



B.E/B.TECH DEGREE EXAMINATIONS: NOV/DEC 2022

(Regulation 2018)

Fifth Semester

CIVIL ENGINEERING

U18MBT5000: Total Quality Management

COURSE OUTCOMES

- CO1:** apply & analyze the various elements and concepts of TQM.
CO2: understand the various principles and philosophies of TQM
CO3: understand the fundamentals and process of statistics
CO4: apply and analyze the various quality tools, management tools to improve quality.
CO5: understand the various quality standards & systems, procedures for its implementation, documentation and auditing.

Time: Three Hours

Maximum Marks: 100

**Answer all the Questions:-
PART A (10 x 2 = 20 Marks)**

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|---|-----|-------------------|
| 1. Compare Quality of Conformance and Quality of Performance. | CO1 | [K ₂] |
| 2. State quality improvement strategy. | CO1 | [K ₁] |
| 3. How is Customer retention focused in TQM? | CO2 | [K ₂] |
| 4. List the benefits of 5S implementation in an industry. | CO2 | [K ₁] |
| 5. Name the methods to measure the quality in common use. | CO3 | [K ₁] |
| 6. Draw different histogram shapes for representing grouped data. | CO3 | [K ₁] |
| 7. Define “Taguchi’s Quality Loss function”. | CO4 | [K ₁] |
| 8. Enlist some new management tools. | CO4 | [K ₁] |
| 9. Indicate the need for ISO. | CO5 | [K ₂] |
| 10. Classify the different types of quality audits. | CO5 | [K ₂] |

**Answer any FIVE Questions:-
PART B (5 x 16 = 80 Marks)**

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|---|---|-----|-------------------|
| 11. a) Describe the various dimensions of quality with respect to the following: Quality in products and Quality in services. | 8 | CO1 | [K ₂] |
| b) Explain the obstacles in TQM implementation. | 8 | CO1 | [K ₂] |

12.	a)	Illustrate the various steps involved in customer satisfaction process.	8	CO2	[K ₂]
	b)	Discuss Kaizen model with its merits.	8	CO2	[K ₂]
13.	a)	With the help of case study, explain cause and effect diagram with neat sketch.	8	CO3	[K ₃]
	b)	Summarize the objectives and uses of control chart in TQM.	8	CO3	[K ₂]
14.	a)	Why benchmarking is required in an organization? Illustrate the different types of bench marking process.	8	CO4	[K ₂]
	b)	Explain in detail about six sigma concepts of process capability.	8	CO4	[K ₂]
15.	a)	Enumerate the steps to be followed in implementing quality system ISO 9001:2000 in an educational institution.	8	CO5	[K ₃]
	b)	Identify the need for documentation in QMS.	8	CO5	[K ₂]
16.	a)	Discuss about the objectives, process and benefits of Quality Functional Deployment (QFD)	16	CO4	[K ₂]
