KA-3561
Second Year B. B. A. (Sem. III) Examination
October / November – 2012
Production Management (I)

Time : Hours]   [Total Marks :

Instructions :

(1)

(2) Figure to the **right** indicate full marks allocated to that question.

(3) All questions are compulsory.

(4) Use of calculator and statistical table is permitted.

1. Answer following questions briefly.   16

   1. Select the best business location out of following as per BEP analysis.

Location	Per unit realized price in Rs. per unit	Fixed cost in Rs. Per day	Variable Cost in Rs. per unit
L1	80.00	30,000.00	65.00
L2	85.00	44,000.00	70.00
L3	90.00	48,000.00	74.00

   2. Explain fixed position layout with examples.

   3. Weekly demand of one material is 800 kgs. Cost of placing one order is Rs. 1250. 00 per order. Price of this material is 40.00 Rs. Per kg. Per unit annual inventory carrying cost is 10 % of price. The factory works for 50 weeks in a year. Find out number of orders to be placed in a year if EOQ is ordered.

   4. List any four components of material shortage cost.

   5. Explain the term 'Palletizing' in relation to Material Handling.

   6. Explain classification of material handling equipments as per source of power.

   7. Define terms: 'Service Level' and 'Stock-out Risk'. Explain mathematical relationship between them.

   8. Weekly demand of one material is constant at 1000 pieces per week. Lead time is variable & its average value is 4 weeks. Standard deviation of lead time is 1.5 weeks. Service level for this material is 98 %. Find out safety stock & re-order level for this material.

2. A. Answer any one.   10

1. Annual demand of one material is 1,60,000 litres. Price of this material is Rs. 80.00 per litre. The company borrows money from the market at 10 % per year. Per unit annual storage cost is Rs. 8.50 per litre per year. Cost of placing one order is Rs. 1200.00. Apart from this, quality is checked by taking sample of five litres out of every order received. Cost of performing one quality check is Rs. 200.00 which does not include value of five litres of material which is used in destructive testing method. Find out Economic Order Quantity.

   Now the supplier offers 5 % discount if order quantity is more than or equal to 20,000 litres. He Should we accept this discount offer ? Justify your answer by proper calculations.

2. A critical raw material is manufactured on in-house basis. Annual demand of this material is 3,00,000 kgs. The factory works for total 300 days in a year. The capacity of in-house manufacturing unit is 2000 kgs per day. Per litre annual in-house manufacturing cost of this material is Rs. 100.00. Inventory carrying cost is 16 % of per unit in-house manufacturing cost. Machine set-up cost of in-house manufacturing unit is Rs. 3000.00 per set-up.

   * Find out length of one production cycle in in-house units in days.
   * Find out time gap between beginning of two successive production cycles.

2.B. Answer any one.   10

1. Write a short note on ' Selective Inventory Control '.

2. Explain various assumptions of basic inventory control model. Derive equation of Economic Order Quantity from equation of Total Cost of Inventory.

3. Explain various factors having impact on selection of business location.   12

<div align="center">OR</div>

3. Explain various techniques of business location selection.   12

4. Differentiate between intermittent production systems and continuous production systems.   08

<div align="center">OR</div>

4. Explain any eight factors which we must consider while designing plant layout.   08

5. Explain various responsibilities of a Production Manager.   14

<div align="center">OR</div>

5. a. Discuss various points explaining importance of Production Management.   08

5. b. Explain interaction of Production Management department with Finance Management and with Marketing Management.   06