

S.No. : 411

BBA 402

No. of Printed Pages : 04

Following Paper ID and Roll No. to be filled in your Answer Book.

PAPER ID : 7120

Roll
No.

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BBA / IMBA Examination 2021-22

(Even Semester)

PRODUCTION AND OPERATIONS MANAGEMENT

Time : Three Hours]

[Maximum Marks : 100

Note :- Attempt all questions.

1. Attempt any four parts of the following : $7 \times 4 = 28$

- (a) What is meant by plant location? Explain the factors affecting the choice of a proper location of plant.
- (b) What is product layout and process layout? Explain the merits and demerits of each layout.
- (c) Briefly describe the history of production and operations management function.

[P. T. O.

- (d) Define operations management. What are the important jobs / decisions of production / operations management?
- (e) Explain the criteria of performance for the production and operations management system.
- (f) Describe the various behaviour aspects in location planning.

2. Attempt any four parts of the following : $7 \times 4 = 28$

- (a) Briefly describe ABC analysis in materials management.
- (b) Define inventory control. How is inventory control helpful in materials management?
- (c) What is value analysis? What are the various activities in value analysis?
- (d) Derive the EOQ formulae and explain Economic Order Quantity (EOQ) model.
- (e) Why has purchasing research assumed importance in today's organisation?
- (f) Give an overview of material requirement planning (MRP).

3. Attempt any two parts of the following : $11 \times 2 = 22$

- (a) (i) Define productivity and explain various methods of improvement.
- (ii) What are various types of production system?
- (b) What do you mean by Total Quality Management (TQM)? How can the top management of an organisation influence the quality management process?
- (c) Production planning is the preceding function of production control. Discuss.

4. Attempt any two parts of the following : $11 \times 2 = 22$

- (a) Compare and contrast CPM and PERT. Under what conditions would you recommend scheduling by PERT? Justify your answer with reason.
- (b) (i) Draw the network corresponding to the following and determine the earliest and the latest allowable start and completion times for each of the following activities :

[P. T. O.]

Activity	Duration
1 - 2	3
1 - 3	4
1 - 4	14
2 - 3	10
2 - 6	5
3 - 5	4
3 - 6	6
4 - 5	1
5 - 6	1

(ii) Find out the critical path.

(c) Solve the following linear programming problem through simplex method :

$$\text{Minimize } P = 2x_1 - 3x_2 + x_3$$

Subject to constraints

$$6x_1 + 8x_2 + x_3 \leq 100$$

$$4x_1 + 3x_2 - 2x_3 \leq 90$$

$$x_1, x_2, x_3 \geq 0$$
