fuzzy reasoning. (9)

### FUZZY APPLICATIONS IN MANAGEMENT DECISIONS

Fuzzy Models - Mamdani and Sugeno models. Applications in Management Decision making. (9)

### ADAPTIVE NEURO FUZZY INFERENCE SYSTEMS

ANFIS Architecture - Hybrid Learning Algorithm - ANFIS and RBFN cross fertilization - ANFIS as a Universal Approximator. (9)

### COACTIVE NEURO FUZZY MODELING

Framework of Generalised ANFIS - multiple I/O Systems, Architectural comparisons. Neuron functions for Adaptive networks – Neuro - Fuzzy Spectrum - Analysis of Adaptive Learning Capability. (9)

**TOTAL : 45**

### TEXTBOOK

1. *Andreas Meier, Edy Portmann, Kilian Stoffel, Luis Terán The Application of Fuzzy Logic for Managerial Decision Making Processes, Springer International Publishing, 2017.*

### REFERENCES

2. *Jang J.S.R., Sun C.T. and Mizutani E, Neuro-Fuzzy and Soft Computing - A computational Approach to Learning and Machine Intelligence, Pearson Education, 2007.*
3. *Sundareswaran K, A Learner's guide to Fuzzy Logic Systems, Jaico Publishing House, 2005.*

# 23MBAE106 - INTELLECTUAL PROPERTY RIGHTS

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Understand the intellectual property and appreciation of the need to protect it

**CO2:** Develop awareness about the process of patenting.

**CO3:** Develop Understanding of the statutes related to IPR.

**CO4:** Apply strategies to protect intellectual property.

**CO5:** Apply models for making strategic decisions related to IPR.

### INTRODUCTION

Intellectual property rights - Introduction, Basic concepts, Patents, Copyrights, Trademarks, Trade Secrets, Geographic Indicators; Nature of Intellectual Property, Technological Research, Inventions and Innovations, History - the way from WTO to WIPO, TRIPS. (9)

### PROCESS

New Developments in IPR, Procedure for grant of Patents, TM, GIs, Patenting under Patent Cooperation Treaty, Administration of Patent system in India, Patenting in foreign countries. (9)

### STATUTES

International Treaties and conventions on IPRs, The TRIPs Agreement, PCT Agreement, The Patent Act of India, Patent Amendment Act (2005), Design Act, Trademark Act, Geographical Indication Act, Bayh- Dole Act and Issues of Academic Entrepreneurship. (9)

### STRATEGIES IN INTELLECTUAL PROPERTY

Strategies for investing in R&D, Patent Information and databases, IPR strength in India, Traditional Knowledge, Case studies. (9)

### MODELS

The technologies Know-how, concept of ownership, Significance of IP in Value Creation, IP Valuation and IP Valuation Models, Application of Real Option Model in Strategic Decision Making, Transfer and Licensing. (9)

**TOTAL : 45**

### TEXTBOOK

1. V Sople Vinod, *Managing Intellectual Property* by (Prentice hall of India Pvt. Ltd), 2006.

### REFERENCES

1. *Intellectual Property rights and copyrights*, Ess Ess Publications.
2. A. Primer, R. Anita Rao and Bhanoji Rao, *Intellectual Property Rights*, Lastain Book Company.
3. Edited by Derek Bosworth and Elizabeth Webster, *The Management of Intellectual Property*, Edward Elgar Publishing Ltd., 2006.
4. *WIPO Intellectual Property Handbook*.

# 23MBAE107 - SUSTAINABLE MANAGEMENT

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORYCOURSE

### OUTCOME

Upon completion of the course students will be able to develop

**CO1** : An understanding of sustainability management as an approach to aid in evaluating and minimizing environmental impacts while achieving the expected social impact.

**CO2:** An understanding of corporate sustainability and responsible Business Practices.

**CO3:** Knowledge and skills to understand, to measure and interpret sustainability performances.

**CO4:** Knowledge of innovative practices in sustainable business and community management

**CO5:** Deep understanding of sustainable management of resources and commodities

### MANAGEMENT OF SUSTAINABILITY

Management of sustainability - rationale and political trends: An introduction to sustainability management, International and European policies on sustainable development, theoretical pillars in sustainability management studies. **(9)**

### CORPORATE SUSTAINABILITY AND RESPONSIBILITY

Corporate sustainability parameters, corporate sustainability institutional framework, integration of sustainability into strategic planning and regular business practices, fundamentals of stake holder engagement. **(9)**

### SUSTAINABILITY MANAGEMENT: STRATEGIES AND APPROACHES

Corporate sustainability management and competitiveness: Sustainability-oriented corporate strategies, markets and competitiveness, Green Management between theory and practice, Sustainable Consumption and Green Marketing strategies, Environmental regulation and strategic postures; Green Management approaches and tools; Green engineering: clean technologies and innovation processes; Sustainable Supply Chain Management and Procurement. **(10)**

### SUSTAINABILITY AND INNOVATION

Socio-technical transitions and sustainability, Sustainable entrepreneurship, Sustainable pioneers in green market niches, Smart communities and smart specializations. **(8)**

### SUSTAINABLE MANAGEMENT OF RESOURCES, COMMODITIES AND COMMONS

Energy management, Water management, Waste management. **(9)**

**TOTAL: 45**

### TEXTBOOKS

1. Deb Prasanna Choudry, *Sustainability Management*, Zorba Books 2019.
2. Petra Molthan-Hill, *The Business Student's Guide to Sustainable Management, Principles and Practice*, Greenleaf Publishing, 2017.

### REFERENCES

1. Daddi, T., Iraldo, F., Testa, *Environmental Certification for Organizations and Products: Management*, 2015.
2. Petra Molthan-Hill, *The Business Student's Guide to Sustainable Management: Principles and Practice*, 2014.
3. Margaret Robertson, *Sustainability Principles and Practice*, 2014.
4. Christian N. Madu, *Handbook of Sustainability Management*, 2012.
5. Peter Rogers, *An Introduction to Sustainable Development*, 2006.

# 23MBAE108 – MANAGING THE START-UPS

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Develop fundamental concepts and essential skills required to become a successful entrepreneur.

**CO2:** Develop their knowledge on Idea generation and preparing a Business Model Canvas.

**CO3:** Develop their knowledge in preparing a Business plan

**CO4:** Create and validate a business model and business plan for their idea.

**CO5:** Craft and present an effective business pitch for investors, partners and other stakeholders.

### INTRODUCTION TO ENTREPRENEURSHIP

Role of entrepreneurship in economic development, entrepreneurs skill set, Role of creativity and Design Thinking in fostering entrepreneurship, types of entrepreneurs – Social Entrepreneurship, concept of E-cells, startup India initiative. (9)

### Idea Generation & the Business Model Canvas

Generate Ideas with Brainstorming - Developing and Screening Business Ideas. The Customer Segments - The Value Propositions - Revenue Streams and Key Resources - Key Activities and Key Partnerships - The Cost Structure - Business Model. (9)

### Developing a Business Plan

A Business Plan - Writing the Plan: Executive Summary, Vision & Mission, Company and Product Overview, Service and Product Strategy. (9)

### Market Analysis and Sources Of Funds

Marketing and Sales Plan Pricing Strategy, Operational Plan, Management Team, Financial Projections, Funds required and Uses, persuading lenders and / or convincing Investors. (9)

### Commercialization of Startups

Monetizing Ideas - Bootstrapping - Business Plan & Business Model Canvas Presentation - Building a Sustainable Revenue Model - Launching Sustainable Impact Initiatives – Case studies of successful start – ups (9)

### TEXTBOOKS

1. Shrutin N Shetty, (2018), *Design the Future: Simplifying Design Thinking to Help You*, Notion Press.
2. Pankaj Goel (2017), *Before You Start Up: How to Prepare to Make Your Start-up Dream a Reality*, Fingerprint Publishing, New Delhi.

### REFERENCES

1. Kathleen R Allen, *Launching New Ventures, An Entrepreneurial Approach*, Cengage Learning, 2016.
2. AnjanRaichaudhuri, *Managing New Ventures Concepts and Cases*, Prentice Hall International, 2010.
3. Steven Fisher, Ja-nae' Duane, *The Startup Equation -A Visual Guidebook for Building Your Startup*, Indian Edition, McGraw Hill Education India Pvt. Ltd, 2016.
4. Rama Iyer (2019), *Innovation Ecosystem in India: How India is building a mature start-up ecosystem that will shape its economy and its future*, Notion Press, Chennai.
5. Poornima C, *Entrepreneurship Development and Small Business Enterprise*, Pearson Education, Nodia, 2018.

## FUNCTIONAL ELECTIVES

### 23MBAE109 - SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT

L	T	P	C
3	0	0	3

#### ASSESSMENT: THEORYCOURSE

#### OUTCOME

Upon completion of the course students will be able to

- CO1:** Understand the concept of investment and identify the investment alternatives to investors.
- CO2:** Learn the nuances of fundamental analyses and technical analyses.
- CO3:** Analyse and evaluate the value of securities.
- CO4:** Explain how to construct an efficient portfolio.
- CO5:** Explore the various methods through which portfolio evaluation could be done.

#### INVESTMENT SETTING

Financial and economic meaning of Investment - Characteristics and objectives of Investment -Investment process -Types of Investment - Investment alternatives - Choice and Evaluation - Risk and return concepts - Valuation of bonds and stock - Investor vs. Speculator. **(9)**

#### FUNDAMENTAL ANALYSIS

Economic Analysis - Economic forecasting and stock Investment Decisions - Forecasting techniques. Industry Analysis: Industry classification, Industry life cycle - Company Analysis Measuring Earnings - Forecasting Earnings - Applied Valuation Techniques - Graham and Dodd's investor ratios. **(9)**

#### TECHNICAL ANALYSIS

Fundamental Analysis Vs Technical Analysis -- Dow theory - Charting methods - Chart Patterns Trend - Trend reversals - Market Indicators - Moving Average - Exponential moving Average Oscillators -RSI -ROC -MACD. Efficient Market theory - Forms of market efficiency -weak, semi-strong, strong form - Empirical tests of market efficiency -its application. **(9)**

#### PORTFOLIO CONSTRUCTION AND SELECTION

Portfolio analysis - Reduction of portfolio risk through diversification - Portfolio risk - Portfolio Selection - Feasible set of portfolios Efficient set - Markowitz model - Single index model - Construction of optimum portfolio - Multi-index model. **(9)**

#### PORTFOLIO STRATEGIES

Capital Asset Pricing model - Lending and borrowing - CML - SML - Pricing with CAPM - Arbitrage pricing theory- Portfolio Evaluation - Sharpe's index Treynor's index, Jensen's index - Mutual Funds - Portfolio Revision. **(9)**

**TOTAL: 45**

#### TEXTBOOKS

1. Prasanna Chandra, *Investment analysis and Portfolio Management*, Tata McGraw Hill, 6<sup>th</sup> ed., 2021.
2. Donald E Fischer & Ronald J Jordan, *Security Analysis & Portfolio Management*, PHI Learning., New Delhi, 8<sup>th</sup> Edition, 2018.

#### REFERENCES

1. Punithavathy Pandian, *Analysis & Portfolio Management*, Vikas publishing house PVT LTD, second Edition, 2013.
2. V A Avadhan, *Securities Analysis and Portfolio Management*, Himalaya Publishing House, 2013.

3. S. Kevin, *Securities Analysis and Portfolio Management*, PHI Learning, 2012.
4. V K Bhalla, *Investment Management*, S. Chand & Company Ltd., 2012.
5. Reilly & Brown, *Investment Analysis and Portfolio Management*, Cengage Learning, 9th edition, 2011.
6. Bodi, Kane, Markus, Mohanty, *Investments*, 8th edition, Tata McGraw Hill, 2011.

# 23MBAE110 - FINANCIAL MARKETS

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

- CO1:** Understand the basic concepts of the finance markets in India.
- CO2:** Identify the underlying structure and functions of Indian financial markets.
- CO3:** Familiarise with the methods of issuing shares and the role of intermediaries in the primary market.
- CO4:** Learn about the trading mechanism in stock market.
- CO5:** Describe the instruments, participants and trading in debt market.

### FINANCIAL MARKETS IN INDIA

Indian financial system and markets - structure of financial markets in India -Types- Participants in financial Market - Regulatory Environment, - RBI, CCIL, Common securities market, Money market, - Capital market - Governments philosophy and financial market - financial instruments **(9)**

### INDIAN CAPITAL MARKET-PRIMARY MARKET

Primary Market - Primary market system - Types of scripts - Issue of capital: process, regulation pricing of issue, - Methods of floating new issues, Book building- Primary markets intermediaries: commercial banks, development banks, Merchant banker, issue managers, rating agencies etc. - Role of primary market - Regulation of primary market. **(9)**

### SECONDARY MARKET

Stock exchanges in India - History and development -listing - Depositories - Stock exchange mechanism : Trading, Settlement, risk management, Basics of pricing mechanism - Player and stock exchange - Regulations of stock exchanges - Role of SEBI - BSE, OTCEI, NSE, ISE, - Role of FIIs, MFs and investment bankers - Stock Market Indices - Calculation. **(9)**

### DEBT MARKET AND FOREX MARKET

Bond markets in India: Government bond market and its interface with capital market - Components of bond market - G-Sec, T- Bills, Corporate Bonds, Yield conventions, Role of primary dealers, Auction Markets - Pricing of Bonds  
Introduction to Forex markets, basics in exchange rates theory - Forex risk exposures and basics of corporate forex risk management. **(9)**

### MUTUAL FUNDS, DERIVATIVES MARKETS AND VENTURE CAPITAL AND PRIVATE EQUITY

Mutual funds institutions in India. Types of mutual funds, Basics in portfolio management, Metrics of performance for fund manager  
Introduction to Derivatives and the size of derivatives markets - Brief introduction to forwards, Options, Futures and Swaps. Role of VCs and PEs in financial markets - Venture capital and Private equity **(9)**

**TOTAL: 45**

### TEXTBOOKS

1. Anthony Saunders, Marcia Cornett and Anshul Jain, *Financial Markets and Institutions*, McGraw-Hill, 7th Edition, 2020.
2. Bhole, L.M, *Financial institutions and Markets: Structure, Growth and Innovations*, McGraw-Hill, New Delhi, Sixth Edition, 2017.

### REFERENCES

1. Christopher Viney and Peter Phillips, *Financial Institutions, Instruments and Markets*, 8th Edition, McGraw-Hill, 2015.
2. Pathak, Bharati V., *Indian Financial System: Markets, Institutions and Services*, Pearson education (Singapore), New Delhi, Fourth Edition, 2014.
3. Fabozzi, Frank J. and Modigliani, Franco, *Capital Markets: Institutions and Markets*, Prentice Hall of India, New Delhi, Fourth Edition, 2009.

# 23MBAE111 - BANKING AND FINANCIAL SERVICES

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

- CO1:** understand the overall structure and functions of Indian Financial System.
- CO2:** gain knowledge about regulations governing the Indian Banking System.
- CO3:** price various types of loans proposed by banks to various prospective borrowers with different risk profiles and evaluate the performance of banks.
- CO4:** gain knowledge on the concept of e-banking.
- CO5:** gain an In-depth understanding of fee-based and fund-based financial services in India.

### INTRODUCTION TO INDIAN BANKING SYSTEM AND PERFORMANCE VALUATION

Overview of Indian Banking system - Structure - Functions - Key Regulations in Indian Banking sector -RBI Act, 1934/ 2006 - Banking Regulation Act, 1949- Negotiable Instruments Act 1881/ 2002Provisions Relating to CRR - Provision for NPA's - Overview of Financial Statements of banks - Balance Sheet - Income Statement –CAMEL. (9)

### MANAGING BANK FUNDS / PRODUCTS & RISK MANAGEMENT

Capital Adequacy - Deposit and Non-deposit sources - Designing deposit schemes and pricing of deposit sources - loan management - Investment Management - Asset and Liability Management - Financial Distress -Signal to borrowers - Prediction Models - Risk Management - Interest rate - FOREX - Credit market -operational and solvency risks - NPA's - Current issues on NPA's - M&A's of banks into securities market. (9)

### DEVELOPMENT IN BANKING TECHNOLOGY

Payment system in India - paper based - e payment - electronic banking -plastic money - e-money - forecasting of cash demand at ATM's - The Information Technology Act, 2000 in India - RBI's Financial Sector Technology vision document - security threats in e-banking & RBI's Initiative. (9)

### ASSET BASED FINANCIALSERVICES

Introduction - Need For Financial Services - Financial Services Market In India - NBFC - RBI Framework And Act For NBFC - Leasing And Hire Purchase - Financial Evaluation - Underwriting - Mutual Funds. (9)

### INSURANCE AND OTHER FEE BASED FINANCIAL SERVICES

Insurance Act, 1938 - IRDA - Regulations - Products and Services - Venture Capital Financing - Bill Discounting - Factoring - Merchant Banking - Role of SEBI. (9)

**TOTAL: 45**

### TEXTBOOKS

1. SIA Publishers and Distributors Pvt. Ltd., Banking and Financial Services, 1st Edition, 2023.
2. Suresh Kumar K, Ashvine Kumar, Suresh Kumar M A and Kawerinder Singh Sidhu, Merchant Banking and Financial Service, Book Rivers Publishers, 1st Edition, 2022.

### REFERENCES

1. Padmalatha Suresh and Justin Paul, "Management of Banking and Financial Services, Pearson, Delhi, 2017.
2. Peter S. Rose and Sylvia C. and Hudgins, "Bank Management and Financial Services", Tata McGraw Hill, New Delhi, 2017.
3. Mukund N Sharma, Banking and Financial Services, Himalaya Publishing House, 2015.
4. Meera Sharma, "Management of Financial Institutions - with emphasis on Bank and Risk Management", PHI Learning Pvt. Ltd., New Delhi, 2010.

# 23MBAE112 - FINANCIAL DERIVATIVES

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

- CO1:** Possess good skills in hedging risks using derivatives.
- CO2:** Understand about the future contract and options.
- CO3:** Learn in depth about options and swaps.
- CO4:** Know about the evolution of derivative markets.
- CO5:** Develop in depth knowledge about stock options and index futures in NSE.

### INTRODUCTION

Derivatives - Definition - Types - Forward Contracts - Futures Contracts - Options - Swaps - Differences between Cash and Future Markets - Types of Traders - OTC and Exchange Traded Securities - Types of Settlement - Uses and Advantages of Derivatives - Risks in Derivatives. **(10)**

### FUTURES CONTRACT

Specifications of Futures Contract - Margin Requirements - Marking to Market - Hedging using Futures - Types of Futures Contracts - Securities, Stock Index Futures, Currencies and Commodities - Delivery Options - Relationship between Future Prices, Forward Prices and Spot Prices. **(10)**

### OPTIONS

Definition - Exchange Traded Options, OTC Options - Specifications of Options - Call and Put Options - American and European Options - Intrinsic Value and Time Value of Options - Option payoff, options on Securities, Stock Indices, Currencies and Futures - Options pricing models - Differences between future and Option contracts. **(10)**

### SWAPS

Definition of SWAP - Interest Rate SWAP - Currency SWAP - Role of Financial Intermediary- Warehousing - Valuation of Interest rate SWAPs and Currency SWAPs Bonds and FRNs -Credit Risk. **(7)**

### DERIVATIVES IN INDIA

Evolution of Derivatives Market in India - Regulations - framework - Exchange Trading in Derivatives - Commodity Futures - Contract Terminology and Specifications for Stock Options and Index Options in NSE - Contract Terminology and specifications for stock futures and Index futures in NSE - Contract Terminology and Specifications for Interest Rate Derivatives. **(8)**

**TOTAL: 45**

### TEXTBOOKS

1. John C Hull, "Options, Futures and other Derivative Securities", PHI Learning, 10th Edition, 2018
2. S L Gupta, Financial Derivatives- Theory, Concepts and Practice, Prentice Hall of India, 2nd Ed.,2017.

### REFERENCES

3. Keith Redhead, "Financial Derivatives - An Introduction to Futures, Forwards, Options and SWAPs", - PHI Learning, 2011.
4. Stulz, Risk Management and Derivatives, Cengage Learning, 2nd Edition, 2011.
5. Varma, Derivatives and Risk Management, 2nd Edition, 2011.
6. David Dubofsky - Option and Financial Futures - Valuation and Uses, McGraw Hill International Edition.

# 23MBAE113 - FINANCIAL MODELLING

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Develop fast, efficient and accurate excel skills.

