

**DR. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY
LUCKNOW**



Evaluation Scheme & Syllabus

For

MBA (INTEGRATED) Second Year

AS PER

AICTE MODEL CURRICULUM

(Effective from the Session: 2019-20)

PROGRAMME STRUCTURE AND EVALUATION SCHEME

MBA (Integrated)- Second Year Effective from the Session: 2019-20 Semester- III

S. No	CODE	SUBJECT	PERIODS			EVALUATION SCHEME				END SEMESTER		TOTAL	CREDIT
			L	T	P	CT	TA	TOTAL	PS	TE	PE		
1	KMBI301	Business Communication –I	3	2	0	30	20	50	0	100	0	150	4
2	KMBI302	Management Accounting	3	2	0	30	20	50	0	100	0	150	4
3	KMBI303	Advanced Business Statistics	3	2	0	30	20	50	0	100	0	150	4
4	KMBI304	Business Environment	3	2	0	30	20	50	0	100	0	150	4
5	KMBI305	Marketing Management- I	3	0	0	30	20	50	0	100	0	150	4
6	KMBI306	Environment & Ecology		0	3	30	20	50	0		100	150	2
		TOTAL	15	8	3	180	120	300	0	500	100	900	22

Effective from the Session: 2019-20

Semester- IV

S. No	CODE	SUBJECT	PERIODS			EVALUATION SCHEME				END SEMESTER		TOTAL	CREDIT
			L	T	P	CT	TA	TOTAL	PS	TE	PE		
1	KMBI401	Business Communication – II	3	2	0	30	20	50	0	100	0	150	4
2	KMBI402	Marketing Management- II	3	2	0	30	20	50	0	100	0	150	4
3	KMBI403	Financial Management	3	2	0	30	20	50	0	100	0	150	4
4	KMBI404	Human Resource Management	3	2	0	30	20	50	0	100	0	150	4
5	KMBI405	Operations Management	3	2	0	30	20	50	0	100	0	150	4
6	KMBI406	Comprehensive Viva	0	0	3	30	20	50	0	0	100	150	2
		TOTAL	15	10	3	180	120	300	0	500	100	900	22

Abbreviations used:

- **L/T/P:** Lecture/Tutorial/Practical
- **CT/TA:** Class Test/Teacher's Assessment

Course Objective

This course intends to develop good communication skills in students for their future jobs and endeavors in the corporate. World so that they can gain a cutting edge over their other counterparts within the country and across the globe.

Unit – I (Session 08)

Basic Principles of Communication: Introduction, Understanding Communication, the communication process, Barriers to communication, Importance of communication in the workplace. 7' C of Communication.

Unit – II (Session 06)

Types and Channels of Communication: Introduction, Types of communication, Classification of Communication Channels.

Unit – III (Session 08)

Nature of Business Communication: Introduction, Types of business Communication, Communication network in organizations.

Unit – IV (Session 08)

The importance of Listening in the workplace: Introduction, What is listening, Barriers to listening, Strategies for Effective listening, Listening in a Business Context.

Unit- V (Session 10)

Written Communication: Guidelines for written business communication introduction, General principles of writing, Principles of business writing.

References:

1. Lesikar R.V. & J.D. Jr., “*Basic Business Communication: Theory and application*”, McGraw Hill Higher Education.
2. Bovee & Thill, “*Business Communication Essentials: A Skill Based Approach to Vital Business English*”, Pearson Education.
3. Chaturvedi P.D. & Chaturvedi Mukesh, “*Business Communication: Skill, Concepts and Applications*”, Pearson Education.
4. Kaul Asha, “*Business Communication*”, Prentice Hall of India.

Course Objective:

The objective of this course is to expose the students to the applied aspect of accounting and making them familiar with the techniques of using Accounting information for decision making. Having been introduced to these techniques and having acquired the ability to understand accounting language, the students should be in a position to make effective use of accounting information in resolving the problems, which they may face as managers. Applied side of the subject will be given more emphasis and attentions compared to its conceptual aspect.

