SEAT No. :

P789

[Total No. of Pages : 3

[4659]-159

B.E. (Production - S/W)

MATERIALS MANAGEMENT AND LOGISTICS

(Semester - I) (2008 Pattern) (Elective - II (b))

Time : 3 Hours]   *[Max. Marks : 100*

Instructions to the candidates :

   1)   *Answer 3 questions from Section - I & 3 questions from Section - II.*

   2)   *Answers to the two sections should be written in separate books.*

   3)   *Neat diagrams must be drawn wherever necessary.*

   4)   *Figures to the right indicate full marks.*

SECTION - I

Q1) a) Define Value Engineering. Explain Value Analysis for any one component of your choice. **[9]**

      b) Explain with example types of values used in Value Engineering. **[9]**

OR

Q2) a) Explain Material Requirement Planning in detail. How it is beneficial to maintain inventory? **[9]**

      b) Explain Make or Buy decision in brief. **[9]**

Q3) a) Explain Documents used in Purchasing. Explain in detail any two. **[8]**

      b) What are the objectives of Purchasing? Explain any four in brief. **[8]**

OR

Q4) a) What is importing? Explain Import Cycle in detail. **[8]**

      b) What is Vendor rating? Explain any two methods in detail. **[8]**

Q5) a) How study of waste management techniques helps to manage surplus and obsolete material? **[8]**

      b) Explain LIFO and FIFO methods of material issuing. **[8]**

OR

Q6) a) What is the role of Store Keeper? Differentiate between Centralized and Decentralized Stores. **[8]**

      b) What is Codification? Explain KODAK system of codification. **[8]**

P.T.O.

SECTION - II

Q7) a) Explain the functional areas of Logistics. **[8]**

b) Explain Economic and Service benefits of Warehouse. **[8]**

OR

Q8) a) Explain the role of Warehouse and Transportation in Logistics. **[8]**

b) What are the types of transportation modes? Explain in detail any four.**[8]**

Q9) a) What are the types of selective control of inventory? Explain any two in detail. **[8]**

b) Demand for the Desktop computer at Best Buy is 5000 units per month. Best Buy incurs a fixed, order placement, transportation and receiving cost of Rs. 4,000/- each time an order is placed. Each computer costs Best Buy Rs. 50,000 and the retailer has a holding cost of 20 percent. Evaluate the number of computers that the store manager should order in each replanishment lot. Also find optimum cost. Number of orders and period between two replanishments. **[8]**

OR

Q10) a) Derive an equation for economic order quantity when replanishment period is instantaneous. **[8]**

b) The demand for a product is 3600 units per annum. Inventory carrying cost amount to Rs. 1.6 per unit per year. The setup cost per run is Rs. 800. **[8]**

Find :

i) Economic order quantity.

ii) Minimum average inventory control.

iii) Optimum number of orders per year.

iv) Optimum period of supply per optimum order.

Q11) a) Explain Fixed Period system and Fixed Quantity system in brief. **[9]**

b) An item is produced at the rate of 128 per day. Annual demand is 6400 units. Setup cost of production run is Rs.24 and holding cost is Rs. 3/unit/annum. There are 250 working days for production each year. Develop inventory policy for this item. **[9]**

OR

Q12) a) What is safety stock? How lead time affects safety stock in finished goods inventory? **[9]**

b) Harsh Engineering buys a particular item at a cost of Rs. 5 per unit. The company is offered the discount as follows : **[9]**

Order quantity less than 500 units – Rs. 5.00 per unit

500-1250 – Rs. 4.80 per unit.

1250 units or more – Rs. 4.00 per unit

The cost of placing an order is Rs. 36. Annual demand is 2800 units. Inventory carrying cost is 20 percent of average inventory investment. Give your decision regarding the quantity to be ordered.

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