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Question Paper Code : 21281

B.E./B.Tech. DEGREE EXAMINATION, APRIL 2014.

Eighth Semester

Electronics and Communication Engineering

MG 1301 — TOTAL QUALITY MANAGEMENT

(Common to Biotechnology, Chemical Engineering, Petrochemical Technology,
Pharmaceutical Technology, Textile Technology)

(Regulation 2008)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Define quality.
2. Mention the barriers in TQM implementation.
3. Define the term motivation.
4. Define strategy.
5. Write a short note on Pareto chart.
6. What are the benefits of Six Sigma?
7. What are the different types of benchmarking?
8. Write the objective of QFD.
9. What is the need and importance of ISO 9000?
10. Define Quality Audit.

PART B — (5 × 16 = 80 marks)

11. (a) (i) Explain the principles of Total Quality Management (TQM) in detail. (6)
- (ii) Discuss the various types of quality costs. Also bring out the various techniques of quality cost analysis in detail. (10)

Or

- (b) (i) What are Quality Statements? Explain the leadership qualities required to implement TQM in an organisation. (8)
- (ii) Explain the contribution of Dr. Deming towards TQM. (8)
12. (a) (i) Explain PDSA cycle in detail. (8)
- (ii) Discuss how recognition and reward play the role in successful implementation of TQM. (8)

Or

- (b) (i) Explain the concept of 5S and describe each 'S'. (8)
- (ii) Briefly explain the concept of Continuous process improvement. Discuss the steps in continuous process improvement. (8)
13. (a) (i) What are the principles determinants of Quality? Explain the need and importance of Statistical Quality Control in production management. (10)
- (ii) Explain the Quality tool of Fishbone diagram with a suitable example. (6)

Or

- (b) (i) Explain the four different types of attribute chart with a neat sketch. (8)
- (ii) Explain any two seven management tools in detail. (8)
14. (a) (i) Discuss the Quality loss function for various quality characteristics. (8)
- (ii) Explain the concept of Total Productive Maintenance (TPM). Describe the functions of TPM. (8)

Or

- (b) (i) Explain the stages of FMEA in brief. (8)
- (ii) Explain the concept of QFD and discuss the important steps involved in QFD process. (8)

15. (a) (i) Define ISO 9000. What are the key requirements for getting ISO certification? (10)
- (ii) Explain the benefits of ISO 9000. (6)

Or

- (b) (i) Discuss the need and importance of Quality auditing and describe the barriers in Quality auditing. (6)
- (ii) What is Documentation? Explain the types of documents in detail. (10)
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