

BA (VS) Materials Management

Materials Management: An Overview

DSC: 1.1

Credit 4 (3L+1T)

Objectives: There are following objectives:

1. To introduce conceptual framework of material management and can manage the material management process.
2. To understand both internal and external of material management, material management activities, functions and organizational structure;
3. To familiarize production processes, machines and tools used in industries.
4. To analyze the dynamics of inventory management's principles, concepts, and techniques as they relate to the entire supply chain.
5. To explain familiarize themselves with inventory management practices.
6. To Perform the material handling equipment in the stores.

Learning Outcomes: After completion of the course, Students will be able to

1. define conceptual framework of material management and can manage the material management process.
2. explain both internal and external of material management, material management activities, functions and organizational structure;
3. use and explain production processes, machines and tools used in industries.
4. analyze the dynamics of inventory management's principles, concepts, and techniques as they relate to the entire supply chain.
5. explain familiarize themselves with inventory management practices.
6. Perform the material handling equipment in the stores.

Contents

Unit	Unit wise weightage of marks (in %)	C&K*	A&A**
Unit 1: Materials Management and Linkages	25	√	√
Unit 2: Materials Planning and Budgeting	25	√	√
Unit 3: Purchasing and Inventory	25	√	√
Unit 4: Materials handling and storage systems	25	√	√

*C&K- Comprehension & Knowledge

**A&A – Analysis & Application

Unit1: Materials Management and its linkages

Meaning and Scope, Functions of Materials Management, Objectives and Significance of Materials Management. Interfaces of Materials Management: Internal and external interfaces, Organization of Material Management, Integrated materials management system and its advantages. Linkages with other

functional areas of Management i.e. Production, Accounting and Finance, Marketing, Information Technology, Total Quality Management.

Unit2: Materials Planning and Budgeting

Introduction, Management of Production and Manufacturing, Types of Industries, Manufacturing Planning and Control, Materials Management in Manufacturing and Process Industries , Materials Planning and Budgeting in Continuous Process Industries; Broad categories of production processes used in industries. Productivity plan, commonly used machines and tools in industries.

Unit 3: Purchasing and Inventory

Purchasing in Materials management, system concept, purchasing and procurement activities under Materials management, Value Analysis and value Engineering, Purchasing and quality Assurance, Purchase Cycle, Negotiation & Bargaining , Vendor relations, Purchasing Methods.

Need of Inventory, Types of Inventory, Characteristics of Inventory, Components of Inventory, Inventory Functionality , Some basic tools and techniques of Inventory Management, Planning the Inventory Resource, Material Requirement Planning (MRP), Advantages over conventional planning (Order Point Method) , Input and output of MRP system.

Unit: 4 Materials handling and storage systems

Material handling in stores, Principles of Materials Handling system, Materials Handling Equipment, Safety issues, Physical distribution logistics, physical control of stocks: obsolete, surplus and scrap Management, Layout of stores and warehouse.

Suggested Readings

1. Arnold, Champman and Ramakrishnan, Introduction to Materials Management, Pearson Education, Inc.
2. Dutta A.K., Materials Management: Procedures, Text and cases, Prentice Hall of India Pvt. Ltd., New Delhi.
3. Gopalakrishnan, P. and Sundareson, M., Materials Management: An Integrated Approach, Prentice Hall of India Pvt. Ltd., New Delhi.
4. Pooler Victor H. Purchasing and Supply Management, Creating the Vision, New York, Chapman Hall
5. Shah N.M. An Integrated concept of Materials Management, Indian Institute of Materials Management, Baroda Branch, Baroda.
6. Sharma S.C., Material Management and Materials Handling, Khanna Publishers, New Delhi.
7. Varma, M.M., Essentials of Storekeeping and Purchasing, Sultan Chand and Sons, New Delhi.

Note: The latest edition of the readings may be used.

Assessment methods

- Internal Assessment 25 marks
- Written Theory Exam 75 marks

Keywords: Materials Management, Materials Planning, Productivity plan, Purchase Cycle, MRP

Purchase Management

DSC: 1.2

Credit 4 (3L+1T)

Objective: The objectives of the course are

1. to provide the understanding of different concepts of purchase management;
2. The Course equips the students about purchasing and its systems and procedures.
3. To give understanding of price forecasting,
4. special purchase systems, public buying and online purchasing/buying.

Learning Outcomes: After completion of the course, learners will be able to:

1. explain the conceptual framework of purchase management.
2. perform the procedure for purchase of materials from private and Government sources
3. define special purchase systems and conduct price forecasting for purchasing the material.
4. explain the procedure of online purchasing, government purchasing and its current practices

Course Contents:

Unit	Unit wise Weightage of Marks (in %)	C&K	A&A
Unit-1: Introduction to Purchase Management	30	√	
Unit-2: Source and Procedure for purchase	20	√	√
Unit-3: Special Purchase Systems and Price Forecasting	30	√	√
Unit-4: Online and International Purchase	20	√	√

Unit 1 Introduction to Purchase Management

Introduction, importance and functions of purchase Department, Organization for purchase function, centralized and decentralized purchasing, objectives of purchasing i.e. 6 R's of purchasing. Buyer- seller Relationship: Importance of good buyer-seller relationship, Relation with supplier-policies and issues in relationship, Ethical issues in purchasing.

Unit 2 Source and Procedure for purchase

Sources of supply: vendor selection and rating, Material specifications, Pre-purchase considerations, standard purchase procedure, post-purchase issues. Standard form used in purchasing like purchase requisition, tender / quotation documents, schedule of quotations, purchase order, follow-up order, cancellation of order, Bill of Materials etc.