**CO2:** Design and construct useful and robust financial modeling applications.

**CO3:** Recognize efficient financial budgeting and forecasting techniques.

**CO4:** Familiarise the students with the valuation modelling of securities.

**CO5 :** To establish the platform to develop various portfolio models.

### INTRODUCTION TO FINANCIAL MODELLING & BUILT IN FUNCTIONS USING SPREAD SHEETS

Introduction to Financial Modelling - Need for Financial Modelling - Steps for effective financial modeling – Introduction to Time value of money & Lookup array functions: FV,PV,PMT,RATE,NPER, Vlookup, Hlookup,if, countif, etc - Time value of Money Models: EMI with Single & Two Interest rates - Loan amortisation modeling - Debenture redemption modelling **(9)**

### BOND & EQUITY SHARE VALUATION MODELLING

Bond valuation - Yield to Maturity (YTM): Rate method Vs IRR method-Flexi Bond and Strip Bond YTM Modelling - Bond redemption modelling - Equity share valuation : Multiple growth rate valuation modelling with and without growth rates **(9)**

### CORPORATE FINANCIAL MODELLING

Alt Man Z score Bankruptcy Modelling - Indifference point modelling - Financial Break even modelling - Corporate valuation modelling (Two stage growth)- Business Modelling for capital budgeting evaluation: Payback period, NPV,IRR and MIRR **(9)**

### PORTFOLIO MODELLING

Risk,Beta and Annualised Return - Security Market Line Modelling - Portfolio risk calculation (Equal Proportions) - Portfolio risk optimisation (varying proportions) - Portfolio construction modelling **(9)**

### DERIVATIVE MODELLING

Option pay off modelling: Long and Short Call & Put options -Option pricing modeling (B-S Model) - Optimal Hedge Contract modelling **(9)**

**TOTAL: 45**

### TEXTBOOKS

1. Zebra Learn, "The Financial Modeling Handbook", Zebralearn Pvt. Ltd., 2023.
2. Wayne L Winston, "Microsoft Excel 2016-Data Analysis and Business Modelling", PHI publications, (Microsoft Press), New Delhi, 2019.

### REFERENCES

1. Ruzhbeh J Bodanwala, "Financial management using excel spread sheet", Taxman Allied services Pvt Ltd, New Delhi, 3rd Edition, 2015.
2. Craig W Holden, "Excel Modelling in Investments", Pearson Prentice Hall, Pearson Inc, New Jersey, 5th Edition, 2015.
3. Chandan Sen Gupta, "Financial analysis and Modelling -Using Excel and VBA", Wiley Publishing House, 2014.

# 23MBAE114 - BUSINESS ANALYSIS AND VALUATION

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

- CO1:** Perform a strategic analysis and use it to make proforma statements.
- CO2:** Familiarise with different valuation methods and tools for assessing their accuracy.
- CO3:** Understand value creation in a merger and acquisition context.
- CO4:** Choose a proper valuation method given the characteristic of a firm and estimate the value of the firm given the chosen method.
- CO5:** Analyse the accounting quality of financial statements and valuation of assets and liabilities.

### BUSINESS ANALYSIS - AN INTRODUCTION

Financial modelling for project appraisal - concept & application - forecasting techniques - financial analysis. **(9)**

### FINANCIAL ANALYSIS

Analysis of statement of shareholders equity - analysis of balance sheet and income statement - distress analysis - analysis of cash flow statement - analysis of profitability - analysis of growth and sustainability. **(9)**

### BUSINESS VALUATION

Basis of valuation – principles and techniques of valuation - role of valuation - valuation models - DCF model - FCF model - relative valuation - contingent claim valuation. **(9)**

### VALUATION OF MERGERS AND ACQUISITIONS

Business strategy - basis of M&A - theories of M&A - synergy in M&A - Approaches to valuation in case of M&A - selection of appropriate cost of capital for M&A for valuation - implications of regulations - Takeover - Post - Merger integration process - shareholder value analysis. **(9)**

### VALUATION OF ASSETS AND LIABILITIES

Forms of intellectual property and methods of valuation - valuation of fixed assets - valuation of inventories - valuation of investments - valuation of shares - valuation of goodwill, patents, copyrights - valuation of brands - valuation of liabilities - MM Hypothesis **(9)**

**TOTAL: 45**

### TEXTBOOKS

1. Zebra Learn, "Financial Statement Analysis Handbook", Zebra Learn Pvt. Ltd., 1st Edition, 2023.
2. Billion Dollar Valuation, "Large Cap Companies Part 2: A Complete Fundamental Analysis", 2020.

### REFERENCES

1. Chopde L N, Nikhil Dilip Karkhanis, Kishor A Bhadra, Vaibhav R Ashar and Payal Bhatia, "Financial Analysis and Business Valuation", Sheth Publishers Pvt. Ltd., 2020.
2. Krishna G. Palepu and Paul M. Healy: Business Analysis & Valuation Using Financial Statements, Text Only (PHB) 5th Edition, Cengage Learning, Paperback Print: ISBN-10 1111972303, ISBN-13978-1111972301, 2013.
3. Joshua Rosenbaum and Joshua Pearl: Investment Banking: Valuation, Leveraged Buyouts, and Mergers and Acquisitions, John Wiley & Sons; 2nd Edition, ISBN: 1118656210, 2013.

# 23MBAE115 - INTERNATIONAL FINANCE

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

- CO1:** Learn about evolution, process and system of International Finance.
- CO2:** Identify the concepts of international merger and acquisitions, financial techniques and regulations.
- CO3:** Understand about international monetary system.
- CO4:** Know about ADR, GDR and bond management.
- CO5:** Explore the learning in international risk assessment.

### INTERNATIONAL TRANSACTIONS

Overview and Evolution of International Finance -Institutions for International Finance - Internationalization process -International Monetary and Financial System - Balance of Payments - Exchange rate and money supply - International parity relations - Purchasing power parity - interest rate parity - Forward rate parity. **(9)**

### MULTINATIONAL FINANCIAL MANAGEMENT

Process of overseas expansion - Reasons for cross-border investing - The theory of investment - techniques of project evaluation - Approaches for investment under uncertainty - FDI - Measuring and Managing Risk - International M&A - Financial Techniques in M&A - Regulations of M&A in major countries. **(9)**

### INTERNATIONAL MONETARY SYSTEM

Introduction to Institutions of the Foreign Exchange Interbank Market - Foreign Exchange Spot Transactions - forward market - Hedging and Speculation - Hedging FX Transaction Exposure - The Eurocurrency market - international banking - structure and instruments **(9)**

### BORROWING AND LENDING: INTERNATIONAL SOURCES OF FINANCE

Bond Markets of various countries - Fixed and floating rate notes - Syndicate loans - Syndicated Euro credits - ADR - GDR - Managing interest rate risk - Bond prices and yields - Bond Management - tools and techniques **(9)**

### INTERNATIONAL RISK ASSESSMENT AND OTHER INTERNATIONAL MARKETS

Country and political risk analysis - benefits and risks of international portfolio investment - assessing country credit worthiness- futures markets and instruments - option markets and instruments - option pricing - option pricing theory in financial risk assessment **(9)**

**TOTAL: 45**

### TEXTBOOKS

1. Apte P.G., *International Financial Management*, Tata McGraw Hill, 8th Edition, 2020.
2. Cheol S Eun and Bruce G Resnick, "*International Financial Management*", McGraw Hill Education, 7th Edition, 2017.

### REFERENCES

1. Jeff Madura, *International Corporate Finance*, Cengage Learning, 10th Edition, 2012.
2. Alan C. Shapiro, *Multinational Financial Management*, PHI Learning, 9th Edition, 2012.
3. Eunand Resnik, *International Financial Management*, Tata McGraw Hill, 5th Edition, 2011.
4. Website of Indian Government on EXIM policy.

# 23MBAE116 - BEHAVIOURAL FINANCE

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Understand the need of behavioural finance.

**CO2:** Know about the various decision and behavioural theories.

**CO3:** Learn about heuristic and behavioural biases of investors.

**CO4:** Analyse and understand about arbitragers and managerial decision.

**CO5:** Understand about the price discovery in markets.

### INTRODUCTION: WHY BEHAVIORAL FINANCE

The role of security prices in the economy - EMH - Failing EMH - EMH in supply and demand framework - Equilibrium expected return models - Investment decision under uncertainty - Introduction to neoclassical economics and expected utility theory - Return predictability in stock market - Limitations to arbitrage **(9)**

### DECISION AND BEHAVIORAL THEORIES

Nash Equilibrium: Keynesian Beauty Context and The Prisoner's Dilemma - The Monty Hall Paradox - The St. Petersburg Paradox - The Allais Paradox - The Ellsberg Paradox - Prospects theory - CAPM - behavioral portfolio theory - SP/A theory - brief history on rational thought - Pascal - Fermat to Friedman -savage **(9)**

### DECISION MAKING BIASES

Information screening bias - Heuristics and behavioral biases of investors - Bayesian decision making - cognitive biases - forecasting biases - emotion and neuroscience - group behaviour - investing styles and behavioral finance **(9)**

### ARBITRAGEURS

Definition of arbitrageur - Long-short trades - Risk vs. Horizon - Transaction costs and short-selling costs - Fundamental risk - Noise-trader risk - Professional arbitrage - Destabilizing informed trading **(9)**

### MANAGERIAL DECISIONS

Supply of securities and firm investment characteristics (market timing, catering) by rational firms - Associated institutions - Relative horizons and incentives - Biased managers **(9)**

**TOTAL : 45**

### TEXTBOOKS

1. Gregor Kaufmann and Vincenzo Nappi, "Behavioral Finance - How Psychological Factors can Influence the Stock Market", 1st Edition, 2021.
2. Camille Morvan and William J Jenkins, "A Macat Analysis Amos Tversky and Daniel Kahneman's Judgment Under Uncertainty: Heuristics and Biases", Macat Library, 1st Edition, 2017.

### REFERENCES

1. Parag Parikh, "Value Investing and Behavioral Finance", McGraw Hill Education, 1st Edition, 2017.
2. Shleifer, Andrei (2000), *Inefficient Markets: An Introduction to Behavioral Finance*. Oxford, UK: Oxford University Press.
3. Daniel Kahneman, Paul Slovic, and Amos Tversky (eds.), (1982) *Judgment under Uncertainty: Heuristics and biases*, Oxford; New York: Oxford University Press.

# 23MBAE117 - FINTECH AND BLOCK CHAIN APPLICATIONS IN FINANCE

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Apply the concepts of Fintech and evaluate its role in financial services.

**CO2:** Apply the concept of new generation commerce and new operating models for banks.

**CO3:** Develop knowledge to use the concepts of FinTech in wealth management, personal finance management, crowd funding and crowd investing.

**CO4:** Apply the concept of crypto currencies, risk associated with crypto market and costs involved.

**CO5:** Critically evaluate the role of FinTech in financial services and understand recent developments such as Distributed ledger for identification, Identification for Unbanked-Unique identification system in India, Cybercrime, Cyber security categories

### FINTECH: INTRODUCTION

FinTech, Future prospects and potential issues with FinTech - Global FinTech investments- Digital banking - Impact of digital technology on banking sector - Changes in customer buying behavior - New age payments and remittances - Social media based remittances - Digital mortgages - Global Financial Instruments, Asset Management and Capital Markets **(9)**

### NEW GENERATION COMMERCE AND NEW OPERATING MODELS FOR BANKS

New Generation Commerce-Point of sale evolution (POS) - m-POS business model – m – Wallets - Smart credit cards – T - commerce - Crowd funding and Crowd investing - P2P lending - Robo advising - FinTech and Global economy-New operating models for banks - Banking as service and Open APIs-Neo banks-Challenger banks **(9)**

### FINTECH IN WEALTH MANAGEMENT

Big data in the Financial services Industry-Internet of Things (IOT) - IOT in Financial services - Innovative wealth management - Personal Finance Management – InsurTech - P2P insurance Block chained insurance - Risk associated with crypto market-Cost associated with crypto market investment - Crypto currency wallets **(9)**

### CRYPTO CURRENCIES, RISK ASSOCIATED WITH CRYPTO MARKET

Block chain - Components of Block chain - Public and private keys - Crypto currencies - Distributed ledgers - Impact of Block chain in Financial Services - Applications of Block chain in Financial Services - Clearing and Settlement - Trade Finance - Compliances - Know Your Customer - Anti Money Laundering. **(9)**

### CYBERCRIME, CYBER SECURITY

Distributed ledger for identification - Identification for Unbanked - Unique identification system in India - Using biometrics as Identification Cybercrime - Cyber security categories and players - RegTech **(9)**

**TOTAL: 45**

### TEXTBOOKS

1. Maurizio Pompella and Roman Matousek, "The Palgrave Handbook of FinTech and Blockchain", Kindle 1st Edition, 2021.
2. Peter Borovykh, Block chain Application in Finance, Block chain Driven, 2nd Edition, 2018.

### REFERENCES

1. David Lee Chuen and Linda Low, Inclusive FinTech: Block chain, Cryptocurrency and ICO, World Scientific Publishing, 2018.
2. Agustin Rubini, FinTech in a Flash, Financial Technology Made Easy, Banking Innovations 2nd Edition, 2017.
3. Jeff Reed, "Blockchain: The Essential Guide to Understanding the Blockchain Revolution", Kindle Edition, 2016.

4. Jared Norton, *"Blockchain: Easiest Ultimate Guide to Understand Blockchain"*, Kindle Edition, 2016.

# 23MBAE118 - SUPPLY CHAIN MANAGEMENT

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

- CO1:** Understand of supply chain fundamentals.
- CO2:** Design supply chain networks to enhance supply chain performance.
- CO3:** Plan demand based on inventory and supply.
- CO4:** Understand the role of logistics in supply chain performance.
- CO5:** Create awareness of innovations for sustainable supply chains.

### INTRODUCTION

Supply Chain - Fundamentals, Evolution, Role in Economy, Importance, Decision Phases, Enablers & Drivers of Supply Chain Performance; Supply chain strategy; Supply Chain Performance Measures. **(9)**

### SUPPLY CHAIN NETWORK

Distribution Network Design - Role in Supply Chain, Influencing Factors, Design Options, Online Sales and Distribution network, Distribution Strategies; Network Design in Supply Chain - Role, Influencing factors, Framework for Network Design, Impact of uncertainty on Network Design. **(9)**

### PLANNING DEMAND, INVENTORY AND SUPPLY

Managing Supply Chain Cycle Inventory and Safety Inventory - Uncertainty in the Supply Chain, Analyzing impact of Supply Chain redesign on the inventory, Risk Pooling, Managing Inventory for Short Life - Cycle Products, Multiple item - Multiple Location Inventory Management Pricing and Revenue Management. **(9)**

### LOGISTICS

Transportation - Role, Modes and their characteristics, Infrastructure and Policies, Transport Documentation, Design Options, Trade-offs in Transportation Design, Intermodal Transportation. Logistics Outsourcing - Catalysts, Benefits, Value Proposition. 3PL, 4PL, 5PL, 6PL; International Logistics - Objectives, Importance in Global Economy, Characteristics of Global Supply Chains, Inco terms. **(9)**

### SUPPLY CHAIN INNOVATIONS

Supply Chain Integration, SC process restructuring, IT in Supply Chain; Agile Supply Chains, Legible Supply Chain, Green Supply Chain, Reverse Supply Chain; Supply Chain technology trends - AI, Advanced analytics, Internet of Things, Intelligent things, Conversational systems, Robotic Process Automation, Immersive Technologies, Block Chain. **(9)**

**TOTAL: 45**

### TEXTBOOKS

1. Sunil Chopra, Peter Meindl and Dharam VirKalra, *Supply Chain Management-Strategy Planning and Operation*, Pearson Education, Sixth Edition, 2016.
2. Janat Shah, *Supply Chain Management - Text and Cases*, Pearson Education, 2009

### REFERENCES

1. Ballou Ronald H, *Business Logistics and Supply Chain Management*, Pearson Education, 5th Edition, 2007.
2. David Simchi-Levi, Philip Kaminsky, Edith Simchi-Levi, *Designing and Managing the Supply Chain: Concepts, Strategies, and Cases*, Tata McGraw-Hill, 2005.
3. Pierre David, *International Logistics*, Biztantra, 2011.

# 23MBAE119 - QUALITY MANAGEMENT

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

- CO1:** Understand the evolution of Quality management.
- CO2:** Understand of quality philosophies and practices.
- CO3:** Apply statistical process control to enhance quality.
- CO4:** Apply quality tools to enhance organization's quality performance.
- CO5:** Create awareness of quality management systems.

### INTRODUCTION

Introduction – Need for Quality – Evolution of Quality – Definition of Quality, Concept of Quality - Different Perspectives. Concept of Total Quality - Design, Inputs, Process and Output - Attitude and Involvement of Top Management. Customer Focus - Customer Perception - Customer Retention. Dimensions of Product and Service Quality. Cost of Quality. **(9)**

### QUALITY MANAGEMENT PHILOSOPHIES AND PRINCIPLES

Quality Gurus - Crosby, Deming, Masaaki Imai, Feigenbaum, Ishikawa, Juran, Oakland, Shigeo Shingo, and Taguchi. Concepts of Quality Circle, Japanese 5S Principles and 8D Methodology. **(9)**

### STATISTICAL PROCESS CONTROL

Statistical Process Control (SPC) - Meaning, Significance. Construction of Control charts for variables and attributes. Process Capability - Meaning, Significance and Measurement. Six sigma - Concepts of Process Capability. Reliability concepts - Definitions, Reliability in series and parallel, Product Life Characteristics Curve. Total Productive Maintenance (TMP), Terotechnology. Business Process Improvement (BPI) - Principles, Applications, Reengineering Process, Benefits and Limitations. **(9)**

### QUALITY TOOLS AND TECHNIQUES

Quality Tools - The Seven Traditional Tools of Quality, New management tools. Six-sigma, Bench marking, Poka-yoke, Failure Mode Effect Analysis (FMEA) - Reliability, Failure rate, FMEA stages, Design, Process and Documentation. Quality Function Deployment (QFD) - Benefits, House of Quality. Taguchi - Quality Loss Function, Parameter and Tolerance Design, Signal to noise ratio. **(9)**

### QUALITY MANAGEMENT SYSTEMS

Introduction Quality Management Systems - IS/ISO 9004:2000 - Quality System - Elements, Documentation guidelines for performance improvements. Quality Audits - QS 9000 - ISO 14000 - Concepts. TQM - Culture, Framework, Benefits, Awareness and Obstacles. Employee Involvement - Motivation, Empowerment, Team and Teamwork, Recognition and Reward, Performance Appraisal. Supplier - Selection, Partnering, Supplier Rating. **(9)**

**TOTAL: 45**

### TEXTBOOKS

1. Dale H. Besterfield, Carol Besterfield-Michna, Glen H. Besterfield, Mary Besterfield - *Sacre, Hemant Urdhwareshe, Rashmi Urdhwareshe, Total Quality Management (TQM), Fifth Edition, Pearson Education, 2018.*
2. Shridhara Bhat K, *Total Quality Management - Text and Cases, Himalaya Publishing House, First Edition, 2010.*

### REFERENCES

1. Poornima M Charantimath, *Total Quality Management, Pearson Education, Second Edition, 2011.*
2. Douglas C Montgomery, *Introduction to Statistical Quality Control, Wiley Student Edition, 4th Edition, Wiley India Pvt. Limited, 2008.*
3. *Indian standard - quality management systems - Guidelines for performance improvement (Fifth Revision), Bureau of Indian standards, New Delhi.*

# 23MBAE120 - MATERIALS MANAGEMENT

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

- CO1:** Understand basics of materials management.
- CO2:** Understand requirement analysis for material planning.
- CO3:** Apply inventory management models.
- CO4:** Understand purchasing practices.
- CO5:** Understand storage in warehouse.

### INTRODUCTION

Operating environment - Aggregate planning - Role, Need, Strategies, Costs techniques, Approaches - Master Scheduling -Manufacturing Planning and Control System - Manufacturing Resource Planning - Enterprise Resource Planning - Making the Production Plan. **(9)**

### MATERIALS PLANNING

Material Requirements Planning - Bill of Materials - Resource Requirement Planning - Manufacturing Resource Planning - Capacity Management - Scheduling Orders - Production Activity Control - Codification. **(9)**

### INVENTORY MANAGEMENT

Policy Decisions – Objectives - Control - Retail Discounting Model, Newsvendor Model; EOQ and EBQ models for uniform and variable demand with and without shortages - Quantity discount models - Probabilistic inventory models. **(9)**

### PURCHASING MANAGEMENT

Establishing specifications - Selecting suppliers - Price determination - Forward buying - Mixed Buying Strategy - Price Forecasting - Buying seasonal commodities - Purchasing under uncertainty - Demand Management - Price Forecasting - Purchasing under uncertainty - Purchasing of capital equipment - International purchasing. **(9)**

### WAREHOUSE MANAGEMENT

Warehousing functions - Types - Stores Management - Stores systems and procedures - Incoming materials control - Stores Accounting and Stock verification - Obsolete, Surplus and Scrap-value analysis - Material handling - Transportation and Traffic Management - Operational Efficiency – Productivity - Cost effectiveness - Performance measurement. **(9)**

**TOTAL: 45**

### TEXTBOOKS

1. J.R. Tony Arnold, Stephen N. Chapman, Lloyd M. Clive, *Materials Management*, Pearson, 2012.
2. P. Gopalakrishnan, *Purchasing and Materials Management*, Tata McGraw Hill, 2012.

### REFERENCES

1. S. N. Chary, *Production and Operations Management*, Tata McGraw Hill, 2012
2. Ajay K Garg, *Production and Operations Management*, Tata McGraw Hill, 2012.
3. A.K. Chitale and R.C. Gupta, *Materials Management, Text and Cases*, PHI Learning, 2nd Edition, 2006.
4. A.K. Datta, *Materials Management, Procedure, Text and Cases*, PHI Learning, 2nd Edition, 2006.
5. Ronald H. Ballou and Samir K. Srivastava, *Business Logistics and Supply Chain Management*, Pearson Education, Fifth Edition.

