

**IV B.Tech II Semester Supplementary Examinations, July/August - 2017**

**PRODUCTION PLANNING AND CONTROL**

(Common to Mechanical Engineering and Mining Engineering)

**Time: 3 hours**

**Max. Marks: 70**

*Question paper consists of Part-A and Part-B*

*Answer ALL sub questions from Part-A*

*Answer any THREE questions from Part-B*

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**PART-A (22 Marks)**

1. a) Define continuous production system. Write any three differences between mass production and flow production. [4]
- b) Write about moving average method. [4]
- c) Write any four benefits of MRP. [4]
- d) Write a short note on BOM. [4]
- e) Write a brief note on production scheduling. [3]
- f) What is follow up? State any three objectives. [3]

**PART-B (3x16 = 48 Marks)**

2. a) Describe the functions of production planning and control in detail. [8]
- b) What is internal organization of a department? Explain it briefly by taking an example. [8]

3. a) Describe 'Least Square Method' of sales forecasting with its advantages and limitations. [8]
- b) Forecast the demand for the following series by exponential smoothing method by taking  $\alpha = 0.3$  and  $0.6$

Period	1	2	3	4	5	6	7	8	9	10
Actual demand	10	12	8	11	9	10	15	14	16	15

[8]

4. a) Define inventory. What are the various types of inventory? Why are they maintained? [8]
- b) A factory needs 36000 units annually of a component that cost Rs.2 per unit. Cost of each order placing is Rs.25 and inventory carrying cost is Rs.10 per year.
  - (i) Find the economic lot size and the total inventory cost.
  - (ii) What is the time between placing of orders?
  - (iii) The supplier offers 2% discount if a single order is placed. Should the company accept it? [8]

5. a) Define routing and explain what are the factors affecting the routing procedure in detail. [8]
- b) Write any four differences between scheduling and loading. [8]

6. a) Describe briefly the line of balance technique of project scheduling. [8]
- b) What is aggregate planning? Write its functions, merits and demerits. [8]

7. a) What is dispatching? State various activities of a dispatcher. [8]
- b) Write any eight applications of computers in PPC. [8]