R15

Code No: 128DZ

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year II Semester Examinations, July - 2019

PRODUCTION PLANNING AND CONTROL

(Mechanical Engineering)

Time: 3 hours **Max. Marks: 75**

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART - A

(25 Marks)

1.a) Define the terms fabrication, manufacturing, production and operations. [2]
b) How does PPC direct the organizations in utilizing the production facilities efficiently? [3]
c) Define forecasting. [2]
d) List out various qualitative and quantitative methods of forecasting. [3]
e) What is re-order cycle and re-order period in inventory? [2]
f) What is MRP significance in materials management? [3]
g) What do you mean by chase planning? [2]
h) What is relaxed scheduling policy? [3]
i) List the types of follow up. [2]
j) Why is dispatching required on shop floor? [3]

PART - B

(50 Marks)

2.a) Distinguish between production planning, process planning, and product planning.
b) Describe the functions of production planning and control. [5+5]

OR

3.a) What are the problems faced in case of lack of production planning? Discuss.
b) Distinguish between the Continuous and Intermittent types of production. [5+5]

4.a) What are characteristics of exponential smoothing?
b) Discuss some areas in which forecasting is widely used. [5+5]

OR

5. The following table shows the past two years of quarterly sales information. Assume that there are both trend and seasonal factors and that the season cycle is one year. Use time series decomposition to forecast quarterly sales for the next year. [10]

Quarter	1	2	3	4	5	6	7	8
Sales	160	195	150	140	215	240	205	190

6.a) What is EOQ? List its applications.

b) A company is considering a selective inventory using the following data. Classify them using A–B–C analysis. [5+5]

Item	Consumption	Unit cost
1.	6000	4.00
2.	61200	0.05
3.	16800	2.10
4.	3000	6.00
5.	55800	0.20
6.	22650	0.50
7.	22650	0.65
8.	14760	0.4
9.	20520	0.4
10.	9000	0.1
11.	29940	0.3
12.	24660	0.5

OR

7.a) What do you understand by term Lean Manucturing? Explain it briefly

b) Explain the use of Line of Balance (LOB) in Production control. Explain in detail the steps involved in LOB. [5+5]

8.a) How route sheets are prepared and what are their uses?

b) Distinguish between job shop scheduling and flow shop scheduling. [5+5]

OR

9.a) What do you understand by "no-work" pay guarantee policy? Discuss its merits and demerits.

b) What are the factors affecting the routing procedure? [5+5]

10.a) Explain the activities of a dispatcher.

b) Write the applications of computer in production planning and control. [5+5]

OR

11.a) Why is follow up required in production plants? Explain its role in production control.

b) Describe the following terms used in dispatching.

i) Move order

ii) Production ticket. [5+5]

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