

Code: 17BA2T4

I MBA - II Semester - Regular Examinations – April 2018

PRODUCTION AND OPERATIONS MANAGEMENT

Duration: 3 hours

Max. Marks: 60

SECTION - A

1. Answer the following:

5 x 2 = 10 M

- a) Define product design.
- b) Maintenance Management.
- c) Technology Management.
- d) Total productive maintenance.
- e) Purchase procedure.

SECTION – B

Answer the following:

5 x 8 = 40 M

2. a) Discuss the Nature and Scope of Production and Operations Management.

OR

b) Describe in detail the types of manufacturing processes.

3. a) Define Plant location. Explain the factors influencing location.

OR

b) Explain Scheduling and Sequencing of operations.

4. a) Discuss the effectiveness of Acceptance sampling in Quality control.

OR

b) What are the challenges involved in Waste Management?
How can they be addressed?

5. a) Describe the various techniques of measuring productivity in a Mining company.

OR

b) Describe Deming's contribution to quality and Principles behind Six Sigma.

6. a) How does Value analysis enable cost reduction? Discuss the procedure for cost reduction.

OR

b) What are the objectives of Stores Management? Explain requirements for efficient management of stores.

SECTION-C

7. Case Study

1x10=10 Marks

The following table gives data on Normal time and cost and crash time and cost for a project.

| Activity | Normal | | Crash | |
|----------|--------------|-----------|--------------|-----------|
| | Time (Weeks) | Cost (Rs) | Time (Weeks) | Cost (Rs) |
| 1-2 | 3 | 300 | 2 | 400 |
| 2-3 | 3 | 30 | 3 | 30 |
| 2-4 | 7 | 420 | 5 | 580 |

| | | | | |
|-----|----|------|----|------|
| 2-5 | 9 | 720 | 7 | 810 |
| 3-5 | 5 | 250 | 4 | 300 |
| 4-5 | 0 | 0 | 0 | 0 |
| 5-6 | 6 | 320 | 4 | 410 |
| 6-7 | 4 | 400 | 3 | 470 |
| 6-8 | 13 | 780 | 10 | 900 |
| 7-8 | 10 | 1000 | 9 | 1200 |

Indirect cost is Rs. 50 per week.

- i) Draw the Network diagram for the project and identify the critical path.
- ii) What are the Normal project duration and associated cost?
- iii) Find out the total float associated with each activity.
- iv) Crash the relevant activities systematically and determine the optimal project completion time and cost.