

Roll No.

Total No. of Pages : 03

Total No. of Questions : 10

MBA/MBA (IB) (Sem.-2)
PRODUCTION AND OPERATIONS MANAGEMENT

Subject Code : MBA/205/18

M.Code : 76157

Date of Examination : 22-05-2024

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A contains EIGHT questions carrying TWO marks each and students has to attempt ALL questions.
2. SECTION-B consists of FOUR Subsections : Units-I, II, III & IV. Each Subsection contains TWO questions each carrying EIGHT marks each and student has to attempt any ONE question from each Subsection.
3. SECTION-C is COMPULSORY and consist of ONE Case Study carrying TWELVE marks.

SECTION-A

1. Answer briefly:

- i) Define Facility Location.
- ii) Discuss the concept of Batch production systems.
- iii) What do you understand by capacity planning?
- iv) Explain the benefits of Six Sigma.
- v) What is the utility of acceptance sampling?
- vi) Elaborate the importance of value analysis in Production Management.
- vii) Explain the Transformation Process Model.
- viii) What are the responsibilities of an operations manager?

SECTION-B

UNIT-I

2. Discuss the need and importance of new product design and development. Explain the steps involved in new product design & development, with examples.

3. Discuss the objectives of plant location. What are the various important factors to be kept in mind while deciding on a new plant location? Give examples.

UNIT-II

4. Discuss the concept and importance of Capacity Planning. What are the factors affecting capacity planning?
5. What are the various types of plant layouts? Also, discuss the problems faced while deciding on a facility layout.

UNIT-III

6. Discuss the various types of Sampling Techniques. What are the applications of control charts? Explain with illustrations.
7. What is the importance of Total Quality Management? Discuss Deming's 14 principles and Juran's Quality Trilogy.

UNIT-IV

8. Explain J.I.T with illustrations. Discuss Kanban technique of Inventory Management.
9. Derive an expression for Economic Order Quantity, stating suitable assumptions. Also find the expression for total optimised costs.

SECTION-C

10. Study the following case and answer the questions that follow :

XYZ Ltd does the ABC classification of the various components and parts it uses for assembling its tractors.

- a. As an operations manager, you are required to classify the following parts and components into A, B and C categories according to their usage values.
- b. Draw the ABC distribution curve.

- c. Item # 8 has a high criticality class i.e. a shortage of this item may lead to a complete halt in the production process. What special treatment can be given to this item?

Item ID #	Unit Price (Rs)	Annual usage (Units)
1	8	150,000
2	40	2,700
3	84	450
4	72	13,700
5	900	250
6	2,400	690
7	500	81
8	9	500
9	97	6,500
10	5	350,000

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.