

BHARATHIAR UNIVERSITY COIMBATORE - 641 046

ADVANCED DIPLOMA IN WAREHOUSE MANAGEMENT

(For the CPOP students admitted during the academic year 2012-2013 & Onwards)

Scheme of Examinations – CBCS Pattern

Title of the Paper	Ins. Hrs/week	Examinations				
		Duration. Hrs	CIA	Marks	Total	Credits
Semester - I						
1. DWM01 Business Communication	5	3	25	75	100	4
2. DWM02 Material Handling Equipments	5	3	25	75	100	4
3. DWM03 Planning and Distribution of Materials	5	3	25	75	100	4
Semester - II						
4. DWM04 IT Application for Warehouse Management	5	3	25	75	100	4
5. DWM05 Material Codification, Standardisation and Storage system.	5	3	25	75	100	4
6. DWM06 Storage and Handling Practices of Materials	5	3	25	75	100	4
Total	-	-	-	-	600	24

DWM 01 BUSINESS COMMUNICATION

Unit - I

Business communication – Introduction – What is business communication – Meaning of communication – Elements of communication – Medium Vs Channel – Other elements – General Guidelines for effective communication

Unit - II

Essentials of effective correspondence : Introduction – Important means of written communication – Letters – The Lay-out of a business letter – Salient features of an effective letter – Importance of Planning a letter – Five steps to planning – Formats for typing (Block style) – Formats for typing (Indent style) – Types of Business letters – Letter Writing – Useful phrases.

Unit - III

E-Mail : Introduction – E-Mail Messages – Improving readability in E-Mail messages – E-Mail netiquette – Advantages of e-mail – The impact of e-mail on business

Unit - IV

Presentations: Introduction – How to do an effective presentation – The 4 P's – Prepare – Structure

Unit - V

Meetings in Business: Introduction – What makes a meeting work – How to get good results from a meeting – Time management .

Reference:

1. Rajendra Pal & J.S. Korlahalli, Essentials of Business Communication.
2. N.C. Jain & Saakshi, Essentials of Business Communication.
3. Marylene Morales & G. John Joseph Adaikalam, Business Communication.
4. Asha Kaul, Business Communication.

DWM 02 MATERIAL HANDLING EQUIPMENTS

Unit – I

History of Materials Handling – Need of Materials Handling – Importance of Materials Handling – Advantages of Materials Handling – Dis- advantages of Materials Handling – Functions involved in Material Handling – Types of Layout & Performance of Layout

Unit – II

Principles and their Uses – Preliminary Considerations – Principles of Material Handling Equipments – Factors in Selection of Material Handling Equipments – Materials Handling and Role of Management

Unit – III

Selection of Materials Handling Equipments – Economics of Material Handling Equipments – Cost Analysis – Cost Account and Material Handling – Cost Indices

Unit – IV

Hoisting Machineries – Elevating Equipments – Cranes – Important Parts of cranes – Types of cranes – Rotatory or Revolving Cranes – Bridge & Mobile Cranes.

Unit – V

Conveying Equipments – Traction Type Conveyers – Traction less Type Conveyers – Surface Tension Equipments – Narrow gauge equipments – Cross Holding Equipments – ODC Material Handling

Reference:

- 1) R.B.Choudary & G.R.N.Tagore, Plant Layout and Material Handling, Khanna Publishers.
- 2) Jacob Fruchtbaum, Bulk Materials Handling Hand Book, CBS Publishers & Distributers.
- 3) Dr.K.C.Arora, Vikas V.Shinde, Aspects of Material Handling, Laxmi Publications (p) Ltd.

DWM 03 PLANNING AND DISTRIBUTION OF MATERIALS

Unit - I

Introduction to planning and distribution – importance of planning and distribution in logistics- physical distribution channel types and structure – channel types outsourcing channel.

Unit - II

Planning framework for logistics – pressures for change – strategic planning overview – logistics design strategy – product characteristics – product life cycle – packing – planned approach or mythology.

Unit III

Role of distribution centers in warehouses - site search and consideration – The role of the distribution manager – The effect of distribution activities – choosing location for warehouse.

Unit - IV

Elements of warehouse management – principles of warehouse management – The inventory management – inventory costs – inventory control – warehouse strategies – warehouse management process – trends in modern warehouse network – warehouse layout and equipment.

Unit - V

International distribution – forces driving Globalization – developing global strategies – Channel strategies managing Global distribution networks – International Transportation and warehousing International purchasing.

Reference:

1.) David Frederick Ross, Kluwer, PLANNING AND CONTROL, Academic Publisher Group.