Unit- I (Session 06)

Management Accounting- Meaning, scope, importance and limitations- Management accounting vs. Cost accounting. Management Accounting vs. Financial Accounting.

Unit –II (Session 06)

Analysis and interpretation of Financial Statements- Nature, Objectives, Tools, Methods- Comparative statements, Common Size Statement and Trend Analysis.

Unit –III (Session 10)

Ratio analysis- Interpretation, benefits and limitations. Classification of ratios – Liquidity Ratios, Profitability Ratios, Turnover Ratios, Capital Structure Ratios and Leverage Ratios.

Unit –IV (Session 10)

Funds flow and Cash flow statements: Meaning, importance, Limitations, Format, Budgets and budgetary control- Meaning, objectives, merits and demerits- types of Budgets- Production Budget, Cash Budget, Flexible Budget, Sales Budget, Master Budget, Zero Base Budget.

Unit- V (Session 08)

Marginal costing (Including decision making) Absorption costing and Marginal costing- CVP analysis- Break Even analysis- Break Even chart. Marginal Costing and its use in various decision making.

References:

1. Khan and Jain, “*Management Accounting*”, Tata McGraw Hill.
2. Sinha, “*Accounting and Costing for Management*”, Excel Books.
3. Horngren et al, “*Introduction to Management Accounting*”, Prentice Hall.
4. Pandey I.M., “*Management Accounting*”, Vikas Publishing House Pvt. Ltd. Publishing House.
5. Vij, “*Management Accounting*”, Excel Books.
6. Balkrishnan, “*Managerial Accounting*”, Wiley Dream Tech.

Course Objective:

Students have already learnt basic concepts and tools in Statistics and Operations Research in course. The objective of this course is to develop students with other mathematical & statistical tools and operations research models which are used in business decision making.

Unit -I (Session 08)

Time Series Analysis: Meaning, Concept & Applications of Time Series, Additive & Multiplicative Models, Components of Time Series, Trend Analysis-Least Square Method. **Index Numbers:** Meaning & Concept of Index Numbers, Types of Index Numbers, Characteristics and Uses of Index Numbers, Construction of Price and Quantity Index Numbers.

Unit -II (Session 08)

Probability Distribution: Meaning & Concept of Probability Distribution, Discrete & Continuous Probability Distributions. Concept and applications of Binomial, Poisson and Normal Distributions.

Unit -III (Session 08)

Theory of Sampling: Meaning & Concept of Sampling, Sampling Methods & Techniques, Sample Size Determination, Sampling Distribution, Standard Error, Central Limit Theorem.

Theory of Estimation: Meaning and Concept of Statistical Estimation, Point Estimation, Interval Estimation.

Unit- IV (Session 08)

Hypothesis Testing: Null and Alternative Hypothesis, Procedure of Hypothesis Testing, Type I and Type II Errors. Test of significance for Large samples, Test of Significance for Small Samples (t-test & F-test), Chi-square test.

Unit –V (Session 08)

Association of Attributes: Meaning of association of attributes, Types of association of attributes, Characteristics of association of attributes, Measurements or Techniques of attributes, Yule's coefficient of association.

References:

1. Rajagopalan S. & Sattanathan, R. *"Business Statistics & Operations Research"*, McGraw Hill Education.
2. Sharma J.K., *"Operations Research: Problems & Solutions"*, Macmillan India Ltd.
3. Taha & Hamdy, *"Operations Research: An Introduction"*, Pearson Education.
4. Render, Barry, Stair, R.M., Hanna, M.E., & Badri, *"Quantitative Analysis for Management"*, Pearson Education.
5. Vohra N.D., *"Quantitative Techniques in Management"*, McGraw Hill Education.
6. Vishwanathan, P.K., *"Business Statistics and Applied Orientation"*, Pearson Education.

