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Question Paper Code : 40668

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2021.

Fifth/Sixth/Seventh/Ninth Semester

Aeronautical Engineering

GE 8077 — TOTAL QUALITY MANAGEMENT

(Common to Aerospace Engineering/Agriculture Engineering/
Automobile Engineering/Biomedical Engineering/Civil Engineering/
Computer Science and Engineering/Computer and Communication Engineering/
Electrical and Electronics Engineering/Electronics and Communication Engineering/
Electronics and Instrumentation Engineering/Electronics and Telecommunication
Engineering/Environmental Engineering/Geoinformatics Engineering/ Industrial
Engineering/Industrial Engineering and Management/Instrumentation and Control
Engineering/Manufacturing Engineering/Marine Engineering/
Material Science and Engineering/Mechanical Engineering/Mechanical Engineering
(Sandwich)/Mechanical and Automation Engineering/ Mechanotronics Engineering/
Medical Electronics/ Petrochemical Engineering/Production Engineering/
Robotics and Automation/Bio Technology/Chemical Engineering/
Fashion Technology/Food Technology/Handloom and Textile Technology/
Information Technology/Petrochemical Technology/Petroleum Engineering/
Pharmaceutical Technology/Plastic Technology/Polymer Technology/
Textile Chemistry/Textile Technology)

(Regulations 2017)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. How do you differentiate quality assurance from quality control?
2. What is customer retention?
3. Define quality policy statement.
4. When should PDCA cycle be used?

5. What are the seven traditional tools of quality?
6. Distinguish between competitive and non-competitive benchmarking
7. What is quality circle?
8. How to reduce the cost of quality?
9. What are the benefits of TL 9000 implementation?
10. What is the role of internal audit?

PART B — (5 × 13 = 65 marks)

11. (a) What are the dimensions of service quality? Give examples of any two services you have availed recently and compare them based on their quality dimensions.

Or

- (b) What are Deming's deadly diseases? How do they relate to his 14 points for management?

12. (a) Discuss the role of employee involvement, motivation and empowerment in total quality improvement.

Or

- (b) Explain how the process of supplier selection and supplier rating is done in organizations.

13. (a) How six-sigma approach can be applied in service organizations? What are the key measures of performance to be examined?

Or

- (b) When do you use Failure modes and effects Analysis? Discuss the steps involved in FMEA procedure.

14. (a) What is Taguchi's definition of quality? Discuss how Taguchi's quality loss function estimated?

Or

- (b) Why do we need TPM implementation in organization? Discuss elaborately the eight pillars of TPM.

15. (a) What are the benefits of ISO registration? Also discuss the primary requirements of ISO 9001 standards.

Or

- (b) Explain the significance, requirements and benefits of ISO 14001 standards.

PART C — (1 × 15 = 15 marks)

16. (a) “Teams are the most effective way to get the job done and necessary for total quality to successful”- Do you agree? Why or why not? Also discuss the various types of quality teams.

Or

- (b) “Quality function deployment is an excellent way for firms to capture the voice of the customer” – Elaborate. Also construct a house of quality for mobile phones.