

Reg. No. :

H 2222

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2009.

Eighth Semester

GE 406 — TOTAL QUALITY MANAGEMENT

(Common to all Branches of B.E./B.Tech.)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is total cost of quality?
2. List down the various dimensions of quality.
3. What is meant by service quality?
4. Define the term PDSA.
5. Differentiate between defect and defective.
6. List down any four tools of quality.
7. What are the benefits of QFD?
8. Why TPM is required?
9. Write any two objectives of the internal audit.
10. Mention the two quality system which is specific to automotive and aerospace industry.

PART B — (5 × 16 = 80 marks)

11. (a) Explain the fourteen steps of Deming's philosophy for improving quality, productivity and competitiveness. (16)

Or

- (b) (i) List down and explain the principles of TQM. (8)
(ii) Discuss the barriers to TQM implementation. (8)

12. (a) (i) What are the customer perceptions on quality? Explain. (8)
(ii) Explain the three phases of Juran trilogy. (4)
(iii) Explain the concepts of Kaizen. (4)

Or

- (b) (i) Explain the basic concepts of 5S. (8)
(ii) If the Deming wheel rotates, improvement is assured. Explain Deming wheel. (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) (i) Differentiate between control charts for variables and control charts for attributes. (8)
(ii) Define the term process capability. How will you calculate process capability ratio? (8)

14. (a) Explain Quality Function Deployment (QFD) with suitable example. (16)

Or

- (b) Write short notes on :
(i) Benchmarking process. (8)
(ii) FMEA. (8)

15. (a) Explain the steps to be followed in implementing Quality System ISO 9000 : 2000.

Or

- (b) (i) Contrast between internal audit and external audit. (10)
- (ii) What are the requirements of ISO 14000? Explain them briefly. (10)