Course Objectives:

The present course aims at familiarizing the participants with various aspects of economic, social, political and cultural environment of India. This will help them in gaining a deeper understanding of the environmental factors influencing Indian business organizations.

Unit- I (Session 08)

Business Environment- Meaning, Importance, Environmental Factors, Recent Political Environment, Recent Economic and Financial Environment, Planning In India-Planning Commission- Liberalisation and Planning, Industrial Policy: New trade policy-1991 onwards, Industrial Licensing in India

Unit-II (Session 10)

Indian Financial System : Monetary And Fiscal Policy, Economic Trends, Price Policy, Stock Exchange Of India, Role of regulatory institutions in Indian financial system – RBI and SEBI , National Income, Role of Industry in Economic Development, Foreign Trade and Balance of Payment, Poverty in India, Unemployment in India, Inflation, Human Development, Rural Development, Problems of Growth

Unit-III (Session 08)

Direct & Indirect Taxes (MODVAT),(CENVAT), Competition Act 2002 & FEMA Acts ,Business Ethics, Corporate Governance, Philosophy and strategy of planning in India.

Unit-IV (Session 06)

Liberalisation, Privatization and Disinvestments, Special Economic Zone (SEZ) and their role and impact in International Business Environment, World Trade Organisation (WTO), Redefining Value Proposition to MSMEs

Unit-V (Session 08)

Social Responsibility of business enterprises, New Economic Policy, Globalization, EXIM policy and role of EXIM bank, FDI policy, Multinational Corporation (MNCs) and Transnational Corporations (TNCs), Global Competitiveness, technology and competitive advantage, Technology Transfer - Importance and types, Appropriate technology and technology adaptation.

References:

1. Shaikh & Saleem, “*Business Environment*”, Pearson Education.
2. Francis Cherunilam, “*Business Environment, Text and Cases*”, Himalaya Publishing House.
3. Mittal, “*Business Environment*”, Excel Books.
4. V. Neelamegam, “*Business Environment*”, Vrinda Publications.
5. Fernando, “*Business Environment*”, Prentice Hall.
6. Mishra S K & Puri V K, “*Economic Environment of Business*”, Himalaya Publishing House.
7. Paul Justin, “*Business Environment Text and Cases*”, Tata McGraw Hill.

Course Objective:

To understand and learn the basic principles of marketing and their application in real life situations. Also to enhance the marketing decision making abilities through the learning and understanding of Marketing Environment, Consumer Behaviour and Current Market & Marketing Realities.

Unit- I (Session 10)

Introduction: Meaning, Objectives, Nature, Scope and Importance of Marketing; Evolution of Marketing and various Company Marketing Orientations; Core Concepts of Marketing, Marketing vs. Selling & Marketing Myopia; Concept of Market and Types of Market; Customer Value, Value Delivery Process & Value Chain; Marketing Plan & Marketing Planning.

Unit- II (Session 06)

Marketing Environment: Environmental Scanning- Controllable & Uncontrollable Factors, Marketing Environment- Micro & Macro Environmental Factors; Marketing Information System (MkIS)- Concept, Need & Importance, Components of MkIS, Marketing Information System vs. Marketing Research.

Unit- III (Session 08)

Understanding Consumer Behavior: Meaning of Consumer Behaviour, Personal vs. Organisational Consumer, Need & Importance of studying Consumer Behaviour, Buying Motives, Factors influencing Consumer Behavior, Consumer Buying Decision Process, Buying Roles, Types of Buying Behaviour.

Business Market vs. Consumer Market, Business Buying Situations, Participants in Business Buying Process, Factors influencing Business Buying Behaviour, Stages in Business Buying Process.

Unit- IV (Session 10)

Market Segmentation: Meaning and Concept of Market Segmentation, Benefits and Limitations of Market Segmentation, Bases & Types of Market Segmentation, Procedure of Market Segmentation, Criteria for Effective Segmentation, Bases for Segmenting Business Markets.

