

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VI (NEW) - EXAMINATION – SUMMER 2018****Subject Code:2161501****Date:28/04/2018****Subject Name:Materials Management****Time:10:30 AM to 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 objectives of MM. **03**  
(b) Discuss role of value analysis in purchasing. **04**  
(c) Describe the procedure for disposing the surplus and obsolete items. **07**
- Q.2** (a) Explain fixed order quantity system. **03**  
(b) Explain the importance of materials management. **04**  
(c) Write note: Types of Purchasing Systems. **07**
- OR**
- (c) Write notes: ABC analysis. **07**
- Q.3** (a) Explain any one selective inventory control techniques. **03**  
(b) What are the advantages of good store keeping? **04**  
(c) Given that (i) Annual usage,  $U=60$  units, (ii) procurement cost,  $P=Rs.15$  per order (iii) cost per piece,  $C=Rs. 100$  (iv) cost of carrying inventory  $I$ , a percentage including expenditure on obsolescence, taxes, insurance, deterioration etc. = 10%. Calculate E.O.Q. **07**
- OR**
- Q.3** (a) Discuss various categories of inventory in any organization. **03**  
(b) Discuss principles of good stores layout. **04**  
(c) Explain in brief, the factors affecting Make of Buy decision. **07**
- Q.4** (a) Discuss sources of supply and supplier selection. **03**  
(b) Discuss Two-bin system of inventory control. **04**  
(c) Find Economic order quantity  $Q$  and Maximum inventory  $M$  from the following data:  $U=10,000$  Units,  $P=Rs. 100$  per order,  $C=Rs. 10$  per unit,  $B=Rs. 15$  per each backorder incurred,  $I=20\%$ . **07**
- OR**
- Q.4** (a) Short note on standardization. **03**  
(b) Explain codification with illustration. **04**  
(c) 1000 ml 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**
- Q.5** (a) What is Vendor rating? **03**  
(b) What do you understand by materials research? **04**  
(c) Discuss role and scope of materials control function in a foundry. **07**
- OR**
- Q.5** (a) Discuss sub contracting. **03**  
(b) Explain materials requirement planning. **04**  
(c) Bring out the main points of difference between ordering cost and inventory carrying cost. **07**

\*\*\*\*\*