PAPER ID-310370

Roll No:

B. TECH.
(SEM-VII) THEORY EXAMINATION 2020-21
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.	Define quality and TQM.
b.	Differentiate between variables and attributes with reference to control charts.
c.	Explain how Capacity verification is carried out.
d.	What is Quality Audit? List different type.
e.	Explain any two control charts pattern.
f.	Write short notes on single sampling plan.
g.	Define maintainability and write at least two steps to improve the same.
h.	Write a note on inspection method.
i.	What is meant by MTTR?
j.	State the contents of quality audit plan.

SECTION B

2.   **Attempt any *three* of the following:**   **10x3=30**

a.	Explain evolution of Total Quality Management concept from Quality control.
b.	How attitude of top management does affect the quality of output. Differentiate between vision statement and mission statement of an organization.
c.	Explain a cause and effect (Ishikawa) diagram to indentify a process defect.
d.	Explain the 7 QC tools and their impotence in TQM.
e.	Write a shorts notes on any two: (i) Zero defect; (ii) Quality circle; (iii) Reliability control.

SECTION C

3.   **Attempt any *one* part of the following:**   **10x1=10**

a.	What do you understand by internal customer? Explain also review of design.
b.	Explain the basic principles and concept of achieving quality in design. Also explain the procedure of review of design.

4.   **Attempt any *one* part of the following:**   **10x1=10**

a.	Discuss the need for quality improvement and control for modern industrial requirements.
b.	What do you mean by variable and attributes? Explain $\overline{X}$ and R- charts.

5.   **Attempt any *one* part of the following:**   **10x1=10**

a.	How does the acceptance sampling by variables differ from that by attributes? Explain.
b.	Explain CL, UCL and LCL.

6.   **Attempt any *one* part of the following:**   **10x1=10**

a.	Find the probability of lot being accepted if it has a incoming quality 5% defective a sample size of 40 and acceptance number is 1.
b.	Explain reliability cost trade off and also non distractive testing (NDT).

7.   **Attempt any *one* part of the following:**   **10x1=10**

a.	What is Taguchi Quality? What are the various steps in Taguchi's loss function? Explain them in detail.
b.	Give historical background of ISO along with its significance. Discuss all elements of ISO 9001:2015 standard. Also explain ISO 14000 in brief highlighting similarities and differences with respect to ISO 9000.