

OPERATIONS MANAGEMENT SUPPLEMENTARY - PART A

Maximum marks: 5 X 5 = 25

1.
 - a) Describe the major developments in the history of Operations Management?
 - b) Explain the various components of operations strategy.
2.
 - a) What are the eight dimensions of quality? Explain in brief.
 - b) Explain how Quality Function Deployment can be applied to develop a product.
3.
 - a) Control charts for Average and Range are required to be maintained on a quality characteristic. The sample size is n=4. After 30 samples we obtain

$$\sum_{i=1}^{30} \bar{x} = 12630 \text{ and } \sum_{i=1}^{30} R = 840 . \text{ Find the control limits.}$$

n	A ₂	D ₃	D ₄
2	1.88	0	3.267
3	1.023	0	2.574
4	0.729	0	2.282
5	0.577	0	2.115
6	0.483	0	2.004

- b) What are Deming's 14 points for management?
4.
 - a) Compare the characteristics of line, intermittent and project flow regarding Product, Labour and Capital requirements for each.
 - b) Compare Make to stock vs Make to order.
5.
 - a) At a Hawaii chappal manufacturing company, the rate of sales for the various sizes and stocks are as follows. Which job will you take up first?

Size	Stock (pairs)	Sales per day (pairs)
6	3000	2000
7	2000	1000
8	1000	250
9	5000	500
10	2500	100

- b) At a workshop at 8:00hrs, five cars are waiting for repair. The estimated time for repair and the due time are given below. Sequence the jobs according to Minimum Slack rule. When will the Ford job be completed?

Car	Repair time (hrs)	Due time
Ambassador	2.5	11:00
Maruti 800	1.5	12:00
Zen	3.0	13:00
Ford	1.0	15:00
Fiat	2.0	17:00