

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

PART B — (5 × 16 = 80 marks)

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

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

*Process capability,*  
Or

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

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

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

Or

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

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

Or

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

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

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

Or

- (b) Explain the role of FMEA in TQM. Also highlight the scales used in FMEA. (16)
15. (a) List and briefly explain the principles of leadership. (16)

Or

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