

TABLE OF CONTENTS

CHAPTER 1 - INTRODUCTION TO WAREHOUSE MANAGEMENT

- 1.1 Introduction
- 1.2 Concept of Warehouse
 - 1.2.1 Role of a Warehouse in Supply Chain and Logistics
 - 1.2.2 Types of Warehouses
 - 1.2.3 Need for Holding Stock
 - Self Assessment Questions
- 1.3 Warehouse Management
 - 1.3.1 Objectives of Efficient Warehouse Management
 - 1.3.2 Benefits of Warehouse Management
 - 1.3.3 Drivers of Warehouse Management
 - Self Assessment Questions
- 1.4 Warehousing Strategies
 - Self Assessment Questions
- 1.5 Challenges in Warehouse Management
 - Self Assessment Questions
- 1.6 Role of a Warehouse Manager
 - Self Assessment Questions
- 1.7 Summary
- 1.8 Key Words
- 1.9 Case Study
- 1.10 Exercise
- 1.11 Answers for Self Assessment Questions
- 1.12 Suggested Books and e-references

CHAPTER 2 - WAREHOUSE OPERATING PRINCIPLES

- 2.1 Introduction
- 2.2 Warehouse Design
 - Self Assessment Questions
- 2.3 Types of Warehouses
 - Self Assessment Questions
- 2.4 Warehouse Location
 - Self Assessment Questions
- 2.5 Planning the Distribution Warehouse
 - Self Assessment Questions

- 2.6 Warehouse Layout
 - Self Assessment Questions
- 2.7 Qualitative Factor Rating Method
 - Self Assessment Questions
- 2.8 Summary
- 2.9 Key Words
- 2.10 Case Study
- 2.11 Exercise
- 2.12 Answers for Self Assessment Questions
- 2.13 Suggested Books and e-references

CHAPTER 3 - WAREHOUSE ACTIVITIES

- 3.1 Introduction
- 3.2 Inbound Activities
 - 3.2.1 Receiving
 - 3.2.2 Unloading
 - 3.2.3 Counting
 - 3.2.4 Identification
 - 3.2.5 Marking
 - 3.2.6 Cross Docking
 - 3.2.7 Registering Goods
 - 3.2.8 Inspection
 - 3.2.9 Put-Away
 - Self Assessment Questions
- 3.3 Process Activities
 - 3.3.1 Order Picking
 - 3.3.2 Replenishment
 - 3.3.3 Stock Rotation
 - Self Assessment Questions
- 3.4 Outbound Activities
 - 3.4.1 Packing
 - 3.4.2 Shipping
 - 3.4.3 Confirmation
 - 3.4.4 Invoicing
 - 3.4.5 Sealing
 - 3.4.6 Staging
 - 3.4.7 Loading
 - 3.4.8 Return Processing
 - Self Assessment Questions

- 3.5 Summary
- 3.6 Key Words
- 3.7 Case Study
- 3.8 Exercise
- 3.9 Answers for Self Assessment Questions
- 3.10 Suggested Books and e-references

CHAPTER 4 - WAREHOUSE MANAGEMENT SYSTEM (WMS)

- 4.1 Introduction
- 4.2 Overview of WMS
 - 4.2.1 Need for WMS
 - 4.2.2 Functionalities/ IT considerations of WMS
 - 4.2.3 Features of WMS
 - 4.2.4 Advantages of WMS
 - Self Assessment Questions
- 4.3 Selection of the Right WMS
 - Self Assessment Questions
- 4.4 Implementation of WMS
 - Self Assessment Questions
- 4.5 Datex FootPrint—A Microsoft WMS
 - Self Assessment Questions
- 4.6 Limitations of WMS
 - Self Assessment Questions
- 4.7 Summary
- 4.8 Key Words
- 4.9 Case Study
- 4.10 Exercise
- 4.11 Answers for Self Assessment Questions
- 4.12 Suggested Books and e-references

CHAPTER 5 - PLANNING OF WAREHOUSE SPACE, LAYOUT AND EQUIPMENT

- 5.1 Introduction
- 5.2 Layout Planning
 - 5.2.1 Objectives of warehouse layout
 - 5.2.2 Layout Planning Methodology
 - Self Assessment Questions
- 5.3 Warehouse Design
 - 5.3.1 Sizing and Dimensioning of Warehouse
 - 5.3.2 Finished Products Storage

