

6. (a) In a casting factory producing aluminium rear cover, the following table represents the number of defectives found in inspection of 20 lots of 100 each.

Lot No.	No. of defectives
1	7
2	14
3	12
4	6
5	4
6	7
7	6
8	9
9	4
10	5
11	8
12	7
13	10
14	4
15	3
16	6

M-BB-88

4

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BB-88

M.Tech. EXAMINATION, Dec. 2018

(Second Semester)

(B. Scheme) (Re-appear Only)

(ME)

MEI504B

QUALITY ENGINEERING

Time : 3 Hours]

[Maximum Marks : 75

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

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. Answers should be brief and to the point. All questions carry equal marks. Sketch/ Diagram should be clear and appropriate.

(3-31/19)M-BB-88

P.T.O.

Unit I

1. (a) Define the term quality and state the various factors which affect quality objectives.
(b) What do you mean by the term 'quality cost' ? Write its significance and explain with examples. **7+8=15**
2. (a) What are Quality Attributes ? Write their importance and explain each briefly.
(b) State and explain the philosophy for evaluation of quality management. **8+7=15**

Unit II

3. (a) How will you give the assurance about quality of product ? Explain briefly with example and justification.

- (b) Write the name of the different tools used for quality control. Explain any *one* from your answer and write the significance of the specific tool. **7+8=15**

4. What do you mean by 'quality gurus and their philosophies' ? Write the name of the different gurus. Explain Crosby philosophy in detail. How this philosophy different from Juran philosophy ? Give answer with justification. **5+5+5=15**

Unit III

5. (a) Define SQC and state the objectives of SQC. State and explain the R-chart and write its applications.
(b) State and explain Taguchi method and write its significance as a technical tool for improving the quality of product. **(4+4)+7=15**

17	5
18	7
19	5
20	9

Construct appropriate control chart and state whether the process is under control.

- (b) Write the full form of QFD and explain its importance in quality engineering.

10+5=15

Unit IV

7. (a) What is strategic quality planning ? Give example and explain its importance.
(b) Explain the quality implementation system with suitable example. **8+7=15**
8. Write short notes on the following : **3×5=15**
(a) Quality audit
(b) ISO 9000 and its importance
(c) Benchmarking.

M-BB-88

5

30

17	5
18	7
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(3-31/21)M-BB-88

5

30