Market Targeting: Meaning and Concept of Target Market, Evaluating Market Segments & Selecting Target Market.

Product Positioning: Meaning and Concept of Product Positioning, Objectives and Importance of Positioning, Meaning and Concept of Product Differentiation, Strategies for Product Differentiation.

Unit- V (Session 06)

Current Marketing Realities: Major Societal Forces, Current Consumer Capabilities, Current Company Capabilities.

The Great Indian Market: Characteristics, Issues and Challenges.

References:

1. Kotler, P. & Keller, K.L., "*Marketing Management*", Pearson Education.
2. Kotler, P. & Armstrong, G., "*Marketing Management*", Pearson Education.
3. Perreault, W.D. & McCarthy, "*Basic Marketing*", Tata McGraw Hill.
4. Saxena, Rajan, "*Marketing Management*", Tata McGraw Hill.
5. Sontakki, C.N., "*Marketing Management*", Kalyani Publishers.
6. Gupta, C.B. & Nair, N.R., "*Marketing Management*", Sultan Chand & Sons.
7. Bose, B.S., "*Marketing Management*", Himalaya Publishing House.UDH Publishers.

Course Objective: To make the students aware about the environment and ecology. To make them understand various types of natural resources. After studying this course the student will be able to analyse the causes of pollution and also ways to prevent and control environmental pollution.

Unit- I (Session 08)

Introduction: Definition, Scope & Importance, Need for Public Awareness; Environment-definition, Ecosystem - Balanced ecosystem, Human activities - Food, Shelter, Economic and Social Security. Effects of human activities on environment, Agriculture, Housing, Industry, Mining and Transportation activities, Basics of Environmental Impact Assessment. Sustainable Development.

Unit- II (Session 08)

Natural Resources: Water Resources· Availability and Quality aspects. Water borne diseases, Water Induced diseases, Fluoride problem in drinking water.
Mineral Resources, Forest Wealth, Material, cycles - Carbon, Nitrogen and Sulphur Cycles.
Energy - Different types of energy, Electro-magnetic radiation. Conventional and Non-Conventional sources - Hydro Electric, Fossil Fuel based Nuclear, Solar, Biomass and Bio-gas. Hydrogen as an alternative future source of Energy.

Unit- III (Session 06)

Environmental Pollution and their effects. Water pollution, Land pollution. Noise pollution, Public Health aspects, Air Pollution, Solid waste management, e-waste management.

Unit- IV (Session 04)

Current Environmental Issues of Importance: Population Growth, Climate Change and Global warming- Effects, Urbanization, Automobile pollution. Acid Rain, Ozone Layer depletion, Animal Husbandry.

Unit- V (Session 04)

Environmental Protection- Role of Government, Legal aspects, Initiatives by Non-governmental Organizations (NGO), Environmental Education, Women Education.

References:

1. Benny Joseph, *"Environmental Studies"*, Tata McGrawHill.
2. Dr. D.L. Manjunath, *"Environmental Studies"*, Pearson Education.
3. R, Rajagopalan, *"Environmental studies"*, Oxford Publication.
4. M. Anji Reddy, *"Text book of Environmental Science & Technology"*, BS Publication.
5. P. Venugopalan Rao, *"Principles of Environmental Science and Engineering"*, Prentice Hall of India.
6. Meenakshi, *"Environmental Science and Engineering"*, Prentice Hall India.

Course Objective

This course intends to develop good communication skills in students for their future jobs and endeavors in the corporate world so that they can gain a cutting edge over their other counterparts within the country and across the globe.

Unit-I (Session 08)

Oral Communications: What is Oral Communication, Principles of Successful oral communication, two sides of effective oral communication, non verbal communication body language, para language.

Unit-II (Session 08)

Written Communication: Purpose of Writing, Pros & Cons of written communication, Clarity in writing, Principles of effective writing, Writing technique.

