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Question Paper Code : 11425

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2012.

Seventh Semester

Mechanical Engineering

GE 2022/GE 607/GE 71/MG 71 — TOTAL QUALITY MANAGEMENT

(Common to Seventh Semester Aeronautical Engineering, Production Engineering, Biomedical Engineering, Biotechnology, Computer Science and Engineering, Marine Engineering, Electronics and Communication Engineering, Electrical and Electronics Engineering and Sixth Semester — Civil Engineering)

(Also common to Eighth Semester Automobile Engineering, Electronics and Instrumentation Engineering, Instrumentation and Control Engineering Information Technology and Polymer Technology)

(Regulation 2008)

(Common to PTGE 2022 – Total Quality Management for B.E. (Part-Time) Mechanical Engineering – Fifth Semester – Regulation 2009)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. List out the six basic concepts of Total Quality Management.
2. What are four absolutes of quality observed by Crosby?
3. State the importance of customer retention.
4. What is Kaizen?
5. What are the benefits of bench marking?
6. Describe the evolution of six sigma in Motorolo company.
7. What is Taguchi quality loss function?
8. Draw the general structure of House of Quality.
9. List out the global benefits of adopting ISO 9000 quality system.
10. Differentiate between ISO 9000 and Qs 9000.

PART B — (5 × 16 = 80 marks)

11. (a) (i) Elaborate the Deming's philosophy over the quality and productivity improvement. (10)
(ii) Describe the barriers in the implementation of TQM. (6)

Or

- (b) Consider any one service organization of your choice and explain the various dimensions of quality of service. (16)
12. (a) (i) Explain the PDCA improvement cycle in detail. (10)
(ii) Brief on Employee empowerment. (6)

Or

- (b) What is a team? and explain the functions and characteristics of a successful team. (16)
13. (a) Discuss the new seven tools in detail with their typical application. (16)

Or

- (b) Discuss the reasons for benchmarking and state the advantages and limitations. (16)
14. (a) (i) What are the goals of TPM and explain the six losses in TPM? (10)
(ii) Explain the components of Quality costs. (6)

Or

- (b) Write notes on :
(i) QFD (8)
(ii) Quality circles (4)
(iii) Typical performance measures of TQM. (4)
15. (a) (i) Discuss the elements of ISO 9000 : 2000 quality system. (10)
(ii) What are the gains realized by a company with the TQM implementation. (6)

Or

- (b) What methodology would you suggest to implement TQM in an automobile manufacturing company? (16)