

## **Paper : M.C. 204 : PRODUCTION AND MATERIALS MANAGEMENT**

**(Same for USOL Candidates)**

**Time Allowed : Three Hours**

**Maximum Marks : 80**

**Note :** Attempt any five questions in all, selecting at least one question from each unit. All questions carry equal marks.

### **UNIT-I**

1. A company requires 10,000 units of an item annually at a price of Rs. 50 per unit. Cost of placing one order is Rs. 150 and carrying costs are 24% of the price. Presently the order quantity is 1,000 units. How much savings can the company make if the order quantity is EOQ ? The supplier has offered a price discount of 5% if the order quantity is 2,000 units. Should this offer be accepted ?
2. Which are the stages involved in suppliers selection ? Why should a materials manager have good relations with suppliers ?

## UNIT-II

3. Explain the objectives and process of price-cost analysis. How is it different from value analysis ?
4. What are the objectives of demand forecasting and features of a good forecast ? Also highlight the advantages and limitations of Delphi method.
5. Write notes on :
  - (a) Control charts for attributes
  - (b) OC Curve.

## UNIT-III

6. Why are location decisions called strategic decisions ? Where are major automobile companies located ? Why ? Which factors, in your opinion, affect their location ?
7. What are the features of product layout ? How is it different from process layout ? Which of them is more appropriate for intermittent production systems ? Why ?
8. You are given the following information about a project:

### Time estimates (weeks)

Activity	Optimistic	Most likely	Pessimistic
1-2	4	6	8
2-3	5	7	15
2-4	4	8	12
3-5	15	20	25
3-6	10	18	26
4-6	8	9	16
5-7	4	8	12
6-7	1	2	3
7-8	6	7	14

- (a) Draw the network.
- (b) Find the expected completion time of the project.
- (c) Find the probability of completing the project in 55 weeks.

## UNIT-IV

9. Discuss the charts used in method study, clearly highlighting their application areas.
10. Discuss the uses and techniques of time study. How does it help in determining performance rating ?