# 23MBAE121 - SERVICES OPERATIONS MANAGEMENT

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Appreciate the nature of service operations.

**CO2:** Develop and design services.

**CO3:** Inculcate quality in service design and delivery.

**CO4:** Apply models to design service facility.

**CO5:** Grow and sustain service business.

### INTRODUCTION

Services - Importance, Role in economy, Service sector - Nature, Growth. Nature of services distinctive characteristics, Service Package, Service classification, Service - Dominant logic, Open - Systems View. Service Strategy - Strategic service vision, Competitive Environment, Generic Strategies, Winning customers; Role of information technology; Stages in service firm competitiveness. **(9)**

### SERVICE DESIGN

New Service Development - Design elements - Service Blue-printing - Process structure - Generic approaches. Service Encounter - Triad, Creating service orientation, Service profit chain; Front - office Back - office Interface - Service decoupling. Technology in services - Self-Service, Automation, E - commerce, E - business, Technology innovations. **(9)**

### SERVICE QUALITY

Service Quality - Dimensions, Service Quality Gap Model; Measuring Service Quality - SERVQUAL, Walk-through Audit, Quality service by design, Service Recovery, Service Guarantees. Process Improvement - Productivity Improvement - DEA, Quality tools, Benchmarking, Quality improvement programs. **(9)**

### SERVICE FACILITY

Supporting facility - Servicescapes, Facility design - Nature, Objectives, Process analysis, Service Facility layout. Service Facility Location - Considerations, Facility location techniques - Metropolitan metric, Euclidean, Centre of gravity, Retail outlet location, Location set covering problem. Vehicle routing and Scheduling. **(9)**

### MANAGING CAPACITY AND DEMAND

Managing Demand - Strategies; Managing capacity - Basic strategies, Supply management tactics, Operations planning and control; Yield management; Inventory Management in Services - Retail Discounting Model, Newsvendor Model; Managing Waiting Lines - Queuing systems, Psychology of waiting; Managing for growth - Expansion strategies, Franchising, Globalization. **(9)**

**TOTAL: 45**

### TEXTBOOKS

1. James A. Fitzsimmons, Mona J, Fitzsimmons, Sanjeev Bordoloi, *Service Management - Operations, Strategy, Information Technology*, McGraw-Hill Education - 8th Edition, 2018.
2. Cengiz Haksever, Barry Render, *Service Management*, Pearson Education, 2013.

### REFERENCES

1. Richard D. Metters, *Successful Service Operations Management*, Cengage Learning, 2nd Edition, 2012.
2. Robert Johnston, Graham Clark, *Service Operations Management*, Pearson Education, 2nd Edition, 2005.
3. Bill Hollins and Sadie Shinkins, *Managing Service Operations*, Sage, 2006.

# 23MBAE122 - PROCESS MANAGEMENT

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Design business processes that are in alignment with the external requirements.

**CO2:** Analyze process flow.

**CO3:** Apply models and simulate processes.

**CO4:** Apply concepts to improve processes.

**CO5:** Apply models to optimize processes.

### INTRODUCTION

The Process View of Organizations - Service and Manufacturing processes - Nature of Service Processes, Process structure in services, Process structure in Manufacturing, Value Chain - Core and support processes, Adding value with processes; Managing processes - Process strategy - Organization perspective, Major process decisions; Embedding strategy into Manufacturing Processes - Process Competencies, Process Design - Major factors, Technology choice. **(9)**

### PROCESS FLOW

Process Flow, Key Measures, Flow Time, Flow Rate, Process flow analysis - Tools; Process Mapping, Inventory Analysis, Process Flow Chart, Flow Time Measurement, Flow - Rate and Capacity Analysis, Managing Flow Variability; Work flow design Principles and Flows. **(9)**

### PROCESS MODELING

Modeling - Empirical models, Deterministic models, Stochastic models; Simulating Business Process - Application, Simulation process, Discrete event simulation, Computer simulation. **(9)**

### PROCESS IMPROVEMENT

Constraint Management - Theory of Constraints, Measuring capacity, Utilization, and Performance in TOC, Key principles; Strategic Capacity Management -Tools for Capacity Planning, Cycle time and Capacity analysis; Process layout - Designing flexible flow layouts; Lean Systems - Toyota Production System, Characteristics of Lean systems, Continuous Improvement, Kanban System Value Stream Mapping, JIT II; Process Synchronization and Improvement. **(9)**

### PROCESS OPTIMIZATION

Optimizing Business Process Performance, Process Metrics, Business Intelligence, Process Dashboards - Creating flexible organizations - Optimization process - Early Management - Capability Development, Sustainability; Process benchmarking with data envelopment analysis. **(9)**

**TOTAL: 45**

### TEXTBOOKS

1. G.Halevi and R.D.Weill, "Principles of Process Planning" Chapman and Hall, Madras 2012.
2. Manuel Laguna, Johan Marklund, Business Process Modeling, Simulation and Design, Pearson Education, 2011.

### REFERENCES

1. Lee J. Krajewski, Larry P. Ritzman, Manoj K. Malhotra, Operations Management - Processes and Supply Chain, Pearson Education, 9th Edition, 2010.
2. Byron J. Finch, Operations Now - Supply chain Profitability and performance, Tata McGraw Hill, 3rd Edition, 2008.
3. "Managing Business Process Flows: Principles of Operations Management" Pearson Education, 2006.
4. Gerard Cachon, Christian Terweisch, Matching Supply with Demand - An Introduction to Operations Management, McGraw Hill, International Edition, 2006.

5. *Dennis McCarthy and Nick Rich, Lean TPM - A blueprint for change, Elsevier Ltd., 2004.*

# 23MBAE123 - SUPPLY CHAIN ANALYTICS

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

- CO1:** Understand the fundamentals of supply chain analytics.
- CO2:** Design warehouse models to enhance supply chain performance.
- CO3:** Analyze models and strategies in inventory management.
- CO4:** Understand network models in transportation.
- CO5:** Make decision using multi-criteria in applications of SCM.

### INTRODUCTION

Introduction to Analytics - Descriptive, Predictive and Prescriptive Analytics, Data Driven Supply Chains - Basics, Transforming Supply Chains, Barriers to implementation, Road Map. **(9)**

### WARE HOUSING DECISIONS

Mathematical Programming Models - P-Median Methods - Guided LP Approach - Balmer - Wolfe Method, Greedy Drop Heuristics, Dynamic Location Models, Space Determination and Layout Methods. **(9)**

### INVENTORY MANAGEMENT

Inventory Aggregation Models, Dynamic Lot sizing Methods, Multi-Echelon Inventory models, Aggregate Inventory system and LIMIT, Risk Analysis in Supply Chain - Measuring transit risks, Supply risks, Delivering risks, Risk pooling strategies. **(9)**

### TRANSPORTATION NETWORK MODELS

Notion of Graphs, Minimal Spanning Tree, Shortest Path Algorithms, Maximal Flow Problems, Multistage Transshipment and Transportation Problems, Set covering and Set Partitioning Problems, Traveling Salesman Algorithms, Advanced Vehicle Routing Problem Heuristics, Scheduling Algorithms - Deficit function Approach and Linking Algorithms. **(9)**

### MCDM MODELS

Analytic Hierarchy Process (AHP), Data Envelopment Analysis (DEA), Fuzzy Logic and Techniques, The Analytical network process (ANP), TOPSIS - Application in SCM. **(9)**

**TOTAL: 45**

### TEXTBOOKS

1. Muthu Mathirajan, Chandrasekharan Rajendran, Sowmyanarayanan Sadagopan, Arunachalam Ravindran, Parasuram Balasubramanian, *Analytics in Operations/Supply Chain Management*, I.K. International Publishing House Pvt. Ltd., 2016.
2. Nada R Sanders, *Big data driven supply chain management: A framework for implementing analytics and turning information into intelligence*, Pearson Edu., 2014.

### REFERENCES

1. Michael Watson, Sara Lewis, Peter Cacioppi, Jay Jayaraman, *Supply Chain Network Design: Applying Optimization and Analytics to the Global Supply Chain*, Pearson Education, 2013.
2. Anna Nagurney, Min Yu, Amir H. Masoumi, Ladimer S. Nagurney, *Networks Against Time: Supply Chain Analytics for Perishable Products*, Springer, 2013.
3. Gerhard J. Plenert, *Supply Chain Optimization through Segmentation and Analytics*, CRC Press, Taylor & Francis Group, 2014.

# 23MBAE124 - PROJECT MANAGEMENT

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Understand the roles and responsibilities of a project manager.

**CO2:** Plan and budget projects.

**CO3:** Schedule and allocate resources to projects.

**CO4:** Manage project organization.

**CO5:** Control and complete projects.

### INTRODUCTION TO PROJECT MANAGEMENT

Project Management - Definition - Goal - Lifecycles. Project Environments. Project Manager – Roles - Responsibilities and Selection  
(9)

### PLANNING, BUDGETING AND RISK MANAGEMENT

The Planning Process - Work Break down Structure. Cost Estimating and Budgeting - Process, Summaries, Schedules and Forecasts.

Managing risks - Concepts, Identification, Assessment and Response planning.  
(9)

### SCHEDULING & RESOURCE ALLOCATION

PERT & CPM Networks - Project durations and floats - Crashing - Resource loading and leveling. Simulation for resource allocation. Goldratts Critical Chain.  
(9)

### PROJECT ORGANISATION & CONFLICT MANAGEMENT

Formal Organisation Structure – Organisation Design - Types of Project Organizations. Conflict - Origin & Consequences. Project Teams.

Managing conflict - Team methods for resolving conflict.  
(9)

### CONTROL AND COMPLETION

Project Control - Process, Monitoring, Internal and External control, Performance analysis, Performance Index Monitoring. Project Evaluation,

Reporting and Termination. Project success and failure - Lessons.  
(9)

**TOTAL: 45**

### TEXTBOOKS

1. Gido and Clements, *Successful Project Management, 7th Edition, Thomson Learning, 2017.*
2. Panneerselvam R, Senthilkumar P, *Project Management, PHI Learning, 2009.*

### REFERENCES

1. John M. Nicholas, *Project Management for Business and Technology - Principles and Practice, Second Edition, Pearson Education, 2006.*
2. Clifford Gray and Erik Larson, *Project Management, Tata McGraw Hill Edition, 2005.*
3. Samuel J.M., Jack R.M., Scott M.S., Margaret M.S., and Gopalan M.R., *Project Management, First Indian Edition, Wiley-India, 2006.*
4. Harvey Maylor, *Project Management, Third Edition, Pearson Education, 2006.*

# 23MBAE125 - PRODUCT DESIGN

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Understand designing and developing of the product.

**CO2:** Understand the basic concept of the product.

**CO3:** Understand management of product data.

**CO4:** Apply design tools to enhance product performance.

**CO5:** Understand the awareness of patenting new products.

### PRODUCT DESIGN & DEVELOPMENT

Product design & development - Characteristics, Duration and Cost, Challenges; Development Process - Generic Process, Concept development, Adapting to Product Types; Product Planning - Process, Understanding Customer Need, Product Specification; Concept Generation Evaluation - Decay Curve, Cost Expenditure Curve; Technology Life Cycle; Disruptive Technologies. **(9)**

### PRODUCT CONCEPT

Concept Selection - Importance, Methodology, Concept Screening, Concept Scoring, Concept Testing; Product Architecture - Definition, Modularity, Implication, Establishment, Delayed Differentiation, Platform Planning. **(9)**

### PRODUCT DATA MANAGEMENT

PDM - Concept and Benefits, functions, Product Data and Workflow, Product Reliability, CIM data, Architecture of PDM systems, Product Data Interchange, Portal Integration, PDM Acquisition and Implementation; Product Life Cycle Management - Strategy, Change Management for PLM. **(9)**

### DESIGN TOOLS

Design Approaches - Industrial Design, Design for Manufacturing, Value Engineering, Ergonomics, Robust Design, Design for Excellence; Collaborative Product Development- Prototyping, Failure Rate Curve, Product use testing - Product Development Economics, Scoring Model, Financial Analysis. **(9)**

### PATENTS

Intellectual Property and Patents - Definitions, Patent Searches, Application, Patent Ownership and Transfer, Patent Infringement, New Developments and International Patents. **(9)**

**TOTAL: 45**

### TEXTBOOKS

1. *Kenneth B.Kahn, New Product Planning, Sage, 2010.*
2. *Karl T. Ulrich, Steven D. Eppinger, Anita Goyal Product Design and Development, Tata McGraw - Hill, Fourth Edition, reprint 2009.*

### REFERENCES

1. *A.K. Chitale and R.C. Gupta, Product Design and Manufacturing, PHI, 2008.*
2. *Michael Grieves, Product Life Cycle Management, Tata McGraw Hill, 2006.*
3. *Deborah E. Bouchoux, Intellectual Property Rights, Delmar, Cengage Learning, 2005.*

# 23MBAE126 - LEAN SIX SIGMA

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Understand the basics of lean six sigma.

**CO2:** Develop business cases.

**CO3:** Apply tools and techniques of lean six sigma to increase productivity.

**CO4:** Map the processes.

**CO5:** Evaluate processes and apply continuous improvement.

### UNDERSTANDING LEAN SIX SIGMA

Lean Thinking - Basics, Principles; Six Sigma Methodology - Identification, Prioritization and Selection of Improvement opportunities; Six Sigma Implementation - Overview, Roles & Responsibilities; Tools - DMAIC, DFSS, DMADV. (9)

### DEVELOPMENT OF BUSINESS CASES

Cost of Poor Quality (COPQ), Cost of Doing Nothing, CTQ Tree, Translating the needs of the customer into the specific requirements - Development of Project Team and Charter, Define and Map Processes to be improved (SIPOC / COPIS); Voice of Customer, Identification of Critical to Customer (CTC) / Critical to Business (CTB) characteristics. (9)

### THE SCOPE OF TOOLS AND TECHNIQUES

Data Collection planning, Understanding of Prioritization Matrix, FMEA, Type of Data, Measurement System Evaluation (Gauge R&R) for variables as well as attribute data, Understanding variation - Special Causes vs. Common causes through Dot plots, Box plots, Histogram and Control charts, Stratification methods through Pareto, Bar Diagrams, Stratified Dot Plot, etc.- Evaluation of Process Capability and Sigma level. (9)

### PROCESS MAPPING ESSENTIALS

Activity flow chart, Identification of Value-added and Non-value-added activities (Lean Sigma), Organizing for Potential causes - Cause and Effect diagram, Verification / validation of causes using workplace investigation - GEMBA, Statistical tools; Concepts of industrial experimentation. (9)

### EVALUATION AND CONTINUOUS IMPROVEMENT METHODS

Deploying Lean Six Sigma, Selection and Prioritization of solutions - Concept of risk analysis, Pilot and full - scale implementation. Process Control plans, Evaluation, Monitoring Mechanism (SPC), Process Audits, The Economics of Six Sigma Quality Return on Six Sigma (ROSS), ROI, Comparison of results after implementation of the solutions, Institutionalization and integration of the solutions, closing of the project. (9)

**TOTAL : 45**

### TEXTBOOKS

1. John Morgan, Martin Brenig-Jones, *Lean Six Sigma for Dummies*, John Wiley & Sons Ltd., 2016.
2. Michael L. George, David Rowlands, Marle Price, John Maxey, *The Lean Six Sigma Pocket Toolbook*, McGraw Hill, 2016.

### REFERENCES

1. Thomas Pyzdek, *The Six Sigma Handbook*, McGraw-Hill, 5th Edition, 2008.
2. Michael L George, David Rowlands, Bill Kastle, *What is Lean Six Sigma*, McGraw - Hill, 2003.
3. Forrest W. Breyfogle, III, James M. Cupello, Becki Meadows, *Managing Six Sigma: A Practical Guide to Understanding, Assessing, and Implementing the Strategy That Yields Bottom-Line Success*, John Wiley & Sons, 2000.

# 23MBAE127 - ROBUST DESIGN

L	T	P	C
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## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

- CO1:** Develop the ability to effectively plan the framework for experimentation and make a robust design.
- CO2:** Synthesize and select design concepts for robustness.
- CO3:** Estimate the robustness of any given design (experimentally and analytically)
- CO4:** Select rational tolerances for a design.
- CO5:** Analyze the role of robust design techniques within the wider context of the product development process.

### INTRODUCTION

Introduction to Robust Design - Robust Design and Experiments - Planning of experiments - Overview of Quality by design - Quality loss function - ANOVA rationale - Single Factor Experiments. **(9)**

### FACTORIAL EXPERIMENTS

Basic Definition and Principles - Two Factor Factorial design - Tests on Means - EMS rule - 2 K and 3 K factorial designs - Fractional factorial design. **(9)**

### SPECIAL EXPERIMENTAL DESIGNS

Randomized Blocks - Latin Square Design - Blocking and Confounding - Response Surface method - Nested designs. **(9)**

### ORTHOGONAL EXPERIMENTS

Comparison of Classical and Taguchi' s approach - Selection and application of Orthogonal Arrays for design - Conduct of experiments - Collection and analysis of simple experiments - Modifying Orthogonal arrays - Multi-response data analysis. **(9)**

### MAKING THE DESIGN ROBUST

Variability due to noise factors - Classification of quality characteristics and parameters - Objective functions - Parameter design - Optimization using S/N ratios - Attribute data analysis. **(9)**

**TOTAL: 45**

### TEXTBOOKS

1. Douglas.C. Montgomery, *Design and Analysis of Experiments*, John Wiley and Sons, 2005.
2. Phillip J. Rose, *Taguchi techniques for quality engineering*, Tata McGraw Hill, 2005.

### REFERENCES

1. Nicolo Belavendram, *Quality by Design: Taguchi techniques for industrial Experimentation*, Prentice Hall, 1999.
2. Tapan. P. Bagchi, *Taguchi methods explained: Practical steps to Robust Design*, PHI, 1993.

## 23MBAE128 - RETAIL MARKETING

L	T	P	C
3	0	0	3

### ASSESSMENT: THEORY

#### COURSE OUTCOME

Upon completion of the course students will be able to

- CO1:** Develop insights on retail operations.
- CO2:** Understand effective methods and strategies required for retail management.
- CO3:** Understand how to utilize resources and techniques used in retail management.
- CO4:** Understand analysis of store location, merchandising, products and pricing.
- CO5:** Gain knowledge about shopping behavior.

#### INTRODUCTION

An overview of Global Retailing - Challenges and opportunities- Retail trends in India - Socio economic and technological Influences on retail management - Government of India policy implications on retails. **(9)**

#### RETAIL FORMATS

Organized and unorganized formats - Different organized retail formats - Characteristics of each format - Emerging trends in retail formats - MNC's role in organized retail formats. **(9)**

#### RETAILING DECISIONS

Choice of retail locations - internal and external atmospherics - Positioning of retail shops - Building retail store Image - Retail service quality management - Retail Supply Chain Management - Retail Pricing Decisions. Merchandizing and category management -buying. **(9)**

#### RETAIL SHOP MANAGEMENT

Visual Merchandise Management - Space Management - Retail Inventory Management - Retail accounting and audits - Retail store brands - Retail advertising and promotions - Retail Management Information Systems - Online retail - Emerging trends. **(9)**

#### RETAIL SHOPPER BEHAVIOUR

Understanding of Retail shopper behavior - Shopper Profile Analysis - Shopping Decision Process - Factors influencing retail shopper behavior - Complaints Management - Retail sales force Management - Challenges in Retailing in India. **(9)**

**TOTAL: 45**

#### TEXTBOOKS

1. Barry Berman , Joel R Evans , Patrali Chatterjee , Ritu Srivastava, Retail Management, 13e Paperback.
2. Michael Levy , Barton Weitz , Dhruv Grewal , Retailing Management , 9th Edition Paperback 2021

#### REFERENCES

1. Ogden, Integrated Retail Management, Biztantra, India, 2008.
2. Patrick M. Dunne and Robert F Lusch, Retailing, Thomson Learning, 4th Edition, 2008.
3. Chetan Bajaj, Rajnish Tow and Nidhi V. Srivatsava, Retail Management, Oxford University Press, 2007.
4. Swapna Pradhan, Retail Management -Text & Cases, Tata McGraw Hill, 3rd Ed., 2009.
5. Dunne, Retailing, Cengage Learning, 2nd Edition, 2008

## 23MBAE129 - CONSUMER BEHAVIOR

L	T	P	C
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### ASSESSMENT: THEORY

#### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Develop consumer orientation and consumption.

