

**I MBA - II Semester – Regular/Supplementary Examinations
April 2019**

PRODUCTION AND OPERATIONS MANAGEMENT

Duration: 3 hours

Max. Marks: 60

SECTION - A

1. Answer the following:

5 x 2 = 10 M

- a) Define Production and Operations Management.
- b) Aggregate planning.
- c) Control charts.
- d) Six sigma.
- e) Value analysis.

SECTION – B

Answer the following:

5 x 8 = 40 M

- 2. a) Discuss the role and responsibilities of Production manager in an Automobile manufacturing organization.

(OR)

- b) What do you understand by manufacturing process technology? Explain the role of CAD/CAM in manufacturing?

3. a) Discuss the application of Gantt task model in the production planning. How does it differ in batch production and job order production.

(OR)

b) What are the important factors affecting plant layout. How does plant layout affect productivity.

4. a) What is Quality assurance and Quality circles? State the merits and demerits of Quality circles.

(OR)

b) How do control charts differ from acceptance sampling plans? Under what circumstances is each appropriate?

5. a) Define Quality. Explain the prime determinants of quality.

(OR)

b) Discuss the measurement and improvements in productivity.

6. a) Explain what inventory Management is, and why it is important for a Manufacturing company.

(OR)

b) Explain the objectives and requirements for efficient Management of stores.

SECTION-C

7. Case Study

1 x 10 = 10 M

A small project consists of the following activities with the given time estimates.

Project Event Successor Event	Estimated duration (in months)		
	Optimistic Time (t_o)	Most likely Time (t_m)	Pessimistic Time (t_p)
1-2	2	2	14
1-3	2	8	14
1-4	4	4	16
2-5	2	2	2
3-5	4	10	28
4-6	4	10	16
5-6	6	12	30

- (i) Draw the network (ii) Calculate the average expected time for each activity. (iii) Calculate the earliest expected time and latest allowable time for each event. (iv) Determine the critical path considering project completion time of 36 months and (v) Determine the probability of completing the project within the scheduled completion time.