

PART – A (5 x 4 = 20 Marks)
(Short Answer Type)

- 1 Shearing extrusion
- 2 Preventive and corrective maintenance
- 3 Service quality
- 4 Vendor rating
- 5 Selective Inventory Control

PART – B (5 x 12 = 60 Marks)
(Essay Answer Type)

- 6 a) Define Production, planning and control. Explain the functions of production planning and control.
- b) Compare and contrast between products and services.
- 7 a) Five jobs ABCD & E are to be processed through three operations O₁, O₂ and O₃. The processing times in minutes are given below.

Jobs	Processing time in minutes		
	O ₁	O ₂	O ₃
A	17	15	16
B	18	15	18
C	16	14	17
D	15	12	14
E	16	11	13

You are required to give the optimal sequence of the jobs and for that sequence find the

- i) Total completion time of jobs
- ii) Waiting time of jobs
- iii) Idle time of machines

OR

- b) In a factory during an eight hours shift the number of units produced are 876 with an idle time of 18%. The performance rating is 125% and an allowance of 14% of normal time is permitted. You are required to find the standard time per unit.

- 8 a) Discuss about creation of value through services.

OR

- b) Define work study. State and explain the methods of work study.

- 9 a) Explain the needs significance of materials requirement planning.

OR

- b) Elucidate the role of value analysis in cost reduction.

- 10 a) Write about scientific methods of stress management.

OR

- b) The annual requirement of a material in 66000 units. The carrying cost per unit per year is Rs.6.56 and cost of placing an order in Rs.500. The unit cost is Rs.18. Find EOQ. Further the supplier of these material had offered the following discounts. What would be the new EOQ with discounts.

Quantity	Discounts
Upto 6000 units	0%
6001 to 12000 units	1%
12001 to 24000 units	2%
24001 to 36000 units	2.5%
Above 36000 units	3%