Unit-III (Session 10)

Business Letters & Reports: Introduction to business letters, Types of business letter, Layout, Reports: Definition & Purpose, types of Business report, Report writing.

Unit-IV (Session 08)

Employment Communication: Writing CV's & application letter, Group discussion Interview, Types of interview, Candidate preparation, Business communication: Communication networks Intranet, Internet, Teleconferencing, Video conferencing.

Unit-V (Session 06)

Group & Corporate Communication: Meetings – Need, importance & planning of Meeting, Drafting of notice, Agenda, Minutes & Resolution of meeting, Writing Memorandum, Press Release, Conference. Corporate Communication: Definition, scope, importance & components, role of social media in communication.

References:

1. Lesikar RV & Pettit Jr. JD, "*Basic Business Communication: Theory & Application*", Tata McGraw Hill.
2. Bisen & Priya, "*Business Communication*", New Age International Publication.
3. M.K. Sehgal & V. Khetrapal, "*Business Communication*", Excel Books.
4. P.D. Chaturvedi, "*Busines Communication*", Pearson Education.
5. Sharma R.C. & Mohan Krishna, "*Business: Correspondence and Report Writing*", Tata McGraw Hill.
6. Rajendra Pal, "*Business Communication*", Sultanchand & Sons Publication.

Course Objective:

To understand and learn the concept of marketing mix and its various elements. Also to learn and understand the current issues and developments in the field of marketing and thereby enhancing the marketing decision making abilities.

Unit- I (Session 10)

Marketing Mix: Meaning, Concept & Importance of Marketing Mix, Elements of Marketing Mix, Determining the Marketing Mix, Factors influencing the Determination of Marketing Mix, Essentials of Effective Marketing Mix; Elements of Service Mix.

Product Decisions: Meaning & Concept of Product; Classification of Products; Product Levels – The Customer Value Hierarchy, Major Product Decisions; Product Line and Product Mix Strategies. Consumer Adoption Process & Diffusion of Innovation; New Product Development Process; Product Life Cycle – Strategic Implications.

Branding/ Packaging / Labeling: Concept of Branding, Brand Types, Brand Equity and Brand Positioning; Packaging as a marketing tool, requirement of good packaging, Packaging vs. Packing; Labeling and its role in packaging

Unit- II (Session 06)

Pricing Decisions: Concept and Meaning of Price and Pricing; Establishing Value through Pricing; Objectives & Significance of Pricing; Factors influencing Pricing Decisions; Price Setting Procedure; Pricing Methods and Techniques; Pricing Policies and Strategies; New Product Pricing – Price Skimming & Penetration Pricing; Discounts and Rebates.

Unit- III (Session 08)

Place Decisions: Meaning, Nature, Functions and Types of Distribution Channels; Distribution Channel Intermediaries; Factors affecting channel choice, Channel design and Channel management decisions,, Channel Management - Selection, Training, Motivation and Evaluation of Channel Members; Channel Conflicts, Distribution System, Multilevel Marketing (Network Marketing).

Unit- IV (Session 08)

Promotion Decision- Communication Process; Promotion Mix; **Advertising:** Advertising Objectives, Advertising Budget, Advertising Copy, AIDA model, Advertising Agency Decisions, **Publicity and Public Relation:** Meaning, Objectives, Types, Functions of Public Relations.

Sales Promotion: Sales Promotion Mix, Kinds of sales promotion, Tools and Techniques of sales promotion, Push & Pull strategies of promotion, **Personal selling:** Concept, Features, Functions, Steps involved in Personal Selling Process.

Unit- V (Session 08)

Current Issues and Developments in Marketing: Social, ethical & legal aspects of marketing; Rural Marketing, Agricultural Marketing, Marketing of Services. **Direct Marketing:** Meaning, Features, Growth

and Benefits of Direct Marketing; Different Forms of Direct Marketing; Digital Marketing; Social Media Marketing.

