



CII Institute of Logistics

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

TRANSPORTATION & DISTRIBUTION MANAGEMENT

Time : Three Hours

Marks : 100

Part A

Answer all questions (10 x 1 = 10 Marks)

Choose the right answer:

- 1) All the following are critical success factors in road transportation, EXCEPT ----
 - (a) Error free delivery
 - (b) Accurate documentation
 - (c) Number of trucks
 - (d) Dependable placement
- 2) A transportation mode selection process tries to achieve TWO goals ----
 - (a) Minimise costs and maximise the load carried
 - (b) Minimise costs and maximise the service level
 - (c) Minimise costs and maximise the transit volume
 - (d) Maximise costs and minimise inventory costs
- 3) A *NODE* refers to:
 - (a) A form of transportation
 - (b) A type of packaging irregularity
 - (c) A special storage area in a warehouse
 - (d) Points to and from which shipments are made
- 4) An important component of effective fleet management is:
 - (a) Lower Inventory cost
 - (b) Maintenance of Transit time
 - (c) Long Hauls
 - (d) Shorter distances
- 5) Despatching efficiency of a road transport vehicle is measured by:
 - a) Loading value per person
 - b) Turnaround time per vehicle
 - c) Loading vehicle per person
 - d) None of the above

State whether the following statement is TRUE or FALSE

6. As the number of warehouse facilities is increased, Inventory Carrying Cost is reduced.
7. Quicker response to threats of criminal activity is one of the benefits of AVL systems
8. Border Wizard is a simulation model
9. ITS is the abbreviation for Intermodal transportation systems
10. A Channel Map is a tool used in Distribution network planning

Part B

Answer any three (3 x 15 = 45)

1. What are the major features, advantages and disadvantages of the distribution model *Delivery through in-transit mixing from the manufacturer storage facility*?
2. Explain briefly the critical factors which *drive* transportation costs?
3. What are the different *Transportation Security Initiatives* and briefly explain with reference to the role of technology?
4. Discuss *Channel Mapping* strategy with examples?
5. Discuss the factors and decision making involved in *Transportation administration*?

Part C

Case Study (5 x 9 = 45)

Study the following case and answer all questions. Your answers can be supported with any diagrams, models or algorithms, as may be necessary

Micron electronics

Micron electronics Inc. is a manufacturer of Personal computers (PC) that sells directly to the Customers who place orders either through Telephone or Internet. Micron has one assembly facility, located at *Idaho* and also has a sub-contractor, who is able to assemble most popular models. A typical customer order comes in via. the *internet or toll-free-telephone number*. Depending on the type of order, it is allocated either to the *Idaho* facility or to the sub-contractor. Large corporate

orders, for example are handled out of *Idaho*. Micron carries almost no Finished Goods Inventory and assembles PC's in response to Customer orders.

A typical order may include a Monitor and a Printer in addition to PC. Micron does not manufacture peripherals such as monitors and printers. They are stored at a depot in *Memphis*, which Federal Express (Fed Ex) operates for Micron. Some peripherals are also held at *Idaho* facility. Thus, the *Order Coordinator* must allocate product to the peripheral order from items in the depot. For an individual order, Fed Ex transports the assembled PC (either from Idaho or from the sub-contractor) to *Memphis*, where it is merged with the peripherals. Another possibility is, for Fed Ex to do the merge at a station close to the customer site. For example, an order from *Chicago* can be merged there itself. The merged order is then delivered to the customer. To facilitate this Merge-In-Transit, Micron shares detailed electronic information with the Fed Ex warehouse as PC's ship out of *Idaho*. Customers can track the status of their orders after they have placed them.

For large corporate orders within the U.S., Micron does not use Fed Ex. It uses LTL companies to move the product. Currently these orders are filled using peripherals that are used at *Idaho*.

Micron outsources both PC components and peripherals throughout the world. The company uses Airfreight as well as Ocean transport to move product to the U.S and then a combination of Truck and Rail to move it into warehouses.

CASE QUESTIONS:

1. What are the 4 modes of transport used by Micron? Briefly explain?
2. Large corporate orders are shipped using LTL. Why?
3. Discuss the role of information technology in transportation and distribution with reference to Micron?
4. What you have understood about Merge-In-Transit with reference to this case?
5. What is the role of Fed Ex in Micron electronics? What are the advantages of using the services of Fed Ex?
