

Roll No.

24415

**B. Tech. 6th Semester (AUE)
Examination – May, 2019**

QUALITY CONTROL & RELIABILITY ENGINEERING

Paper : AUE-310-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 : Attempt *five* questions in all. Question number 1 is **compulsory** and attempt at least *one* question from each Section.

1. Explain in brief the following : $4 \times 5 = 20$

- (a) Bureau of Indian standards
- (b) Uses of standard sampling plans
- (c) AOQL concepts
- (d) Consumers Risk AQL

SECTION – A

2. What is the difference between Quality Control and Quality planning ? What is the economic consideration in Quality Control ? 20
3. What is TQM concepts ? Also explain the quality assurance statistical tools used in quality in SQC. 20

SECTION – B

4. What is the difference between the Quality Control and Quality Assurance ? Explain the type's acceptance Sampling and probability of acceptance in single, double, multiple sampling techniques. 20
5. What is Acceptance Sampling ? Discuss Control charts, Attributes and Establishing and interpreting control charts. 20

SECTION – C

6. What are the objectives of Life testing ? Explain classification and failure characteristics. 20

7. What is reliability system ? Explain reliability-series and parallel systems and systems reliability in terms of probability of failure. 20

SECTION – D

8. What is the difference between Quality and Reliability ? Explain Reliability improvement-techniques. 20
9. Explain in detail : 20
- (a) Redundancy
 - (b) Standby redundancy
 - (c) Product analysis