

A 1263

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2007.

Eighth Semester

Civil Engineering

GE 406 — TOTAL QUALITY MANAGEMENT

(Common to all branches)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What are the activities of quality planning?
2. What is the philosophy behind 'Management by Wandering Around' (MBWA)?
3. What are the important factors that influence purchase?
4. Is cleanliness the only benefit of implementing '5 S' practices?
5. What is the purpose of Pareto Diagrams?
6. How are the measures of central tendency used in quality analysis?
7. What are the reasons for benchmarking?
8. What are the losses reduced by TPM?
9. What is the purpose of ISO 9000 quality system?
10. How does the conceptual approach to ISO 14001 differ from ISO 9001?

PART B — (5 × 16 = 80 marks)

11. (a) (i) What are the dimensions of quality? Discuss eight of them. (8)
- (ii) What are the duties of quality council? (8)

Or

- (b) (i) What are the steps in strategic planning? (8)
- (ii) What are the barriers to TQM implementation? How are they eliminated? (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 PDSA cycle used? Discuss with a case study. (8)

13. (a) (i) Draw cause and effect diagram for an engineering problem. (8)
- (ii) What are the interpretations of different shapes of histograms? (8)

Or

- (b) (i) An industrial product was subjected to inspection with a batch size of 500 for ten consecutive days. The number of defective pieces found are 33, 42, 44, 56, 60, 43, 55, 42, 28 and 70. Draw a p -chart and discuss. (12)
- (ii) How is Process Decision Program Chart (PDPC) used? Give an example. (4)

14. (a) Draw the house of quality for an industrial product. Explain various stages. (16)

Or

- (b) How is FMEA performed? Discuss with an example. Draw the table and give details. (16)

15. (a) What are the steps in the implementation of ISO 9000 quality system. Discuss in detail. (16)

Or

- (b) (i) Discuss the environmental management system model with a block diagram. (10)
- (ii) What are the global benefits of environmental management system? Discuss in detail. (6)