

Roll No.

22624

M. Tech 2nd Semester (MAE) CBCS

Scheme (Elective - I)

Examination – May, 2018

QUALITY CONTROL TECHNIQUES

Paper :MTMA22D1

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 No. 1 is *compulsory* and attempt *one* question from each Unit.

1. Explain the following :

- | | |
|-----------------------------|---|
| (a) Control limit theorem | 5 |
| (b) Methods of Sub-grouping | 5 |
| (c) Control limit | 5 |
| (d) Consumer's Risk | 5 |

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UNIT – I

2. Explain the various steps in Quality Control with the help of suitable example. 20
3. Explain the continuous and Discrete Probability distribution with the help of some Industrial validated example. 20

UNIT – II

4. Describe the interpretation of out of control used in quality control techniques. 20
5. Explain the process capability studies or process capability Index Methods with the help of suitable example. 20

UNIT – III

6. Describe the special control charts for variables and their implementation. 20
7. Explain the variable inspection and attribute inspection with the help of suitable example. 20

UNIT – IV

8. (a) Explain the Binomial and Poisson distribution with the help of some case study example. 10
(b) What do you mean by sampling plan and types of sampling plan ? 10
9. Discuss single and double and multiple sampling plan. 20