

JUN-2010

INDIAN INSTITUTE OF MATERIALS MANAGEMENT
Post Graduate Diploma in Logistics Management

Paper –5
Logistics Systems Operation

Date: 12.06.2010
Time: 2.00 pm to 5.00pm

Max. Marks: 100
Duration: 03 Hrs.

Instructions:

1. From Part - A, answer all questions, each sub question carries 1 mark
Total Marks-32
 2. From Part – B, answer any three questions out of five questions. Each question carries 16 marks.
Total Marks-48
 3. Part –C is a case study of 20 marks.
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PART A

Q.1: State True or False:

8 Marks

1. Forecasted demand can be classified as either interdependent or exterior dependant.
2. Forecast error can be defined generally as the difference between actual sales & estimated forecast.
3. Inventory Policy remains silent on inventory positioning & placement at plants & at distribution level.
4. Perpetual Inventory control process reviews inventory status daily to determine replenishment needs.
5. Pipelines are labor intensive, hence variable operating cost is extremely high, once pipeline is constructed.
6. Pipeline as a transport mode is more dependable than other transport modes.
7. TOFC is most widely used intermodal system.
8. “**Postponement**” offers a strategy to reduce the anticipatory risk & logistics.

Q.2: Write Full Forms:

8 Marks

1. AGVS 2. CFR 3. EDI 4. GATT 5. IATA 6. ISO 7. TOFC 8. FOR

Q.3: Match the following:**8 Marks**

- | | |
|--|--|
| a. Order Cycle | 1) Environment enemy |
| b. Safety Stock | 2) Facility's Financial & administration control |
| c. Plinth | 3) Product Information which is packed |
| d. Private Warehouse | 4) Essential for product design & development |
| e. Time Series Method | 5) Warehouse open area for storage of goods |
| f. Forecasting provides Future trend, which is | 6) Time lag between two successive orders |
| g. Communication | 7) A forecasting method |
| h. Hazardous Material | 8) Buffer Stock |

Q.4: Fill in the blanks:**8 Marks**

1. A Forecast is a projection of the _____ or number of units that is likely to be produced or sold.
2. The _____ component is defined as the long range general movement in periodic sales over an extended period of time.
3. Qualitative techniques rely heavily on expertise & quite _____ & _____ consuming.
4. For a retailer, inventory management is fundamentally a matter of _____ & _____.
5. Brokers are _____ that coordinate transportation arrangement for shippers, consignees & carriers.
6. The placard of hazardous goods carrier provide _____ information to police, fire-fighters, medical personnel at the scene of accident.
7. The main advantage of water transportation is the _____ to move extremely large shipments.
8. The _____ cost of air transport is low compared to rail, water & pipeline.

PART B

Answer any 3 out of 5 questions

Q.5:

16 Marks

- a. Define EOQ & illustrate it graphically.
- b. Derive EOQ formula.
- c. Explain EOQ Assumptions & Limitations.

Q.6: Write Short Notes: (Any Four)

16 marks

1. ABC Analysis
2. Just In Time
3. Public v/s Private Warehouses
4. Safety Stock
5. Cross Docking

Q.7: What is Packaging? Describe various types of Packaging Materials.

16 Marks

Q.8: Discuss various factors considered for site selection of warehouse.

16 Marks

Q.9: Discuss various methods of Forecasting.

16 Marks

PART C

Q.10:

20 Marks

A company requires 9600 Ball Bearings, costing Rs.75/- per unit. The cost of placing an order is Rs.150/- & carrying cost is 12% per unit per year of the average inventory.

Determine

- a. EOQ
- b. Cycle Time
- c. Total Variable cost of managing the inventory.