



B.E DEGREE EXAMINATIONS: APRIL 2015

(Regulation 2009)

Eighth Semester

MECHATRONICS ENGINEERING

GSS103: Total Quality Management

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. ASQC stands for
 - a) American standards for quality control
 - b) American society for quality control
 - c) Australian society for quality control
 - d) Asian standards for quality control
2. PDCA cycle is also called as
 - a) Juran wheel
 - b) Crossby wheel
 - c) Deming wheel
 - d) Masaaki wheel
3. Kaizen was introduced by
 - a) Deming
 - b) Joseph Juran
 - c) Shingeo sheo
 - d) Masaaki imaa
4. EFQM stands for _____ for quality management
 - a) Ethical forum
 - b) European foundation
 - c) Ethiopian foundation
 - d) English fundamentals
5. NGT stands for _____ Technique
 - a) Non assignable Group
 - b) Normal Group
 - c) Nominal Group
 - d) New Gaussian
6. 6 sigma was pioneered by
 - a) Sony
 - b) Dell
 - c) Caterpillar
 - d) Motorola
7. Ergonomics is more related to
 - a) Preventive maintenance
 - b) Maintenance prevention
 - c) Break down maintenance
 - d) Predictive maintenance

8. JISHU HOZEN is otherwise called as
- | | |
|-------------------------|---------------------------|
| a) Planned maintenance | b) Autonomous maintenance |
| c) Training maintenance | d) Quality maintenance |
9. ISO is based in
- | | |
|----------|----------------|
| a) Japan | b) USA |
| c) India | d) Switzerland |
10. Regulators or government bodies have the right to perform
- | | |
|-----------------------|------------------------|
| a) First party audits | b) Second party audits |
| c) Third party audits | d) a),b), and c) |

PART B (10 x 2 = 20 Marks)

11. List the role of senior management in TQM.
12. Define quality.
13. Match recognition and reward with reference to quality management.
14. What are customer complaints?
15. Compare statistical quality control and statistical process control.
16. Define six sigma.
17. Show the goals of TPM.
18. Define benchmarking.
19. List a few ISO certifying bodies within India.
20. Spell the common criticisms of implementing ISO.

PART C (5 x 14 = 70 Marks)

21. a) (i) Identify the various barriers to implementation of TQM. (7)
- (ii) Enumerate the dimensions of quality. (7)
- (OR)**
- b) Outline the contribution of Edwards's deming towards TQM.
22. a) (i) Extend the role of 5S in total quality management. (7)
- (ii) Translate the importance of customer retention in business. (7)
- (OR)**
- b) Summarize the role of motivation in managing quality in manufacturing.
23. a) Organize the steps involved in construction of control charts for variables

(OR)

b) Develop the various roles required for successful implementation of 6 sigma.

24. a) Build and summarize the various pillars of TPM.

(OR)

b) (i) Rephrase the importance of Taguchi's loss function. (7)

(ii) Illustrate the steps involved in construction of QFD. (7)

25. a) Infer the ultimate need for ISO 9000 as a quality system in modern era.

(OR)

b) (i) Interpret the fundamentals of ISO 9000. (7)

(ii) Organize the purpose and functions of the various quality audits. (7)
