Paper Id: | **199702** | **Roll No:**

B. TECH.
(SEM VII) THEORY EXAMINATION 2019-20
QUALITY MANAGEMENT

Time: 3 Hours   *Total Marks: 100*

Note: Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. **Attempt** *all* **questions in brief.**   **2 x 10 = 20**
    a) Explain the term quality management.
    b) What is preventive cost?
    c) What is voice of customers?
    d) What is quality circles?
    e) Define ISO.
    f) What are the benefits of TQM?
    g) What are the important requirements of QS9000?
    h) Define JIT.
    i) Define MTBF.
    j) What is failure cost?

SECTION B

2. **Attempt any** *three* **of the following:**   **10 x 3 = 30**
    a) Total quality management is a min set required for achieving all the principles of total quality. Do you agree? Explain.
    b) Describe the various quality costs. Briefly describe each of them.
    c) What corrective methods can be adapted to improve quality due to human factors?
    d) Explain the evaluation of reliability.
    e) What is Taguchi's Quality loss function?

SECTION C

3. **Attempt any** *one* **part of the following:**   **10 x 1 = 10**
    a) Briefly describe about evolution of quality.
    b) What is prototype inspection? How is quality built into the product during design stage?

4. **Attempt any** *one* **part of the following:**   **10 x 1 = 10**
    a) Explain the economics of quality value and its contribution.
    b) What is customer feedback? How does it affect quality of a product during sales and service?

5. **Attempt any** *one* **part of the following:**   **10 x 1 = 10**
    a) What do you understand by variables and attributes? Explain R-charts.
    b) Briefly explain how the process improvement can be done using control charts.

6. **Attempt any** *one* **part of the following:**   **10 x 1 = 10**
    a) Discuss the types of quality audits.
    b) Establish the relationship between reliability, failure rate and MTBF.

7. **Attempt any** *one* **part of the following:**   **10 x 1 = 10**
    a) An ISO certified company is a TQM company. Explain this statement.
    b) Explain the JIT implementation and production system process.