



INDIAN INSTITUTE OF MATERIALS MANAGEMENT

Post Graduate Diploma in Logistics & SCM

JUNE 2023

PAPER No.17 (Enrollment code – CPS)

WAREHOUSING MANAGEMENT

Date : 23.06.2023
Time : 10.00 a.m to 1.00 p.m

Max. Marks: 70
Duration : 3 Hrs.

Instructions:

1. Part A, contains 4 main questions (with 5 sub-questions) each question carries 1 mark - Total 20 marks
2. Part B answer any 3 questions out of 5 questions. Each question carries 10 marks - Total 30 marks
3. Part C is a case study. Read the case carefully and answer the questions - Total 20 marks

PART – A

(20X1= 20 Marks)

(Compulsory - Attempt all questions each question carries 1 mark)

Q.1 Select the right answer

[5 marks]

1. One of the important warehouse design factors is
(a) Cleanliness (b) Accessibility (c) Manpower (d) All of these
2. Drive through rack is a common type of
(a) Mobile storage (b) Storage rack (c) AS / RS (d) Robotic storage system
3. Receiving and put away is part of _____ in a store
(a) Product movement (b) Arranging the store (c) Identifying the item (d) Dispatching activity
4. Advantages due the implementation of automated picking is
(a) Error reduction (b) Cost reduction (c) Improved packing (d) Men not required
5. Analysis of the following factors helps in finalizing the warehousing strategies
(a) Warehousing cost (b) Warehouse location (c) Manpower (d) All of these

Q.2 Fill in the blanks

[5 marks]

1. _____ is an automated, integrated, computer-controlled product storage system
2. Loads are supported on an inclination in the _____
3. Availability of specialist is one of the reasons for _____ of warehousing operations
4. A warehouse that receives a customer order, picks it, packs it and dispatches it is a _____
5. _____ in warehouse design considers product categories, and velocity through the stores

Q.3 Mention True or False

[5 marks]

1. Goods in the bonded warehouses are in the custody of Customs
2. Order picking is one of the operations of warehouse
3. A warehouse that fulfills the inventory requirement of a manufacturing unit is a fulfillment warehouse
4. Zone picking system is a picking method where picking is carried out within one storage location
5. Warehouse management system is a software used in the running of a store's activities

Q.4 Match The following**[5 marks]**

COLUMN A		COLUMN B	
Sr. No.		Sr. No.	
1	Storage, Assembly, kiting & packing	A	AS / RS
2	Unit load	B	Customer service
3	Storage carousel	C	Value added service in warehouse
4	Traffic routes and floors	D	Pallet
5	After sales logistics	E	Stores design

PART - B**[Total 30 marks]****Answer any THREE out of the following five questions:**

- Q5.** (a) What is goods picking? What are the advantages of optimizing this operation? **[5 marks]**
 (b) What are the various costs that are part of the total cost of warehousing? Explain briefly. **[5 marks]**
- Q6.** (a) What are the various types of warehouses? Explain each. **[5 marks]**
 (b) What are the issues related to the main and supporting activities of logistics? **[5 marks]**
- Q7.** (a) Discuss on some of the common innovations deployed in a warehouse. **[5 marks]**
 (b) What are the barriers that emerge in the supply chain? **[5 marks]**
- Q8.** (a) What are the top 10 reasons for the outsourcing of warehousing operations? **[5 marks]**
 (b) Write briefly on WMS. What are the activities that are managed by the WMS? **[5 marks]**
- Q9.** (a) What are basic functions in a warehouse? What are the common activities of a warehouse? **[5 marks]**
 (b) What factors have to be considered to decide on the location and number of warehouses? **[5 marks]**

PART - C**[Total: 20 Marks]****Q.10****CASE STUDY (Compulsory)**

You are a third-party service provider providing warehousing services to many customers. Recently they have identified additional customers who have contracted them for warehousing services. Some of the conditions imposed by these new customers are new to you. The volume and nature of goods that have to be stored need careful study. You have decided to use the racking system to keep investment low.

One of the materials that is to be stored needs the following of the FIFO method as otherwise the goods could get spoiled due to prolonged storage. You have decided to follow the unit load system of palettization of the goods for bulk storage and retrieval.

Another material that is to be stored required the following of the LIFO method. This requirement of the customer has to be met without fail. These goods can be stored in bulk and frequently the requirement (issue) is also in bulk.

A new dimension has been added to the warehouse activities by this customer. They have asked for the e-fulfillment to be handled by your stores. The turn around time is short and error tolerance for these goods are very low. Customer is expecting an automatic system with WMS

Questions:

1. What are the likely risks? What is your assessment of the risks? **[5 marks]**
2. What racking method is best suited for the material which follows FIFO? **[5 marks]**
3. What racking method is best suited for the material which follows LIFO? **[5 marks]**
4. What kind of automatic system needs to be used for the e-fulfilment requirement? **[5 marks]**