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Question Paper Code : 41258

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2024.

Seventh Semester

Civil Engineering

GE 3752 — TOTAL QUALITY MANAGEMENT

(Common to : Aeronautical Engineering/Aerospace Engineering/Automobile Engineering/Biomedical Engineering/Computer Science and Design/Computer Science and Engineering/Computer Science and Engineering (Artificial Intelligence and Machine Learning)/Computer Science and Engineering (Cyber Security)/Computer and Communication Engineering/Electrical and Electronics Engineering/Electronics and Communication Engineering/Electronics and Instrumentation Engineering/Electronics and Telecommunication Engineering/Geoinformatics Engineering/Industrial Engineering/Industrial Engineering and Management/Instrumentation and Control Engineering/Manufacturing Engineering/Marine Engineering/Materials Science and Engineering/Mechanical and Automation Engineering/Mechatronics Engineering/Medical Electronics/Petrochemical Engineering/Production Engineering/Robotics and Automation/Safety and Fire Engineering/Agricultural Engineering/Artificial Intelligence and Data Science/Bio Technology/Biotechnology and Biochemical Engineering/Chemical Engineering/Chemical and Electrochemical Engineering/Computer Science and Business Systems/Fashion Technology/Food Technology/Handloom and Textile Technology/Information Technology/Petrochemical Technology/Petroleum Engineering/Pharmaceutical Technology/Plastic Technology/Textile Chemistry/Textile Technology)

(Regulations 2021)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Define Quality.
2. What is Service quality?
3. Write the functions of quality council.
4. Briefly explain 5 S Concept.
5. What is Six Sigma?
6. What is design FMEA?
7. What are Quality Circles?
8. Define Taguchi Quality Loss function.
9. Write the objectives of Internal audit.
10. What is Environmental Management system?

PART B — (5 × 13 = 65 marks)

11. (a) Explain the dimensions of Product Quality and service quality with example.
Or
(b) Outline the benefits and barriers to Total Quality Management in detail.
12. (a) Explain the Deming Philosophy and his contribution to quality in detail.
Or
(b) Write short notes on the following :
(i) Juran Trilogy (7)
(ii) Kaizen. (6)
13. (a) What are the reasons to Benchmark? Explain the Bench marking process.
Or
(b) Explain any three traditional tools of Quality in detail.
14. (a) Discuss the principles of quality function deployment in detail.
Or
(b) Explain the various costs of Quality by highlighting ways to reduce it.
15. (a) Discuss the benefits of ISO Registration by explaining its requirements and documentation process.
Or
(b) Explain the requirements of ISO 14001 and highlight its benefits.

PART C — (1 × 15 = 15 marks)

16. (a) Outline the strategies to reduce customer complaints in quality organization by highlighting kano model of customer satisfaction.
Or
(b) How are Total Productive Maintenance (TPM) concept helps quality organization to perform better? Explain the eight pillars of TPM in detail.
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