

PART B — (5 × 16 = 80 marks)

11. (a) Explain Deming's philosophy for the improvement of quality, productivity and competitive position. (16)

Or

- (b) Discuss Strategic Planning and list out the characteristic behaviors of successful leaders. (8 + 8)

12. (a) (i) What is the concern of most consumer? Is it price of the product or service? Explain in detail. (4)
(ii) What are the different ways of receiving customer feedback? How are the feedback used? (12)

Or

- (b) (i) What are the types of teams formed in industries? Discuss the functions of any four of them. (8)
(ii) How is PDCA cycle used? Discuss with a case study. (8)

13. (a) (i) Explain the tree diagram and arrow diagram. (8)
(ii) Explain the stages of Six Sigma in process improvement. (8)

Or

- (b) In the manufacture of connecting rod assembly, the number of defectives found in the inspection of 15 samples of 50 items in each sample are given in the following table.

Sample No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
No. of defectives :	8	7	5	4	8	7	9	21	12	10	9	8	16	15	17

- (i) Determine the trial control limits, construct the np chart and state whether the process is in control. (8)
(ii) If any point goes outside the control limits, determine the revised control limits eliminating that point. (8)

14. (a) (i) Explain how the Taguchi loss function differs from the traditional loss function assumed from specifications and tolerances. (8)
- (ii) Explain FMEA with an example. (8)

Or

- (b) (i) Explain the six major losses of TPM. (8)
- (ii) Explain the House of Quality. (8)
15. (a) Explain Quality Function Deployment (QFD) with a suitable example. What are its advantages and limitations? (16)

Or

- (b) Write short notes on
- (i) Taguchi's quality loss function. (8)
- (ii) FMEA. (8)