References:

1. Kotler, P. & Keller, K.L., "*Marketing Management*", Pearson Education.
2. Kotler, P. & Armstrong, G., "*Marketing Management*", Pearson Education.
3. Perreault, W.D. & McCarthy, "*Basic Marketing*", Tata McGraw Hill.
4. Saxena, Rajan, "*Marketing Management*", Tata McGraw Hill.
5. Sontakki, C.N., "*Marketing Management*", Kalyani Publishers.
6. Gupta, C.B. & Nair, N.R., "*Marketing Management*", Sultan Chand & Sons.
7. Bose, B.S., "*Marketing Management*", Himalaya Publishing House.

Course Objective:

The objective of this paper is to educate the students about the basic principles, tools and techniques of financial management which are required to take an informed business decision and thus, can affect the profitability aspects of a firm.

Unit- I (Session 08)

Concept of Finance, Scope and Objectives of Finance, Profit Maximization vs. Wealth Maximization, Functions of Finance Manager in Modern Age, Financial Decision Areas, Time Value of Money, Risk and Return Analysis.

Unit- II (Session 08)

Investment Decisions: Appraisal of Project; Concept, Process & Techniques of Capital Budgeting and its Applications; Risk and Uncertainty in Capital Budgeting; Leverage Analysis – Financial, Operating and Combined Leverage alongwith implications; EBIT-EPS Analysis & Indifference Points.

Unit- III (Session 10)

Financial Decisions: Long-term Sources of Finance - Potential of Equity Shares, Preference Shares, Debentures and Bonds as Sources of Long-term Finance; Concept and Approaches of Capital Structure Decision: NI, NOI, Traditional and Modigliani-Miller Approach; **Cost of Capital** : Cost of Equity, Preference Shares, Debentures and Retained Earnings, Weighted Average Cost of Capital and its implications.

Unit- IV (Session 06)

Dividend Decisions: Concept of Retained Earnings, Relevance and Irrelevance of Dividends, Ploughing Back of Profits, Forms of Dividends, Factors affecting Dividend Policy, Dividend Payout Decisions. Theories of Dividend Decision: Walter's Model, Gordon's Model & Modigliani-Miller Model; Factors affecting Dividend Decision.

Unit –V (Session 08)

Working Capital Decisions: Concept, Components, Factors affecting Working Capital Requirement; Management of Cash, Inventory and Receivables; Sources Working Capital Financing, Sources of short term finance.

References:

1. Pandey I M, "*Financial Management*", Vikas Publishing House Pvt. Ltd.
2. Van Horne, "*Financial Management and Policy*", Prentice Hall.
3. Sheeba kapil, "*Fundamental of financial management*", Pearson Education.
4. Khan and Jain, "*Financial Management*", Tata McGraw Hill.
5. Prasanna Chandra, "*Fundamentals of Financial Management*", Tata McGraw Hill.
6. Lawrence J.Gitman, "*Principles of Managerial Finance*", Pearson Education.

Course Objectives:

The objectives of this course are to make students understand the challenges, trends and activities related to current human resource management, to provide an in-depth understanding of the scope of the HR role in today's organizations and to provide an understanding of the role, functions and functioning of human resource department of the organizations.

Unit- I (Session 06)

Human Resource Management – Introduction: Meaning, concept and Scope of HRM, Objectives of HRM, HR functions: welfare & Strategic HRM, HR roles and responsibilities, Contemporary issues in HRM.

Unit- II (Session 10)

Job Analysis & Human Resource Planning (HRP) - Definition, purposes, process and limiting factors; Job Analysis & Design – Steps of Job Analysis, Method of Job Analysis; Job Description, Job Specification, Job Design: Factors affecting Job design, Techniques for designing Job. Job evaluation.

