

**INSTITUTE OF AERONAUTICAL ENGINEERING**

(Autonomous)

Dundigal-500043, Hyderabad

**B.Tech VIII SEMESTER END EXAMINATIONS (REGULAR) - JUNE 2022**

Regulation: R18

**PRODUCTION PLANNING AND CONTROL**

Time: 3 Hours

(ME)

Max Marks: 70

Answer FIVE Questions choosing ONE question from each module  
(NOTE: Provision is given to answer TWO questions from any ONE module)

All Questions Carry Equal Marks

All parts of the question must be answered in one place only

**MODULE – I**

1. (a) What are the main objectives of production planning and control (PPC)? Explain the important elements of PPC. [BL: Understand| CO: 1|Marks: 7]
- (b) Explain unit production. State its characteristics. Differentiate between production planning and production control. [BL: Understand| CO: 1|Marks: 7]
2. (a) List out and explain the various types of manufacturing processes. Write any three differences between mass production and flow production. [BL: Understand| CO: 1|Marks: 7]
- (b) Discuss planning functions and controlling functions separately and explain them briefly. [BL: Understand| CO: 1|Marks: 7]

**MODULE – II**

3. (a) What is meant by VED analysis? Write its significance. Compare VED analysis with ABC analysis. [BL: Understand| CO: 2|Marks: 7]
- (b) Categorize the items according to ABC analysis for the given data given in Table 1. [BL: Apply| CO: 2|Marks: 7]

Table 1

Item No	11	12	13	14	15	16	17
Unit Cost	5	10	14	7	6	15	20
Annual Demand	47000	1500	200	700	4700	1100	17000

4. (a) What are the main functions of forecasting? Describe 'Least square method' of sales forecasting with its advantages and limitations. [BL: Understand| CO: 2|Marks: 7]
- (b) Compute EOQ and the total variable cost from the following information:  
Annual demand = 4,000 units  
Units Price = Rs. 40  
Order Cost = Rs. 20  
Storage Rate = 7% Per annum  
Interest Rate = 3% Per annum [BL: Apply| CO: 2|Marks: 7]

### MODULE – III

5. (a) What are the conditions for successful implementation of MRP? Discuss the principles of MRP system. [BL: Understand| CO: 3|Marks: 7]
- (b) Write short note on bill of material with an example. Explain Just in time technique for production system. [BL: Understand| CO: 3|Marks: 7]
6. (a) Write about inventory. What are the various types of inventory? Why are they maintained? [BL: Understand| CO: 4|Marks: 7]
- (b) What do you mean by routing? Explain the factors affecting the routing procedure. [BL: Understand| CO: 4|Marks: 7]

### MODULE – IV

7. (a) What is line balancing? What is its importance in PPC? Explain it with an example. [BL: Understand| CO: 5|Marks: 7]
- (b) Write a short note on the aggregate planning. Explain the pure strategies of aggregate planning. [BL: Understand| CO: 5|Marks: 7].
8. (a) What do you mean by expediting and controlling aspects. Differentiate between centralized and decentralized dispatching procedures. [BL: Understand| CO: 5|Marks: 7]
- (b) Explain the master production scheduling. Enumerate any five differences between loading and scheduling. [BL: Understand| CO: 5|Marks: 7]

### MODULE – V

9. (a) Describe dispatching control in intermittent production and continuous production. [BL: Understand| CO: 6|Marks: 7]
- (b) Differentiate between centralized and decentralized dispatching procedures. State various activities of a dispatcher. [BL: Understand| CO: 6|Marks: 7]
10. (a) Explain about followup. Discuss the applications of computer in production planning and control. [BL: Understand| CO: 6|Marks: 7]
- (b) What is the purpose of active functions of dispatching and expediting? Give a list of records maintained by dispatching department. [BL: Understand| CO: 6|Marks: 7]

– ○ ○ ○ ○ ○ –