**CO2:** Understand intrinsic influences.

**CO3:** Understand the effects of external influences.

**CO4:** Understand the models of consumer and industrial buying.

**CO5:** Understand the decision making process.

#### INTRODUCTION

Understanding Consumer behaviour - Consumption, Consumer orientation, Interpretive and Quantitative approaches - Effects of Technology, Demographics and Economy on Consumer behaviour. **(9)**

#### INTERNAL INFLUENCES

Influences on consumer behavior - motivation - perception - Attitudes and Beliefs - Learning and Experience - Personality & Self Image. **(9)**

#### EXTERNAL INFLUENCES

Socio-Cultural, Cross Culture - Family group - Reference group - Communication - Influences on Consumer behavior **(9)**

#### CONSUMER BEHAVIOR MODELS

Traditional and Contemporary Consumer behaviour model for Individual and industrial buying behaviour and decisionmaking. **(9)**

#### PURCHASE DECISION PROCESS

Consumer decision making process - Steps, Levels and decision rules - Evolving Indian consumers - Opinion Leadership - Diffusion and Adoption. **(9)**

**TOTAL : 45**

#### TEXTBOOKS

1. Michael R. Solomon/ Tapan Kumar Panda, *Consumer Behavior*, 13/e Paperback, Pearson Education, 2020.
2. S. Ramesh Kumar, *Consumer Behaviour: the Indian context (concepts and cases)*, 2017

#### REFERENCES

1. Ramanuj Majumdar, *Consumer Behaviour - Insights from Indian Market*, PHI, 2010.
2. Leon G.Schiffman and Leslie LasarKanuk, *Consumer Behavior*, Pearson Education, India, 9th Edition, 2010.
3. Barry J.B., Eric G.H., Ashutosh M., *Consumer Behaviour - A South Asian Perspective*, Cengage Learning, 2016.
4. Paul Peter et al., *Consumer Behavior and Marketing Strategy*, Tata McGraw Hill, Indian Edition, 7th Edition, 2005.

# 23MBAE130 - INTEGRATED MARKETING COMMUNICATIONS

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

- CO1:** Review and give a general understanding of the basics of traditional communication forms, such as advertising, personal selling, sales promotion and indirect promotion within various delivery vehicles from broadcast to targeted social media.
- CO2:** Design an effective integrated marketing communication programme.
- CO3:** Know how IMC fits into the marketing mix.
- CO4:** Develop awareness about marketing communications tools, and how each can be used effectively- individually or in an integrated mix.
- CO5:** Examine the process, by which integrated marketing communications programs are planned, developed, executed and measured.

### AN INTRODUCTION TO INTEGRATED MARKETING COMMUNICATION (IMC)

An Introduction to Integrated Marketing Communication (IMC): Meaning and role of IMC in Marketing process, one voice communication V/s IMC. Introduction to IMC tools - Advertising, sales promotion, publicity, public relations, and event sponsorship; The role of advertising agencies and other marketing organizations providing marketing services and perspective on consumer behaviour **(9)**

### UNDERSTANDING COMMUNICATION PROCESS

Understanding communication process: Source, Message and channel factors, Communication response hierarchy- AIDA model, Hierarchy of effect model, Innovation adoption model, information processing model, The standard learning Hierarchy, Attribution Hierarchy, and low 20% involvement hierarchy Consumer involvement- The Elaboration Likelihood (ELM) model, The Foote, Cone and Belding (FCB) Model **(9)**

### PLANNING FOR MARKETING COMMUNICATION (MARCOM)

Establishing marcom Objectives and Budgeting for Promotional Programmes - Setting communication objectives, Sales as marcom objective, DAGMAR approach for setting ad objectives. Budgeting for marcom-Factors influencing budget, Theoretical approach to budgeting viz. Marginal analysis and Sales response curve, Method to determine marcom budget **(9)**

### DEVELOPING THE INTEGRATED MARKETING COMMUNICATION PROGRAMME

Planning and development of creative marcom, Creative strategies in advertising, sales promotion, publicity, event sponsorships etc. Creative strategy in implementation and evaluation of marcom - Types of appeals and execution styles. Media planning and selection decisions- steps involved and information needed for media planning. Measuring the effectiveness of all Promotional tools and IMC. **(9)**

### DIGITAL MEDIA & ADVERTISING

Digital Media, Evolution of Technology, Convergence of Digital Media, E- Commerce and Digital Media, Advertising on Digital Media, Social Media, Mobile Advertising, E-PR Advertising Laws & Ethics: Advertising & Law, Advertising & Ethics **(9)**

**TOTAL : 45**

## **TEXTBOOKS**

1. Kirti Dutta, *Integrated Marketing Communications Paperback*, oxford University Press, 2016.
2. Sandeep Kumar, *Integrated Marketing Communication Hardcover*, AK Publications, 2009.

## **REFERENCES**

1. *Advertising & Promotion- An Integrated Marketing Communications Perspective*, George Belch, Michael Belch & Keyoor Purani, TATA McGraw Hill, 8th Edition
2. Wells, Moriarty & Burnett, *Advertising, Principles & Practice*, Pearson Education, 7th Edition, 2007.
3. Kenneth Clow, Donald Baack, *Integrated Advertisements, Promotion and Marketing communication*, Prentice Hall of India, New Delhi, 3rd Edition, 2006.
4. Terence A. Shimp and J.Craig Andrews, *Advertising Promotion and other aspects of Integrated Marketing Communications*, CENGAGE Learning, 9th Edition, 2016
5. S. H. H. Kazmi and Satish K Batra, *Advertising & Sales Promotion*, Excel Books, New Delhi, 3rd Revised Edition, 2008.

# 23MBAE131 - SERVICES MARKETING

L	T	P	C
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## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

- CO1:** Demonstrate an extended understanding of the similarities and differences in service- based and physical product based marketing activities.
- CO2:** Develop and justify marketing planning and control systems appropriate to service-based activities.
- CO3:** Demonstrate integrative knowledge of marketing issues associated with service productivity, perceived quality, customer satisfaction and loyalty.
- CO4:** Develop blueprint for the services sector and develop a better appreciation of the necessary strategies to create a service excellence.
- CO5:** Recognize the challenges faced in services delivery as outlined in the services gap model.

### INTRODUCTION

Introduction- Definition - Service Economy - Evolution and growth of service sector - Nature and Scope of Services - Difference between services and tangible products - Unique characteristics of services - Challenges and issues in Services Marketing. **(9)**

### SERVICE MARKETING OPPORTUNITIES

Assessing service market potential - Classification of services - Expanded marketing mix - Service marketing - Environment and trends - Service market segmentation, targeting and positioning. **(9)**

### SERVICE DESIGN AND DEVELOPMENT

Service Life Cycle - New service development - Service Blue Printing - GAP model of service quality - Measuring service quality - SERVQUAL - Service Quality function development. **(9)**

### SERVICE DELIVERY AND PROMOTION

Positioning of services - Designing service delivery System, Service Channel - Pricing of services, methods - Service marketing triangle -, Managing Demand and Supply of Service-Integrated Service marketing communication. **(9)**

### SERVICE STRATEGIES

Service Marketing Strategies for Health - Hospitality - Tourism - Financial - Logistics- Educational - Marketing of Online Services - Entertainment & Public Utility Services **(9)**

**TOTAL : 45**

### TEXTBOOKS

1. Venugopal & Raghu, *Services Marketing Paperback*, 2015, Himalaya Publishing House
2. Christopher H. Lovelock and Jochen Wirtz, *Services Marketing: People, Technology, strategy* Pearson Education, New Delhi, 8th Edition, 2016.

### REFERENCES

1. John.E.G.Bateson, K.Douglas Hoffman, *Services Marketing*, South Western Cengage learning, 4th Edition, 2011.
2. Kenneth E Clow, et al, *Services Marketing Operation Management and Strategy*, Biztantra, 2nd Edition, New Delhi, 2004.
3. Valarie Zeithaml et al, *Services Marketing*, 5th International Edition, Tata McGraw Hill, 2007.
4. Christian Gronroos, *Services Management and Marketing a CRM in Service Competition*, 3rd Edition, Wiley, 2007.
5. R. Srinivasan, *Services Marketing*, Prentice Hall of India Private Limited, 4th Edition 2014, New Delhi.

# 23MBAE132 - SALES AND DISTRIBUTION MANAGEMENT

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1 :** Understand the basics of sales management, theories and strategies.

**CO2 :** Understand the process of personal and relationship selling.

**CO3 :** Understand managing sales force.

**CO4 :** Understand managing distribution channels.

**CO5 :** Understand inventory and supply chain.

### INTRODUCTION

Sales management - nature and scope. Sales management positions. Personal Selling - Scope, theories and strategies. Sales forecasting and budgeting decisions. Online selling - scope, potential, Merits and Demerits. (9)

### PERSONAL SELLING PROCESS, SALES TERRITORIES & QUOTAS

Selling process and relationship selling. Designing Sales Territories and quotas. Sales organisation structures. (9)

### MANAGING THE SALES FORCE

Sales force - recruitment, selection, training, motivating, compensation and control. (9)

### MANAGING DISTRIBUTION CHANNELS

Distribution Management - Introduction, need and scope. Channels -Strategies and levels, retailing and wholesaling. Designing channel systems and channel management. (9)

### BASICS OF LOGISTICS AND SUPPLY CHAIN MANAGEMENT

Logistics - Scope, definition and components. Managing FG Inventory & warehousing. Transportation - Scope, Modes and role in Supply Chain effectiveness. Use of Information Technology in Online Selling and Goods tracking. (9)

**TOTAL : 45**

### TEXTBOOKS

1. Ramendra Singh, *Sales and Distribution Management*, Vikas Publication, 2017
2. KrishTapan K. Panda (Author), Sunil Sahadevna K. Havaladar, Vasant M. Cavale, *Sales and Distribution Management - Text and Cases*, Third Edition, McGraw Hill Education, 2017.

### REFERENCES

1. Dr. Prashant Namdev, Phule Prof. Ameya, Anil Patil, *Sales and Distribution*, 2021
2. Gupta S.L., *Sales and Distribution Management - Text and Cases - An Indian Perspective*, Excel Books, 2008.
3. Pingali Venugopal, *Sales and Distribution Management - An Indian Perspective*, Sage Publications, 2008.

# 23MBAE133 - PRODUCT AND BRAND MANAGEMENT

L	T	P	C
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## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

- CO1:** Apply the fundamental concepts of product and brand development and management.
- CO2:** Use the brand positioning framework to develop a brand, keep it relevant, expand a brand internationally, and reposition a brand.
- CO3:** Use tools and metrics to analyse competitors and develop positioning strategies.
- CO4:** Recognize the importance of using teams and organization to coordinate multiple interdisciplinary tasks in order to create and manage products within an organization.
- CO5:** Apply an understanding of the product manager's role in product pricing, sales, and promotion.

Management of New Product Development Process - Managing Product Life cycle -Brands and Branding- Introduction to Brand Management -Brand Management Process - Brand Choice Decisions and Models. **(9)**

Product Plans - Elements of Branding - Brand Identity - Brand Communication - Brand Positioning - Brand Image and Personality - Valuation of Brands - Brand Valuation - Brand Tracking and Monitoring. **(9)**

Marketing Mix Factors and Products - Managing Brand Over Time - Building Brands in Indian Market - Launching a New Brand - Revitalizing Brands - Branding Strategies - Brand Extension Strategies - Brand Portfolio Management - Managing Brands Across Geographical Borders. **(9)**

Managing Brand Experience - Digital Branding - Employment Branding - Co-branding - Brand extension scorecard - Culture and branding - Brand flashbacks - Future brand priorities. **(9)**

Advertising - Brand Name Plan - Pricing Systems - Product Distribution Systems - Advertising and Sales Promotion - ProductSales Management - Product and Public Relations Service Product Marketing - Industrial Product Marketing Product Exports and International Marketing - Critical Success Factors in Brand Management. **(9)**

**TOTAL : 45**

### TEXTBOOKS

1. Ameya Patil, *Product and Brand Management*, Nirali Prakashan, 2023.
2. T.Y Shoba Venketesh, Rinkesh Chheda, *Brand Management*, Himalaya Publishing House, 2019.

### REFERENCES

1. *Strategic Brand Management: Building, Measuring, and Managing Brand Equity*, by Kevin lane Keller Ambi M. G. Parameswaran; Issac Jacob; Fourth edition; Pearson Education India; 2015.
2. *Product and Brand Management* Tapan K. Panda Paperback: 888 pages Publisher: Oxford University Press; First edition, 2016.
3. *Product and brand management* by U C Mathur; Publisher: Excel Books December 2012.
4. *Brand Management*, Himalaya Publishing House.

## 23MBAE134 - DIGITAL MARKETING

L	T	P	C
3	0	0	3

### ASSESSMENT: THEORY

#### COURSE OUTCOME

Upon completion of the course students will be able to

- CO1:** Examine and explore the role and importance of digital marketing in today's rapidly changing business environment.
- CO2:** Focus on how digital marketing can be utilized by organisations and how its effectiveness can be measured.
- CO3:** Know the key elements of a digital marketing strategy.
- CO4:** Understand the effectiveness of a digital marketing campaign can be measured.
- CO5:** Demonstrate advanced practical skills in common digital marketing tools such as SEO, SEM, social media and blogs.

#### INTRODUCTION

Online Market space - Digital Marketing Strategy - Components – Opportunities for building Brand - Website - Planning and Creation -Content Marketing. **(9)**

#### SEO STRATEGIES

Search Engine optimisation - Keyword Strategy- SEO Strategy - SEO success factors – On - Page Techniques - Off-Page Techniques. Search Engine Marketing- How Search Engine works- SEM components- PPC advertising -Display Advertisement. **(9)**

#### E-MAIL AND MOBILE MARKETING

E- Mail Marketing - Types of E- Mail Marketing - Email Automation - Lead Generation - Integrating Email with Social Media and Mobile- Measuring and maximising email campaign effectiveness. Mobile Marketing- Mobile Inventory/channels- Location based; Context based; Coupons and offers, Mobile Apps, Mobile Commerce, SMS Campaigns-Profiling and targeting. **(9)**

#### SOCIAL MEDIA CHANNELS

Social Media Marketing - Social Media Channels - Leveraging Social media for brand conversations and buzz. Successful / benchmark Social media campaigns. Engagement Marketing-Building Customer relationships - Creating Loyalty drivers - Influencer Marketing. **(9)**

#### SOCIAL MEDIA WEB ANALYTICS

Digital Transformation & Channel Attribution- Analytics- Ad-words, Email, Mobile, Social Media Web Analytics - Changing your strategy based on analysis- Recent trends in Digital marketing. **(9)**

**TOTAL : 45**

#### TEXTBOOKS

1. *Fundamentals of Digital Marketing by Puneet Singh Bhatia; Publisher: Pearson Education; First ed., 2017.*
2. *Digital Marketing by Vandana Ahuja; Publisher: Oxford University Press, 2015.*

#### REFERENCES

1. *Marketing 4.0: Moving from Traditional to Digital by Philip Kotler; Publisher: Wiley; 1st ed., 2017.*
2. *Ryan, D., Understanding Digital Marketing: Marketing Strategies for Engaging the Digital Generation, Kogan Page Limited, 2014.*
3. *Pulizzi, J Beginner's Guide to Digital Marketing, McGraw Hill Education.*
4. *Barker, Barker, Bormann and Neher, Social Media Marketing: A Strategic Approach, 2E South-Western, Cengage Learning, 2017.*

# 23MBAE135 - INTERNATIONAL MARKETING

L	T	P	C
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## ASSESSMENT : THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1 :** Understand the principles & concepts in international marketing.

**CO2 :** Provide the knowledge of marketing management in the international perspective.

**CO3 :** Develop marketing strategies for the dynamic international markets.

**CO4 :** Study the most important forces behind international trade.

**CO5 :** Know the guidelines for establishing foreign business operations.

### INTRODUCTION

International markets - Definition - Basic modes of entry - Nature of International Marketing- Benefits of International Marketing- International Marketing Task - World Trade - India's Foreign Trade - Characteristics of MNCs - Global and Domestic marketing - International Product Life cycle - EPRG Framework - Institutional set up - Advisory bodies - Commodity organizations - Service Institutions - Government participation in Foreign Trade (9)

### INTERNATIONAL MARKETING ENVIRONMENT

Business culture around the world- language, customs, attitudes - marketing strategy adjustments - product adaptations. Geographic Description of Market - Political risk - Political Environment - Import quotas - tariffs - customs restrictions - required licenses – registrations - permits. Development and scope of International law – INCOTERMS - WTO - GATT - Current economic conditions of the country or countries involved - credit worthiness of the international buyer/seller - Regional economic groupings its influences in market. (9)

### POLICY FRAMEWORK AND PROCEDURAL ASPECTS

India's Export - Import policy - Exim Policy - promotional measures - Export oriented Units - Deemed Exports - Export- Import Documentation - Kinds of Documents - Principal Export Documents - Auxiliary documents - Documents in Import Trade - Export Documentation and procedures - Demand Estimation - GDP - Producer consumer target - Market segmentation. (9)

### INTERNATIONAL MARKETING PLANNING

International Market Selection - Factors influencing - Process - Strategies and approaches- Competition-International Marketing research - Global scene- International marketing research procedure - Techniques - survey - interview techniques - Analysis of field data - Research report - International Marketing Planning and Control - Framework - marketing control - Control sequence. (9)

### INTERNATIONAL MARKETING MIX

Developing an International Product Line, Foreign Product Diversification, International Branding Decisions, International Packaging, International Warranties and Services. International Pricing Strategy - International Promotion Strategies - Promotion Mix- International Sales Negotiations - Patterns of Global Advertising, Global Advertising Regulations, Advertising Media, International Channels of Distribution- Retailing in International Scenario, International Physical Distribution - Technological Influences in international Marketing - Current trends in international Marketing. (9)

**TOTAL : 45**

### TEXTBOOKS

1. *Global Marketing, Third Edition, by Warren J. Keegan and Mark C. Green, Prentice Hall, N.J, 9th Edition, 2018.*
2. *Philip .R. Cateora, John L Graham. Prasanth Salwan. International Marketing, Tata McGraw Hill, 13th Edition, 2008.*

## REFERENCES

1. Onkvisit, Sak., and John J. Shaw., *International Marketing*, Prentice Hall of India, New Delhi, 1997.
2. Ashok Korwar, *Creating Markets across the Globe*, Tata McGraw Hill, New Delhi, 1997.
3. *The Lexus and the Olive Tree: Understanding Globalization* by Thomas L. Friedman, Anchor Books, May 2000.

# 23MBAE136 - MARKETING ANALYTICS

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1 :** Study the introduction to marketing analytics.

**CO2 :** Show the benefits of using a systematic and analytical approach to marketing decision-making.

**CO3 :** Develop analytic competencies pertaining solving of marketing problems.

**CO4 :** Develop various tools for generating marketing insights from empirical data in such areas as segmentation, targeting and positioning, satisfaction management, customer lifetime analysis, customer choice, and product and price decisions using conjoint analysis.

**CO5 :** Understand the recent practices scientific and empirical approach by case studies.

### INTRODUCTION TO MARKETING ANALYTICS

Evolution and Scope of Analytics. Data for Marketing Analytics. Decision Models - Descriptive, Predictive and Prescriptive Models. Problem Solving and Decision making process. **(9)**

### DATA MANAGEMENT

Exploring Data; Frequencies; Descriptive Statistics Cross tabulations; Independent Samples t-Test; One-Way ANOVA Simple Regression and Correlation, Multiple Regression to Forecast sales, Modelling Trend and Seasonality, Ratio to Moving Average Method. **(9)**

### CUSTOMER SEGMENTATION AND VALUATION

Analytics for Segmentation - Introduction to Cluster analysis multivariate method. Estimation, Model performance and validation of assumptions for Cluster analysis. Customer Value Analysis, Customer Lifetime Value - Conjoint Analysis **(9)**

### METRICS AND MEASUREMENTS ANALYTICS

Product and Price analytics - Conjoint Analysis - Pricing - Estimating Demand Curves and Optimize Price Retailing Analytics - Allocating Retail Space and Sales Resources-Market Basket Analysis. Advertising and Promotion Analytics-Promotion Analytics- Measuring the effectiveness of Advertising **(9)**

### WEB ANALYTICS

Search Engine Optimisation - Tracking the success of SEO. Web metrics - Google Ad words, Advertising & Analytics. **(9)**

**TOTAL: 45**

### TEXTBOOKS

1. Evans, J.R. *Business analytics methods, models and decisions*. New Jersey: Pearson, Upper Saddle River, 2012.
2. Sorger, Stephan *Marketing Analytics: Strategic Models and Metrics*; Admiral Press Create Space, 2013.

### REFERENCES

1. *Cases and data sets for hands on learning*. Pearson Education.
2. Grigsby, M. *Marketing Analytics: A Practical Guide to Real Marketing Science*; Kogan Page Publishers, 2015.
3. Sathi, A.. *Engaging customers using big data: how Marketing analytics are transforming Business*. Palgrave Macmillan, 2014.
4. Rao, P. H. *Predictive modeling for strategic marketing*. New Delhi. Prentice Hall India, 2011.

# 23MBAE137 - B2B & B2C SALES & MARKETING

L	T	P	C
3	0	0	3

## ASSESSMENT : THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

- CO1 :** Illustrate the applications, challenges and the dynamic environment of B2B marketing, including the unique nature of organizational buying behaviour.
- CO2 :** Understand business-to-business markets which involves planning, conception, product management, pricing, promotion, distribution, and sales of products from one firm to another firm.
- CO3 :** Equip the students with the knowledge about industrial marketing opportunities and competitive strategies.
- CO4 :** Make the students understand the fundamentals of a business to consumer standpoint.
- CO5 :** Identify & enter international markets, select targets and position their brands in marketing with the 7s approach.

