



CII Institute of Logistics

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

SUPPLY CHAIN MANAGEMENT

Time : Three Hours

Marks : 100

Part A

Answer all questions (10 x 1 = 10 Marks)

State whether the following are TRUE or FALSE.

- 1) The main role of technology is to link the supply chain by using industry standards electronic data interchange to communicate key business documents. **(True / False)**
- 2) The ability of cohesive integration based on trust and facilitated by systems and technology between supply chain members will become the greatest source of competitive advantage. **(True / False)**
- 3) 'Marketing Mix' variables have nothing to do with customer demand. **(True / False)**
- 4) Bayesian approach does not take into consideration seasonality and trends and hence is not good tool to forecast demand. **(True / False)**
- 5) Dave Nelson feels that the cost for procured parts cannot be reduced in the next 2 decades. **(True / False)**
- 6) Inventory is an idle resource and still we carry it. **(True / False)**
- 7) The transportation costs can be considered to be purely variable costs if the shipper does not own the transportation resources. **(True / False)**

- 8) Present day supply chain trends indicate that we are moving on from "just supply-chain planning and supply-chain execution" towards "source-to-consumption supply chain execution". **(True / False)**
- 9) The reprocessing normally does not require high investments in establishing the network for reverse logistics. **(True / False)**
- 10) The SCOR model is a functional reference model rather than a process reference model. **(True / False)**

Part B

Answer any three (3 x 15 = 45)

- 1) "Indian organizations should look beyond their four walls for collaboration and coordination with supply chain partners, as logistics cost is in the range of 10 – 12% of our GDP and 22% of aggregate industry sales are tied up as inventories" – What are the other dimensions they should look into for supply chain integration?
- 2) "There are certain key factors that are usually or always present when a company successfully develops and deploys one or more procurement best practices" – Identify these factors. Be precise.
- 3) Discuss how the methodologies of managing SCM are different from the traditional ways by citing examples from the industry you are aware of.
- 4) When "inventory" as per economists is an idle resource, the need for warehouses does not arise. Do you agree? If so, why? If not, why? Explain by citing live examples.

Part C

(45 Marks)

Read the case carefully and answer **all the questions**. You may substantiate your answers with diagrams or models as may be necessary.

You have been approached by a leading stockist of several consumer durable items in south Chennai for chalking out a stocking policy of a certain brand of TV. Here are the particulars given to you by the chief manager of that organization:

- Whenever the distributor places an order for TV sets, there is a fixed ordering cost of Rs. 45,000/- which is independent of the order size.
- The cost of the TV set to the distributor is Rs. 2,500/- and annual inventory holding cost is 18% of the product cost.
- Replenishment time is about 2 weeks.
- The following tables are provided to you:

Given that, the distributor would like to ensure 97% service level,

- What is the reorder level and order quantity that the distributor should use?
- What should be the weekly stock to be kept at warehouse?

Table 1: Service level and the service factor, Z

Service Level	90%	91%	92%	93%	94%	95%	96%	97%	98%	99%
Z	1.29	1.34	1.41	1.48	1.56	1.65	1.75	1.88	2.05	2.33

For a service level of 99.9% Z is 3.08

Table 2: Historical data of Sales

Month	Sep	Oct	Nov	Dec	Jan	Feb
Sales	200	152	100	221	287	178
Month	Mar	Apr	May	Jun	Jul	Aug
Sales	151	198	246	309	98	156

Table 2 provides data on the number of TV sets sold to retailers in each of the last 12 months.

Table 3: Inventory Analysis

Parameter	Average Weekly Demand	Standard Deviation of Weekly demand	Average demand during lead time	Safely Stock	Reordering Point
Value	44.58	32.08	89.16	86.2	176