

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–VI • EXAMINATION – WINTER • 2014

Subject code: 161501**Date: 26-11-2014****Subject Name: Materials Management****Time: 02:30 pm - 05:00 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) Discuss significance of materials control function in material intensive industries like foundaries. **07**
- (b) Discuss integration of materials function with production & purchase functions in an organization. **07**

- Q.2** (a) Discuss integration of MM function with strategic plan of the organization. Take an example of Fast Moving Consumer Goods (FMCG). **07**
- (b) Discuss different typical layouts of stores, emphasizing material handling requirement in each types. **07**

OR

- (b) Discuss standardization and variety reduction concepts, as applied to apparel industries. **07**
- Q.3** (a) Discuss management of Obsolete, scrap and surplus in a typical seasonal goods manufacturing industry. **07**
- (b) Discuss sources of supply and supplier selection. Take an example of defense (armed forces). **07**

OR

- Q.3** (a) Discuss principle Purchasing functions and purchasing systems, citing appropriate examples. **07**
- (b) Discuss codification as a principle requirement of storekeeping. Discuss various popular codification methods. **07**

- Q.4** (a) Discuss various categories of inventory in any organization. Discuss characteristics of each of them. **07**
- (b) A Production department of a company requires 3600 Kg of raw material for manufacturing a particular item per year. It has been estimated that the cost of placing an order is Rs. 36 and the cost of carrying inventory is 25 per cent of the investment in inventory and 12.33 percent of annual facility rent of Rs. 72000 . The price is Rs. 10 per Kg. As a purchase manager, formulate the ordering policy, finding 1) EOQ ii) Optimal order cycle time iii) Minimum yearly total inventory cost iv) The minimum yearly total inventory cost. **07**

OR

- Q.4** (a) Discuss principle relevant costs associated with inventory in an organization. **07**
- Q.4** (b) A company operating 50 weeks in a year is concerned about stocks of copper cables, which costs Rs. 240 a meter, and has a demand for 8000 mtrs/week. Each replenishment costs **07**

Rs. 1050 for administrative and Rs. 1650 for delivery. While holding costs are estimated at 25% of value held a year. Assuming that no shortages are allowed, what is optimal inventory policy (Show Total Variable Cost and Total Inventory cost also) for the company?

- Q.5 (a)** What do you understand by Always Better Control method for Inventory Control? Give a graphical representation to explain it. **07**
- (b)** Discuss stochastic modeling of probabilistic systems for inventory control. Also discuss principles of buffer stocking. **07**
- OR**
- Q.5 (a)** Discuss VED and FSN analysis of selective inventory control. **07**
- (b)** Write brief note on import substitution. **07**
