



CII Institute of Logistics

Post Graduate Diploma in Supply Chain Management
Semester-end Examination June 2008

FUNDAMENTALS OF LOGISTICS

Time : Three Hours

Marks : 100

Part A

Answer all questions (10 x 1 = 10 Marks)

Choose the right answer:

- 1) The supplier takes charge of the inventory management of the product and also manages the replenishment process based on the customer's consumption pattern. This is known as:
 - (a) Just-In-Time system
 - (b) Vendor managed inventory
 - (c) Materials requirement planning
 - (d) Distribution requirement planning
- 2) *Packaging* serves two basic functions: -----
 - (a) Marketing and Transportation
 - (b) Marketing and Manufacturing
 - (c) Marketing and Logistics
 - (d) Warehousing and Distribution
- 3) Sales made from the most recently acquired stock, leaving items acquired in the earliest time period is:
 - (a) Average cost
 - (b) FIFO
 - (c) LIFO
 - (d) Segment strategy
- 4) Logistics system architecture includes:
 - (a) Data warehouse management
 - (b) Execution components
 - (c) Neither
 - (d) Both
- 5) Second party logistics service provider(2 PL) integrates:
 - a) Traditional Transportation and Warehousing function
 - b) Managing the entire supply chain
 - c) Managing the complex supply chains
 - d) Transportation and Distribution functions

State whether the following statement is TRUE or FALSE:

- 6) *Customer service* is a process which takes place between the Buyer, Seller and Third party.
- 7) *Cross docking* bypasses transport activity by transferring items directly from the receiving dock to the shipping dock.
- 8) Cost analysis and study of market conditions is one of the functions of purchasing department.
- 9) Export management companies (EMCs) are intermediaries that market another firm's products overseas by actually buying the manufactured goods, taking title and then sell these goods in export market.
- 10) Managing *working capital interest rate* is a primary responsibility of a Logistics manager

Part B

Answer any three (3 x 15 = 45)

- 11) Briefly explain *Balanced score card approach*?
- 12) Explain the different phases of customer service?
- 13) What are the metrics to be followed in logistic financial performance?
- 14) Discuss the major differences of Global supply chain to Domestic supply chain? What are the strategic issues in global Logistics?
- 15) What are the decisions to be taken in planning a warehouse? List out the factors to be considered for initiating warehouse operations?

Part C

Case Study (5 x 9 = 45)

A control valve manufacturing company has its main plant at X and another plant at Y situated 400 Kms apart, both located in South India. Plant Y is manufacturing accessories for main product, which is tailor-made equipment. Initially plant Y was catering to the requirements of plant X alone, but later changed to *Batch* type production to meet the demand from the market. To keep the operational cost low, plant Y was outsourcing activities like machining, welding and painting. Only assembling and testing operations are done *in-house*. Packing and delivery of *finished products* to plant X and other locations have also been outsourced. Despatch activity at plant x is also outsourced.

Transshipment is mainly done through road in India and only during emergencies, airfreight is resorted to. Warehouses are operated at both plant locations.

The total sales turnover of the company is Rs 55 crores per annum whereas that of plant X is Rs 35 crores and of plant Y is Rs 20 crores. Average inventory (in Rs crores) during the four quarters of both the plants are shown in the following table:

Quarter	Plant X	Plant Y
I	5	3
II	9	5
III	8	5
IV	6	3

20% of the total turnover is from exports and it is being done from plant X alone. For export, air and sea transshipment is selected according to customer need. Here also despatch activities are outsourced.

The company has regional centres at 4 metros where *Marketing and Servicing* functions take place. Here *accessories* are as well as *spare parts* are stocked to cater to the Customer at short notice. Replenishment of stocks is made from manufacturing plants on reaching *minimum level*.

The company has adopted ASTM standards for material procurement, ANSI standards for testing and is accredited with ISO-9000. It has implemented ERP (SAP/R3) system. Manufacturing plants and regional centres are well connected with *telephone, fax and internet*.

Questions:

- 1) Calculate the inventory turnover ratio of plant X and plant Y? Where are the Distribution centres located?
- 2) What are the Transportation modes adopted in the above case? How the role of Despatch outsourcing agency be defined in logistics?
- 3) Cite examples of EDI (Electronic data exchange) in the above case? Can it be stated that the above company is practicing e-commerce?
- 4) What are the manufacturing systems adopted in plants X and Y? What are the quality systems adopted in the above case?
- 5) Cite at least 3 key logistics activities from the above case?
