

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY**

**BE - SEMESTER-VI(NEW) – EXAMINATION – SUMMER 2019**

**Subject Code:2161501**

**Date:10/05/2019**

**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.

	<b>MARKS</b>
<b>Q.1</b> (a) Explain the objectives of MM.	<b>03</b>
(b) Explain the importance of MM.	<b>04</b>
(c) Explain codification with illustration.	<b>07</b>
<b>Q.2</b> (a) What are the various records maintained in the stores?	<b>03</b>
(b) Bring out the main points of difference between ordering cost and inventory carrying cost.	<b>04</b>
(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.	<b>07</b>
<b>OR</b>	
(c) The rate of use of a particular raw material from stores is 20 units per year. The cost of placing and receiving an order is Rs. 40. The cost of each unit is Rs. 100. The cost of carrying inventory in percent per year is 0.16 and it depends upon the average stock. Determine the economic order quantity. If the lead time is 3 months, calculate the reorder point.	<b>07</b>
<b>Q.3</b> (a) Discuss Two-bin system of inventory control.	<b>03</b>
(b) Short note on standardization.	<b>04</b>
(c) Describe the procedure for disposing the surplus and obsolete items.	<b>07</b>
<b>OR</b>	
<b>Q.3</b> (a) Explain materials requirement planning.	<b>03</b>
(b) Discuss role of value analysis in purchasing.	<b>04</b>
(c) Explain in brief, the factors affecting Make of Buy decision.	<b>07</b>
<b>Q.4</b> (a) Discuss sub contracting.	<b>03</b>
(b) Discuss vendor rating.	<b>04</b>
(c) Discuss integration of materials function with production & purchase functions in an organization.	<b>07</b>
<b>OR</b>	
<b>Q.4</b> (a) Discuss sources of supply and supplier selection.	<b>03</b>
(b) Discuss principles of good stores layout.	<b>04</b>
(c) What are the different methods of purchasing generally followed by industrial firms?	<b>07</b>
<b>Q.5</b> (a) Discuss various categories of inventory in any organization.	<b>03</b>
(b) What are the advantages of good store keeping?	<b>04</b>
(c) Find Economic Order Quantity and Maximum Inventory from the following data: Annual use $U=10,000$ units, Procurement cost $P= Rs. 100$ per order, Cost $C= Rs. 10$ per unit, $B= Rs 15$ per each backorder incurred, Cost of carrying inventory $I=20\%$	<b>07</b>

**OR**

- Q.5** (a) Explain any one selective inventory control techniques. **03**  
(b) Give reasons for generation and accumulation of obsolete and surplus items. **04**  
(c) Find Economic Order Quantity from the following data: **07**  
Average annual demand = 30,000 units  
Inventory carrying cost = 12% of the unit value per year  
Cost of placing on order = Rs. 70  
Cost of unit = Rs. 2

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