



INDIAN INSTITUTE OF MATERIALS MANAGEMENT  
Post Graduate Diploma in Logistics Management

June 2014

PAPER-5  
LOGISTICAL SYSTEMS OPERATION

Date: 14.06.2014  
Time: 2.00 p.m. to 5.00 p.m.

Max Marks: 100  
Duration: 3 Hours

**Instructions:**

- 1) Part A- Answer all questions (compulsory)
- 2) Part B-Answer any three questions
- 3) Part C -Compulsory

Total Marks=32  
Total Marks=48  
Total Marks=20

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**PART – A**

**(1 x32 = 32 marks)**

**Q.1 : True or False**

**Marks:8**

- a) Warehouse can not be used for the purpose of postponing or delaying production
- b) Stores with high value added and a broad product assortment tend to focus on centralized buying and advertising to keep costs low.
- c) Shipment consolidation leads to economic benefit of warehousing.
- d). Warehouse is viewed as a switching facility as contrasted to a storage facility
- e) It does not matter how or where goods are sold, it is considered retailing if it is sold to the final consumer.
- f) Decoupling provides maximum operating efficiency.
- g) Discount stores are large stores that combine the principles of supermarket, discount, and warehousing into one store. .
- h) The wheel-of-retailing hypothesis is that as current store types go up the scale in price service offerings, they create an opportunity for new, low-price, low-service competitors.

**Q.2 Fill in the blanks:**

**Marks:8**

- 1) -----covers facility expenses related to product holding rather than product handling.
- 2) ----- is a target specified by management.
- 3) The ----- function concerns short range variation in either demand or replenishment.
- 4) ----- provides efficiency within a single manufacturing facility by stockpiling work –in-process between production operations.
- 5) A -----consists of a firm providing its own transportation.
- 6) ----- performs the same type of handling function as a mechanized tow tractor with trailer or rider pallet truck.

- 7) -----are used widely in shipping and receiving operations and form the basic handling device for a number of order selection systems.
- 8) ----- Devices are typically used in combination with conveyors.

**Q.3 Choose the correct answer for the following multiple choice questions                      Marks: 8**

**1. Dell supply chain is characterized by**

- a. Long-term relationship with the suppliers
- b. Individual customization
- c. Zero product variety
- d. Lean production systems
- e. Vertical integration

**2. Toyota supply chain is characterized by**

- a. Loosely-held supplier networks
- b. Zero product variety
- c. Vertical integration
- d. Individual customization
- e. Long-term relationship with the suppliers

**3. Ford supply chain is characterized by**

- a. Individual customization
- b. Loosely-held supplier networks
- c. Increased product variety
- d. Vertical integration
- e. Long-term relationship with the suppliers

**4. The companies will realize the benefits of implementing IT when which of the following is undertaken?**

- a. Companies need to invest heavily in information systems.
- b. Companies need to automate the existing supply chain systems and processes.
- c. Companies need to re-engineer their supply chain structure.
- d. Companies need to undertake revision in the supporting organizational processes.
- e. Companies need to re-engineer their supply chain structure and undertake revision in the supporting organizational processes.

5. Which one of the following is not a challenge being faced by the Indian organizations?

- a. IT implementation
- b. Smaller pack sizes
- c. Complex distribution structure
- d. Complex taxation structure
- e. Poor infrastructure

6. Which of the following is not considered a primary activity in the value chain framework developed by Michael Porter?

- a. Outbound logistics
- b. Sales and service
- c. Inbound logistics
- d. Procurement
- e. Operations

7. Costs incurred for the control co-ordination of internal supply chain are known as

- a. Economies of scale
- b. Relational costs
- c. Transaction costs
- d. Agency costs
- e. None of the above

8. Which of the following make or buy decisions will a firm undertake to maintain leadership in its product offerings.

- a. It will carry out the brand management function itself.
- b. It will do the customer service call centre function itself.
- c. It will outsource the IT management function to a third party.
- d. It will carry out the brand management function itself and outsource the IT management function to a third party
- e. It will carry out both the brand management function and customer service call centre function itself.

**Q.4: Expand the following:**

Marks: 8

- |        |         |         |        |
|--------|---------|---------|--------|
| 1) WMS | 2) CPFR | 3) SKO  | 4) POS |
| 5) DPP | 6) ECR  | 7) FEFO | 8) OMS |

## **Part-B**

**48 marks**

**(Any three from the following, each question carry 16 marks)**

**Q5.** Describe the five modes of transportation, identifying the most significant characteristics of each.

**Q6.** Discuss the statement that “the best type of material handling is no handling at all”.

**Q7.** Compare and contrast order selection and unit load automation.

**Q8.** To what extent has robotics been adapted in warehouse material handling? Elaborate.

**Q.9. Write short notes (Any four)**

- |                         |                               |                |            |
|-------------------------|-------------------------------|----------------|------------|
| a) Industrial Packaging | b) Shipping.                  | c) Spot Stock. | d)Tracking |
| e) Average inventory    | f) Break Bulk and cross Dock. |                |            |

## **Part-C**

**20 marks**

**Q.10.Case Study....**

M/s All India Logistics Public Company Ltd. Hyderabad has been offering 3 PL transportation service to industry at an affordable price. They have set up a maintenance facility to maintain high service level. During an informal visit to the maintenance facility, the Managing Director overheard a worker venting out his frustration to his supervisor.

The worker said that he visited four storage locations to collect the required material but managed to fill only part of the order because some items were out of stock. For some reason the MMS (Material management system) showed that, adequate number of items is available. The Managing Director was concerned about steady rise in cost of operations.

Based on your study the following finding have been observed.

- Users had to make separate requisitions for items kept at each of the store locations and collect the items personally.
- The general perception is that computerized materials management system is highly inaccurate
- There is a tendency to draw more than the need due to fear stock outs.
- “Just –in case attitude” was predominant amongst workers.
- Receiving stores staff were reluctant to use computer based systems.

- Material consumption reports were not maintained.

Questions:-

- A) Explain the logistical problems in the above case.
- B) Suggest suitable plan of action for improvement in the performance.

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