

24481

B.Tech. 7th Semester (F) Scheme (ME) Examination,

December-2018

QUALITY ENGINEERING

Paper-ME-417-F

Time allowed : 3 hours]

[Maximum marks : 100

Note : Attempt five questions by selecting at least one from each section and Question No. 1 is compulsory and short answer type. All questions carry equal marks.

1. Explain the following : 5×4=20
- (a) What are quality costs ? Explain.
 - (b) Mention Quantitative Methods of summarizing data.
 - (c) Explain the concept of economics of quality.
 - (d) What are C & U Charts ? Explain.
 - (e) Brief about lot quantity protection ?

Section-A

2. Explain quality assurance system. Also explain the concept and importance of quality in industries. 20
3. Explain the following terms : 20
- (a) Pareto analysis
 - (b) Quality Cost categories.
 - (c) ISO 9000

24481-P-2-Q-9(18)

[P. T. O.]

Section-B

4. What are statistical tools in quality control ? Explain the concept of variation and frequency distribution. 20
5. Explain S, P, np, c and u charts with their application in industries. Also explain advantages of \bar{X} and R charts. 20

Section-C

6. (a) What is sampling distribution ? Explain. 10
(b) Explain Poisson and normal distribution with suitable examples. 10
7. Explain single, multiple and sequential sampling plans. Also explain lot and average outgoing Quality protection. 20

Section-D

8. What are basic concepts of TQM ? Mention and explain the applications of TQM in Industries. Also explain the role of senior management in TQM. 20
9. (a) Explain QFD, TPM, FMEA with suitable examples. 10
(b) What are Pareto diagrams ? Explain the cause and effect diagram. 10