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MWR-002

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

Term-End Examination

December, 2025

**MWR-002 : ADVANCE INVENTORY PLANNING
AND CONTROL**

Time : 3 Hours

Maximum Marks : 70

Note : *Attempt any **seven** questions. All questions carry equal marks. Use of scientific calculator is permitted.*

1. (a) Compare the conventional approach with the modern approach of materials management with the help of organizational structure. 7

- (b) Does the separation of purchasing function from the material management function help in improving performance of organization ? 3
2. If you are a purchase manager in a manufacturing firm, what are the steps you would follow to purchase any item ? 10
3. Discuss the method/procedure for evaluating a vendor or supplier. 10
4. (a) What is aggregate planning ? What is the purpose of aggregate planning ? 5
 (b) Describe aggregate planning options while dealing with managing demand. 5
5. A manufacturer has the following information on its major products : 10
- Regular-time production capacity = 2600
 units/period
- Overtime production cost = ₹ 600/unit
- Inventory cost = ₹ 100/unit/period
 (based on ending inventory)
- Backlog cost = ₹ 500/unit/period
- Beginning inventory = 400 units

Demand (in units) for periods 1, 2, 3 and 4 is 4000, 3200, 2000, and 2800 respectively. Develop a level output plan that yields zero inventory at the end of period 4.

What will be the cost resulting from this plan ?

6. Explain the MRP-I system. Discuss the logic and methodology used in MRP-I. 10
7. Illustrate product structure used in MRP-I using suitable diagram. 10
8. (a) What are the performance measures for supply chain ? Briefly discuss. 5
(b) Describe the applications of supply chain in e-Commerce. 5
9. (a) What do you understand by JIT production system ? Why is it synonymous with lean system ? 5
(b) Describe the limitations of JIT system in today's business scenario. 5

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10. Write short notes on any *two* of the following : 5×2=10

- (a) Kanban
- (b) MUDA
- (c) 5 'S' techniques

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