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Question Paper Code: W6503

M.B.A. DEGREE EXAMINATION, JANUARY 2010

## First Semester

BA 9203 — TOTAL QUALITY MANAGEMENT

(Regulations 2009)

Time: Three hours

Maximum: 100 Marks

### Answer ALL Questions

PART A — (10 × 2 = 20 Marks)

1. What is Appraisal Costs of Quality?
2. Explain the term, Return on Quality (ROQ).
3. What is Taguchi loss function?
4. Define Cost of quality (COQ).
5. What is Process capability?
6. What is Infant mortality period?
7. What is an Affinity diagram?
8. Define Life cycle cost.
9. Define Empowerment.
10. What is Statistical thinking?

PART B — (5 × 16 = 80 Marks)

11. (a) Explain in detail the obstacles to be faced in implementing TQM in an organization.

Or

- (b) Bring out the dimensions of product and service quality. Also explain why the service quality is more difficult to define than product quality.
12.
  - (a) Compare and contrast Deming's, Juran's, and Crosby's perspectives of quality management. What are the major similarities and differences between their perspectives?

Or

- (b) Enumerate in detail the various principles of quality management.

13. (a) Explain in detail the methodology to implement Business Process Reengineering.

Or

- (b) (i) AAA Inc., produces meter sticks that have a target length of 100 centimeters with upper and lower specification limits of 100.05 and 99.95 centimeters respectively. Their existing process produces meter sticks with an average length of 99.97 centimeters and a standard deviation of 0.015 centimeters. They are considering the purchase of a new machine that can hold a process output average exactly to target with a standard deviation of 0.02. Which machine will provide a better process capability index? (8)
- (ii) Suppose a product is designed to function for 1,00,000 hours with a 1% chance of failure. Suppose that there are six of these in use at a facility. Find the average number of failures per hour and the MTTF. (8)
14. (a) (i) Explain the matrices involved in Quality Function Deployment (QFD) process. (8)
- (ii) Define key customer requirements for a product of your choice. Next, define key technical requirements for the same product. Create a matrix showing the relationships between technical and customer requirements using the QFD format. (8)

Or

- (b) What is FMEA? Explain in detail the different types of FMEA. Also highlight the scales used in FMEA.
15. (a) Describe the purpose and the intent of the ISO 9000:2000 program. What are the advantages of becoming an ISO 9000:2000 certified companies? Are there any disadvantages?

Or

- (b) List and briefly explain the principles of leadership.
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