



**B.E DEGREE EXAMINATIONS: NOV/DEC 2023**

(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)**

**(Answer not more than 40 words)**

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|--|-----|-------------------|
| 1. Brief the term Total Quality Management (TQM).                          | CO1 | [K <sub>2</sub> ] |
| 2. Highlight the benefits of implementing TQM.                             | CO1 | [K <sub>1</sub> ] |
| 3. Why should suppliers be treated as partners?                            | CO2 | [K <sub>2</sub> ] |
| 4. What are the roles assigned to people in Quality Circles?               | CO2 | [K <sub>1</sub> ] |
| 5. List out the significance of histogram.                                 | CO3 | [K <sub>1</sub> ] |
| 6. What are the types of control charts?                                   | CO3 | [K <sub>2</sub> ] |
| 7. Define benchmarking?  | CO4 | [K <sub>1</sub> ] |
| 8. List out the new seven management tools used in TQM?                    | CO4 | [K <sub>1</sub> ] |
| 9. Why is a quality system required?                                       | CO5 | [K <sub>2</sub> ] |
| 10. What are the documentation requirements of quality management systems? | CO5 | [K <sub>1</sub> ] |

**Answer any FIVE Questions:-**

**PART B (5 x 16 = 80 Marks)**

**(Answer not more than 400 words)**

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|--|----|-----|-------------------|
| 11. a) Discuss the role of top management in TQM implementation. | 06 | CO1 | [K <sub>2</sub> ] |
| b) Explain the Dimensions of product quality.                    | 10 | CO1 | [K <sub>2</sub> ] |

12.	a)	Explain all the elements in 5'S principle and also the implantation procedure of 5'S in a construction company.	10	CO2	[K <sub>2</sub> ]
	b)	Explain 'Juran Trilogy' ('Quality Trilogy')	06	CO2	[K <sub>2</sub> ]
13.	a)	Explain the cause-and-effect diagram (or) fishbone diagram.	12	CO3	[K <sub>2</sub> ]
	b)	What do you mean by measure of central tendency? What are the three measures of central tendency?	04	CO3	[K <sub>2</sub> ]
14.	a)	Illustrate the procedure involved in FMEA with a suitable example	8	CO4	[K <sub>2</sub> ]
	b)	Explain briefly the concept of Six Sigma.	8	CO4	[K <sub>2</sub> ]
15.	a)	Discuss the benefits of ISO 9000 certification.	8	CO5	[K <sub>2</sub> ]
	b)	Write brief notes on quality auditing in QMS.	8	CO5	[K <sub>2</sub> ]
16.		Write short notes on :	16	CO2	[K <sub>2</sub> ]
		i) Customer perception of quality			
		ii) Customer complaints			

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