- 5.3.3 Packing Materials Storage
 - 5.3.4 Pallet Handling Area
 - 5.3.5 Dock Dimensioning
 - 5.3.6 Equipment Selection
 - Self Assessment Questions
- 5.4 Factors Influencing Layout Design
 - Self Assessment Questions
- 5.5 Philosophies for Effective Warehouse Layout
 - 5.5.1 Popularity Philosophy
 - 5.5.2 Similarity Philosophy
 - 5.5.3 Size Philosophy
 - 5.5.4 Product Characteristics
 - 5.5.5 Space Utilisation Philosophy
 - Self Assessment Questions
- 5.6 Warehouse Layout Design Framework
 - 5.6.1 Define Warehouse Objective
 - 5.6.2 Map Warehouse Activities
 - 5.6.3 Identify Storage Handling Unit(s)
 - 5.6.4 Forecast and Analyse Expected Demand
 - 5.6.5 Analyse Warehouse Equipment Setup
 - 5.6.6 Plan Space Requirements
 - 5.6.7 Prepare Possible Warehouse Layouts
 - 5.6.8 Evaluate Generated Layouts and Identify Preferred Solution
 - Self Assessment Questions
- 5.7 Storage Systems
 - 5.7.1 Pallets
 - 5.7.2 Automated storage and retrieval Systems (AS/RS)
 - 5.7.3 Temperature-Controlled Storage
 - 5.7.4 Storage of Packaged Dangerous Substances
- 5.8 Summary
- 5.9 Key Words
- 5.10 Case Study
- 5.11 Exercise
- 5.12 Answers for Self Assessment Questions
- 5.13 Suggested Books and e-references

CHAPTER 6 - WAREHOUSE DOCUMENTATION

- 6.1 Introduction
- 6.2 Introduction to Warehouse Documentation
 - 6.2.1 Significance of Documentation
 - 6.2.2 Objectives of Documentation
- 6.3 Types of Warehouse Documents
 - 6.3.1 Receiving Waybills/Notes
 - 6.3.2 Distribution Plans
 - 6.3.3 Dispatch Authorisations and Waybills
 - 6.3.4 Dispatch Waybills
 - 6.3.5 Waybill Tracking Documentation
 - 6.3.6 Tally Sheets (Loading and Offloading)
 - 6.3.7 Attendance Sheets
 - 6.3.8 Stack Cards
 - 6.3.9 Warehouse Inspection Reports
 - 6.3.10 Commodity Reconstitution Records
 - 6.3.11 Commodity Disposal/Destruction Records
 - 6.3.12 Commodity Status Reports
 - 6.3.13 Warehouse Physical Inventory Count Sheets/Reports
 - 6.3.14 Damage Reports
 - 6.3.15 Internal Loss Claim Records and Backup Documents
 - 6.3.16 Warehouse Daily and Monthly Reports
 - 6.3.17 Warehouse Assets/Equipment List
- 6.4 Summary
- 6.5 Key Words
- 6.6 Case Study
- 6.7 Exercise
- 6.8 Answers for Self Assessment Questions
- 6.9 Suggested Books and e-references

CHAPTER 7 - WAREHOUSE COSTS

- 7.1 Introduction
 - 7.2 Types of Warehouse Costs
 - 7.2.1 Handling Costs
 - 7.2.2 Storage Costs
 - 7.2.3 Operations Administration Costs
 - 7.2.4 Generation Administrative Costs
- Self Assessment Questions

- 7.3 Return on Investment (ROI)
 - Self Assessment Questions
- 7.4 Activity-based Costing (ABC) Systems
 - Self Assessment Questions
- 7.5 Summary
- 7.6 Key Words
- 7.7 Case Study
- 7.8 Exercise
- 7.9 Answers for Self Assessment Questions
- 7.10 Suggested Books and e-references