### INTRODUCTION TO B2B MARKETING

Business Marketing and Business Market Customers - Market Structure - Environment and Characteristics of Business Marketing - Strategic Role of Marketing - Commercial Enterprises - Commercial and Institutional Customer. **(9)**

### ORGANIZATIONAL BUYING AND BUYER BEHAVIOUR

Organizational Buyers' Decision Process - A Stepwise Model and A Process Flow Model - Organizational and Business Markets- Government as a Customer. **(9)**

### B2B MARKETING STP

Market Segmentation - Basic Framework of Segmentation - Choosing Target Segments and Positioning - Pricing Strategies for Business Markets - B2B Advertising - Competitive Bidding - Relationship Marketing and CRM. **(9)**

### INTRODUCTION TO B2C MARKETING

B2B Marketing vs. B2C Marketing - CSI (Consumer Science Investigation) in International Marketing - Targeted Mini Vision - Strategy - Action - Marketing to Bottom of Pyramid. **(9)**

### ENTRY, TARGETING AND POSITIONING

Market Landing - Market Targeting - Market Positioning – Self - Positioning - Identify Your Customer: B2C Market Segmentation - Marketing Mix and Cross Country & Cross Industry Growth - 7S of International Marketing Innovation. **(9)**

**TOTAL: 45**

### TEXTBOOKS

1. Michael D. Hutt, Dheeraj Sharma, Thomas W. Speh, *B2B Marketing: A South Asian Perspective Cengage 2014, 11th Edition.*
2. Sharad Sarin, *Business Marketing: Concepts and Cases McGraw Hill 2013, 1st Edition.*

### REFERENCES

1. James C. Anderson, Das Narayandas, James A. Narus and D.V.R. Seshadri, *Business Market Management (B2B): Understanding, Creating, and Delivering Value, Pearson 2010, 3rd Edition.*
2. Robert Vitale, WaldemarPfoertsch, Joseph Giglierano, *Business to Business, Marketing, Pearson 2011*
3. Krishna K Havaldar, *Business Marketing: Text and Cases McGraw Hill 2014, 4th Edition.*
4. In Lee (Western Illinois University, USA), *Electronic Commerce Management for Business Activities and Global Enterprises: Competitive Advantages, IGI Global Publisher of Timely Knowledge, 2012.*
5. Joju Michael Mangalam, *Turbocharge Your B2C Marketing Performance: How to leverage Analytics and Data Science in Business-to-Consumer Marketing, Kindle Edition, 2017.*

# 23MBAE138 - STRATEGIC HUMAN RESOURCE MANAGEMENT

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

- CO1:** Understand the relationship of HR strategy with overall corporate strategy, the strategic role of specific HR systems.
- CO2:** Appreciate SHRM in the context of changing forms of organisation and will have a better understanding of the tools and techniques used by organizations to meet current challenges.
- CO3:** Sensitize cross - cultural issues and understanding of international approaches to dealing with people in organisations. Students will look at HRM in a broader, comparative and international perspective to deal with complex issues and manifold risks.
- CO4:** Provide an overview of the counseling and coaching processes and techniques. Developing alternative approaches to dealing with problem situations in organisations.
- CO5:** Understand the career development theories and models and gain necessary self - insight, skills and techniques to become effective HR managers.

### CONTEXT OF SHRM

SHRM - SHRM models - Strategic HRM Vs Traditional HRM - Barriers to Strategic HR- Adopting an Investment Perspective - Understanding and Measuring Human Capital - Human side of corporate strategies - Strategic work redesign - Strategic Capability - Bench Marking. (9)

### HUMAN RESOURCE DEVELOPMENT

Meaning - Strategic framework for HRM and HRD - Vision, Mission and Values - Importance - Challenges to Organisations - HRD Functions - Roles of HRD Professionals - HRD Needs Assessment - HRD practices - Measures of HRD performance - Links to HR, Strategy and Business Goals - HRD Program Implementation and Evaluation - Recent trends - HRD Audit. (9)

### E-HRM

e-Employee profile - e-selection and recruitment - Virtual learning and Orientation - e-training and development - e-learning strategies - e-Performance management - and Compensation design - Use of mobile applications in HR functions - Development and Implementation of HRIS - Designing HR portals - Issues in employee privacy - Employee surveys online. (9)

### CAREER & COMPETENCY DEVELOPMENT

Career Concepts - Roles - Career stages - Career planning and Process - Career development Models - Career Motivation and Enrichment - Managing Career plateaus - Designing Effective Career Development Systems - Competencies and Career Management - Competency Mapping Models - Equity and Competency based Compensation. (9)

### EMPLOYEE COACHING & COUNSELING

Need for Coaching - Role of HR in coaching - Coaching and Performance - Skills for Effective Coaching - Coaching Effectiveness - Need for Counseling - Role of HR in Counseling - Components of Counseling Programs - Counseling Effectiveness - Employee Health and Welfare Programs. (9)

**TOTAL: 45**

## **TEXTBOOKS**

1. *Randy L. Desimone, Jon M. Werner - David M. Mathis, Human Resource Development, Cengage Learning, 7th Edition, 2016.*
2. *Jeffrey A Mello, Strategic Human Resource Management, Cengage Learning, 2015.*

## **REFERENCES**

1. *Paul Boselie. Strategic Human Resource Management. Tata McGraw Hill, 2014.*
2. *Robert L. Mathis and John H. Jackson, Human Resource Management, Cengage Learning, 15<sup>th</sup> ed, 2015.*
3. *Pulak Das. Strategic Human Resource Management- A Resource Driven Perspective- Cengage Learning 4th Indian Reprint; 2013.*
4. *Terresa Torres Coronas & Mario Arias Olivia. e-Human Resource Management- Managing Knowledge People- Idea Group Publishing, 2005.*
5. *Randall S Schuler and Susan E Jackson. Strategic Human Resource Management. Wiley Publications; 2007.*

# 23MBAE139 - INDUSTRIAL RELATIONS AND LABOUR LEGISLATIONS

L	T	P	C
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## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1 :** Understand the Industrial relations system and Trade Unions.

**CO2 :** Analyze the industrial disputes and labour welfare measures.

**CO3 :** Gain insight about labour legislation introduction and legal provisions for factory workers, wages and Bonus.

**CO4 :** Provide knowledge to legal provisions for equal remuneration, gratuity, compensation, industrial employment and Apprenticeship.

**CO5 :** Understand about the legal provisions for EPF, ESI, Maternity, contract labours, and child labour prevention.

### INDUSTRIAL RELATIONS

Concept, scope – objectives - Importance - Approaches to IR - Industrial relations system in India. Trade Unions Act, 1926 - Trade union movement in India - objective - role – functions - procedure for registration of trade unions - Rights and responsibilities - problems - Employee relations in IT sector. (9)

### INDUSTRIAL CONFLICTS AND LABOUR WELFARE

The Industrial Disputes Act, 1947 - Disputes - Impact - Causes - Strikes - Prevention - Industrial Peace - Government Machinery - Conciliation - Arbitration - Adjudication. Labour welfare – statutory – Voluntary - welfare funds - welfare of unorganized labour. (9)

### LABOUR LEGISLATIONS - I

Origin and growth of labour legislation in India - Principles of labour legislations - Factories Act, 1948 - Minimum Wages Act, 1948 - Payment of Wages Act, 1936 - Payment of Bonus Act, 1965. (9)

### LABOUR LEGISLATIONS - II

The Industrial Employment (Standing Orders) Act, 1946 - The Apprentices Act, 1961 - The Equal Remuneration Act, 1976 - Payment of Gratuity Act 1972 - Employee compensation Act, 2013. (9)

### LABOUR LEGISLATIONS - III

Employees' Provident Fund and Miscellaneous provisions Act, 1952 - Employees' State Insurance (ESI) Act, 1948 - Maternity Benefit Act, 1961 - Contract Labour Regulations and Abolition Act, 1970 - The Child Labour Prevention and Regulation Act, 1986. (9)

**TOTAL: 45**

### TEXTBOOKS

1. *Mamoria C.B. and Sathish Mamoria, Dynamics of Industrial Relations, Himalaya Publishing House, New Delhi, 2016.*
2. *Kapoor N. D, Elements of Mercantile Law, Sultan Chand, 38<sup>th</sup> ed. 2020.*

### REFERENCES

1. *Arun Monappa, Ranjeet Nambudiri, Patturaja Selvaraj. Industrial relations & Labour Laws; Tata McGraw Hill; 2012.*
2. *P.K. Padhi, Industrial Laws, PHI, 2017.*
3. *P.R.N Sinha, Indu Bala Sinha, Seema Priyadarshini Shekhar. Industrial Relations, Trade Unions and Labour Legislation. Pearson, 2017.*
4. *Tax Mann, Labour Laws, 2018.*
5. *Srivastava, Industrial Relations and Labour laws, Vikas, 2015.*

## 23MBAE140 - SOCIAL PSYCHOLOGY

L	T	P	C
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### ASSESSMENT: THEORY

#### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1 :** Understand the fundamentals of social psychology.

**CO2 :** Know the concept of Social perception and impression management.

**CO3 :** Gain Knowledge on Social cognition and comparison.

**CO4 :** Analyse Social Identity and interpersonal attraction and relations.

**CO5 :** Get to know about Social influence and the application of social psychology.

#### INTRODUCTION TO SOCIAL PSYCHOLOGY

Social Psychology - Origin and development - Social behavior and social thought - Applications in society and business. **(6)**

#### PERCEIVING AND UNDERSTANDING OTHERS

Social perception - Nonverbal communication - Attribution - Impression formation and impression management. **(9)**

#### COGNITION IN THE SOCIAL WORLD

Self, Self Esteem & Social Comparison, self-efficacy, narcissism, Social cognition - Schemas - Heuristics - Errors - Attitudes & Behaviour - Persuasion - Cognitive dissonance **(10)**

#### INTERPERSONAL RELATIONS

Social identity - Prejudice - Discrimination - Aggression - Interpersonal attraction and Relationships. **(10)**

#### APPLIED SOCIAL PSYCHOLOGY

Social Influence - Conformity - Compliance - Social Influence - Pro-social behaviour - Groups - Social issues, Stress, personal beliefs and health. **(10)**

**TOTAL : 45**

#### TEXTBOOKS

1. Shubhra Mangal, Shashi Kumar Mangal, *Essentials of Social Psychology: An Indian Perspective*, Taylor & Francis, 2022.
2. Baron, Byrne and Brascombe, *Social Psychology*, 13th Edition, Pearson, 2014.

#### REFERENCES

1. David G. Myers, *Social Psychology*, Tata McGraw Hill, 2021.
2. Miles Hewstone, Henk A. W. Schut, John B. F. de Wit, Kees van den Bos and Margaret S. Stroebe, *The Scope of Social Psychology: Theory and Applications*, Psychology Press, 2007
3. I Ajzen, *Attitudes, Personality and Behaviour*, Tata McGrawHill, 2005.

# 23MBAE141 - ORGANIZATIONAL DESIGN, CHANGE AND DEVELOPMENT

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

- CO1 :** Understand the fundamentals of organizational design and structure.
- CO2 :** Know about the Change process, types, and models of change in organizations.
- CO3 :** Develop the fundamentals of organizational development.
- CO4 :** Gain knowledge on Organizational development Interventions.
- CO5 :** Appreciate the concept of Organizational evolution and sustenance.

### ORGANIZATIONAL DESIGN

Organizational Design - Determinants - Components - Basic Challenges of design - Differentiation, Integration, Centralization, Decentralization, Standardization, Mutual adjustment - Mechanistic and Organic Structures - Technological and Environmental Impacts on Design - Importance of Design - Success and Failures in design. **(9)**

### ORGANIZATIONAL CHANGE

Meaning, Nature, Forces for change - change agents - Change process - Types and forms of change - Models of change - Resistance to change - individual factors - organizational factors - techniques to overcome change - Change programs - job redesign. **(9)**

### ORGANIZATIONAL DEVELOPMENT

Introduction - evolution- basic values and assumptions- foundations of OD - Process of OD - managing the phases of OD - Organizational diagnosis – Process – stages – Techniques - Questionnaire, interview, workshop, task-force - collecting, analyzing - feedback of diagnostic information. **(9)**

### OD INTERVENTION

Human process interventions - Individual, group and inter-group human relations - structure and technological interventions - strategy interventions - sensitivity training - survey feedback, process consultation - team building - inter-group development. **(9)**

### ORGANIZATIONAL EVOLUTION AND SUSTENANCE

Organizational life cycle - Models of transformation - Models of Organizational Decision making - Organizational Learning - Innovation, Intrapreneurship and Creativity - HR implications. **(9)**

**TOTAL : 45**

### TEXTBOOKS

1. Wendell L. French, Cecil H. Bell, Jr, Veena Vohra - *Organization Development : Behavioral Science Interventions for Organizational Improvement, Sixth Edition, 2017*
2. Thomas G. Cummings, Christopher G. Worley: *Organisation Development And Change, Thomson Learning, 2016.*

### REFERENCES

1. S. Ramnarayan, T. Venkateswara Rao, Kuldeep Singh: *Organization Development: Interventions And Strategies, Sage Publications*
2. *Organization Development, behavioral science interventions for Organization Improvement, Wendell French, Cecil H.Bell, Veena, Jr, Pearson, PHI*
3. *Change & Knowledge Management-R.L. Nandeshwar, Bala Krishna Jayasimha, Excel Books, 1st Editon.*
4. *Management of Organizational Change - K Harigopal - Response Books, 2nd Editon, 2006*
5. *Organizational Theory, Design, and Change-Gareth R. Jones, Pearson Education, 2017.*

# 23MBAE142 - MANAGERIAL BEHAVIOR AND EFFECTIVENESS

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1** : gain knowledge about appropriate style of managerial behavior.

**CO2** : acquaint with different streams of managerial effectiveness.

**CO3** : be competent in the current practices of managerial effectiveness.

**CO4** : solve environmental issues in managerial effectiveness.

**CO5** : develop a winning edge in creativity and innovation.

### DEFINING THE MANAGERIAL JOB

Descriptive Dimensions of Managerial Jobs - Methods - Model - Time Dimensions in Managerial Jobs - Effective and Ineffective Job behavior - Functional and level differences in Managerial Job behavior. **(9)**

### DESIGNING THE MANAGERIAL JOB

Identifying Managerial Talent - Selection and Recruitment - Managerial Skills Development - Pay and Rewards - Managerial Motivation - Effective Management Criteria - Performance Appraisal Measures - Balanced Scorecard - Feedback - Career Management - Current Practices. **(9)**

### THE CONCEPT OF MANAGERIAL EFFECTIVENESS

Definition - The person, process, product approaches - Bridging the Gap - Measuring Managerial Effectiveness - Current Industrial and Government practices in the Management of Managerial Effectiveness - The Effective Manager as an Optimizer. **(9)**

### ENVIRONMENTAL ISSUES IN MANAGERIAL EFFECTIVENESS

Organizational Processes - Organizational Climate - Leader - Group Influences - Job Challenge - Competition - Managerial Styles. **(9)**

### DEVELOPING THE WINNING EDGE

Organizational and Managerial Efforts - Self Development - Negotiation Skills - Development of the Competitive Spirit - Knowledge Management - Fostering Creativity and innovation. **(9)**

**TOTAL : 45**

### TEXTBOOKS

1. Blanchard, Thacker and Cosby, *Effective Training: Systems, Strategies, and Practices*, SAGE Publications, 2023.
2. Dubrin, Andrew J., *Leadership: Research Findings, Practice, and Skills*, Cengage Learning, 2022.

### REFERENCES

1. Milkovich and Newman, *Compensation*, McGraw-Hill International, 2017.
2. R.M. Omkar, *Personality Development and Career Management*, S.Chand, 1st Edition, 2008.
3. Richard L. Daft, *Leadership*, Cengage, 1st Indian Reprint, 2008.
4. Joe Tidd, John Bessant, Keith Pavitt, *Managing Innovation*, Wiley 3rd Edition, 2006.
5. Peter Drucker, *Management*, Harper Row, 2005.

# 23MBAE143 - NEGOTIATION AND CONFLICT MANAGEMENT

L	T	P	C
3	0	0	3

## ASSESSMENT : THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1 :** Understand the fundamentals of Negotiation, types, process and techniques.

**CO2 :** Analyse the strategies and tactics in Negotiation.

**CO3 :** Assess the basics of Conflict management, models, approaches and process.

**CO4 :** Manage interpersonal, group and organizational conflict.

**CO5 :** Develop Conflict resolution models and cost of workplace conflict.

### FUNDAMENTALS OF NEGOTIATION

Nature, Characteristics of negotiation - Dimensions of Negotiation – Structure - Norms & values - Types of Negotiation - Negotiation process - Perception and Preparation - Communication and Influence - Techniques of Negotiation - Issues in negotiation. (9)

### NEGOTIATION STRATEGIES

Strategy and planning for negotiation - Strategy and Tactics for distributive bargaining - Integrative negotiation - Negotiation power - source of power - Cross culture Negotiation - Ethics in negotiation. (9)

### INTRODUCTION TO CONFLICT MANAGEMENT

Understanding conflict, Components, Perspective of conflict - Types of conflict - Models of conflict (Process & Structural) - Sources of conflict - Contingency approach, Conflict management process, Conflict domain, Conflict trends, Conflict distribution, Conflict mapping and tracking - Conflict & Performance - Advantages & Disadvantages of Conflict. (9)

### MANAGING INTERPERSONAL, GROUP AND ORGANIZATIONAL CONFLICT

Individual difference - Personalities & abilities - Interpersonal conflict - Group conflict - Organizational conflict - Dealing with difficult subordinates & boss - Technique to resolve team conflict - organizational conflict strategies. (9)

### CONFLICT RESOLUTION AND COST

Conflict resolution models - framework model - classical ideas - New developments in conflict resolution - Environmental conflict resolution - Gender and conflict resolution - Assessing the cost of workplace conflict. (9)

**TOTAL : 45**

### TEXTBOOKS

1. Lewicki, Roy J., Saunders, David M., Barry, Bruce. *Negotiation*, McGraw Hill LLC, 2022
2. Tracy, Brian, *Negotiation*, AMACOM, 2019.

### REFERENCES

1. *Managing Conflict in Organizations*, M. Afzalur Rahim, 4th Edition, Transaction Publishers, 2011.
2. *How to negotiate effectively*, David Oliver, *The Sunday Times*, Kogan Page, 2010.
3. *Negotiation- Communication for diverse settings-* Michael Spangle, Sage Publication, 2008.
4. *Managing conflict and negotiation*, B.D. Singh, 1st Edition, Excel books, 2008.
5. *Corporate Conflict Management - concepts & skills by* Eirene Rout, Nelson Omika, PHI, 2007.

# 23MBAE144 - REWARD AND COMPENSATION MANAGEMENT

L	T	P	C
3	0	0	3

## ASSESSMENT : THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1 :** Understand the basics of Compensation Management and Reward system, Theories and strategies.

**CO2 :** Assess Macro and micro economics of labour market and employee compensation.

**CO3 :** Manage employee benefits and rewards.

**CO4 :** Analyse Performance related compensation

**CO5 :** Develop Executive and sales compensation plans, theories and design.

### INTRODUCTION

Compensation - Definition – Objectives - Principles of compensation formulation - Compensation Design and strategy - Theories of wage determination - Wage Structure - Types of wages - Wage boards - Wage policy. Compensation decisions - Compensation benchmarking - Compensation trends and reward system in India. **(9)**

### EMPLOYEE COMPENSATION AND LABOUR MARKET

Macroeconomics of Labour markets - Unemployment and its impact on labour market - Neoclassical Microeconomics of labour markets - models, Supply and demand - Economic model Implications on Employee Compensation - Economic Theories and Employee Compensation – Trade – offs - Valuation of employee compensation. **(9)**

### MANAGING EMPLOYEE BENEFITS AND REWARDS

Nature and types of employee benefits - Statutory employee benefits in India - Deferred compensation plan - Non-monetary benefits. Reward - Meaning, Elements, Types - Basic concepts of reward management - Designing reward system- Approaches to reward system - Difference between reward and compensation. **(9)**

### PERFORMANCE RELATED COMPENSATION

Performance management system (PMS) - Performance objectives – Indicators - Standards and metric - Effective performance modeling - Dimensions of performance - Competency based pay. Team Compensation - Gain Sharing Incentive Plan - Enterprise Incentive Plan - Profit Sharing Plan - ESOPs. **(9)**

### EXECUTIVE AND SALES COMPENSATION PLAN

Executive Compensation - Components, Theories, Design - Relationship between Fixed and variable pay - Executive Incentive Programmes. Sale Compensation plan - Design and administration - Sales incentives and motivations. Compensation Management in Multi - National Organisations. **(9)**

**TOTAL : 45**

### TEXTBOOKS

1. Richard. I. Henderson: *Compensation Management in a Knowledge Based World* - Prentice Hall, 2020.
2. Michael Armstrong & Helen Murlis, *Reward Management: A Hand Book of Remuneration Strategy and Practice*, Kogan Page Publishers, 2007.

### REFERENCES

1. Michael Armstrong, Duncan Brown, *Armstrong's Handbook of Reward Management Practice Improving Performance through Reward*, Kogan Page Publishers, 2019
2. *Reward Management: A Handbook of salary administration* by Armstrong, Michaeland Marlis, Kogan page business books, 2005.
3. Richard Thrope & Gill Homen: *Strategic Reward Systems-* Prentice-Hall, 2000.

