H Roll No. .....

BBA–403

B. B. A. (Fourth SEMESTER)

END SEMESTER

EXAMINATION, June, 2023

PRODUCTION MANAGEMENT

Time : Three Hours

Maximum Marks : 100

Note : (i) All questions are compulsory.

(ii) Answer any *two* sub-questions among (a), (b) and (c) in each main question.

(iii) Total marks in each main question are **twenty.**

(iv) Each sub-question carries 10 marks.

1. (a) What are the functions of production management ? How they are related to responsibilities of production manger ?

(CO1)

P. T. O.

(b) List the characteristics, advantages and disadvantages of the layout used in ship building ? (CO1)

(c) Explain production function with suitable example. What do you understand by the term production analysis ? (CO1)

2. (a) What is productivity ? What is its relationship with production ? A company produces 260 kg of plastic moulded parts of acceptable quality by consuming 300 kg or raw material for a particular period. For the next period, the output is doubled (520 kg) by consuming 620 kg of raw material and for the third period, the output is increased to 800 kg by consuming 900 kg of raw material. Calculate productivity for all the three periods. (CO4)

(b) What are the advantages and disadvantages of standardization and simplification ? (CO4)

(c) Explain the steps involved in the process of new product development. (CO4)

3. (a) What are the main functions of Production planning and control. (CO2)

(b) Discuss the scope and importance of storekeeping. (CO2)

(c) What is purchasing procedure ? Write a sample purchase order. (CO2)

4. (a) In a general hospital, the demand for disposable plastic tubing in general surgery department for the last 2 months has been November-250 units, December-300 units. Using 300 units as the November forecast and smoothing coefficient of 0.5 calculate the forecast for January. (CO3)

(b) An aircraft uses high tensile bolts at an approx constant rate 50000 per year. The bolts cost ₹ 10 each and purchase

department and estimated the cost at ₹ 500 to place on order. The opportunity cost on working capital is 10 per cycle. No shortages are allowed : (CO3)

(i) Determine E.O.Q.

(ii) Company receives the following offer form the suppliers. Should they make this offer ?

Quantity	Cost per unit is ₹
Upto 20000	20
20000-30000	19.52
30000-45000	19.25
Above 45000	19

(c) Explain different types of inventory control techniques. (CO5)

5. (a) Data for defects of TV set from 20 samples (sample size = 10) are shown in the table 1 ahead. Calculate the control limits and construct the control chart. (CO5)

(b) Data for defective pen drives from 20 sample (sample size = 100) are show in the table 2 ahead. (CO5)

(c) Mean values and ranges of data 20 samples (sample size = 4) are shown in the table 3 ahead. Calculate the control limits and construct the control chart. Consider $A_1 = 0.729$ $D_3 = 0$ $D_4 = 2.282$. (CO5)

Table 1

Sample No.	No of Defects
1	5
2	4
3	5
4	6
5	4
6	4
7	5
8	6
9	8
10	7
11	6
12	5
13	4
14	7
15	6
16	5
17	4
18	6
19	6
20	6

Table 2

Sample No.	No. of Defective CDs=x	Sample No.	No. of Defective CDs=x
1	4	11	6
2	3	12	5
3	3	13	4
4	5	14	5
5	6	15	4
6	5	16	7
7	2	17	6
8	3	18	8
9	5	19	6
10	6	20	8

Table 3

S. No.	Mean of Sample	Range
1	10	4
2	15	4
3	12	5
4	11	4
5	9	5
6	11	6
7	11	4
8	9	4

9	10	4
10	11	6
11	12	5
12	13	4
13	12	4
14	12	3
15	11	3
16	15	4
17	12	4
18	15	3
19	11	3
20	10	4