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MWR-001

No. of Printed Pages: 4

#### **MWR-001**

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

### Term-End Examination

#### December, 2021

## MWR-001: INTRODUCTION TO INVENTORY PLANNING AND CONTROL

Time: 3 Hours Maximum Marks: 70

Note: (i) Attempt any seven questions.

- (ii) All questions carry equal marks.
- What is meant by Inventory Control? Write down the functions of inventory control.
- 2. What are the relevant costs that a management should try to balance in deciding the size of purchase order? How do they vary with order size?

3. With neat diagram, explain A-B-C control policy of inventory. Bring out the salient features and various advantages obtained by it.

10

4. An aircraft company uses rivets at an approximate consumption rate of 2500 kg per year. The rivets cost ₹ 300 per kg and the company personnel estimate that it costs ₹ 1,300 to place an order and inventory carrying cost is 10% per year.

#### Determine:

- (i) How frequently they should order for rivets to be placed?
- (ii) What quantities of rivets should be ordered?
- 5. What are the different types of inventory, which are kept by any manufacturing company? Explain with the help of examples.

- The annual demand for an item is 3200 parts. The unit cost is ₹ 6 and inventory carrying charges are estimated as 25% per annum. If the cost of one procurement is ₹ 150, find : 10
  - Economic Order Quantity (EOQ)
  - (ii) Time between two consecutive orders
  - (iii) Number of orders per year
  - (iv) The optimal cost
- The demand for an item is uniform at the rate of 25 units/month. Ordering cost is ₹ 30 and cost per unit is ₹ 2 per unit. Inventory carrying cost is ₹ 0.5 per unit per month. If shortage cost is ₹ 0.3 per unit per month, determine : 10
  - EOQ (i)
  - (ii) Optimal scheduling between two consecutive orders.

8. What do you understand by Forecasting? Discuss how the nature of demand affects forecast accuracy in inventory planning. 10

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9. Write short notes on any *four* of the following:

$$4 \times 2\frac{1}{2} = 10$$

- (a) Qualitative forecasting techniques
- (b) Uncertainty in inventory planning
- Safety stock
- (d) VED Analysis
- Assumptions in basic EOQ model