Unit 3 Special Purchase Systems and Price Forecasting

Special Purchase Systems and Price Forecasting: (a) Special Purchase Systems: Forward Purchase, Tender purchase, Blanket order, zero stock, Rate contract, Purchases of capital equipment and leasing. (b) Price Forecasting: Price and

pricing impact, price practices, price negotiations hard bargaining and fixing. Purchasing under fluctuating prices, purchasing under uncertainty, Negotiations regarding quality

Unit 4 Online and International Purchase

Online Purchasing: Concept, advantages, procedure of online purchasing and current online purchase practices. International Purchasing: Need for International Purchase, Direct and Indirect Buying, term of payments and Legal-Framework of International Purchasing. The eProcurement System of India

Suggested Readings

1. Bailky, P. and Farmer, D., Purchasing Principles and Techniques, Pitman, London
2. Chunawalla, S.A., Materials and Purchase Management, Himalaya Publishing House, New Delhi
3. Dutta A.K., Materials Management: Procedures, Text and cases, Prentice Hall of India Pvt. Ltd., New Delhi.
4. Gopalakrishnan, P. and Sundareson, M., Materials Management: An Integrated Approach, Prentice Hall of India Pvt. Ltd., New Delhi.
5. Shah N.M. An Integrated concept of Materials Management, Indian Institute of Materials Management, Baroda Branch, Baroda
6. Sharma S.C., Material Management and Materials Handling, Khanna Publishers, New Delhi.
7. Pooler Victor H. Purchasing and Supply Management, Creating the Vision, New York, Chapman & Hall
8. Lee, L. and Dobler, D.W., Purchasing and Materials Management, McGraw Hill, New York
9. Zenz, G.J.. Purchasing and the Management of Materials, John Wiley, New York
10. <https://www.india.gov.in/spotlight/government-e-marketplace-procurement-made-smart#tab=tab-1>

Note: Latest editions of the books should be used.

Assessment methods

- Internal Assessment 25 marks
- Written Theory Exam 75 marks

Keywords: purchase Department, vendor selection, Material specifications, Price Forecasting

Microeconomics for Materials Management

DSE 1.3

(4 credits: 3+1 tutorial)

Course Objectives:

This course is designed to expose students to micro economic theory along with their applications with examples. The students will learn some basic principles of microeconomics to understand inventory management to cope up with competition or take advantage of market opportunity with a view to maximize gain. This will help retailing business units in their decision making.

Course Learning Outcomes:

1. Students will learn to think in terms of economic trade-offs and opportunities facing a small or medium sized firm, in its attempt to manage inventories optimally
2. Students will also learn how a firm may use inventory management to cope up with competition in the market.

Unit	Unit wise weightage of marks (in %)	C&K*	A&A**
Unit 1: Understanding Demand & Supply, Price and resource allocation, Elasticity, Market equilibrium.	20%	√	√
Unit 2: Understanding Consumer Behaviour	20%	√	√
Unit 3: Understanding Production, Costs and Profit maximization by Firm	20%	√	√
Unit 4: Understanding Market structures.	20%	√	√
Unit 5: Application of Microeconomics to MM.	20%	√	√

Content (Unit-wise):

Unit 1 : Understanding Demand & Supply, Price and resource allocation, Elasticity, Market equilibrium.

Markets and competition; determinants of individual demand/supply; demand/supply schedule and demand/supply curve; market versus individual demand/supply; shifts in the demand/supply curve, demand and supply together; how prices allocate resources; elasticity and its application; controls on prices; impact and incidence of indirect taxation .

Unit 2 : Understanding Consumer Behaviour

The consumption decision - budget constraint, consumption and income/price changes, demand for all other goods and price changes; preferences; consumer's optimum choice; income and substitution effects; labour supply and savings decision; choice between leisure and consumption.

Unit 3 : Understanding Production, Costs and Profit maximization by Firm

Production functions. Laws of production. Producer's equilibrium with the help of isoquants and iso-cost line. Expansion path in the long run and short run. Short run and long run costs curves. Economies and diseconomies of scale. Short-run costs and output decisions; costs and output in the long-run.

Unit 4 : Understanding Market structures.

Price and output determination under perfect competition, monopoly, monopolistic markets and oligopoly in short run and long run, allocative efficiency in perfect competition. Difference between monopoly and different forms of imperfect competition.

Unit 5:Application of Microeconomics to MM.

Market Structure and inventory management: Feedback Loop, Cut throat Competition, Market Uncertainty, inventory and wind fall gains, Inventory for essential goods - FCI, Temporal and spatial dimension of market for inventories, Inventories for seasonally produced goods - cold storage for potatoes, fruits, etc.

Suggested Readings:

- Case, Karl E. & Ray C. Fair: Principles of Economics, Pearson Education, Inc., 3th edition, 2020.
- Emek Basker, Handbook on the Economics of Retailing and Distribution, Edward Elgar,

2016.

- Farnham, Paul G., Economics for Managers, Pearson, latest edition.
- Lipsey, R. and Alec Chrystal, A: Economics, Oxford University Press, 14th edition, 2020.
- Satya P and Goel, J.K, Managerial Economics, Sage Publications, Second Revised Edition, 2022.
- Saha, B. et al, Study on Impact of Future Markets of Potato and Mentha oil on Farm Communities, Final Report, IIM Calcutta and NISTADs, CSIR, New Delhi, 2012.
- Samuelson, William F, . Marks, Stephen G, Zagorsky, Jay L. Wiley, Managerial Economics, 9th edition, 2021

Course Assessment: Assignments/test - 25, Exam - 75