S.No. : 300 BBA 3305

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

PAPER ID : 37117 Roll No. 1 2 2 0 6 7 5 1 1 1

BBA Examination 2023-24

(Odd Semester)

PRODUCTION AND OPERATIONS MANAGEMENT

Time : Three Hours] *[Maximum Marks : 60*

Note :– Attempt all questions.

SECTION–A

1. Attempt all parts of the following : 8×1=8

   (a) How efficiency is different from effectiveness?

   (b) What is hybrid layout?

   (c) Define purchasing research.

   (d) What do you mean by inventory control?

   (e) Define work study.

   (f) What is assembly line?

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(g) How linear programming is useful?

(h) What do you mean by float time in network diagram?

SECTION – B

2. Attempt any two parts of the following : 2×6=12

(a) Discuss the different methods for plant location selection.

(b) What do you mean by value analysis? What are the basic steps involved in value analysis?

(c) What is total quality management? Discuss the important elements of TQM.

(d) Define PERT. State the rules of constructing a project network.

SECTION – C

Note :– Attempt all questions. Attempt any two parts from each question. 5×8=40

3. (a) Classify and explain the decision areas of production and operations management.

(b) What are the pecularities of layout of a big retail store?

(c) What key factors would you consider while locating the fast food restaurant?

4. (a) What is the purpose of inventory? Describe the costs associated with inventory.

(b) What are the assumptions on which the EOQ model is based? What are the limitations of the model?

(c) Describe the inputs to an organisation's MRP system.

5. (a) What is method study? Explain the steps involved in method study.

(b) A production unit require 300 units of a product to be produced/dry and there are 10 working hours available per day. Calcualte :

(i) Cycle time

(ii) Number of work stations

(iii) Efficiency of the line

(c) Define productivity. Explain various methods used for improvement of productivity.

6. (a) What is the relevance of BIG-M method in production and operations management?

(b) Solve the linear programming problem using simplex method :

Maximize $Z = 40x + 60y$

Subject to $5x + 2y \leq 50$

$3x + 5y \leq 66$

$x, y \geq 0$

(c) The activities described by the following table are given for a construction project :

Activity	Predecessors	Duration (Days)
A	–	5
B	–	6
C	A	4
D	A, B	2

(i) Draw the network diagram

(ii) Identify the critical path

(iii) Find the minimum time of completion of the project.

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