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

## **Term-End Examination**

December, 2023

MWR-003: WAREHOUSING SYSTEM

Time: 3 Hours Maximum Marks: 70

Note: Answer any seven questions. All questions carry equal marks.

- 1. (a) Describe key objectives of warehousing. 4
  - (b) How does modern warehousing system differ from traditional one? Explain. 6
- 2. Describe comparative advantages and disadvantages of any two warehouse types as given below:  $2\times5=10$ 
  - (i) Private Warehouse
  - (ii) Public Warehouse
  - (iii) Contract Warehouse

3. Suppose a company wants to expand its logistics network and locate a facility (a new plant) within a network of three existing facilities A, B and C. X-coordinate and Y-coordinate of these warehouse locations and respective capacities of goods volume are described in the table:

Warehouse	(X, Y) Coordinates	Good Volume Capacity (units)
A	(200, 50)	2500
В	(300, 100)	1300
C	(100, 150)	5000

Use the center of gravity model, find the coordinates for the location of a new plant.

4. Discuss the following warehousing functions:

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

- (i) Holding
- (ii) Consolidation
- (iii) Mixing
- (iv) Postponement
- 5. For planning the layout and operations of a warehouse system, what are the fundamental principles to be followed? Explain each of them in detail.

- 6. (a) Describe any *four* mechanized material handling equipments, which are used in warehousing system.
  - (b) Describe the 'Racking System' and 'Pallet' used in warehouse storage. 4
- 7. Explain any *four* important factors which affect the cost of warehousing system.
- 8. Discuss the role of ICT in warehousing system.

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- 9. (a) Describe the stock verification process in any organization.
  - (b) Explain the 'FIFO price method' of costing of materials used and valuation of stock in hand.
- 10. Write short notes on any *two* of the following :

 $2 \times 5 = 10$ 

- (i) Legal issues in warehousing system
- (ii) Key performance indicators of warehousing system
- (iii) Cross-docking