4. *Thomas P Plannery, David A Hofrichter & Paul E Platten: People Performance & Pay - Free Press.*
5. *Joseph.J. Martocchio: Strategic Compensation - A Human Resource Management Approach -Prentice-Hall.*

## 23MBAE145 - PERSONAL EFFECTIVENESS

L	T	P	C
3	0	0	3

### ASSESSMENT : THEORY

#### COURSE OUTCOME

Upon completion of the course students will be able to

- CO1** : Develop a better understanding of themselves and others.
- CO2** : Develop themselves to be a better person.
- CO3** : Gain knowledge about appropriate style of managerial communication.
- CO4** : Acquaint with the ability to influencing others.
- CO5** : Competent in the process of transactional analysis and NLP.

#### SELF AWARENESS AND MANAGEMENT

Personal Effectiveness - Definition - Emotional Intelligence - Understanding oneself - Importance of Self-knowledge - Stress and EI - Competence and Personal Competency - Personal Competency Models – Learning - Importance of Ongoing Learning - Learning and Unlearning - Personal Change - Impression Formation and Impression Management. **(9)**

#### BUILDING TEAMS

Team Building methods and strategies - Leadership and Team Building - Nature of Power - Creating Effective work teams - Impact of Motivation and Delegation on Team Building - Participative Decision Making. **(9)**

#### COMMUNICATION

Interpersonal Communication - Strategies and Issues - Culture, Diversity and Communication - Communicating Within Teams, Organizations - Communicating Outside Organizations - Assertiveness - Persuasion - Strategies. **(9)**

#### INFLUENCING OTHERS

Influence - Objectives - Methods of Influence - Individual responses to Influence - Exerting Influence - Common Influencing Problems and Solutions - Aggression - Coping with Aggression - Negotiations - Convincing People - Developing and Using Contacts **(9)**

#### TRANSACTIONAL ANALYSIS AND NLP

Concept of Self - Feeling Self - Thinking Self - Believing Self – Transactions - Transactional Analysis - Structural Analysis - TA and Self Awareness - Concept of strokes - Making Sense of Life - Therapeutic Enquiry - Assessing suitability and Implementation of TA as therapy - NLP Basics - Managing Self with the power of NLP: Life Planning, Personal Vision and Mission. **(9)**

**TOTAL : 45**

#### TEXTBOOKS

1. Steven Covey, *The Seven Habits of highly effective people*, Mango Publishing, 2022.
2. Alexander Murdock and Carol N. Scutt, *Personal Effectiveness, 3rd Edition*- CMI- Routledge Publishing, 2011.

#### REFERENCES

1. Douglas Miller, *Brilliant Personal Effectiveness*, Pearson Education 2015.
2. Phil Lapworth and Charlotte Sills, *An Introduction to Transactional Analysis: Helping People to Change*, Sage Publications. 2011.
3. Tom Hoobyar, Tom Dotz, Susan Sanders, *NLP: The Essential Guide to Neuro-Linguistic Programming*, Harper Collins Publishers, 2013.

# 23MBAE146 - INTERNATIONAL HUMAN RESOURCES MANAGEMENT

L	T	P	C
3	0	0	3

## COURSE OUTCOME

Upon completion of the course students will be able to

- CO1** : Understand the basics of IHRM, models and practices.
- CO2** : Assess Strategic orientation and cultural context towards IHRM.
- CO3** : Analyse International practices on recruitment and selection.
- CO4** : Adapt International perspectives on Training, development, performance appraisal.
- CO5** : Develop International practices on Compensation management.

## INTRODUCTION TO HRM

Definition - Evolution of HRM - Importance of IHRM, Models of IHRM - Matching Model, Harvard Model, Contextual Model, 5P Model, European Model, IHRM policies, Standardization and Localization of HRM practices. **(9)**

## HRM STRATEGIES

Internationalization and world business - Strategic orientation, IHRM in cross border Mergers and Acquisitions, International Alliances - IHRM & Competitive advantage- Cultural context of IHRM. **(10)**

## RECRUITMENT AND SELECTION

International Managers staffing - Approaches to staffing - Role of Expatriates - Role of in-patriate - Role of Non expatriates- recruitment and selection methods - Current practices. **(6)**

## TRAINING AND DEVELOPMENT, PERFORMANCE APPRAISAL

Expatriate training program, components, types, effectiveness measures, HCN training - Trends in international training and development - repatriation process and training. International Performance Management methods - cultural issues in Performance Management. **(10)**

## INTERNATIONAL COMPENSATION

Components of international compensation - Approaches to international compensation - Challenges and choices - International Labor Standards - emerging Issues. **(10)**

**TOTAL : 45**

## TEXTBOOKS

1. Brewster, Christopher, Houldsworth, Elizabeth., Sparrow, Paul., Vernon, Guy. *International Human Resource Management*, Kogan Page, 2023.
2. Ibraiz Tarique, Dennis Briscoe, Randall S Schuler, *International Human Resource Management - Policies and Practices for Multinational Enterprises*, Taylor & Francis, 2022.

## REFERENCES

1. Anne-Wil Harzing, B. Sebastian Reiche, Helene Tenzer, *International Human Resource Management*, SAGE Publications, 2022.
2. P L Rao, *International Human resource Management- Text and Cases*, Excel Books.
3. Peter J Dowling & D E. Welch: *International Human Resource Management*, Cengage Learning, 7th Edition, IE., 2017.
4. Monir H. Tayeb: *International Human Resource Management, A Multinational Company Perspective* Oxford University Press, IE.

# 23MBAE147 - HUMAN RESOURCE ANALYTICS

L	T	P	C
3	0	0	3

## ASSESSMENT : THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

- CO1 :** Conversant about HR metrics and ready to apply at work settings.
- CO2 :** Resolve HR issues using people analytics.
- CO3 :** Gain knowledge about analytics of training and development.
- CO4 :** Know about the analytics of employee engagement and career progression.
- CO5 :** Competent in the analytics of workforce diversity and development.

### INTRODUCTION TO HR ANALYTICS

HR analytics - People Analytics: Definition - context - stages of maturity - Human Capital in the Value Chain: impact on business. HR Analytics Vs HR Metrics - HR metrics and KPIs. **(9)**

### HR ANALYTICS I : RECRUITMENT

Recruitment Metrics : Fill-up ratio - Time to hire - Cost per hire - Early turnover - Employee referral hires - Agency hires - Lateral hires - Fulfillment ratio - Quality of hire- Recruitment to HR cost - Recruitment analysis. **(9)**

### HR ANALYTICS II: TRAINING AND DEVELOPMENT

Training & Development Metrics: Percentage of employee trained - Internally and externally trained - Training hours and cost per employee - ROI - Optimising the ROI of HR Programs - Training and Development analysis. **(9)**

### HR ANALYTICS III: EMPLOYEE ENGAGEMENT AND CAREER PROGRESSION

Employee Engagement Metrics: Talent Retention - Retention index - Voluntary and involuntary turnover - Turnover by department, grades, performance, and service tenure - Internal hired index - Engagement Survey Analysis.  
Career Progression Metrics: Promotion index - Rotation index - Career path index - Level wise succession readiness index. **(9)**

### HR ANALYTICS IV: WORK FORCE DIVERSITY AND DEVELOPMENT

Workforce Diversity and Development Metrics: Employees per manager - Workforce age profiling - Workforce service profiling – Churn over index - Workforce diversity index - Gender mix - Differently abled index- Revenue per employee - Operating cost per employee - PBT per employee - HR cost per employee- HR budget variance - Compensation to HR cost. **(9)**

**TOTAL : 45**

### TEXTBOOKS

1. JacFitzenz, *The New HR Analytics*, AMACOM, 2010.
2. Edwards M. R., & Edwards K, *Predictive HR Analytics: Mastering the HR Metric*. London: Kogan Page, 2016.

### REFERENCES

1. *Human Resources kit for Dummies - 3rd Edition - Max Messmer, 2012.*
2. *Dipak Kumar Bhattacharyya, HR Analytics, Understanding Theories and Applications, SAGE Publications India, 2017.*
3. *Sesil, J. C, Applying advanced analytics to HR management decisions: Methods for selection, developing incentives, and improving collaboration. Upper Saddle River, New Jersey: Pearson Education, 2014.*
4. *Pease, G., & Beresford, B, Developing Human Capital: Using Analytics to Plan and Optimize Your Learning and Development Investments, Wiley, 2014.*
5. *Phillips, J., & Phillips, P.P, Making Human Capital Analytics Work: Measuring the ROI of Human Capital Processes and Outcomes, McGraw-Hill, 2014.*

# 23MBAE148 - TALENT ACQUISITION AND MANAGEMENT

L	T	P	C
3	0	0	3

## ASSESSMENT : THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

- CO1 :** Orient management students on the fundamentals of employee recruitment and selection.
- CO2 :** Provide contemporary knowledge of the theoretical concepts of employee recruitment and selection.
- CO3 :** Apply a range of assessment techniques to evaluate candidate fit and potential.
- CO4 :** Formulate and implement talent management strategies that align with organizational objectives.
- CO5 :** Assess the impact of technology in recruitment and selection practices.

### RECRUITMENT AND SELECTION PROCESS

Workforce Planning - Workforce Assessment - Employee Life Cycle - Organizational Need Assessment – Job Design - Job & Job Families - Position - Occupation. Recruitment Analytics - Causes of Bad Recruitment, Metrics of Effective Recruitment - Yield Pyramid Ratio. **(9)**

### RECRUITMENT ANALYSIS AND SOURCES OF RECRUITMENT

Motivational Job Specification, Functional Specification - Process - DOT/O\*Net - Job Description – Job Element Analysis - Identify Job Competencies - Behavioural Specification - Quan Competence Framework; Screening, Sourcing and Shortlisting - 4S Model Sources of Recruitment, Internal and External Recruitment Methods. **(9)**

### TOOLS AND TECHNIQUES IN RECRUITMENT PROCESS

Assessment Techniques in Recruitment Process - Interview Techniques - Motivational, Behavioural & Functional. Behavioural Even Interview Process, Key Interviewer Skills - Non-Interview methods - Knowledge Based Filtering - Skill Based Filtering - Attitudinal or Potential Based Filtering. **(9)**

### TALENT MANAGEMENT STRATEGIES

Selection and Reference Check - Making the Selection Decision. Evaluation Methods - The Ranking Systems - Checklist Scales - Behaviour Anchored Rating Scale (BARS) - Checking references and Checking Scales - Reliability and Validity of Selection Instruments; Nepotism – On-going Recruitment and Selection Issues. **(9)**

### USE OF TECHNOLOGY IN RECRUITMENT AND SELECTION

Future of Recruitment and Selection.AI for Recruiting - Use of Online Communication Tools - Video Interviews - Mobile Recruitment - Gamification in Recruitment - Predictive Analytics and Use of NLP in Recruitment. **(9)**

**TOTAL: 45**

### TEXTBOOKS

1. Dale M., *Handbook of Successful Recruitment and Selection: A Practical Guide for Managers (1st ed.)*, New Delhi: Crest Publishing House, 2003.
2. Edenborough R., *Assessment Methods in Recruitment, Selection & Performance: A Manager's Guide to Psychometric Testing, Interviews and Assessment Centres (3rd ed.)*, London: Kogan Page, 2006.

### REFERENCES

1. Jonathan Crawshaw, Pawan Budhwar, Ann Davis, *Human Resource Management - Strategic and International Perspectives*, Sage Publications Ltd., July-2020.
2. Sonal Minocha, Dean Hristov, *Global Talent Management - An Integrated Approach*, Sage Publications, 2018.
3. Carrie A. Picardi, *Recruitment and Selection - Strategies for Workforce Planning & Assessment*, Sage Publications, 2019.

# 23MBAE149 - e - BUSINESS

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

- CO1:** Build and manage an e-business.
- CO2:** Gain knowledge about Technology Infrastructure.
- CO3:** Understand of customer oriented business applications.
- CO4:** Gain knowledge of e business payment protocols and security.
- CO5:** Understand about ethical, legal, privacy issues and encryption policies.

### INTRODUCTION TO e-BUSINESS

e-business, e - business vs e - commerce, Economic forces - advantages - myths – e - business models, design, develop and manage e-business, Web 2.0 and Social Networking, Mobile Commerce, S- commerce **(8)**

### TECHNOLOGY INFRASTRUCTURE

Internet and World Wide Web, internet protocols - FTP, intranet and extranet, information publishing technology - basics of web server hardware and software. **(10)**

### BUSINESS APPLICATIONS

Consumer oriented e-business - e-tailing and models - Marketing on web - advertising, e- mail marketing, affiliated programs - e- CRM; online services, Business oriented e - business, e-governance, EDI on the internet, Delivery management system, Web Auctions, Virtual communities and Web portals - social media marketing **(10)**

### e-BUSINESS PAYMENTS AND SECURITY

E-payments - Characteristics of payment of systems, protocols, e-cash, e-cheque and Micro payment systems- internet security - cryptography - security protocols - network security. **(9)**

### LEGAL AND PRIVACY ISSUES

Legal, Ethics and privacy issues - Protection needs and methodology - consumer protection, cyber laws, contracts and warranties, Taxation and encryption policies. **(8)**

**TOTAL : 45**

### TEXTBOOKS

1. Harvey M.Deitel, Paul J.Deitel, Kate Steinbuhler, e-business and e-commerce for managers, Pearson, 2011.
2. Efraim Turban, Jae K. Lee, David King, Ting Peng Liang, Deborrah Turban, Electronic Commerce -A managerial perspective, Pearson Education Asia, 2010.

### REFERENCES

1. Parag Kulkarni, Sunita Jahirabadkao, Pradeep Chande, e business, Oxford University Press, 2013.
2. Hentry Chan &el, E-Commerce - fundamentals and Applications, Wiley India Pvt Ltd, 2007.
3. Gary P. Schneider, Electronic commerce, Thomson course technology, Fourth annual Edition, 2007.
4. Bharat Bhasker, Electronic Commerce - Frame work technologies and Applications, 3rd Edition. Tata McGraw Hill Publications,2017.
5. Kamlesh K Bajaj and Debjani Nag, Ecommerce- the cutting edge of Business, Tata McGraw Hill Publications, 7th reprint, 2017.

# 23MBAE150 - INTERNET OF THINGS

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Understand the technical knowledge of the Internet of Things.

**CO2:** Understand IoT Architecture.

**CO3:** Understand of building blocks of IoT ..

**CO4:** Gain deep insights about IoT Data Platform.

**CO5:** Gain knowledge about real world applications.

### INTRODUCTION

Introduction to Internet of Things - Physical Design of IoT - Logical Design of IoT - IoT Enabling Technologies - IoT Levels and Deployment Templates - Domain Specific to IoTs. (9)

### IoT ARCHITECTURE

ETSI, IETF, OGC architectures - IoT reference model - Domain model - information model - functional model - communication model - IoT reference architecture. (9)

### BUILDING IoT

IoT Systems - Logical Design using Python - IoT Physical Devices and Endpoints: What is an IoT Device - Basic building blocks of an IoT device - Exemplary Device: Raspberry Pi - Programming Raspberry Pi with Python - Other IoT Devices. (9)

### IoT DATA PLATFORM

Data Analytics for IoT: Introduction - Apache Hadoop - Using Hadoop Map Reduce for Batch Data Analysis - Apache Oozie - Apache Spark - Tools for IoT - Introduction - Chef: Setting up Chef. (9)

### CASE STUDIES AND REAL - WORLD APPLICATIONS

IoT Physical Servers & Cloud Offerings - Case Studies Illustrating IoT Design: Introduction - Home Automation - Smart Cities - Environment - Agriculture - Productivity Applications. (9)

**TOTAL: 45**

### TEXTBOOKS

1. Arshdeep Bahga, Vijay Madisetti, - *Internet of Things – A hands-on approach*, University Press, 2015
2. Dieter Uckelmann, Mark Harrison, Michahelles, Florian (Eds), "Architecting the Internet of Things", Springer, 2011.

### REFERENCES

1. Honbo Zhou, *The Internet of Things in the Cloud: A Middleware Perspective*, CRC Press, 2015.
2. Jan Ho" Iler, Vlasios Tsiatsis, Catherine Mulligan, Stamatis, Karnouskos, Stefa, 2014.
3. Avesand. David Boyle, "From Machine-to-Machine to the Internet of Things - Introduction to a New Age of Intelligence", Elsevier, 2014.
4. Olivier Hersent, David Boswarthick, Omar Elloumi, "The Internet of Things - Key applications and Protocols", Wiley, 2012
5. Adrian McEwen and Hakim Cassimally, "Designing the Internet of Things", John Wiley & Sons, 2013.

# 23MBAE151 - CLOUD COMPUTING

## ASSESSMENT: THEORY

L	T	P	C
3	0	0	3

## COURSE OUTCOME

Upon completion of the course students will be able to

- CO1:** Understand the history of cloud computing.
- CO2:** Identify the architecture and infrastructure of cloud computing, including SaaS, PaaS, IaaS, public cloud, private cloud, hybrid cloud, etc.
- CO3:** Provide the appropriate cloud computing solutions and recommendations according to the applications used.
- CO4:** Understand the core issues of cloud computing such as security, privacy.
- CO5:** Get the idea about the future of cloud computing.

## HISTORY OF CLOUD COMPUTING

History of Centralized and Distributed Computing - Overview of Distributed Computing, Cluster Computing, Grid computing. Technologies for Network based systems- System models for Distributed and cloud computing- Software environments for distributed systems and clouds. **(9)**

## INTRODUCTION TO CLOUD COMPUTING

Introduction to Cloud Computing- Cloud issues and challenges - Properties - Characteristics - Service models, Deployment models. Cloud resources: Network and API - Virtual and Physical computational resources - Data-storage. Virtualization concepts - Types of Virtualization - Introduction to Various Hypervisors - High Availability (HA) /Disaster Recovery (DR) using Virtualization, Moving VMs. **(9)**

## CLOUD COMPUTING APPLICATIONS

Cloud Programming and Software Environments - Parallel and Distributed Programming paradigms - Overview on Amazon AWS and Microsoft Azure - Overview on Google App Engine - Emerging Cloud software Environment. **(9)**

## CLOUD SECURITY

Cloud Access: authentication, authorization and accounting - Cloud Provenance and meta - data - Cloud Reliability and fault - tolerance - Cloud Security, privacy, policy and compliance- Cloud federation, interoperability and standards. **(9)**

## GOVERNANCE AND THE FUTURE OF CLOUD

Organizational Readiness and Change Management in the Cloud Age, Legal Issues in Cloud Computing, Achieving Production Readiness for Cloud Services, How Cloud Will Change Operating Systems, Future of Cloud TV & Cloud - Based Smart Devices, Cloud and Mobile, Home-Based Cloud Computing. **(9)**

**TOTAL: 45**

## TEXTBOOKS

1. Kai Hwang, Geoffrey C. Fox and Jack J. Dongarra, *Distributed and cloud computing from Parallel Processing to the Internet of Things*, Morgan Kaufmann, Elsevier, 2013.
2. Rajkumar Buyya, James Broberg and Andrzej Goscinski, *Cloud Computing - Principles and Paradigms*, John Wiley & Sons, 2013.

## REFERENCES

1. Kris Jamsa, *Cloud Computing*, Jones & Bartlett Learning, 2022.
2. Kumar Saurabh, *Cloud Computing - Insights into new era infrastructure*, Wiley India, 2nd Edition, 2012.
3. Barrie Sosinsky, *Cloud Computing Bible* John Wiley & Sons, 2011.
4. Tim Mather, Subra Kumaraswamy, and Shahed Latif, *Cloud Security and Privacy an Enterprise Perspective on Risks and Compliance*, O'Reilly, 2009.

# 23MBAE152 - ENTERPRISE RESOURCE PLANNING

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Gain knowledge of risk and benefits associated with Enterprise Resource Planning.

**CO2:** Gain knowledge of ERP solutions and functional modules.

**CO3:** Get exposure about the implementation environment.

**CO4:** Understand of post implementation impact and maintenance of ERP.

**CO5:** Gain Knowledge of emerging trends on ERP.

### INTRODUCTION

Overview of enterprise systems - Evolution - Risks and benefits - Fundamental technology - warehouse management. **(8)**

### ERP SOLUTIONS AND FUNCTIONAL MODULES

Overview of ERP software solutions, BPR, Project management, Functional modules- Organisational data, master data and document flow. **(10)**

### ERP IMPLEMENTATION

Planning Evaluation and selection of ERP systems - Implementation life cycle - ERP implementation, Methodology and Frame work - Training - Data Migration. People Organization in implementation - Consultants, Vendors and Employees. **(10)**

### POST IMPLEMENTATION

Maintenance of ERP- Organizational and Industrial impact; Success and Failure factors of ERP Implementation. **(8)**

### EMERGING TRENDS ON ERP

Extended ERP systems and ERP add - ons - CRM, SCM, Business analytics - Future trends in ERP systems - web enabled, Wireless technologies, cloud computing and Augmented reality. **(9)**

**TOTAL: 45**

### TEXTBOOKS

1. Alexis Leon, *ERP demystified, second Edition Tata McGraw-Hill, 2008.*
2. Simha R. Magal, Jeffrey Word, *Integrated Business processes with ERP systems, John Wiley & Sons, 2012.*

### REFERENCES

1. Jagan Nathan Vaman, *ERP in Practice, Tata McGraw-Hill, 2008*
2. Alexis Leon, *Enterprise Resource Planning, Second Edition, Tata McGraw-Hill, 2008.*
3. Mahadeo Jaiswal and Ganesh Vanapalli, *ERP Macmillan India, 2009*
4. Vinod Kumar Grag and N.K. Venkitakrishnan, *ERP- Concepts and Practice, Prentice Hall of India, 2009.*
5. Summer, *ERP, Pearson Education, 2013.*

# 23MBAE153 - SOFTWARE PROJECT AND QUALITY MANAGEMENT

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

- CO1:** Apply project management concepts and techniques to a project.
- CO2:** Explain project management in terms of the software development process.
- CO3:** Understand the risk issues in software development.
- CO4:** Apply the concepts in preparing the quality plan & documents.
- CO5:** Assess the quality of software products.

