GUJARAT TECHNOLOGICAL UNIVERSITY

B. E. Sem-VI Examination May 2011
Subject code: 161501
Subject Name: Materials Management

Date:16/05/2011   **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)** Discuss role and scope of materials control function in a foundry. **07**
       (b) Discuss integration of materials function with marketing and production functions in an organization. **07**

Q.2 **(a)** Discuss different typical layouts of stores, emphasizing material handling requirement in each types. Take an example of any product. **07**
       (b) Discuss standardization and variety reduction concepts, as applied to footwear manufacturing industries. **07**

OR

       (b) Discuss management of Obsolete, scrap and surplus in a typical hardware manufacturing industry. **07**

Q.3 **(a)** Discuss codification as a principle requirement of storekeeping. Discuss various popular codification methods. **07**
       (b) Discuss sources of supply and supplier selection. Take an example of high-precision parts manufacturing industry. **07**

OR

Q.3 **(a)** Discuss vendor rating. Take an example of a heavy engineering industry, work out their principle requirements from its vendors, and work out three main indices for their rating. **07**
       (b) Discuss Make or buy decision in light of purchasing management. **07**

Q.4 **(a)** Discuss various categories of inventory in any organization. Discuss characteristics of each of them. **07**
       (b) 1000 Mililiter bottles are used for certain tablets and powders. Annual requirements are 3,00,000 and unit price is Rs. 8. The cost of holding stock is 15% per annum and Ordering cost is Rs. 5. Find a) EOQ b) No. of orders to be placed in a year. **07**

OR

Q.4 **(a)** Discuss principle relevant costs associated with inventory in an organization. **07**
       (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 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? **07**

Q.5 **(a)** Discuss importance of ABC analysis in a selective inventory control. Take **07** an example and explain methodology of ABC analysis.

(b) Discuss Two-bin system of inventory control. Also discuss principles of **07** buffer stocking.

OR

Q.5 **(a)** Discuss VED and FSN analysis of selective inventory control. **07**

(b) Discuss international buying and import purchasing with suitable example **07** and procedural outlay.

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