



**INDIAN INSTITUTE OF MATERIALS MANAGEMENT**  
**Post Graduate Diploma in Logistics Management**  
**Paper – 2**  
**Logistics Fundamentals And Processes.**

**Dec 2012**

**DATE:** 09.12.2012  
**TIME:** 10.00 a.m. to 1.00 p.m.

**Max. Marks:** 100  
**Duration:** 03 Hrs.

**Instructions:**

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|---|----------------------|
| 1. From part "A", Each sub-question carries 01 mark                         | Total Marks 32       |
| 2. From "B", answer any 3 out of 5 questions each question carries 16 Marks | Total Marks 48       |
| 3. Part "C" is a case study with sub question – 20 Marks. (compulsory)      | Total Marks 20 marks |
| 4. Please read the instruction on the answer sheet.                         |                      |

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**PART-A**

**Total: 32 Marks**

**Q1. State True or False:**

- 1.1 Effective logistics' network requires a cooperative relationship between suppliers & customers
- 1.2 Transportation by rail is not economical for bulk and long hauls.
- 1.3 Inventory carrying costs are those that are associated with the storing of inventory items.
- 1.4 Transportation is the operational area of logistics that geographically positions inventory.
- 1.5 The area of physical distribution does not concern movement of a finished product to customers.
- 1.6 Information flow identifies specific locations within a logistical system that have requirements.
- 1.7 Logistical objective is not to seek continuous quality improvements.
- 1.8 One of the most significant logistical costs is transportation.

**Q2. Fill in the blanks:**

- 2.1 Customer service is the ... element in developing a logistics strategy.
- 2.2 The building/premises where materials on which customs duty has not been paid are called ..... warehouses.
- 2.3 Safety stock is held in excess of cycle stocks due to ..... in the market demand or the lead .... variability.
- 2.4 The ideal location for just in time inventory warehouse would be ..... to the production facilities so that material handling is .....
- 2.5 Logistics involve the ..... of information, transportation, inventory, warehousing, materials handling and .....
- 2.6 The overall .... of logistics is to achieve a target level of customer service at the ..... possible total cost.
- 2.7 The operational management of logistics is concerned with ..... and ..... of materials and finished products.
- 2.8 Rapid response is concerned with a firm's ..... to satisfy customer service requirements in a ..... manner.

**Q3. Match the following from Column A and Column B correctly.**

<b>Column A</b>	<b>Column B</b>
1. Most important logistics drivers of change	a) No of tons of stores, fuel and cargo that a ship can transport from one place to another.
2. Operational flexibility	b) does impact customer service and costs.
3. Transportation	c) getting products and services where they are needed and when they are desired.
4. Industrial logistics costs	d) geographical positioning of raw materials, WIP and finished inventory where required at the lowest cost possible.
5. Dead weight tonnage	e) refers to a firm's ability to handle extra-ordinary customer service requests.
6. Inventory planning	f) packing, handling, storage and transportation.
7. logistics is concerned with	g) was wide spread adoption of total quality management.
8. Operational responsibility of logistics	h) guidance concerning what to purchase/manufacture, when to take action & in what quantity.

**Q4. Expand the following.**

2.1 ROI	2.3 EDI	2.5 EVA	2.7 VLCC
2.2 DRP	2.4 KPI's	2.6 SKU	2.8 MRP

**PART- B**

**Total (3x16 = 48) Marks**

**Answer any three from the following questions**

- Q1. Discuss the various techniques for inventory control. Indicate the merits and demerits.
- Q2. Explain key logistics management activities required for smooth flow of products from point of origin to point of consumption.
- Q3. Why are material handling equipments necessary in warehousing? Explain various types of material handling equipments and their usage for bulk raw materials, petroleum products, spares and consumables and finished goods.
- Q4. Write short notes on any **four** of the following:
- a) Third party logistics.
  - b) Role of Codification in Stores.
  - c) Importance of inspection of materials.
  - d) Customer service.
  - e) Stock valuation.
  - f) Supplier Evaluation.
  - g) Electronic Data Interchange.

- Q5. What are the factors affecting carriers decision? Indicate the types of inventory planning?  
What are the factors that influence transport economics?

### **Part – C CASE STUDY**

**Compulsory**

**(Total: 20 Marks).**

M/s ABC Bearings Limited Pune, has been supplying various types of bearings to Railways for production as well as maintenance requirements. The firm is a market leader in its segment and is a regular supplier to a other large number of companies including MNC's. The firm has also been importing some of the bearings from their principals abroad for supplying to railways. The bearing company has been consistently maintaining a very good market reputation, including the railways and is known for maintaining quality, reliability and timely delivery of the bearings.

The company is finding it difficult for the last few years to handle the purchase requests from 16 Zonal Railways (after the 7 new zones were created in the year 2002-03) and a large number of new production units of the Railways. The Zonal Railways from where the bearings are procured are located in Mumbai, New Delhi, Chennai, Kolkatta, Secunderabad, Gorakhpur, Guhati, Allahabad, Jaipur, Bhubneshwar, Bilaspur, Hubli, Jabalpur and Hajipur and could increase, while the major Production units using the bearings are at Chennai, Varanasi, Chitranjan, Patiala and Kapurthala. New production units have not been included. The firm did attempt to deal through the dealer's network to avoid handling so many purchase requests directly followed by timely delivery concerns, but are finding it difficult to comply, keeping in mind their excellent image of a good and reliable supplier.

This request of dealing through the dealers was not acceptable to the Railways as a matter of policy in purchase of critical items such as the bearings where the incidence of duplicate or refurbished bearings being pushed in the system is not un-common, and the cost of replacement of defective bearings can be very prohibitive. Also the safety concerns of passengers, is of utmost importance.

Railways under the common ministry do have a system of centralized purchases for certain critical and high value items - made by the Railway Board at New Delhi, but the logistic issues have become unmanageable due to too many locations of delivery and prioritizing the delivery schedule, as such this item was not centralized, yet the railways have an open mind to mutually work out some acceptable solution, but within the framework of Railways policy to procure directly from the manufacturer.

The above situation can happen with a number of other organizations (including the State Road Transport Corporations) that have presence all over the country, who will like to source their requirements directly from the company as a matter of Government Policy.

As a newly joined Purchase Head of this bearing company, how do you address the railways concerns such as:

- a) Procurement is to be made directly from the Company and not through its dealers or stockiest.
- b) How do the railways obtain the best value for money for the purchases made by obtaining Competitive prices?

- c) How do you address the quality concerns?
- d) How does the bearing company minimize its logistic costs by streamlining dispatches and ensuring that only genuine products get transported and delivered?

**Note:** A multi-pronged approach may have to be adopted, as no single solution may work. You can make your assumptions wherever required for any data or procedure and suggest ways and means to address the problem satisfactorily. All railways including production units being under a common ministry, have common purchase procedures, and nominated third party agencies for doing inspections, so also the transfer of funds / common payments are possible.

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