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Reg. No. : 1 0 6 0 7 1 0 1 0 1 1

Question Paper Code : 31403

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2010.

Seventh Semester

Computer Science and Engineering

MG 1401 — TOTAL QUALITY MANAGEMENT

(Common to PE 1452 — Total Quality Management for Eighth Semester,
Petroleum Engineering)

(Common to Seventh Semester - Aeronautical Engineering, Automobile Engineering,
Biomedical Engineering, Civil Engineering, Electronics & Communication
Engineering, Electrical & Electronics Engineering, Electronics & Instrumentation
Engineering, Instrumentation & Control Engineering, Mechanical Engineering,
Mechatronics Engineering, Metallurgical Engineering, Production Engineering and
Information Technology)

(Common to Eighth Semester - Biotechnology, Chemical Engineering, Polymer
Technology, Textile Technology, Textile Technology (Textile Chemistry), Textile
Technology (Fashion Technology and Food Technology))

(Common to Sixth Semester Civil Engineering)

(Regulation 2004)

(Also common to B.E. (Part-Time) Sixth Semester Electronics & Communication
Engineering, Mechanical Engineering and Seventh Semester Electrical &
Electronics Engineering)

(Regulation 2005)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What are the objectives of quality control?
2. Define Quality Planning.
3. Mention the importance of customer retention.
4. List the common barriers to team Progress.

5. What do you mean by frequency distribution?
6. What is six sigma?
7. What is the difference between Taguchi's approach and traditional approach?
8. Differentiate the terms failure mode and failure effects.
9. List out the various product evaluation standards of ISO 14000.
10. What is third party audit?

PART B — (5 × 16 = 80 marks)

11. (a) (i) Select a product or service and describe how the dimensions of quality influence its acceptance. (8)
- (ii) Write down the seven step procedure of strategic planning cycle. (8)

Or

- (b) List out and explain the various stumbling blocks while implementing TQM programme. (16)
12. (a) (i) Explain with a neat sketch the continuous improvement cycle. (8)
- (ii) Discuss the characteristics of empowered employees. (8)

Or

- (b) (i) What is 5S? Explain all the elements of 5S principle in detail. (8)
- (ii) Write short notes on following :
 - (1) Ishikawa diagram. (4)
 - (2) Pareto diagram. (4)
13. (a) (i) Distinguish between chance causes and assignable causes of variations giving suitable examples. (4)
- (ii) Explain the process of constructing a P-chart with an example. (12)

Or

- (b) Explain the process capability studies by control chart method. (16)
14. (a) (i) Briefly explain the steps involved in QFD. (10)
- (ii) Discuss the significance of TPM. (6)

Or

- (b) Write down the step by step procedure for implementing a FMEA of a product of your-interest. (16)

15. (a) Explain need for documentation and the documents to be prepared for QMS. (16)

Or

- (b) Discuss in detail the elements of ISO 14000. What are the benefits of ISO 14000? (16)