CBCS SCHEME

USN | | | | | | | | | | 15MA81

Eighth Semester B.E. Degree Examination, Aug./Sept. 2020
Total Quality Management

Time: 3 hrs. Max. Marks: 80

Note : *i) For Regular Students: Answer any FIVE full questions irrespective of modules.*
ii) For Arrear Students : Answer any FIVE full questions, choosing ONE full question from each module.
iii) Use of statistical tables is permitted.

Module-1

1 a. State and explain six basic approaches to Total Quality Management. **(06 Marks)**
b. Discuss in detail the obstacles associated with implementation of TQM. **(10 Marks)**

2 a. Describe the various dimensions of quality with a suitable example. **(06 Marks)**
b. What are the benefits of ISO registration? **(05 Marks)**
c. Explain TQM framework with the help of a diagram. **(05 Marks)**

Module-2

3 a. Write a note on Deming's philosophy. **(10 Marks)**
b. Discuss the root causes of unethical behavior. **(06 Marks)**

4 a. Briefly explain the characteristics of a successful quality leader. **(08 Marks)**
b. Discuss the seven steps to strategic quality planning. **(08 Marks)**

Module-3

5 a. List and explain the six most important factors that influences customer perception of quality. **(08 Marks)**
b. Write a note on different customer feedback collecting tools. **(08 Marks)**

6 a. Describe the each level in Maslow's hierarchy of needs. **(05 Marks)**
b. Discuss the various barriers to team progress. **(06 Marks)**
c. What are the benefits of employee involvement? **(05 Marks)**

Module-4

7 a. Write a short notes on :
i) PDSA cycle
ii) KAIZEN. **(08 Marks)**
b. List and explain various strategies to sustain continuous improvement. **(08 Marks)**

8 a. What do you understand by the term process variability? **(04 Marks)**

b. The following frequency table records the diameter of 200 components in mm. State the group in which the mode occurs, estimate the median and draw a histogram for the distribution.

Diameter in mm	8	10	12	14	16	18	20
Frequency	25	40	67	35	23	7	3

(06 Marks)

c. Samples of 4 items each taken from a manufacturing process at regular intervals. A certain quality characteristic is measured and $\overline{X}$ and R values are computed for each sample. After 25 samples it is found $\overline{\overline{X}} = 15610$ and $\Sigma R = 411.4$. Compute limits for $\overline{X}$ – chart and R – Chart. **(06 Marks)**

Module-5

9 a. Explain how Risk Priority Number (RPN) is established. **(04 Marks)**

b. List out the basic steps to start Total Productive Maintenance (TPM). **(04 Marks)**

c. Briefly explain the benefits of Quality Function Development (QFD). **(08 Marks)**

10 a. What is bench marking? Explain the steps in process of bench marking. **(06 Marks)**

b. What are the objectives of Environmental Management System (EMS). **(05 Marks)**

c. Write a note on Product Liability Law. **(05 Marks)**

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