### SPM CONCEPTS

Definition - components of SPM - challenges and opportunities- tools and techniques - managing human resource and technical resource - costing and pricing of projects - training and development - project management techniques. **(9)**

### SOFTWARE MEASUREMENTS

Monitoring & measurement of SW development - cost, size and time metrics - methods and tools for metrics - issues of metrics in multiple projects. **(9)**

### SOFTWARE QUALITY AND RISK ISSUES

Quality in SW development - quality assurance - quality standards and certifications. The risk issues in SW development and implementation - identification of risks - resolving and avoiding risks - tools and methods for identifying risk management. **(9)**

### QUALITY PLANNING

Planning Concepts - Integrating Business and Quality Planning - Prerequisites to Quality Planning - The Planning Process. Define, Build, Implement and Improve Processes: Process Management Concepts - Process Management Processes. **(9)**

### QUALITY CONTROL PRACTICES

Testing Concepts - Developing Testing Methodologies - Verification and Validation Methods - Software Change Control - Defect Management. Metrics and Measurement: Measurement Concepts - Measurement in Software - Variation and Process Capability - Risk Management - Implementing a Measurement Program. **(9)**

**TOTAL : 45**

### TEXTBOOKS

1. Roger S. Pressman, *Software Engineering A Practitioners Approach, McGraw Hill International Edition, New Delhi, 8th Edition, 2014.*
2. Richard H. Thayer (Edited), *Software Engineering Project Management, IEEE, John Wiley & Sons, 2nd Edition, 2010.*

### REFERENCES

1. Bob Hughes, Mike Cotterell and Rajib Mall, *Software Project Management, McGraw Hill Publishing Company, 6th Edition, 2017.*
2. Alan Gillies, *Software Quality - Theory and Management, Thomson Learning, 3rd Edition, 2011.*
3. Stephen Kan, *Metrics and Models in Software Quality Engineering, Pearson Education Asia, 8th Impression, 2014.*

# 23MBAE154 - DATA MINING FOR BUSINESS INTELLIGENCE

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Apply various data mining techniques into various areas of different domains.

**CO2:** Interact competently on the topic of data mining for business intelligence. Know the basics of data mining processes, algorithms, & systems well enough to interact with CTOs, expert data miners, consultants, etc.

**CO3:** Apply various prediction techniques.

**CO4:** Learn about supervised and unsupervised learning technique.

**CO5:** Develop and implement a basic trainable neural network (or) a fuzzy logic system to design and manufacturing.

### INTRODUCTION

Data mining, Text mining, Web mining, Spatial mining, Process mining, Data ware house and datamarts. (9)

### DATAMINING PROCESS

Datamining process - KDD, CRISP - DM, SEMMA and Domain - Specific, Classification and Prediction performance measures - RSME, MAD, MAP, MAPE, Confusion matrix, Receiver Operating Characteristic curve & AUC; Validation Techniques – hold - out, k - fold cross - validation, LOOCV, random subsampling, and bootstrapping. (9)

### PREDICTION TECHNIQUES

Data visualization, Time series - ARIMA, Winter Holts, Vector Autoregressive analysis, Multivariate regression analysis. (9)

### CLASSIFICATION AND CLUSTERING TECHNIQUES

Classification- Decision trees, k nearest neighbour, Logistic regression, Discriminant analysis; Clustering; Market basket analysis; (9)

### MACHINE LEARNING AND AI

Genetic algorithms, Neural network, Fuzzy logic, Support Vector Machine, Optimization techniques - Ant Colony, Particle Swarm, DEA (9)

**TOTAL: 45**

### TEXTBOOKS

1. Jaiwei Ham and Micheline Kamber, *Data Mining concepts and techniques*, Kauffmann Publishers, 2022.
2. Efraim Turban, Ramesh Sharda, Jay E. Aronson and David King, *Business Intelligence*, Prentice Hall, 2008.

### REFERENCES

1. W.H.Inmon, *Building the Data Warehouse*, fourth edition Wiley India Pvt. Ltd., 2005.
2. Ralph Kimball and Richard Merz, *The data warehouse toolkit*, John Wiley, 3rd Edition, 2013.
3. Michel Berry and Gordon Linoff, *Mastering Data mining*, John Wiley and Sons Inc, 2nd Edition, 2011
4. Michel Berry and Gordon Linoff, *Data mining techniques for Marketing, Sales and Customer support*, John Wiley, 2011
5. G. K. Gupta, *Introduction to Data mining with Case Studies*, Prentice hall of India, 2014.

# 23MBAE155 - BIG DATA ANALYTICS

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Appreciate the computational software's and techniques for handling big data in business applications.

**CO2:** Learn the concepts, data model and architecture of streams.

**CO3:** Understand the core of technical concepts related to Business Intelligence, Big Data Analytics along with Hadoop Architecture.

**CO4:** Learn the various applications in Big Data.

**CO5:** Understand the visualization techniques.

### INTRODUCTION TO BIGDATA

Introduction to Big Data Platform - Challenges of Conventional Systems - Intelligent data analysis - Nature of Data - Analytic Processes and Tools - Analysis vs Reporting. **(9)**

### MINING DATA STREAMS

Introduction To Streams Concepts - Stream Data Model and Architecture - Stream Computing - Sampling Data in a Stream - Filtering Streams - Counting Distinct Elements in a Stream - Estimating Moments - Counting Oneness in a Window - Decaying Window - Real time Analytics Platform(RTAP) Applications - Case Studies - Real Time Sentiment Analysis - Stock Market Predictions. **(9)**

### HADOOP

History of Hadoop - the Hadoop Distributed File System - Components of Hadoop Analysing the Data with Hadoop - Scaling Out - Hadoop Streaming - Design of HDFS - Java interfaces to HDFS Basics - Developing a Map Reduce Application - How Map Reduce Works - Anatomy of a Map Reduce Job run - Failures-Job Scheduling - Shuffle and Sort - Task execution - Map Reduce Types and Formats - Map Reduce Features Hadoop environment. **(9)**

### FRAME WORKS

Applications on Big Data Using Pig and Hive - Data processing operators in Pig - Hive services - HiveQL - Querying Data in Hive - fundamentals of HBase and ZooKeeper - IBM Info Sphere BigInsights and Streams. **(9)**

### VISUALIZATION TECHNIQUES

Predictive Analytics - Simple linear regression - Multiple linear regression - Interpretation of regression coefficients. Visualizations Visual data analysis techniques - interaction techniques - Systems and applications. **(9)**

**TOTAL: 45**

### TEXTBOOKS

1. Jiawei Han, Micheline Kamber "Data Mining Concepts and Techniques", Elsevier, Third Edition, 2022.
2. Colleen Mccue, "Data Mining and Predictive Analysis: Intelligence Gathering and Crime Analysis", Elsevier, Second Edition, 2015.

### REFERENCES

1. Frank J Ohlhorst, "Big Data Analytics: Turning Big Data into Big Money", Wiley and SAS Business Series, 2013.
2. Michael Berthold, David J. Hand, "Intelligent Data Analysis", Springer, Second Edition, 2007.
3. Anand Rajaraman and Jeffrey David Ullman, "Mining of Massive Datasets", Cambridge University Press, 2014.

4. *Bill Franks, "Taming the Big Data Tidal Wave: Finding Opportunities in Huge Data Streams with Advanced Analytics", Wiley and SAS Business Series, 2012.*
5. *Paul Zikopoulos, Chris Eaton "Understanding Big Data: Analytics for Enterprise Class Hadoop and Streaming Data", McGraw Hill, 2017.*

# 23MBAE156 - DEEP LEARNING AND ARTIFICIAL INTELLIGENCE

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Gain knowledge of Algorithms of Deep Learning & Artificial Intelligence.

**CO2:** Apply algorithms to specified applications.

**CO3:** Understand intelligent systems and Heuristic Search techniques.

**CO4:** Understand Knowledge Representation, Semantic Networks and Frames.

**CO5:** Analyze the applications of expert systems and Machine learning.

### DEEP NETWORKS

Deep Networks: Modern Practices: Deep Forward Networks: Example: Learning XOR - Gradient-Based Learning - Hidden Units - Architecture Design - Regularization for Deep Learning. **(9)**

### MODELS

Optimization for Training Deep Models: How Learning Differs from Pure Optimization - Challenges in Neural Network Optimization - Basic Algorithms - Parameter Initialization Strategies - Algorithms with Adaptive Learning Rates - Approximate Second-Order Methods - Optimization Strategies and Meta - Algorithms. **(9)**

### INTELLIGENT SYSTEMS

Introduction to Artificial Intelligence: Intelligent Systems - Foundations of AI - Applications - Tic-Tac-Toe Game Playing - Problem Solving: State-Space Search and Control Strategies: Introduction - General Problem Solving - Exhaustive Searches - Heuristic Search Techniques. **(9)**

### KNOWLEDGE REPRESENTATION

Advanced Problem-Solving Paradigm: Planning: Introduction - Types of Planning Systems - Knowledge Representation: Introduction - Approaches to Knowledge Representation - Knowledge Representation using Semantic Network - Knowledge Representation using Frames. **(9)**

### APPLICATIONS

Expert Systems and Applications: Blackboard Systems - Truth Maintenance Systems - Applications of Expert Systems – Machine - Learning Paradigms: Machine - Learning Systems - Supervised and Unsupervised Learnings. **(9)**

**TOTAL : 45**

### TEXTBOOKS

1. Ian Goodfellow, Yoshua Bengio, Aaron Courville, *Deep Learning*, MIT Press, 2016.
2. Li Deng and Dong Yu, *Deep Learning Methods and Applications, Foundations and Trends in Signal Processing*, 2014.

### REFERENCES

1. Yoshua Bengio, *Learning Deep Architectures for AI, Foundations and Trends in Machine Learning*, 2009.
2. Saroj Kaushik, *Artificial Intelligence*, Cengage Learning India Pvt. Ltd, 2011.
3. Deepak Khemani, *A First Course in Artificial Intelligence*, McGraw Hill Education (India) Private Limited, New Delhi., 2013.
4. Elaine Rich, Kevin Night, Shivashankar B Nair, *Artificial Intelligence, Third Edition*, McGraw Hill, 2017.

# 23MBAE157 - R PROGRAMMING

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Explore R language fundamentals, including basic syntax, variables, and types.

**CO2:** Create functions and use control flow.

**CO3:** Work with data in R.

**CO4:** Understand the linear models using R.

**CO5:** Use R programming to solve decision models.

### GETTING STARTED WITH R

Installing R - The R environment - R packages - Basics of R - Data Structures - Reading data into R - Graphics in R (9)

### FUNCTIONS AND STATEMENTS

Writing R functions - Control Statements (if and else, switch, if else, compound tests) - Loops in R (for, while, controlling loops) - Applications using the functions and loops. (9)

### DATA MANIPULATION AND ANALYSIS

Group manipulation - Data Reshaping - Manipulating Strings - Basic Statistics using R (Summaries, Correlation, t-tests, ANOVA) (9)

### LINEAR MODEL USING R

Linear Models - Simple and Multiple regression, GLM - Log it Regression, Model diagnostics - Residuals, Cross validation, Boot strapping. (9)

### NON-LINEAR MODELS, TIME SERIES AND CLUSTERING USING R

Nonlinear Models - Non-Linear least square, Splines, Generalised Additive Models, Decision trees, Random forests. Time Series - Autoregressive moving average, VAR, GARCH. Clustering - K means, PAM and Hierarchical Clustering. (9)

**TOTAL: 45**

### TEXTBOOKS

1. Jared P.L., *R for Everyone - Advanced Analytics and Graphics*, Addison Wesley Data and Analytics series, 2015.
2. Sandip Rakshit, *R Programming for Beginners*, McGraw Hill Education, 2017

# 23MBAE158 - PYTHON PROGRAMMING

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

- CO1:** Gain knowledge of programming in Python Environment.
- CO2:** Apply Programming in the application specified.
- CO3:** Apply programming as modules.
- CO4:** Develop program as objects and instances.
- CO5:** Gain knowledge to handle errors.

### INTRODUCTION

Introduction to Computer Systems - Computer Hardware - Computer Software - Programming Languages - Algorithmic Problem Solving - Building Blocks of a Program - Fundamentals of Python Programming - Syntax and Styles: Data types - Literals - Variable - Operators and Expressions. **(9)**

### DATA COLLECTIONS AND LANGUAGE COMPONENT

Control Flow: If, While, For, Break, Continue, Pass Statements - Entry Controlled Loop - Exit Controlled Loop - Counter Controlled Loop - Condition Controlled Loop - Nested Loops - Sample Programs - Sequences- Lists - Tuples: Need of Tuple - Sequence Unpacking - Methods. **(9)**

### FUNCTIONS AND MODULES

Dictionaries: Making a Dictionary - Basic Operations - Dictionary Operations - Sets - Iterators and Generators - Functions: Introduction - Defining Functions - Calling Functions - Passing Arguments - Keyword Arguments - Default Arguments - Required Arguments - Variable length Arguments - Return Statement - Nesting of Passing Arguments - Anonymous Functions - Recursive Function - Scope of Local and Global Variable - Sample Programs - Modules. **(9)**

### OBJECT AND CLASSES

Object Oriented Programming Principles: Class Statement - Class Body - Objects - Class Methods - Self Variable - Class Properties and Instance Properties - Static Method - Data Hiding - Deleting an Object - Constructor - Method Overriding - Inheritance - Packages - Strings and Regular Expressions **(9)**

### I/O, ERROR HANDLING AND THREADS

Files and Directory Access: Files and Streams - Opening a File - Reading/Writing Operations on a File - Other File Operations - Iterating through Files - Splitting Words - Serialization and De-serialization - Hash files - Directory Access - Errors and Exceptions - Multithreading: Introduction to Thread - Differences between Process and Thread - Threading Module - Thread Synchronization. **(9)**

**TOTAL: 45**

### TEXTBOOKS

1. C H Satyanarayana, M Radhika Mani, B N Jagadesh, "Python Programming", Universities Press (India) Private Ltd., 2021.
2. Kenneth A. Lambert, B.L. Juneja, M. Arunachalam, G. Balakrishnan, "Problem Solving and Python Programming", Cengage Learning India Pvt. Ltd, 2018.

### REFERENCES

1. Allen B. Downey, "Think Python: How to Think Like a Computer Scientist", Second Edition, Updated for Python 3, Shroff/O'Reilly Publishers, 2016 (<http://greenteapress.com/wp/thinkpython/>)
2. Robert Sedgewick, Kevin Wayne, Robert Dondero, Introduction to Programming in Python: An Inter-disciplinary Approach, Pearson India Education Services Pvt. Ltd., 2016.
3. Timothy A Budd Exploring Python, Mc-Graw Hill Education (India) Private Ltd., 2015.

4. Kenneth A. Lambert, *Fundamentals of Python: First Programs*, CENGAGE Learning, 2019.

# 23MBAE159 - BLOCK CHAIN TECHNOLOGY

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1:** Get an idea about the history of the Block chain.

**CO2:** Understand key features, different types of platforms & languages of block chain technology.

**CO3:** Familiarize with crypto currency concepts.

**CO4:** Understand the design principles of Ethereum.

**CO5:** Learn about the Hyperledger fabric model and its architecture.

### INTRODUCTION

Distributed Database, Two General Problem, Byzantine General Problem and Fault Tolerance, Hadoop Distributed File System, Distributed Hash Table, ASIC Resistance, Turing Complete. Cryptography: Hash Function, Digital Signature - ECDSA, Memory Hard Algorithm, Zero Knowledge Proof. **(9)**

### BLOCK CHAIN & APPLICATIONS

Introduction to Block chain, Gartner's Hype Curve and Evolution of Block chain Technology, Block Chain Need & Genesis, Key Characteristics of Block Chain, Block Chain Structure, Block Chain Types and Network, Mining and Consensus, How Block chain Works, Bitcoin Whitepaper, Understanding Bitcoin, Components of a Block, Forks: Soft & Hard forks, Ummer Blocks, Different Forks from Bitcoin, Wallets, Transactions, Public & Private keys, Block chain Applications : Internet of Things, Medical Record Management System, Domain Name Service and future of Block chain. **(9)**

### CRYPTO CURRENCY

History, Distributed Ledger, Bitcoin Protocols - Mining Strategy and Rewards, Ethereum - Construction, DAO, Smart Contract, GHOST, Vulnerability, Attacks, Sidechain, Namecoin. Crypto Currency Regulation: Stakeholders, Roots of Bitcoin, Legal Aspects- Cryptocurrency Exchange, Black Market and Global Economy. **(9)**

### ETHEREUM

Need of Ethereum, Ethereum Foundation, Ethereum Whitepaper, How Ethereum Works, Ethereum Network, Ethereum Virtual Machine, Transactions and Types, Mining & Consensus, Smart Contracts. **(9)**

### HYPER LEDGER FABRIC

Hyperledger, Hyperledger Fabric, Comparison between Fabric & Other Technologies, Fabric Architecture, Components of Hyperledger Fabric, Advantages of Hyperledger Fabric Block Chain, How Hyperledger Fabric Works. **(9)**

**TOTAL: 45**

### TEXTBOOKS

1. *Imran Bashir, Mastering Block chain, Packt Publishing, 3rd ed., 2020.*
2. *Debajani Mohanty, Block chain: From Concept to Execution, BPB Publications, 2nd Edition, 2018.*

### REFERENCES

1. *Andreas M. Antonopoulos, Gavin Wood, Mastering Ethereum: Building Smart Contracts and DApps, O'REILLY, 2018.*
2. *Nitin Gaur, Luc Desrosiers, Venkatraman Ramakrishna, Petr Novotny, Dr. Salman A. Baset and Anthony O'Dowd, Hands- on Block chain with Hyperledger, Packt Publishing, 2018.*
3. *Artemis Caro, Block chain: Bitcoin, Ethereum & Block chain: The Beginners Guide to Understanding the Technology Behind Bitcoin & Crypto currency, 2017.*

# 23MBAE160 - SOCIAL MEDIA WEB ANALYTICS

L	T	P	C
3	0	0	3

## ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1 :** Enhance social media skills.

**CO2 :** Develop a mass communication strategy and guide campaigns.

**CO3 :** Get an idea of social media policies.

**CO4 :** Understand the fundamentals and concepts of web analytics.

**CO5 :** Effectively use the resulting insights to support website design decisions, campaign optimisation, search analytics, etc.

### INTRODUCTION

Evolution of Online Communities - History and Evolution of Social Media - Social Media vs. Traditional Media - Social Media Audience and Goals for using Social Media - Understanding Social Media: Strong and Weak Ties - Influencers - How ideas travel Virality - Social Theory and Social Media - Technological determinism in popular discourse on social media technologies. **(9)**

### COMMUNITY BUILDING AND MANAGEMENT

Science of Social Media - Keys to Community Building - Promoting Social Media Pages- Linking Social Media Accounts-The Viral Impact of Social Media - Digital PR - Encourage Positive Chatter in Social Media - Identity in Social Media: Formation of Identities, Communities, Activist Movements, and Consumer Markets - Social Media as Business. **(9)**

### SOCIAL MEDIA POLICIES AND MEASUREMENTS

Social Media Policies - Etiquette, Privacy - Ethical problems posed by emerging Social Media Technologies - The road ahead in Social Media - The Basics of Tracking Social Media - Social Media Analytics - Insights Gained From Social Media - Customized Campaign Performance Reports - Observations of Social Media use. **(9)**

### WEB ANALYTICS

Web Analytics - Present and Future, Data Collection - Importance and Options, Overview of Qualitative Analysis, Business Analysis, KPI and Planning, Critical Components of a Successful Web Analytics Strategy, Web Analytics Fundamentals, Concepts, Proposals & Reports, Web Data Analysis. **(9)**

### SEARCH ANALYTICS

Search Engine Optimization (SEO), Non-linear Media consumption, User Engagement, User Generated Content, Web Traffic Analysis, Navigation, Usability, Eye Tracking, Online Security, Online Ethics, Content Management System, Data Visualization, RSS Feeds, Mobile Platforms, User Centered Design, Understanding Search Behaviors. **(9)**

**TOTAL : 45**

### TEXTBOOKS

1. Christian Fuchs, *Social Media a critical introduction*, SAGE Publications Ltd, 3rd ed., 2020.
2. Takeshi Moriguchi, *Web Analytics Consultant Official Textbook*, 7th Edition, 2016.

### REFERENCES

1. K. M. Shrivastava, *Social Media in Business and Governance*, Sterling Publishers Private Limited, 2013.
2. Bittu Kumar, *Social Networking*, V & S Publishers, 2013.
3. Avinash Kaushik, *Web Analytics - An Hour a Day*, Wiley Publishing, 2007.
4. Ric T. Peterson, *Web Analytics Demystified*, Celilo Group Media and Café Press, 2004.

