INDIAN INSTITUTE OF MATERIALS MANAGEMENT

Post Graduate Diploma in Materials Management

Paper 17

ADVANCED SUPPY CHAIN MANAGEMENT

Date: 14.12.2012   Max. Marks 100
Time: 2.00 p.m. to 5.00 p.m.   Duration 3 hours

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Instructions
1. The question paper is in three parts
2. Part A is compulsory. Each sub question carries one mark.   **Total marks-32**
3. In Part B answer any 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   (1 x32 = 32 marks)

Q.1: Expand the following

1. SCM

2. SKUs

3. CRM

4. FSN

5. RSP

6. EOQ

7. VMI

8. RFID

Q. 2: Fill in the blanks

1. Pull process are initiated by a -------

2. ------- is the total elapsed time to move a unit of work from the beginning to the end of a physical process

3. EDI stands Electronic Data ------

4. Three key flows of supply chain management are Product/Materials, ------------ and Funds.

5. -------- allows company to use the Internet for procuring direct or indirect materials.

6. On-line --------- Processing (OLAP) Tool provide an intuitive way to view corporate data, typically stored in data warehouse

7. Artificial intelligence may be used in the analysis of -------- input data

8. ---------value is the estimated value of an asset at the end of its useful life

Q. 3 : Match the following

1) MRP	a) (Output produced /Input used)
2) EOQ	b) Manufacturing Resource Planning
3) ABC Analysis	c) tax collected by local authorities
4) MRP II	d) Material Requirement Planning
5) 3PL	e) Forth Party Logistics
6) Octroi	f) Inventory Classification Mode
7) Productivity	g) $\sqrt{(2OD)} \div UI$
8) 4PL	h) Third Party Logistics

Q. 4: Find True or False of the following

1) Pull View is a direct outcome of the "Forrester Effect

2) Centralized inventory increases both safety stock & average inventory in the

3) Inventory Turnover Ratio = Average Inventory Level ÷ Annual Sales

4) Pareto Distribution is (80/20) concept of stock control system

5) Major issue in deploying GIS is the availability and quality of the geographic data

6) Available To Promise (ATP) looks not only on the capability but also on the profitability of completing an order

7) RFID is an automatic identification method, relying on storing and remotely retrieving data using devices called RFID tags or transponders.

8) One of the ways to control Bullwhip Effect is controlling Lead Time

PART B   (any three 16 x3 = 48 marks)

Q.5: a) What is SCM? Explain the key issues in SCM.

   b) Explain Data warehousing and data mining

Q..6: Write short notes on (any two) (8+8)

   1. a) Network Configuration of DSS

      b) Inventory Turnover Ratio

   2. a) ABC Classification

      b) Customer Relationship Management

   3. a) Demand Forecasting

      b) Lead Time

   4. a) Third Party Logistics

      b) Retailer - Supplier Partnership

Q.7 : a) Discuss the 'Principles of Supply Chain Information'

   b) What is e-Business? Explain with examples.

Q. 8 : a) What is Bullwhip Effect? What are the factors that are significant while
       quantifying the Bullwhip effect?

   b) Describe the different commercial taxes and their application?

Q. 9: Distinguish between

   a) Global Market Forces versus Global Cost Forces

   b) Direct Shipment versus Cross-Docking

Q10 : (Case Study)

An US based FMCG company is planning to stock a new product.

The company has developed the following information:

Annual usage = 5400 units

Cost of the product = 365 MU/unit

Ordering cost = 55 MU/order

Carrying cost = 28% /year of inventory value held.

    a   Determine the optimal number of units per order

    b. Find the optimal number of orders/year

    c. Find the annual total inventory cost

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