CBCS SCHEME
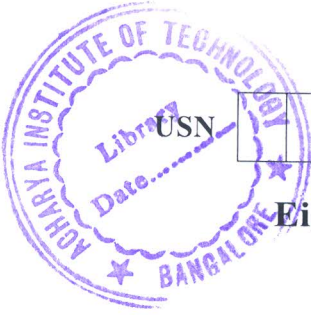
USN ☐☐☐☐☐☐☐☐☐☐   15AU831

Eighth Semester B.E. Degree Examination, Dec.2019/Jan.2020
Total Quality Management

Time: 3 hrs.   Max. Marks: 80

Note: *1. Answer any FIVE full questions, choosing*
ONE full question from each module.
2. Use of SQC tables is allowed.

Module-1

1 a. Define the total quality management and explain the TQM frame work. **(08 Marks)**
  b. Write the contributions of Gurus of TQM. **(08 Marks)**

OR

2 a. Write the characteristics of Quality Leaders. **(08 Marks)**
  b. Explain the customer perception of quality. **(08 Marks)**

Module-2

3 a. Explain the Jurans trilogy for quality improvement. **(08 Marks)**
  b. Explain the PDSA cycle for continuous process improvement. **(08 Marks)**

OR

4 a. Define Bench Marking. Explain the process of Bench Marking. **(08 Marks)**
  b. Explain the quality function deployment and list the benefits. **(08 Marks)**

Module-3

5 a. Explain the affinity diagram and tree diagram briefly. **(08 Marks)**
  b. Explain the activity net work diagram tool of quality management. **(08 Marks)**

OR

6 a. Explain the why and forced field analysis tools. **(08 Marks)**
  b. Explain the matrix diagram of quality management. **(08 Marks)**

Module-4

7 a. Define Becruitment and explain the process of recruitment. **(08 Marks)**
  b. Explain the process training and education in the human resource management. **(08 Marks)**

OR

8 Write short notes on :
  a. Compensation and recognition
  b. Employee well-being
  c. Health and safety
  d. Performance appraisal. **(16 Marks)**

Module-5

9 a. Explain the fish bone diagram for finding the root cause of the problem. **(06 Marks)**
  b. Explain the scatter diagram to find the relationship with variables. **(05 Marks)**
  c. Explain the pareto diagram for process control. **(05 Marks)**

OR

10 a. In a manufacturing process certain quality characteristic is measured at regular intervals. The following data is observed, sample size n = 5, number of subgroups m = 20, $\Sigma x = 357.50$, $\Sigma R = 9.90$. Compute the control limits for $\overline{X}$ - chart and R – chart and calculate the process capability.
(data from SQC table, $A_2 = 0.58$, $D_3 = 0$, $D_4 = 2.11$, $d = 2.326$).   **(06 Marks)**

b. The following data was noticed on inspection by a preventive maintenance group with 65 fuse contact installations.

Sub group number	Number of items inspected	Number of defectives
1	65	21
2	65	20
3	65	19
4	65	20
5	65	20
6	65	22
7	65	23
8	65	29
9	65	20
10	65	21
11	65	28
12	65	25
13	65	06
14	65	20
15	65	18

Construct the P–chart and offer your comments on the behavior of the process.   **(10 Marks)**

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