# 23MBAE161 - STOCHASTIC MODELING

L	T	P	C
3	0	0	3

## ASSESSMENT : THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1** : Knowledge of using Stochastic Modeling for Business Decision Making.

**CO2** : Understand Discrete - Time Markov chains.

**CO3** : Gain knowledge of Continuous - Time Markov chains.

**CO4** : Understand Brownian Motion.

**CO5** : Understand of Renewal Processes and Applications.

### INTRODUCTION TO STOCHASTIC PROCESSES

Basics of Probability - Random Variables and Distributions - Sequence of Random Variables; Stochastic Process - Definition, Classification, Simple Stochastic Processes. **(9)**

### DISCRETE - TIME MARKOV CHAINS

Introduction, Definition and Transition Probability Matrix, Chapman - Kolmogorov Equations, Classification of States and Limiting Distributions: Limiting and Stationary Distributions, Limiting Distributions, Ergodicity and stationary distributions - Time Reversible Markov Chain, Application of Irreducible Markov chains in Queuing Models - Reducible Markov Chains. **(9)**

### CONTINUOUS - TIME MARKOV CHAINS

Definition, Kolmogorov Differential Equation and, Infinitesimal Generator Matrix, Limiting and Stationary Distributions, Birth Death Processes, Poisson processes: M/M/1 Queuing model, Simple Markovian Queuing Models: Applications of CTMC- Queuing networks, Communication systems, Stochastic Petri Nets. **(9)**

### BROWNIAN MOTION

Definition and Properties, Processes Derived from Brownian Motion, Stochastic Differential Equation: Martingales: Conditional Expectation and Filtration, Definition and Simple examples. **(9)**

### RENEWAL PROCESSES

Renewal Function and Equation, Generalized Renewal Processes, and Renewal Limit Theorems, Markov Renewal and Markov Regenerative Processes, Non Markovian Queues, Application of Markov Regenerative Processes: Branching Processes, Stationary and Autoregressive Processes. **(9)**

**TOTAL : 45**

### TEXTBOOKS

1. *Mu-fa Chen, Yong-hua Mao, Introduction to Stochastic Processes, 2021.*
2. *Antonio Di Crescenzo, Claudio Macci, Barbara Martinucci, Stochastic Processes with Applications, 2019.*

### REFERENCES

1. *Liliana Blanco Castaneda, Viswanathan Arunachalam, Selvamuthu Dharmaraja, Introduction to Probability and Stochastic Processes with Applications, Wiley, 2012.*
2. *J Medhi, Stochastic Processes, 3rd edition, New Age International Publishers, 2009.*
3. *Introduction to Probability Models, Sheldon M. Ross, Academic Press, 10th Edition, 2009.*
4. *Kishor S. Trivedi, Probability and Statistics with Reliability, Queuing, and Computer Science Applications, 2nd Edition, Wiley, 2002.*

# 23MBAE162 - TIME SERIES ANALYSIS

L	T	P	C
3	0	0	3

## ASSESSMENT : THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to

**CO1** : Understand the techniques of using Univariate Time series models for decision making.

**CO2** : Gain knowledge of using Univariate Non-stationary processes.

**CO3** : Understand of Volatility Clustering.

**CO4** : Provide insight into Multivariate Stationary Processes.

**CO5** : Gain knowledge of Multivariate Non-Stationary Processes.

### UNIVARIATE STATIONARY TIME-SERIES MODELS

Introduction to Stochastic Process, Stationary Processes, Wold Representation Theorem, Auto Covariance Functions, Autocorrelation and Partial Autocorrelation, Auto Regressive and Moving Average Models, Conditions For Stationary and Invertible Process, Box - Jenkins Approach, Forecasting. **(9)**

### UNIVARIATE NON-STATIONARY PROCESSES

Non-Stationary Process, Deterministic and Stochastic Trends, Integrated Process and Random Walk, Random Walk with Drift, Unit Root Process-, Test For Unit Root- Dicky Fuller Tests, ARIMA Process. Fractional Integrated Process. **(9)**

### MODELING VOLATILITY CLUSTERING

Volatility - Meaning and Measurement, Volatility Clustering, Econometric Models of Volatility, ARCH Model, GARCH Model and Its Various Extensions, Testing for ARCH/GARCH effects. **(9)**

### MULTIVARIATE STATIONARY & NON-STATIONARY PROCESSES

Vector Autoregressive Model, Granger Causality, Impulse Response Function, Variance Decomposition. **(9)**

### MULTI VARIATE NON - STATIONARY PROCESSES

Introduction to Co-Integration, Testing for Co-Integration: Single - Equation Approaches: Engle Granger Method, Johansen Test For Co-Integration, Vector Error Correction Model. **(9)**

**TOTAL : 45**

### TEXTBOOKS

1. William W.S. Wei, *Time Series Analysis Univariate and Multivariate Methods*, 2019.
2. Robert Shumway, David Stoffer, *Time Series: A Data Analysis Approach using R*, 2019.

### REFERENCES

1. Brooks C, *Introductory Econometrics for Finance, 3rd Ed., Cambridge Univ. Press, 2014.*
2. Enders W, *Applied Econometric Time Series, 2nd Edition, John Wiley and Sons, 2006.*
3. Maddala G.S. and In-Moo Kim, *Unit Roots, Co integration, and Structural Change, 1998.*
4. Johnston J. and Di Nardo J, *Econometric Methods. 4th Ed. McGraw-Hill, 1997.*
5. Hamilton, J. D., *Time Series Analysis, Princeton University Press, 1994.*

# 23MBAE163 - MULTI VARIATE DATA ANALYSIS

L	T	P	C
3	0	0	3

## ASSESSMENT : THEORY

### COURSE OUTCOMES

Upon completion of the course students will be able to

- CO1 :** Demonstrate a sophisticated understanding of the concepts and methods; know the exact scopes and possible limitations of each method; and show capability of using multivariate techniques to provide constructive guidance in decision making.
- CO2 :** Use advanced techniques to conduct thorough and insightful analysis, and interpret the results correctly with detailed and useful information.
- CO3 :** Show substantial understanding of the real problems; conduct deep analysis using correct methods; and draw reasonable conclusions with sufficient explanation and elaboration.
- CO4 :** Write an insightful and well-organized report for a real-world case study, including thoughtful and convincing details.
- CO5 :** Make better business decisions by using advanced techniques in data analytics.

### INTRODUCTION

Introduction - Basic Concepts - Uni-Variate, Bi-Variate and Multi-Variate Techniques - Types of Multivariate Techniques - Classification of Multivariate Techniques - Guidelines for Multivariate Analysis and Interpretation - Approaches to Multivariate Model Building. **(9)**

### PREPARING FOR MULTI VARIATE ANALYSIS

Introduction - Conceptualization Of Research Problem - Identification Of Technique - Examination Of Variables And Data - Measurement Of Variables And Collection Of Data - Measurement Of Errors - Statistical Significance Of Errors. Missing Data - Approaches For Dealing With Missing Data - Testing The Assumptions Of Multivariate Analysis - Incorporating Non-Metric Data With Dummy Variables. **(9)**

### MULTIPLE LINEAR REGRESSION ANALYSIS, FACTOR ANALYSIS

Multiple Linear Regression Analysis - Introduction - Basic Concepts - Multiple Linear Regression Model - Least Square Estimation Inferences from the Estimated Regression Function - Validation of the Model. Factor Analysis: Definition - Objective - Approaches to Factor Analysis - Methods of Estimation - Factor Rotation - Factor Scores - Sum of Variance Explained - Interpretation of Results. **(9)**

### LATENT VARIABLE TECHNIQUES

Confirmatory Factor Analysis, Structural Equation Modeling, Mediation Models, Moderation Models, Conditional Processes, Longitudinal Studies, Latent Growth Model, Bayesian Inference. **(9)**

### ADVANCED MULTI VARIATE TECHNIQUES

Multiple Discriminant Analysis, Logistic Regression, Cluster Analysis, Conjoint Analysis, Multidimensional Scaling. **(9)**

**TOTAL: 45**

### TEXTBOOKS

1. Joseph F Hair, Rolph E Anderson, Ronald L Tatham & William C. Black, *Multivariate Data Analysis*, Pearson Education, New Delhi, 2022.
2. Richard A Johnson and Dean W Wichern, *Applied Multivariate Statistical Analysis*, Prentice Hall, New Delhi, 2019.

### REFERENCES

1. David R Anderson, Dennis J Seveency, and Thomas A Williams, *Statistics for Business and Economics*, Thompson, Singapore, 2002.
2. Barbara G. Tabachnick, Linda S Fidell, *Using Multivariate Statistics*, 6th Edition, Pearson, 2012.
3. Brian Everitt, Torsten Hothorn, *An introduction to Applied Multivariate Analysis with R*, 2011.

# 23MBAE164 - LOGISTICS AND SUPPLY CHAIN MANAGEMENT

L	T	P	C
3	0	0	3

## ASSESSMENT : THEORY

### COURSE OUTCOMES

Upon completion of the course students will be able to

- CO1 :** Sensitize the students towards the whole new domain - L&SCM.
- CO2 :** Develop the basic knowledge to come out with the optimized logistics mix.
- CO3 :** Judiciously select the service providers.
- CO4 :** Have an in-depth knowledge on the warehouse practices.
- CO5 :** Understand the latest developments in the transport sector.
- CO6 :** Have first-hand knowledge on the SCM practices in the new world norm.

### LOGISTICS AND LOGISTICS MIX

Logistics: Definition, Objectives, Scope, Importance and Functions, System concept of Logistics. Value added logistical services. Logistics at the center of world trade - A paradigm shift - Logistics for business excellence.

Logistics Mix: Warehousing - Inventory management - Material handling - Material storage - Transportation management - packing and packaging - Logistics information system. **(9)**

### LOGISTICS OUTSOURCING, PROVIDERS, PACKING & PACKAGING

Logistics Outsourcing: Trends - Catalysts for outsourcing - Benefits of outsourcing. Logistics Providers: 3PL / 4PL / 5 PL - Basis for Selection of service provider.

Packing and Packaging: Labels, Functions of Packaging, Designs, Kinds of Packaging. Packing for Transportation and Marking: Types of Boxes, Container, Procedure, Cost. **(9)**

### WAREHOUSE, CONTAINERIZATION AND CHARTERING

Warehouse: The role of the warehouse - Types of warehouses - Warehouse operations - Supply chain trends affecting warehouses - Specialized Warehouses.

Containerization: Genesis, Concept, Classification, Benefits and Constraints. Inland Container Depot (ICD): Roles and Functions, Container Freight Station (CFS), Export Clearance at ICD; CONCOR; ICDs under CONCOR.

Chartering: Kinds of Charter, Charter Party and Arbitration. **(9)**

### TRANSPORTATION, E-WAY BILL AND AGENTS

Transportation: Functionality and Principles; Air, Sea, Rail, Road transportation - Indian and International Scenario, Cargo Tariff structure of each mode.

E-Way Bill: Meaning, Impact on GST, Bill generation procedure, Advantages to various stakeholders. Multimodal Transportation: Modal Characteristics; Modal Comparisons; Optimisation.

Clearing and Forwarding Agents: Role, Responsibilities and entrepreneurial avenues. **(9)**

### SUPPLY CHAIN MANAGEMENT AND CONTEMPORARY SUPPLY CHAINS

Supply Chain Management (SCM): Overview, objectives, nature, meaning, Scope, Importance of SCM. Decision phases in a supply chain. Process view of a supply chain - Supply Chain dynamics - Focus areas in SCM - Evolution of SCM.

Contemporary Supply Chains: Lean supply chains - Agile supply chains - Green supply chain - Flexible supply chain - World- class SCM practices. Current Issues in Supply Chain Management. **(9)**

**TOTAL : 45**

## **TEXTBOOKS**

1. *James B. Ayers and Mary Ann Odegaard, Retail Supply Chain Management, 2nd Edition, CRC Press, 2018.*
2. *Donald J. Bowerson, Logistic and Supply Chain Management: Prentice Hall of India, 2017.*

## **REFERENCES**

1. *Bhat, K. S, Logistics and supply chain management. Himalaya Publishing House, 2014.*
2. *MuthiahKrishnaveni, Logistic Management and World Sea Borne Trade: Himalaya Publication, 2011.*

## 23MBAV201 - NEGOTIATION SKILLS

L	T	P	C
0	0	1	1

### ASSESSMENT: THEORY

### COURSE OUTCOME

Upon completion of the course students will be able to negotiate in competitive as well as collaborative situations, identify the level of awareness of the negotiation process, familiarize with specific concepts and principles that will enhance their negotiation effectiveness as well analyze the personal style and the impact it has on others.

### Topics Covered

1. Introduction to the negotiation model - Negotiation as Managing Skill.
2. Principles of Negotiation - How to prepare and manage a process of Negotiation depending on the situation (competitive as collaborative). How to manage competitive negotiation?
3. The Competitive-Collaborative Tension in negotiations: Co-petition. How to manage a collaborative negotiation?
4. Creative negotiations: Process of Negotiation and Preparation. How to derive creative solutions in a Negotiation?
5. Team Negotiations - Dynamics of a Team Negotiation and Key Strategies.
6. Integrating Competitive & Collaborative Strategies - Managing Deadlocks and multivariable negotiations. Understanding different styles of negotiations and their respective impact over one another
7. Managing multi-party negotiations

**TOTAL: 15**

### TEXTBOOKS

1. *Federman, Sarah, Transformative Negotiation: Strategies for Everyday Change and Equitable Futures, University of California Press, 2023.*
2. *De Forsberg, Sandra Pineda., Reichenbach, Roland. Conflict, Negotiation and Perspective Taking, Cambridge Scholars Publishing, 2021.*
3. *Smolinski, Remigiusz., Downs, James B.. The Negotiation Challenge: How to Win Negotiation Competitions, Econnections Sp. Z O.O., 2018.*
4. *Harvard Business Review. Kahneman, Daniel., Malhotra, Deepak., Meyer, Erin., Bazerman, Max H.. HBR's 10 Must Reads on Negotiation (with Bonus Article "15 Rules for Negotiating a Job Offer" by Deepak Malhotra), Harvard Business Review Press, 2019*
5. *Salacuse, Jeswald W. Real Leaders Negotiate! Gaining, Using, and Keeping the Power to Lead Through Negotiation, Palgrave Macmillan US, 2017.*

# 23MBAV202 - TRANSACTIONAL ANALYSIS

L	T	P	C
0	0	1	1

## ASSESSMENT: THEORY

### COURSE OUTCOME

On completion, students will be familiar with the concepts of the ego-states, script, games, rackets and transactions, as well as the philosophy and history of TA. Students will be able to apply basic TA concepts to problem-solving and able to classify a range of interpersonal behaviours and processes using basic TA concepts.

### Topics Covered

1. Definition of TA.
2. A contractual method.
3. Definition of ego-states.
4. Structural model of ego-states.
5. Recognition and diagnosis of ego-states.
6. Functional model: controlling parent, adult, free child and adapted child.
7. Contamination and exclusion of ego-states.
8. Strokes of recognition.
9. Types of transactions.
10. Discounts: definitions of discounts.
11. Levels of discounts and reasons for discounting.
12. Social time structuring: stimulus hunger and the six ways of structuring time.
13. Definitions of games: reasons for playing games, advantages of games and examples.
14. Ways of describing games and the process of acting them out: drama triangle and winners' triangle.
15. Racket analysis: rackets, trading stamps, the relationship of rackets and transactions.
16. The life positions: the four life positions.
17. Definitions of script and the origin of the script using childhood experiences.
18. Injunctions, counter-injunctions and driver behaviours.
19. Autonomy: the definition of autonomy, awareness, spontaneity and the capacity for intimacy.

**TOTAL : 15**

### TEXTBOOKS

1. Berne, Eric. *Transactional Analysis in Psychotherapy: A Systematic Individual and Social Psychiatry*, Martino Fine Books, 2021.
2. Anne de Graaf, Sari van Poelje, *New Theory and Practice of Transactional Analysis in Organizations: On the Edge*, Taylor & Francis, 2021.
3. F. Cornell, William. *Into TA: A Comprehensive Textbook on Transactional Analysis*, Taylor & Francis, 2018.
4. Charlotte Sills, Heather Fowlie, *Relational Transactional Analysis: Principles in Practice*, Taylor & Francis, 2018.
5. Sedgwick, James M. *Contextual Transactional Analysis: The Inseparability of Self and World*, Taylor & Francis, 2020.

## 23MBAV203- EMOTIONAL INTELLIGENCE

L	T	P	C
0	0	1	1

### ASSESSMENT: THEORY

#### COURSE OUTCOME

*Students will be able to acquire knowledge of emotional intelligence and its importance to personal and professional success.*

#### Topics Covered

1. Emotional Intelligence
2. Self-Awareness
3. Self-Regulation / Managing Emotions
4. Self-Motivation
5. Empathy
6. Social Skills
7. Four Skills in Emotional Intelligence
8. Verbal Communication Skills
9. Non-Verbal Communication Skills
10. Social Management and Responsibility

**TOTAL: 15**

#### TEXTBOOKS

1. *Purushothaman, Rajagopalan. Emotional Intelligence, SAGE Publications, 2021.*
2. *Goleman, Daniel. Emotional Intelligence: 25th Anniversary Edition, Bloomsbury Publishing, 2020.*
3. *Jacobson, Amy. Emotional Intelligence: A Simple and Actionable Guide to Increasing Performance, Engagement and Ownership, Wiley, 2021.*
4. *Ryan James, Emotional Intelligence: 21 Most Effective Tips and Tricks on Self Awareness, Controlling Your Emotions, and Improving Your EQ, Alakai Publishing LLC, 2020.*
5. *Cooper, Daniel. Emotional Intelligence: A Practical Guide to Master Your Emotions, Anger Management, Improve Your Social Skills, Raise Your EQ, Create Space Independent Publishing Platform, 2020.*
6. *Dr. Pratik P Surana (Ph.D), Mastering Emotional Intelligence: Making Emotions Work “For” you and not “Against” you, Notion Press, 2021.*

# 23MBAV204 - PYTHON PROGRAMMING

L	T	P	C
0	0	2	1

## ASSESSMENT: PRACTICAL

### COURSE OUTCOME

*Students will be able to understand the basics of programming in Python.*

#### Topics Covered:

1. Introduction to Python, Blocks of Python Programming and Computer Programming
2. Data Types, Variables, Basic Input-Output Operations and Basic Operators, Control Flow Statements
3. Boolean Values, Conditional Execution, Loops, Lists, List Processing, Logical, Bitwise Operations and Regular Expression.
4. Functions, Tuples, Dictionaries and Data Processing.
5. Modules, Packages, Strings, List Methods, Exceptions.
6. The Object-Oriented Programming Approach: Classes, Methods, Objects and the Standard Objective Features; Errors and Exception Handling, Files and Working with Files.

Packages: Numpy, Pandas, Seaborn and Matplotlib.

**TOTAL: 30**

### TEXTBOOKS

1. C H Satyanarayana, M Radhika Mani, B N Jagadesh, "Python Programming", Universities Press (India) Private Ltd., 2021.
2. Kenneth A. Lambert, B.L. Juneja, M. Arunachalam, G. Balakrishnan, "Problem Solving and Python Programming", Cengage Learning India Pvt. Ltd, 2018.
3. Allen B. Downey, "Think Python: How to Think Like a Computer Scientist", Second Edition, Updated for Python 3,Shroff/ O'Reilly Publishers,2016 (<http://greenteapress.com/wp/thinkpython/>)
4. Robert Sedgewick, Kevin Wayne, Robert Dondero, Introduction to Programming in Python: An Inter-disciplinary Approach, Pearson India Education Services Pvt. Ltd., 2016.
5. Timothy A Budd Exploring Python, Mc-Graw Hill Education (India) Private Ltd., 2015.
6. Kenneth A. Lambert, "Fundamentals of Python: First Programs", CENGAGE Learning, 2019.

## 23MBAV205 - DATA VISUALIZATION FOR MANAGERS (LABORATORY)

L	T	P	C
0	0	2	1

### ASSESSMENT: PRACTICAL

### COURSE OUTCOME

*Students will be able to acquire knowledge of popular data visualization tools for effective decision making.*

Exp. No.	Experiment Name	Duration
1	Understanding Data Visualization Tools	6
2	Exploring and Preparing Data for Visualization	6
3	Creating Basic Charts	6
4	Building Advanced Charts	6
5	Designing Interactive Visualizations	6

**TOTAL: 30**

### TEXTBOOKS

1. *Po, Laura, et al. Linked Data Visualization: Techniques, Tools, and Big Data. Switzerland, Morgan & Claypool Publishers, 2020.*
2. *Wilke, C. Fundamentals of Data Visualization: A Primer on Making Informative and Compelling Figures. Taiwan: O'Reilly Media, 2019.*
3. *Healy, Kieran. Data Visualization: A Practical Introduction. United States, Princeton University Press, 2018.*
4. *Grant, Robert. Data Visualization: Charts, Maps, and Interactive Graphics. United States, CRC Press, 2018.*
5. *Ward, Matthew O., et al. Interactive Data Visualization: Foundations, Techniques, and Applications, Second Edition. United States, CRC Press, 2015.*