

G 4513

M.B.A. DEGREE EXAMINATION, MAY/JUNE 2007.

Second Semester

BA 1656 — QUALITY MANAGEMENT

(Regulations 2005)

Time : Three hours

Maximum : 100 marks

Use of normal distribution tables permitted.

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What are the four costs of quality? - 1
2. Define Reliability. - 3
3. What are the four parts of the Deming Wheel? - 2
4. What is Taguchi loss function? - 2
5. What is Total Productive Maintenance (TPM)? - 3
6. Describe the difference between attributes and variables. - 3
7. What is benchmarking? - 4
8. What is poka-yoke? - 4
9. Define Empowerment. - 5
10. Define Maintainability. - 3

PART B — (5 × 16 = 80 marks)

11. (a) (i) In detail explain W. Edwards Deming's philosophy of quality management. - 2 (10)

(ii) What is quality circle? Bring out the characteristics of quality circle. - 2 (6)

Or

(b) (i) What are 5S? Explain in detail the 5S with examples. - 2 (10)

(ii) Briefly explain the contributions of Taguchi to quality Management. - 2 (6)

12. (a) Discuss in detail the several dimensions of product and service quality. - 1 (16)

Or

(b) (i) Discuss the long-term effects of quality improvement on a firm's profitability. - General question (8)

(ii) Bring out the obstacles in implementing TQM programme in any organization. - 1 (8)

13. (a) (i) What is process capability? Discuss C_p and C_{pk} as measures of process capability. Provide an example of a situation in which a process might perform well on one measure but poorly on the other. - 3 (8)

(ii) The lower and upper specification limits for a component are 3.98, and 4.02 cm, respectively. The process standard deviation is .004, and the process average is 4.005 cm. Is this process capable? Estimate the process non-conformance if any. - 3 (8)

Or

(b) (i) How BPR contributes to organisation's profitability? - 3 (8)

(ii) Explain series, parallel and series-parallel reliability models. - (8) 3

14. (a) Explain the seven new QC tools and their applications in detail. (16) - 4

Or

(b) Explain the role of FMEA in TQM. Also highlight the scales used in FMEA. (16) - 4

15. (a) List and briefly explain the principles of leadership. (16) - 5

Or

(b) List and explain the requirements for total quality system implementation. (16) - 5

