



B.E DEGREE EXAMINATIONS: NOV/DEC 2016

(Regulation 2013)

Seventh Semester

MECHANICAL ENGINEERING

U13GST002 : Total Quality Management

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. _____ succeeded Shewart and played a key role in Japan's reconstruction efforts after world war II
 - a) Edwards Deming
 - b) Ishikawa
 - c) Masaaki imai
 - d) Taguchi
2. Joseph Juran emphasized on _____
3. Putting things in order is related to
 - a) Seiton
 - b) Shitsuke
 - c) Seiri
 - d) Seiso
4. EFQM stands for _____ for quality management
5. Charts where sample ranges are plotted in order to control variability of a variable are called as
 - a) R chart
 - b) X bar chart
 - c) S chart
 - d) S² chart
6. Bill smith is associated with _____
7. Calibration is a classical example of
 - a) Preventive maintenance
 - b) Breakdown maintenance
 - c) Corrective maintenance
 - d) Maintenance prevention
8. _____, an Italian economist is associated with principle of factor sparsity or otherwise called as the principle of Significant few.
9. ISO is based in
 - a) Japan
 - b) USA
 - c) India
 - d) Switzerland
10. The _____ standards provide a guideline or framework for organizations that need to systematize and improve their environmental management efforts.

PART B (10 x 2 = 20 Marks)
(Answer not more than 40 words)

11. Distinguish quality management and total quality management.
12. Infer the major contributions of Deming.
13. What is PDSA cycle?
14. Summarize the importance of supplier rating.
15. Contrast 3 sigma and 6 sigma.
16. Label the mathematical equation for process capability index.
17. List any four traditional tools for quality.
18. Extend few day-to-day examples of poka-yoke.
19. Spell components of ISO 9000 series.
20. Model common criticisms of implementing ISO.

PART C (5 x 14 = 70 Marks)
(Answer not more than 400 words)

Q.No. 21 is Compulsory

21. Elaborate role of quality with respect to customer satisfaction, customer retention and handling customer complaints.

22. a) Comment on the major contributions of Philip Crosby.

(OR)

b) Narrate influence of quality statements in the success story of TQM.

23. a) Illustrate and explain the seven new tools of quality management.

(OR)

b) Classify control charts and moderate its impact on quality.

24. a) Elaborate on the pillars of Total Productive Maintenance.

(OR)

b) Briefly note on the various FMEA stages.

25. a) Mention the important guidelines in planning for quality audits.

(OR)

b) Discuss a case study of ISO implementation in an IT industry.
