

- (b) Define forecasting. What is the purpose of forecasting ? Discuss forecasting methods. (10)

SECTION - D

8. (a) What is sequencing ? What is priority sequencing rule ? How right sequencing rule is selected ? What are priority sequencing rules ? (10)
- (b) What is production scheduling ? Define operation scheduling, flow shop scheduling, job shop scheduling. (10)
9. (a) Write about Kanban system of production scheduling. Write about master schedule and subsidiary schedule. (10)
- (b) Discuss about sequencing of n jobs on two machines case. (10)

Roll No.

22621

**M.Tech. 1st Semester (MAE)
CBCS Scheme Examination-
December, 2016**

**DESIGN PLANNING CONTROL AND
PRODUCTION SYSTEM**

Paper : MTMA21D4

Time : 3 hours

Max. Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard will be entertained after the examination.

Note : Attempt **five** questions in all, selecting **one** question from each Section. Q. No. 1 is **compulsory**. All questions carry equal marks.

1. Discuss the following :

- (a) Non-linear break even chart (5)
- (b) Process charts, flow diagrams, travel chart and REL chart. (5)
- (c) Standard error of estimate (5)
- (d) MRP logic comparison (5)

SECTION - A

2. (a) Discuss continuous flow technology. Discuss with characteristics, advantages and disadvantages of the same. (10)
- (b) Discuss the generalized model of production system with its features, (10)
3. (a) What is matrix organization structure for project management ? Also discuss flow patterns. (10)
- (b) Explain the life cycle approach to production management. (10)

SECTION - B

4. (a) Product development and design is basically a research and development activity. Elaborate the statement with suitable examples. (10)
- (b) A company that manufactures tape recorders has a capacity of 100 units/month which sell at a cost of ₹3300/per unit. Fixed costs of the company

are 1,20,000 per month. Variable costs are 1000 per unit. (10)

- (i) What output is required for break-even ?
- (ii) What reduction in fixed costs would be required to lower BEP by 25 units ?

5. (a) What is process selection ? Discuss the steps involved in process planning. (10)
- (b) What is make or buy decision ? Discuss various types of analysis. (10)

SECTION - C

6. (a) Explain Kelbridge and Wester's procedures and Helgeson and Birnie's ranked positional weight method about assembly line balancing. (10)
- (b) Write about dependent demand and independent demand inventory. (10)
7. (a) What is material requirement planning (MRP) ? Write the process of MRP. Write about MRP based planning system. (10)