

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI • EXAMINATION – SUMMER 2013****Subject Code: 161501****Date: 24-05-2013****Subject Name: Materials Management****Time: 10.30 am - 01.00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

Q.1 (a) Explain the importance of materials management to improve the overall productivity of any organization. **07**

(b) Discuss make or buy decision with the important factors to be taken in mind during its application in any organization. **07**

Q.2 (a) Describe principal features of an integration of MM function with overall manufacturing strategy of any organization. **07**

(b) Describe importance of obsolete, surplus and scrap management. List reasons of its generation in any organization. **07**

OR

(b) Describe inventory as a necessary evil for a production cycle with example. **07**

Q.3 (a) Discuss important factors to be considered for vendor rating. **07**

(b) Probabilistic demand of sweets in a large chain of sweet market MORBI is rectangular between 1000 kg. and 1400 kg. profit per kg. fresh sweet sold is RS. 15.00. If sweet is not sold fresh, next day it can be sold at a loss of RS.3 per kg. Determine the optimum stock to have fresh sweet on hand every day. **07**

OR

Q.3 (a) What do you understand by material research ? Explain. **07**

(b) Find the optimal order quantity for a product for which the price breaks are as follow: **07**

QUANTITY: $0 \leq q_1 < 500$ $500 \leq q_2 < 750$ $q_3 \geq 750$

Unit cost(RS.) : 10 9.50 8.50

The monthly demand for a product is 200 units, the cost of storage is 5% of the unit cost and the cost of ordering is RS.300.

Q.4 (a) Explain clearly various cost that are involved in inventory problems. **07**

(b) You have to supply to supply 10,000 glaze tiles to PNG (p)limited., MORBI. Annually, ordering one month usage at a time. You obtain the product from a local supplier at RS. 20. The ordering cost per order is RS. 50. And the carrying cost is 15% of the average inventory per year. **07**

1. Describe graphically the inventory system.
2. Find the lot size which will minimize the cost of the system.
3. Determine the optimum cost.

OR

Q.4 (a) Write note: SPAREPART MANEGEMENT. **07**

Q.4 (b) "Reputed suppliers are intangible assets of any organization" –Discuss. **07**

Q.5 (a) Write note: TYPES OF PURCHASING SYSYEMS. **07**

(b) Explain the meaning , suitability and application of (a) VED , (b) FNS, (c) MNG analysis. **07**

OR

Q.5 (a) Write notes: ABC analysis. **07**

(b) Explain materials requirement planning. Also state its importance to any organization. **07**