CHAPTER 8 - WAREHOUSE PERFORMANCE MANAGEMENT

- 8.1 Introduction
- 8.2 Warehouse Performance Evaluation
 - 8.2.1 Why to Measure?
 - 8.2.2 What to Measure?
 - 8.2.3 How to Measure?
 - Self Assessment Questions
- 8.3 Key Performance Indicators (KPIs)
 - Self Assessment Questions
- 8.4 Traditional vs. Modern Performance Metrics
 - Self Assessment Questions
- 8.5 Benchmarking
 - Self Assessment Questions
- 8.6 Balanced Scorecard
 - Self Assessment Questions
- 8.7 Summary
- 8.8 Key Words
- 8.9 Case Study
- 8.10 Exercise
- 8.11 Answers for Self Assessment Questions
- 8.12 Suggested Books and e-references

CHAPTER 9 - SAFETY, SECURITY AND MAINTENANCE OF WAREHOUSE - I

- 9.1 Introduction
- 9.2 Working Environment and Work Habits in a Warehouse
 - 9.2.1 Housekeeping Standards
 - 9.2.2 Load Handling
 - 9.2.3 Manual Handling and Lifting

- 9.2.4 Mechanical Lifting
- 9.2.5 Preventive Maintenance for Forklifts and Other Machinery
- 9.2.6 Personal Protective Equipment (PPE) and Work Wear
 - Self Assessment Questions
- 9.3 Fire Safety and Emergency Preparedness
 - Self Assessment Questions
- 9.4 Hazardous Material Handling and Disposal
 - Self Assessment Questions
- 9.5 Health and Safety Standards
 - 9.5.1 Physical Strain
 - 9.5.2 Temperature Inside a Warehouse
 - 9.5.3 Work Postures and Movements
 - 9.5.4 Stress Management
 - Self Assessment Questions
- 9.6 Summary
- 9.7 Key Words
- 9.8 Case Study
- 9.9 Exercise
- 9.10 Answers for Self Assessment Questions
- 9.11 Suggested Books and e-references

CHAPTER 10 - SAFETY, SECURITY AND MAINTENANCE OF WAREHOUSE – II

- 10.1 Introduction
- 10.2 General Considerations for Security of Facility
 - 10.2.1 CCTV
 - 10.2.2 Locking Devices and Key Controls
 - 10.2.3 Lighting
 - 10.2.4 Parking and Access Points
 - 10.2.5 Walk-throughs
 - 10.2.6 Limited Access
 - Self Assessment Questions
- 10.3 Environmental concerns
 - 10.3.1 Legislation Pressures
 - Self Assessment Questions
- 10.4 Waste Handling and Disposal
 - Self Assessment Questions
- 10.5 Green Initiatives
 - 10.5.1 Internal Environmental Policy of Warehouse
 - 10.5.2 Environmental Cooperation

10.5.3 ISO 14001 Environment Management System (EMS)

Self Assessment Questions

- 10.6 Summary
- 10.7 Key Words
- 10.8 Case Study
- 10.9 Exercise
- 10.10 Answers for Self Assessment Questions
- 10.11 Suggested Books and e-references

CHAPTER 11 - TECHNOLOGY AND WAREHOUSE MANAGEMENT

- 11.1 Introduction
- 11.2 Bar Code Scanners
 - Self Assessment Questions
- 11.3 Wireless LAN
 - Self Assessment Questions
- 11.4 Mobile Computers
 - Self Assessment Questions
- 11.5 Radio Frequency Identification (RFID)
 - Self Assessment Questions
- 11.6 Summary
- 11.7 Key Words
- 11.8 Case Study
- 11.9 Exercise
- 11.10 Answers for Self Assessment Questions
- 11.11 Suggested Books and e-references

CHAPTER 12 - OUTSOURCING AND FUTURE OF WAREHOUSING IN INDIA

- 12.1 Introduction
- 12.2 Third-Party Warehousing
 - 12.3.1 Reasons for Outsourcing Decision
 - 12.3.2 Selecting the Right Third-Party Service Provider
 - Self Assessment Questions
- 12.4 Role of Third Party Contractors
 - Self-Assessment Questions
- 12.5 Managing Third Party Relationship
 - Self Assessment Questions
- 12.6 Choosing the Right Partner
 - Self Assessment Questions

- 12.7 Future of Outsourcing
 - Self Assessment Questions
- 12.8 Summary
- 12.9 Key Words
- 12.10 Case Study
- 12.11 Exercise
- 12.12 Answers for Self Assessment Questions
- 12.13 Suggested Books and e-references

FOR REVIEW