

Roll No.

24481

**B. Tech. 7th Semester (ME)
Examination – February, 2022**

QUALITY ENGINEERING

Paper : ME-417-F

Time : Three hours]

[Maximum Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : There are nine questions. Attempt any five questions in total. Question No. 1 is compulsory. One question must be attempt from each section.

1. (a) What do you mean by Pareto Analysis ? $4 \times 5 = 20$
- (b) What is Histogram ?
- (c) Define Acceptance Sampling.
- (d) What do you mean by FMEA ?

SECTION – A

2. Explain in detail the Quality costs concept and their categories. 20

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3. What do you mean by the following terms :
- (a) Cost reduction Programs 10
 - (b) Economics of quality. 10

SECTION - B

4. Explain in detail the control charts for variables. 20
5. Differentiate between the Tabular Summarization of Data and Graphical Summarization of Data. 20

SECTION - C

6. Describe the Poisson distribution by taking the suitable practical example. 20
7. Explain in detail the single, double, multiple and sequential sampling plans.

SECTION - D

8. Explain the following diagrams :
- (a) Affinity diagrams 7
 - (b) Inter-relationship diagram 7
 - (c) Run charts 6
9. Discuss about the QFD and TPM. 20
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