

- (b) 10 samples, each of size 50 of a pipe were inspected in pressure testing. The results of the inspection are given below :

Sample no.	No. of defectives.	Sample no.	No. of defectives.
1	2	6	3
2	3	7	2
3	2	8	1
4	0	9	2
5	2	10	3

Draw p-chart and comment. 7

OR

- (c) What is capacity planning ? Discuss its measures. 7
- (d) Satya Motors has decided to implement TQM in their plants. You are asked to guide the company for TQM implementation. How would you proceed ? 7

SECTION C

4. (a) What do you mean by work-study ? Discuss its importance and scope. 7

AR – 1202

Second Semester M. B. A. Examination

PRODUCTION AND OPERATIONS MANAGEMENT

Paper - MBA/206

P. Pages : 5

Time : Three Hours]

[Max. Marks : 70

- Note :** (1) All questions are compulsory.
(2) Figures to the right indicates marks.
(3) Use of scientific calculators is permitted.

SECTION A

1. (a) Discuss various strategic, tactical, and operational decisions to be made by production manager in manufacturing organisation.

OR

- (b) What is plant layout ? Discuss planning and analysis methods for plant layout. 14

SECTION B

2. (a) Enlist and explain different functions of PPC. 7

- (b) A company wishes to assign four salesman to four districts. The volume of sales matrix is given below. Make optimal assignment which results in maximum volume of sales.

Salesman	District			
	A	B	C	D
1	250	300	420	400
2	350	400	200	250
3	500	375	400	350
4	400	350	420	300

7

OR

- (c) What is industrial safety ? Discuss the stages of safety program. 7
- (d) To manufacture four different products, each product has to go through three different

machines M_1 , M_2 and M_3 in sequence $M_1 \rightarrow M_2 \rightarrow M_3$. The time required on each machine for products is as follows :

		Products			
		P_1	P_2	P_3	P_4
Machines	M_1	8	10	11	7
	M_2	6	5	2	5
	M_3	4	3	2	3

The time values are in hours.

Compute :

- (i) Total elapsed time of optimal sequence.
- (ii) Idle time on each machine. 7

3. (a) What is Quality Assurance ? Describe various stages of QA and its advantages. 7

- (b) What is work sampling ? 7

OR

- (c) Define maintenance management. Enlist different types of maintenance, and explain it in brief. 7
- (d) Discuss different data recording techniques in method study. 7

SECTION D

5. Annual demand for an item is 48,00 units. Ordering cost is Rs. 500 per order. Inventory carrying cost is 14% of purchase price per unit. The price breaks are as shown below.

Quantity	Price
upto 999	Rs. 100
1000 to 2000	Rs. 90
2001 and above	Rs. 80

- (a) Find optimal order size. 7
- (b) If the order cost is changed to Rs. 300/order Find optimal order size. 7



