B. TECH
(SEM VIII)THEORY EXAMINATION 2022-23
TOTAL QUALITY MANAGEMENT

Time: 3 Hours   *Total Marks: 70*

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

SECTION A

1.   **Attempt *all* questions in brief.**   **2 x 7 = 14**

   (a)   Explain employee involvement.
   (b)   Deming approach to quality.
   (c)   What are type I and type II errors?
   (d)   What is control chart? How it is used?
   (e)   Briefly describe about evaluation of quality.
   (f)   What is acceptance sampling?
   (g)   Describe ISO 9001.

SECTION B

2.   **Attempt any three of the following:**   **7 x 3 = 21**

   (a)   Quality is also staff function. Justify.
   (b)   Discuss the various reasons for failure of control charts in organization
   (c)   What do you mean by defect diagnosis and prevention?
   (d)   What is reliability? Why is it important?
   (e)   What do mean by FMEA/ FMECA.

SECTION C

3.   **Attempt any one part of the following:**   **7 x 1 = 7**

   (a)   What is quality control? How it is different from quality assurance?
   (b)   A machine drills hole in a pipe with a mean diameter of 0.532 cm and a
           standard deviation of 0.002 cm. Calculate the control limits for mean of samples 5.

4.   **Attempt any one part of the following:**   **7 x 1 = 7**

   (a)   Discuss in detail the several dimensions of product quality. Also define
           warranty and guarantee.
   (b)   Discuss various causes of failures of a manufacturing system

5.   **Attempt any one part of the following:**   **7 x 1 = 7**

   (a)   Discus the steps in defect diagnosis and prevention
   (b)   In a sheet metal production unit, inspection has been carried out for 12 days with a lot
           size of 200.the number of rejects are 23,15,17,15,41,0,25,31,29,0,8,16. draw a p chart.

6.   **Attempt any one part of the following:**   **7 x 1 = 7**

   (a)   Describe the significance of bath tub curve with example.
   (b)   What do you mean by centralization and decentralization?

7.   **Attempt any one part of the following:**   **7 x 1 = 7**

   (a)   What is zero defects? How it implemented and what are its advantages
   (b)   Discuss in detail the several dimensions of product quality. Also define warranty and guarantee.