

**PAPER - 17
ADVANCED SUPPLY CHAIN MANAGEMENT****Date: 14.12.2009
Time: 2.00 pm to 5.00 pm****Max. Marks 100
Duration 3 hours****Instructions**

1. The question paper is in three parts
 2. Part A is compulsory. Each question carries one mark. **Total marks-32**
 3. In Part B answer 3 questions out of 5. Each question carries 16 marks
Total marks-48
 4. Part C is a case study with sub questions and it is compulsory.
Total marks-20
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PART A**Q.1. Fill in the blanks. (Please do not reproduce the statement) 8 marks**

- i) The linkage of processes in an organization is called _____ supply chain.
- ii) The excesses and shortages in inventory experienced in the distribution network while optimizing the local objectives of the channel partners is known as _____ .
- iii) The material flows in the supply chain at the vendor side are called _____.
- iv) The forward flow of goods and services in a supply chain is called _____.
- v) To create competitive advantage, the supply chain partners must share both the _____ and the _____ .
- vi) Supply chain processes are broken down into four process cycles namely, customer order cycle, replenishment cycle, manufacturing cycle and _____ cycle.
- vii) Logistical network configuration is a _____ decision as they have long lasting effect.
- viii) Inventory classification based on the sources of supply is _____ classification.

Q.2. State True or false (Please do not reproduce the statement) 8 marks

- i) Supply chain management has evolved along two parallel paths: the emphasis of materials and supply management by industrial buyers and the emphasis on transportation and logistics by wholesalers and retailers.
- ii) The primary purpose of supply chain is to satisfy customer needs.
- iii) Open sharing of information leads to reduced profitability and reduces supply chain performance.
- iv) Push processes are initiated by a customer order while pull processes are initiated in anticipation of a customer order.
- v) The supply chain information system must have the flexibility to cater to the needs of the system users and the customers.
- vi) Non-asset based logistics provider is known as a third party logistics.
- vii) Supplier deciding on the appropriate levels of products in retailer outlets is known as cross docking.
- viii) Cost leadership strategy works well when the customer is sensitive to price.

Q.3. Expand the following

8 marks

- i) SCIS
- ii) POS
- iii) WMS
- iv) BSC
- v) ATP
- vi) VMI
- vii) RFID
- viii) SCOR

Q.4. Match A and B

8 marks

- | A | B |
|---------------------------|---------------------------------------|
| i) FSN | a) Relational Data base |
| ii) Wal-mart | b) Computer to computer communication |
| iii) ERP | c) Bar coding |
| iv) Differentiation | d) frequency of usage |
| v) Reverse Logistics | e) Cross docking |
| vi) EDI | f) Decoupling |
| vii) UPC | g) Return goods handling |
| viii) Parallel processing | h) Uniqueness |

PART B

Q.5 What are the key issues in supply chain management? Discuss in detail.

Q.6. a) Explain the trade-offs that are to be considered while comparing centralized distribution system with decentralized distribution system.

Q.7. a) What are the principles of supply chain information?
b) Discuss the ways in which the lead time in a supply chain can be reduced.

Q.8. a) What are the advantages of moving the push-pull boundary to a later stage in the supply chain? Discuss with examples.

Q.9. Write short notes any four.

- a) Mass customization
- b) Inventory visibility
- c) E-Business
- d) Total Cost of Ownership
- e) Customer Relationship Management

PART C

Case study

Mr. Viswanath, All India sales manager of Kay Engineering Ltd. is agitated as he was talking to Mr. Ram Mohan, Director Marketing. They were discussing the targets for the second half of the financial year. The result of first half of the operation was not very good, as there was gap between the target and what was achieved. He was giving the feelings of his dealers and some of the consumers whom he had met recently. They all were complaining about the quality of the product and the packaging of the products. Dealers found that there were dents on the refrigerators and cartons of gas stoves and water heaters were always torn. Sometimes refrigerators were not cooling. Most of the gas stoves were having some problem or the other. One dealer in Coimbatore received all the 10 TV in a consignment in damaged condition. Mr. Viswanath requested Mr. Ram Mohan to improve the product packaging to derive mileage out of this. Kay Engineering Ltd. is Rs 500 crore company engaged in the marketing of consumer durables like Refrigerators, TV, Gas stoves, Air conditioners, and Water heaters. The company is having 4 regional offices in Delhi, Mumbai, Chennai and Kolkatta in addition to 30 marketing offices spread across the country. They reached the ultimate customer through both direct selling and through dealers. Direct selling was limited to institutions only.

Kay Engineering sourced their products from different manufacturing companies and marketed these products with their brand name. Refrigerators, Airconditioners, and TV were sourced from manufacturers located in Delhi. Gas stoves and Water heaters were sourced from manufacturers in Mumbai. The two product managers, one in Delhi and one in Mumbai placed orders with the manufactures after consolidating the requirements form various branch offices through regional offices. Product managers gave consolidated requirements to these manufacturers along with the quantities to be dispatched to different branches. These manufacturers supply only part of their products to Kay Engineering and they marketed bulk of their production in their own brand name.

The present method of packaging and transportation of products were as follows. Refrigerators were bolted to a wooden base and covered with polythene cover and 5 ply-corrugated carton was put on top of it and strapped with plastic strap. These were transported through railway wagons wherever possible. Trucks were used to transport to other places. Air conditioners were packed in wooden boxes with polythene cover wrapping the product and transported through trucks on door delivery. Gas stoves and water heaters were wrapped in polythene sheet and packed in 5 ply cartons without much cushion. These were transported through trucks on door delivery basis. TV was again wrapped in polythene sheet and packed in 5 ply cartons with thermocole sheet kept on all the sides and reinforced with plastic straps.

Questions:

- a) What are the problems faced by Kay Engineering at the upstream supply chain?
- b) Suggest methods to improve the packaging of the products?
- c) How selection of transportation methods affect the supply chain cost?
- d) Suggest measures to improve quality, reduce cost, and reduce delivery time of the products delivered to ultimate consumer?