



INDIAN INSTITUTE OF MATERIALS MANAGEMENT
Post Graduate Diploma in Materials Management
Graduate Diploma in Materials Management

Dec 2011

PAPER No. 11

LOGISTICS & SUPPLY CHAIN MANAGEMENT

Date : 16.12.2011
Time : 10.00 a.m. to 1.00 p.m.

Max. Marks :100
Duration : 3 Hrs.

Instructions

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

PART A

Q.1 Please state whether the following statements are “True” or “False”. (1 Mark each)

[Total : 16 Marks]

1. The philosophy behind KANBAN is use-one-buy-one.
2. Logistics packaging is designed considering distribution objectives.
3. In cross docking, the usage of warehouse is for more than one year.
4. The supply chain is the link between procurement, manufacturing & distribution.
5. Exact algorithm does not provide optimal solution.
6. Lean Supply Chain indicates very little or near to zero inventory on hand.
7. Voyage charter refers to shipment by sea.
8. Consolidation does not save cost on freight.
9. The retailers risk duration is much less than that of the wholesaler.
10. Inventory levels can be reduced by lead time analysis.
11. Highway control room for monitoring the location of goods vehicles is kiosk.
12. Simulation replicate the functioning of logistics network.
13. All value added activities block resources which can otherwise be put to productive use.
14. The effective supply chain integration leads to cost saving.
15. Inland water transportation is eco-friendly.
16. Outbound logistics includes the warehousing, transportation & inventory management of raw materials.

Q.2 Match the following. (1 Mark each)

[Total : 8 Marks]

(1) Heuristic algorithm	(a) Important for customer service
(2) Stock availability	(b) Bonded warehouse
(3) Wal-mart	(c) Easy transfer between two transportation modes
(4) Quality	(d) Cross Docking
(5) Deficiency level	(e) TQM
(6) Uncertain Demand	(f) Not optimal solution
(7) Custom Duty not paid	(g) Inadequate stock
(8) Containerization	(h) storage risk

Q.3 Write the full form of the following. (1 Mark each)

[Total : 8 Marks]

(1) VLCC ; (2) ROI; (3) AWB; (4) AITS; (5)TEU; (6) SRM;(7) CIF; (8) RFID

PART B

[Total : 48 Marks]

Write any THREE out of the following five questions i.e, Q.4 to Q.8: (16 Marks each)

Q.4. Discuss the various systems used for tracking consignments with their merits & demerits.

Q.5. Discuss the various types of logistics strategies being used in the industry.

Q.6. How logistics operations differ for material movement within and between countries?

Q.7. Why do corporations outsource logistics functions and what benefits are they getting?

Q.8. Which are the different networks used for providing transportation services? Discuss their merits and demerits in the context of the existing transportation infrastructure in India.

PART C

[Total : 20 Marks]

Q.9

Compulsory

CASE STUDY

M/s NextGen Auto Component Company procures a part priced at Rs 100/- each from M/s Sundaram Parts Incorporated. Annual requirement is 2 lakh components. Lead time is 6 weeks. Demand is 4500 with a standard deviation of 350 per week. The company wishes to maintain a service level of 90% ($K=1.5$). Normal lead time is 6 weeks and maximum lead time that occurred in the past was 10 weeks, and cumulative probability of its occurrence was 0.2. The ordering cost is Rs 500/- and the inventory carrying cost works out as 25%.

Questions :

1. What is the economic order quantity for NextGen Auto Component Company?
2. What is the total cost of the EOQ?
3. If inventory carrying cost is reduced to 20%, what will be the economic order quantity for NextGen Auto Component Company?
4. Calculate Safety Stock.
5. An alternate vendor , i.e., M/s Chintan Auto Parts offers lead time of 4 weeks with price of Rs 102/- each. Please help NextGen Auto Component Company in taking decision of procuring parts.