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MWR-01

**P. G. CERTIFICATE IN INVENTORY
PLANNING AND WAREHOUSING
SYSTEM FOR ENGINEERS (PGCIPWS)**

Term-End Examination

June, 2023

**MWR-01 : INTRODUCTION TO INVENTORY
PLANNING AND CONTROL**

Time : 3 Hours

Maximum Marks : 70

Note : *Answer any **seven** questions. Each question carries equal marks.*

1. (a) Why do organizations need inventory ? 4
- (b) What are the objectives of inventory management ? 6
2. Describe various types of inventory used in manufacturing setup. 10
3. (a) Describe various costs related to inventory. 5

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- (b) What do you understand by Economic Order Quantity (EOQ) ? Explain EOQ using suitable diagram. 5
4. (a) Discuss the fixed quantity order model of inventory control system with a suitable diagram. 5
- (b) A television manufacturer requires 24000 pieces of wire (each 2 cm long) every month for assembly. Ordering cost per order is ₹ 2,000 and carrying (or holding) cost is 25 percent of the unit price. The price per unit of a piece is ₹ 5. Assuming delivery is instantaneous, find the economic order quantity (EOQ) and the reorder point. 5
5. (a) Discuss the ABC classification inventory using a suitable diagram. 6
- (b) What are advantages and limitations of using this classification method ? 4

6. A company has the procurement pattern of five items irrespective of their level of demand as given in the table 1 : 10

Table 1

Item No.	Annual Demand (₹)	No. of orders per year	Order Size (₹)
1	10,00,000	4	2,50,000
2	6,40,000	4	1,60,000
3	9,00,000	4	22,500
4	2,500	4	625
5	1,600	4	400

Reduce the inventory levels while keeping total number of orders per year the same.

7. (a) What do you mean by independent demand and dependent demand ? Give examples of each. 4
- (b) Describe any *four* major reasons to do demand forecasting. 6

8. Demand for a certain auto component part for the last six months is given in the Table 2.

Table 2

Month	Demand (No. of units)
January	70
February	75
March	72
April	80
May	85
June	90

- (a) Forecast the demand of auto component for the month of July using 3-months moving average method. 5
- (b) Calculate forecasting error using MAD. 5
9. (a) Discuss the merits of proper stock accounting system. 5
- (b) Discuss the merits and demerits of annual stock verifications. 5
10. Discuss the FIFO price method of costing of stock issued and valuation of stock in hand. 10