



INDIAN INSTITUTE OF MATERIALS MANAGEMENT
Post Graduate Diploma in Logistics Management

June 2013

PAPER-5
LOGISTICAL SYSTEMS OPERATION

Date: 08.06.2013
Time: 2.00 p.m. to 5.00 p.m.

Max Marks: 100
Duration: 3 Hours

Instructions:

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

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

PART - A

Q.1 :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.2 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 the supply 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 in connection with the control and 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. In order to maintain leadership in its product offerings, which of the following make or buy decision(s) will a firm undertake?

- 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.3: Expand the following:

Marks: 8

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

Q.4: Say True or False:

Marks:8

- 1) Retail stores pass through a retail life cycle that parallels the product life cycle of products.
- 2) It does not matter how or where goods are sold, it is considered retailing if it is sold to the final consumer.
- 3) Discount stores are large stores that combine the principles of supermarket, discount, and warehousing into one store.
- 4) An example of a retail store positioned to offer a broad product assortment and high value added would be Wal-Mart.
- 5) The slowest growing segment of retailing is non store retailing.
- 6) The wheel-of-retailing hypothesis is that as current store types go up the scale in price and service offerings, they create an opportunity for new, low-price, low-service competitors.
- 7) A Subway sandwich store offers a narrow but deep assortment of products.
- 8) Stores with high value added and a broad product assortment tend to focus on centralized buying and advertising to keep costs low.

Part-B

(Any three from the following)

16 marks each

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

What is the basic concept behind intermodal movement?

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? What are the casual factors behind your answer?

Part-C

Q. 9 Case study:

Marks (20)

Chronotronics produces two models of clock radios, the X-100 and the X-250 deluxe. Both products are currently packaged in single –wall corrugation. Through close observation, the firm has discovered that 0.5 percent of both X-100s and X-250s are damaged between packaging and customer delivery. Chronotronics can package either model, or both, in double –wall corrugated fiberboard, which would reduce product damage by half. The current single wall packaging costs 20 percent more. The X-100 and X-250 have market values of \$40 and \$70, respectively. Damaged units are a total loss. Chronotronics sold 12,000 X-100s and 7,000 X-250s last year. Forecasts indicate consistent sales for the X-100 and a percent in X-250 sales over the next year.

- a. From a least – cost perspective, should chronotronics utilize double – wall corrugation with the X-100 next year?
- b. From a least –cost perspective, should chronotronics utilize double wall corrugation with the X-250 next year?