



INDIAN INSTITUTE OF MATERIALS MANAGEMENT

Dec 2014

Post Graduate Diploma in Materials Management

Graduate Diploma in Materials Management

PAPER No. 11

LOGISTICS & SUPPLY CHAIN MANAGEMENT

Date : 19.12.2014

Max. Marks :100

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

Duration : 3 Hrs.

Instructions:

1. **PART A** is compulsory. Answer all questions. Total marks = 32
 2. From **PART B**, answer any three questions. Each question carries 16 marks . Total marks = 48
 3. **PART C** is **Case Study** and is compulsory. Answer the questions reflecting through understanding of the case. Total marks = 20
 4. Please read instructions on the answer sheet carefully.
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PART A

32 marks

(compulsory- Attempt all Questions each question carries 1 mark)

Q 1. Expand the following

8 marks

1. GDP
2. ROI
3. EDI
4. UPC
5. POP
6. ASRS
7. AGV
8. VED

Q 2. Fill in the blanks

1. Primary objectives of ----- is to sort out value added activities and non value added activities
2. ----- elements are the customer service variables directly involved in performing the physical distribution functions
3. In case of -----, shipments are sent from a number of manufacturing locations to a central warehouse facility
4. ----- is the process of retaining and protecting properly while not in active use.
5. ----- are mechanical device that house and route items.

6. ----- = (Demand rate per period) x (Lead time in periods)
7. Increased standardization decreases -----, vehicle waiting time for loading and unloading and also decreases the need for specialized team sports equipment
8. Consolidation of inventory into fewer locations can substantially ----- total inventory hold.

Q. 3. Match the following

8 marks

COLUMN A

COLUMN B

- | | |
|--------------------------------|---|
| 1. Outsourcing | a) Minimizes the sum of holding and setup cost |
| 2. Customer Service | b) Can be defined as a consistent provision of time and place utility |
| 3. Carousels | c) Disposable shipping platform manufactured using highly tensile laminated paper |
| 4. Pallet | d) Refers to performing an activity by those who have the core competency to do that activity |
| 5. Economic order quantity | e) Specially developed computer simulation language |
| 6. Transportation optimization | f) Most common type of unit load |
| 7. Slip sheets | g) Is achieved through a balance between cost and service |
| 8. DYNAMO | h) Form of AS/RS equipment |

Q. 4. Find True or False of the following

8 marks

1. Large pipeline reduces likelihood of stocks but increases likely hood of wastage
2. Damage attributed to warehouse operations is usually charged to warehouse operator, if the cost is unreasonable
3. Order winning criteria is more likely service based rather than product based
4. Warehouse are viewed as a storage facility rather than a switching facility
5. The average carrying cost of the inventory across all manufacturing units is about 55% of its value
6. Outsourcing eliminates investment in transport fleet, warehouse, handling equipment and storage arrangement
7. Forwarder based service providers are non-asset owners that capably provide a wide range of logistics services.
8. CSM involves the monitoring of services needs, performance and also management of the entire order fulfillment process.

PART - B

Write any three (3) of the following questions – 16 marks each

(48 Marks)

- Q 5.** a) What are the various measures of customer service?
b) In what way e-solution helps in achieving the objectives of a supply chain?
- Q 6.** a) Define switching facility. How does it affect warehousing system?
b) Discuss the material handling equipments and systems
- Q 7.** a) Explain about the most commonly used storage system
b) Define outsourcing. What are the various levels of outsourcing?
- Q 8** a) Discuss the role of Reverse logistics in a firm's supply chain.
b) What are the packaging rules related to safety and quality?
- Q 9.** Write short note on (ANY TWO)
1. Phases of customer service
 2. Components of supply chain
 3. Freight management
 4. Packaging cost

PART – C

20 Marks

Q. 10 CASE STUDY (compulsory)

Mr. Stan Busfield, distribution center manager for Hogan Kitchenware, must determine when to resupply his stock spatulas. The distribution center experiences a daily demand of 400 spatulas. The average length of the performance cycle for spatulas is 14 days. Mr. Busfield requires that 500 spatulas be retained as safety stock to deal with demand uncertainty.

- a) Use simple reorder point logic to determine order quantity for spatulas
- b) On the basis of your answer to part (a), Mr. Busfield's average inventory level of spatulas.