Human Resource Planning (HRP) - Meaning & Definition ,Importance of HRP ,Factors affecting HRP, Planning Process, requirements for successful HRP ,Barriers to HRP

Unit -III (Session 068)

Recruitment & Selection - Sources of Recruitment, Recruitment Process, Constraints and Challenges in the Recruitment Process, Factors Governing/ Affecting Recruitment, **Selection:** Role of Selection, Selection Process, Selection Test-Type: Advantages & Problems, Interview Types; Induction-Orientation

Unit -IV (Session 10)

Training, Development & Performance Management - Concept, Objective, Factors influencing training and development, The Training and Development Process, Methods, purpose & practices, Four stages of training: Training Need Assessment, designing implementation and Training Evaluation, Concept & Rationale for Performance Appraisal, Procedures and Methods of Performance Management.

Unit -V (Session 08)

Potential Appraisal, Career system and Succession Planning - Introduction, potential appraisal vs performance, categories, indicators of potential appraisal report, career system, career stages, career path, career anchors career development strategies, succession planning.

References:

1. Dessler Gary, *"Human Resource Management"*, Prentice Hall of India, New Delhi.
2. Ashwathapa K, *"Human Resource & Personnel Management Text & Cases"*, Tata McGraw Hill.
3. Rao V S P, *"Human Resource Management Text & Cases"*, Excel Books.
4. Pandesharon & Basak Swapnalekha, *"Human Resource Management – Text & Cases"*, Vikas Publishing House Pvt. Ltd.
5. Halder K. Uday & Sarkar Juthika, *"Human Resource Management"*, Oxford University Press, New Delhi.
6. Saiyadain S.Mirza, *"Human Resource Management"*, Tata McGraw Hill.

Course Objective

This course is aimed at introducing students with the basic concepts, theories and practices of production and operations functions. It focuses on the problems that frequently confront production/operations managers.

Unit- I (Session 08)

Introduction: Nature of Production, Production as a system, organizational function, Decision Making in production, Characteristics of modern production and operations functions, organization of production function, Recent trends in Production and Operation function, Methods of Manufacturing, Intermittent, Continuous, Flexible Manufacturing systems, Comparison of various manufacturing system, Characteristics of Modern Manufacturing, Operations in the Service sector, Manufacturing vs Service operations.

Unit- II (Session 08)

Facilities Location and Layout: Introduction to plant location, Location need analysis, Factors affecting plant Location decision, Comparison of site location area, Introduction to Plant layout, Essentials of good plant Layout, Types of Layout, Process, Product, Fixed Position, Group and Cellular Layout.

Unit- III (Session 10)

Work Study: Work Study, Method Study and Work Measurement, Objective of Work Study, Relationship of Time and Motion Study to Work Study, Work Study Procedure, Method Study, Motion Study, Work Measurement, Measuring Productivity, Ways of Improving Productivity.

Unit- IV (Session 08)

Production Planning and Control: Classification of PPC functions, factors determining production planning procedures, Role of PPC in Operations Management, Functions of PPC, Levels of Production planning, Production Planning Functions, Production Control Functions, Aggregate Planning, and Master Production Scheduling.

Unit -V (Session 06)

Maintenance Management: Meaning of Maintenance, Objectives of maintenance, Type of maintenance, Functions and Importance of maintenance, Economics of maintenance, Total Productive Maintenance.

References:

1. Aswathappa K. & Shridhara Bhat K., *“Production and Operations Management”*, Himalaya Publishing House.
2. Shailendra Kale, *“Production and Operations Management”*, McGraw Hill Education.
3. Paneerselvam R., *“Production and Operations Management”*, PHI Learning Pvt. Ltd.
4. Monks Joseph G, *“Operations Management”*, McGraw Hill International.
5. Buffa E.S., *“Modern Production & Operations Management”*, Wiley India.
6. Bedi Kanishka, *“Production and Operations Management”*, Oxford University Press, New Delhi University Press.