

GANPAT UNIVERSITY
BBA Examination November 2012
BBA (RM)
Semester V (CBCS/GPS)

Time: 3 Hrs.

VA04INM/R504 Inventory Management

Total Marks: 70

Instructions:

- (1) Use separate answer books for Section I and Section II.
- (2) Q1 in Section I and Q4 in Section II are compulsory.
- (3) Figures to the right indicate marks of each question.

SECTION I

Q.1 Define Inventory. In a typical supply chain, members hold various types of inventory at various stages why? Give the names of inventory that supply chain members hold. **(11)**

Q.2 Discuss various types of inventory related costs. What is the impact of these costs on profitability of a firm? **(12)**

OR

Q.2 Discuss classical EOQ model for inventory management. **(12)**

Q.3 It is said that stock in an organization must not go beyond certain limits; otherwise it will create various problems. To control inventory various techniques are available. Discuss them. **(12)**

OR

Q.3 A classical EOQ model assumes no stock outs. But this is not possible in real life. Is there any alternative EOQ model available with assumption of instantaneous supply? If yes, discuss it. **(12)**

SECTION II

Q.4 What is MRP? Explain the logic of MRP, with its inputs, outputs, advantages and limitations. **(11)**

Q.5 The annual demand for a readymade garment is 36,000 units. The carrying cost is Rs 0.50 per unit per year, the ordering cost is Rs. 25 per order and the shortage cost is Rs. 15 per unit per year. Find the optimal values of the following: **(12)**

1. Economic order quantity
2. Maximum inventory
3. Maximum shortage quantity
4. Cycle time
5. Inventory period
6. Shortage period.

OR

Q.5 XYZ Retail (India) Ltd. estimates that it will sell 12,000 units of a specific item for the forthcoming year. The ordering cost is Rs. 100 per order and the carrying cost per unit per year is 20% of the purchase price per unit. The purchase price of unit is Rs. 50. Find: **(12)**

1. Economic order quantity
2. No. of order per year
3. Time between successive orders.

The supplier of the item is ready to offer a discount of 2% on price of item, if XYZ Ltd. places an order of 600 units. Should XYZ Ltd. accept the proposal given by the supplier?

Q.6 Consider the manufacturing of a toy. The master production schedule to manufacture a toy is given below. (12)

Week	1	2	3	4	5	6	7	8
Demand	200	-	100	175	300	200	-	250

To produce 1 unit of toy (Material A), the company requires one unit of B and one unit of C. To produce one unit of C, company requires one unit of D and one unit of E. The details of BOM along with economic order quantity, lead time and stock on hand are shown below:

Part required	Order quantity	No. of units	Lead time (weeks)	Stock on hand
A	350	1	2	200
B	450	1	1	400
C	400	1	1	375
D	375	1	1	250
E	400	1	2	425

Complete the material requirements plan for the main product A as well as for the parts B, C, D and E.

OR

Q.6 What is JIT? Can we consider it as a manufacturing system or an inventory control system? Explain the philosophy of JIT with its benefits and limitations. (10)

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