

## MBA in DM (Rep) Sem.-2 Examination

DM-204

POM

May-2025

[Max. Marks : 70]

Time : 2-30 Hours]

Q.1 Trace the Evolution of Production and Operations Management. How Do Production and Manufacturing Differ? (14)

Q.2 Discuss the different types of production systems and manufacturing strategies. How do these strategies contribute to improving productivity? (14)

Or

Q.2 Define inventory and discuss its different types. Elaborate on inventory classification techniques such as ABC, VED, HML, and XYZ. (14)

Q.3 Discuss the factors affecting plant location decisions. Explain any two methods used for evaluating plant location alternatives. (14)

Or

Q.3 What is plant layout? Explain the different types of plant layout with examples. Why is an ideal layout important in operations management? (14)

Q.4 A company has an annual requirement of 30,000 units of a component. The purchase price per unit is ₹50. The ordering cost is ₹500 per order, and the carrying cost is 25% per annum of the unit cost. (14)

(a) Find the Economic Order Quantity (EOQ).

(b) The supplier offers a 10% discount for a minimum order quantity of 4,000 units. Should the firm accept the discount?

Or

Q.4 A company is considering six alternative locations for a new plant. The annual operating costs and intangible factors for these locations are given below. (14)

**Economic Factors (Annual Operating Costs in INR):**

Factors	A	B	C	D	E	F
Labour	2,60,000	2,30,000	2,90,000	2,10,000	1,90,000	2,60,000
Transportation Cost	35,000	28,000	25,000	38,000	42,000	30,000
Local Taxes	38,000	42,000	47,000	34,000	32,000	40,000
Cost of Power	55,000	65,000	60,000	50,000	65,000	60,000
Other Costs	45,000	35,000	40,000	55,000	60,000	50,000

**Intangible Factors (Rating: 1 = Poor to 5 = Excellent):**

Factor	A	B	C	D	E	F
Community Attitude	4	3	5	3	4	5
Labour Availability	5	4	3	5	3	4
Quality of Transportation	3	2	5	2	3	4
Quality of Life	2	4	3	5	5	3
Availability of Skilled Workers	5	4	3	5	3	3
Expansion Potential	4	3	4	5	4	4

(a) Calculate the total annual operating cost for each location.

(b) Considering both the economic and intangible factors, recommend the most suitable plant location and justify your answer.

Q.5 What is Six Sigma? Describe key quality control tools.

(14)