DWM 04 IT APPLICATION FOR WAREHOUSE MANAGEMENT

Unit I

Introduction to warehouse management - Benefits of IT application in warehouse - Auto ID Data Capture (AIDC) technology -Capturing data from printed documents - Bar code and barcode scanner technology - Classifications of barcode reader – New algorithms for barcode decoding - Methods of connection.

Unit II

Human-computer interaction – Devices – Limitations–In-vehicle computing and fleet computing–Security Issues involved in Mobile Computing–Portable computing devices– Mobile data communication – wireless LANs – Architecture of wireless –Types of wireless LANs – Roaming.

Unit III

Radio-frequency identification (RFID) – Design of RFID – Uses of RFID - RFID mandates– Regulation and standardization–Problems and concerns – Controversies – RFID sensor –Pick and pack–Counter-to-counter package–Document automation– Invoices– packing lists.

Unit IV

Wave picking–Voice Directed Warehousing–Potential benefits–How it works – Picking – Putaway – Replenishment–Inventory checking–Voice training – Security–WMS or middleware – Shipping list – Packing list – Waybill – Packing slip - Bill of Materials.

Unit V

Inventory management software(IMS) – Components of IMS - Manufacturing uses/applications – Advantages& disadvantages of IMS - Enterprise resource planning - Expansion&Origin of "ERP" – Characteristics of ERP – Implementation - Comparison to special-purpose applications.

Reference:

- 1.Philip Obal, Glossary Of Supply Chain Terminology, Industrial Data & Information Inc
- 2.J Kappauf, B Lauterbach, M Koch Logistic Core Operations With Sap, Springe publication.

DWM 05 MATERIAL CODIFICATION, STANDARDISATION AND STORAGE SYSTEM.

Unit I

Introduction to Codification in Materials Management – What do we mean by coding – Codification by group classification – Classification of material in an inventory, shape, characteristics & material of construction - Classifications in terms of the composition.

Unit II

Nature of codification – Process of codification – Kodak system – Brisch system – The merits and demerits of codification – Need for standardisation – Definition for standardisation – Standardisation and variety reduction – Importance of standardisation.

Unit III

Standardisation in India– Simplification – Preferred numbers –The “academic” approach of standardisation –The “pragmatic” approach of standardisation – Benefits of standardisation – need of storage system in warehouse –Need for storage system.

Unit IV

Pallet racking including selective, drive-in, drive-thru, double-deep, pushback, and gravity flow - Mezzanine including structural, roll formed, racks - Vertical Lift Modules - Horizontal Carousels - Vertical Carousels - Automated storage and retrieval systems.

Unit V

Modern trends in storage system - Just In Time (JIT) techniques - Offshore outsourcing - warehouse-style retail stores - Vendor Managed Inventory (VMI) - Cool warehouses and cold storage - Cold storage and the law -Refrigerated warehouse industry- Advantages of storage system.

Reference:

1. J A. Tompkins, J D. Smith, The Warehouse Management Handbook, Tompkins press.
2. P. Gopalakrishnan, Handbook Of Materials Management, PHI Learning Pvt. Ltd.

DWM 06 STORAGE AND HANDLING PRACTICES OF MATERIALS

Unit – I

Introduction to warehouse – Supply Chain Imbalances – High-speed – Zero Defect Supply Chains – Value Added Warehousing – Rising Warehousing Cost – Confusion and Crowding in the warehouse Marketplace – The Plight of the warehouse manager – Warehouse Fundamentals.

Unit – II

Investigating Warehouse Operations – Warehouse Activity Profiling – Profiling Motivations – Customer Order Profiling – Item Activity Profiling – Inventory Profile – Activity Relationship Profile – Benchmarking Warehouse Operations – Warehouse Performance Measures - Warehouse Performance Gap Analysis–Warehouse Automation – Warehouse Practices and Warehouse Performance.

Unit – III

Innovating Warehouse Operations – Pallet Storage & Retrieval Systems – Case Picking Systems – Small Item Picking Systems – Order Picking Operations.

Unit – IV

Shipping – Container Optimization – Container Loading and Void Fill – Weigh Checking Automated – Dock Loading – Dock Management – Warehouse Layout – Space Requirements Planning – Material Flow Planning – Adjacency Planning – Process Location – Expansion/Contraction planning.

Unit – V

Computerizing Warehouse Operations – Paperless and Wireless Warehouse Systems – Warehouse Management System Justification, Selection and Implementation- Warehouse Workforce Design and Development.

Reference:

1. Edward Frazelle, World-Class Warehousing and Material Handling, McGraw-Hill Publisher.