

INDIAN INSTITUTE OF MATERIALS MANAGEMENT
Post Graduate Diploma in Logistics Management

Paper – 2
LOGISTICS FUNDAMENTALS AND PROCESS

Date : 09.06.2009
Time : 10.00am To 1.00pm

Max marks : 100
Duration : 3 hrs

Instructions:

1. From Part-A, answer all questions (compulsory), each sub question carries 1 mark. **Total Marks: 32**
 2. From Part-B, answer any 3 questions out of 5 questions. Each question carries 16 marks. **Total Marks: 48**
 3. Part-C is a case study with sub-questions (compulsory). Read the case study carefully and answer the questions. **Total Marks: 20**
 4. Please read the instructions on the answer sheet carefully.
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PART – A

Q.1. State whether True OR False.

- a) Prime goal of logistics is to provide customer service.
- b) JIT is a production strategy to reduce manufacturing costs and improve quality by waste elimination
- c) The order processing system is the nerve centre of the logistics system.
- d) WIP inventory is associated with manufacturing / production.
- e) Convenience is another way of saying that logistics service level must be flexible.
- f) Accounting is also an important interface for logistics.
- g) The mission of the logistical system is measured in terms of total cost and performance.
- h) Effective Order Management is not a beg to operations at efficiency and customer satisfaction.

Q.2. Fill in the Blanks :

- a) Some companies have out-sourced their logistics activities to _____.
- b) Logistics play a _____ throughout the supply chain.
- c) The order processing system is the _____ of the logistics system.
- d) Availability is the capacity to have inventory when it is _____ by a Customer.
- e) Under JIT , close and frequent Buyer – Seller _____ is essential.

- f) The firm should _____ play _____ prices to obtain materials with quality levels _____ than those specified by manufacturing.
- g) _____ information system should not be thought of purely as a _____ for achieving integration in the supply chain.
- h) For many firms transportation is the highest _____ cost.

Q.3. Expand the following :

- (a) TQM (b) ROI (c) MRP (d) LTL
 (e) VAS (f) EOQ (g) ROP (h) JIT

Q.4. Match the following :

Col.-- A	Col.-- B
1. JIT is a production strategy to	a) Associated with amount of inventory.
2. The mission of the logistical system is	b) elimination of obsolete stock
3. Inventory carrying cost are those	c) reduce manufacturing costs and improve quality by waste elimination
4. Inventory levels can be reduced by	d) all aspects of inventory management
5. ABC analysis is applied to almost	e) measured in terms of total costs and performance.
6. Pareto analysis is otherwise	f) known as 80/20 rule analysis..
7. Logistic costs are directly	g) related to desired level of performance.
8. Inventory as a percent of overall business	h) activity continuous to decline.

PART – B
(Answer any three questions)

- Q.5. (a)** Discuss the various techniques for Inventory control with their merits & demerits.
- Q.6. (a)** What are the objectives of Logistics Management ? Explain in brief.
(b) What do you understand by “Logistics Solution”? Explain in brief.
- Q.7.** What does Forecasting mean?
 Give a brief explanation to the different types.
- Q.8 (a)** What are the Micro approaches in the selection or using a Private Warehousing ?
- (b)** Brief the major criteria affecting the decision on Warehouse locations.

Q.9. Write short notes (any four)

- (a) Stock Valuation
 - (b) Kanban System
 - (c) Suppliers Evaluation
 - (d) EDI
 - (e) Value analysis
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PART – C
(Case Study – Compulsory)

Total marks : 20

Q.10. ABC manufacturing co. produces very special kinds of Air conditioning units , where a part costs one rupee per unit. Annual requirement is 200000 nos. Lead time is 6 weeks. Demand is 4500 with a standard deviation of 350 per week. The co. wishes to maintain a service level of 90 % ($K = 1.50$), Normal lead time is 6 weeks and max. lead time that occurred in the past was 10 weeks and the cumulative probability of its occurrence, i.e.7,8,9 & 10 weeks, was 0.20. The ordering cost is Rs. 50/- and the inventory carrying cost works out as 25%....

Based on these, calculate---

- a) The E. O .Q.
- b) Revised EOQ, if inventory carrying cost would get revised to 20 %.
- c) safety stock for the fixed order quantity (Q) system.
- d) Plot the normal graph (not to scale) for E.O.Q.
