

10. A multinational company analyses five locations for setting up a factory for the assembly of car unit. Use weighted score model to choose between three locations for setting up the factory.

- (a) Excellent
(b) Very good
(c) good

| Category | Weight | Locations | | | | |
|--------------------|--------|-----------|---|---|---|---|
| | | A | B | C | D | E |
| 1. Labour | 10 | 2 | 1 | 3 | 4 | 2 |
| 2. Transport | 7 | 6 | 3 | 2 | 1 | 2 |
| 3. Electric Power | 10 | 3 | 4 | 2 | 3 | 3 |
| 4. Cost of living | 20 | 4 | 2 | 1 | 3 | 2 |
| 5. Export facility | 10 | 3 | 1 | 2 | 1 | 1 |

Register Number :

Name of the Candidate :

6 8 0 4

P.G. DIPLOMA EXAMINATION, 2010

(MATERIALS MANAGEMENT)

(PAPER - IV)

**180. TRANSPORTATION AND
DISTRIBUTION MANAGEMENT**

December]

[Time : 3 Hours

Maximum : 100 Marks

*Answer any FIVE questions,
choosing THREE from SECTION – A and
TWO from SECTION – B.
All questions carry equal marks.*

SECTION – A (3 × 20 = 60)

1. (a) Explain the importance of transportation system. Also, compare the cost of transporting goods through railway system with road transport. (10)

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- (b) How do you choose the mode of transport while decision making? Also, discuss the impact of transportation cost and cost of materials. (10)
2. (a) Briefly explain different kinds of road transport modes and compare them with rate and fare structure. (10)
- (b) Compare water transport and air transport with respect to economy, risk and delays involved. (10)
3. (a) How will you to avoid the losses during the movement of materials while transportation? (10)
- (b) How do you determine the right package for a product? Does it vary according to the nature of the transport and the destination? Explain. (10).
4. (a) Write short notes on :
- (i) Procedure for registration of exporters.
- (ii) Rights and Liabilities. (10)

9. A plant is manufacturing four types of products. The sequence of operation, quantity per day and weight are given in the Tables. There are four shops P Q R and S and each of this shops handles only one operation. The inter shop distances (in metre) are also given in Table. Suggest suitable layout of shops so as to minimize the overall load distance travel.

| Product | Sequences of Operation | Quantity per day | Weight in Kg. |
|---------|------------------------|------------------|---------------|
| I | P Q R S | 90 | 3 |
| II | P R S Q | 70 | 4 |
| III | Q R S | 80 | 4 |
| IV | P r Q S | 100 | 8 |

| Shops | P | Q | R | S |
|-------|---|----|----|----|
| P | - | 20 | 40 | 60 |
| Q | | - | 30 | 70 |
| R | | | - | 20 |
| S | | | | - |

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500 respectively. Unit shipping cost (in Rs.) are given below. Determine the optimum distance for this company to minimize the shipping cost.

| | W1 | W2 | W3 | W4 |
|---|----|----|----|----|
| A | 20 | 60 | 10 | 30 |
| B | 40 | 50 | 20 | 10 |
| C | 10 | 30 | 40 | 20 |

8. Four wagons are available at four stations A, B, C and D. These are required at station P, Q, R and S. The following Table gives the distances (in kilometre) between various stations.

| | P | Q | R | S |
|---|----|----|----|----|
| A | 10 | 20 | 40 | 30 |
| B | 50 | 6 | 20 | 10 |
| C | 70 | 10 | 10 | 20 |
| D | 50 | 30 | 5 | 6 |

How should the wagons be assigned so that the total distance covered is minimized?

- (b) Explain the packaging for efficient handling for different types of transportation.(10)
5. (a) Describe centralized and decentralised warehouse operation with suitable illustrative examples. (10)
- (b) Explain the role of warehouses in inventory control during transportation. (10)
6. (a) Explain the List of safety measures for the storage of flammable and other harmful products in warehouses. (10)
- (b) What are the factors to be considered while preparing warehouse layout? (10)

SECTION – B (2 × 20 = 40)

Answer any TWO questions.

All questions carry equal marks.

7. A car company has three factories A, B and C from which it ships the cars to four warehouses w1, w2, w3 and w4. Monthly factory capacities are 400, 600 and 800 respectively. Warehouse requirements are 200, 600, 500 and

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