

**INDIAN INSTITUTE OF MATERIALS MANAGEMENT  
POST GRADUATE DIPLOMA IN MATERIALS MANAGEMENT  
GRADUATE DIPLOMA IN MATERIALS MANAGEMENT**

**Paper 11  
LOGISTICS & SUPPLY CHAIN MANAGEMENT**

Date : 09.06.2009  
Time: 10.00am To 1.00pm

Max Marks: 100  
Duration: 3 hours

**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 : 12 Marks]**

1. Bulk hazardous liquid chemicals are to be transported in dedicated road tankers.
2. In cross docking, warehouses function as inventory coordination points.
3. Heuristic algorithm is those that found optimal solution.
4. Safety stock increases as firm moves from decentralized system to a centralized system.
5. The logistics concept is based on the system approach.
6. Logistics connects the source of supply with source of demand.
7. Packaging is not important to supply chain management.
8. Voyage charter refers to shipment by water.
9. Inland water transportation is an eco-friendly transportation mode.
10. Uncertain demand implies shortage risk.
11. Demand shaping is process in which firm determines impact of marketing plans.
12. Dehumified store meets the need of material to be stored in a moisture free atmosphere.

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

**[Total : 8 Marks]**

(1)Storage of petroleum products	(a) Inadequate stock in hand to meet the needs
(2)Deficiency level	(b) Water transport
(3)Bar Code	(c) Lead Time Analysis
(4)Time Charter	(d) Optimal solution
(5)CFR	(e) Information about product
(6)Decentralized System	(f) Use of a ship for an agreed upon time period
(7)Exact Algorithm	(g) Chief Controller of Explosives
(8)Reduction in Inventory	(h) Local transportation

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

**[Total : 12 Marks]**

- |           |            |           |           |
|-----------|------------|-----------|-----------|
| (1) JIT ; | (2) TEU;   | (3) ICD;  | (4) FSN;  |
| (5) RFID; | (6) SKU;   | (7) DWT;  | (8) LTL ; |
| (9) 3PL;  | (10) VLCC; | (11) GPS; | (12) AWB  |
- 

**PART B**

**Write any THREE out of the following five questions i.e., Q.4 to Q.8:**

**[Total : 48 Marks]  
(16 Marks each)**

- Q.4** What are the steps in the process of distribution channel design? Discuss the role of logistics variable in decision as to where to locate plant or warehouse.
- Q.5** What is meant by “Supply Chain Mapping”? How does it help in the success of organization?
- Q.6** Please discuss role of cutting-edge technologies in logistics & supply chain management. Please Discuss how bar code, RFID, GPS and automated material handling systems help in improving Supply Chain Performance?
- Q.7** Discuss the various customer service attributes of the logistical system. Describe the role of logistics in the success of the supply chain of the firm.
- Q.8** Discuss the role of material handling in logistics. Describe various available material handling equipments. Please also elaborate how packaging can improve overall supply chain performance?
- 

**PART C  
CASE STUDY**

**[Total : 20 Marks]**

**Q.9. Compulsory**

Shri Om Logistics was started by Mr Mukesh Chatwal in 1989 and has grown from a one truck operation to a 150 tractor-trailer fleet serving shippers in western zone of India. Company serves the automotive industry by providing inbound transportation to the assembly plants. It has strategic alliance relationship with three large automakers and is the exclusive trucking company for a number of auto suppliers.

Mr Mukesh Chatwal is willing to adopt new equipment technology, computer systems, and management techniques.

As he was about to call strategic planning meeting with his top executives, he was mulling over recent trends in the logistics field. He also knew that to retain current enviable position in market, he must continue to be innovative and provide the services customers need.

During recent past three years, he has witnessed increased competition. The other logistics companies that provide rush deliveries have made significant inroads in the market where just-in-time management system mandate minimal raw material inventories, guaranteed deliveries and vendor penalties for late deliveries.

The perplexing trend to Mr Chatwal is the growing vertical integration of trucking companies into other logistics services.

A number of other companies have started warehousing divisions to provide sorting, kitting( putting pieces together to make up a kit), and cross-docking (moving freight across a dock to a waiting truck). Other carriers are adding third party logistics divisions to manage a shipper/receiver's transportation and storage activities. Finally a few trucking companies have started air carrier divisions, freight-forwarding services and logistics information services. He also recognizes that this vertical integration of trucking companies is a result of customer demands. In addition, shippers are reducing number of vendors in transportation suppliers, being used and asking the few vendors to provide a wider range of products and value added services.

After considerable thought, hr decides that only viable long term strategy for Shri Om Logistics is to become a full service logistics provider. If current status of company is continued , it will greatly impair the growth and profit potentials of the company.

The only question remaining for Mr Chatwal is what other logistics services are appropriate for the company in long run?

**Questions:**

1. Assess the conclusion reached by Mr Chatwal regarding the nature of today's logistics industry and shippers demand characteristics.
  2. Do you agree that logical strategic thrust for Mr Chatwal is to vertically integrate and provide other logistics services? Why or why not?
  3. Describe the analytical process you would use to evaluate alternative logistics services being added to Mr Chatwal's market offering.
  4. Describe the value added services you would recommend that the strategic planning team consider for Mr Chatwal.
-