R22 Regulation *Subject code: 4E7FA*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech VII Semester Supplementary Examinations, May 2026

SOFTWARE ENGINEERING

(IT)

Maximum Marks: 60 Date:05.05.2026 Duration: 3 hours

Note: **1.This question paper contains two parts A and B.**
2. Part A is compulsory which carries 10 marks. Answer all questions in Part A.
3. Part B consists of 5 Units. Answer any one full question from each unit.
4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks (10X1M=10 Marks)		Marks	CO	BTL
1.a)	Define Agile Methodology.	1M	1	L1
b)	What are the main layers of Software Engineering?	1M	1	L2
c)	List any two challenges in Requirements Analysis.	1M	2	L4
d)	Define Feasibility Study.	1M	2	L1
e)	What is a State Chart Diagram?	1M	3	L1
f)	List the main Design Concepts.	1M	3	L4
g)	What is the difference between Verification and Validation?	1M	4	L2
h)	Define System Testing?	1M	4	L1
i)	What is Quality Management?	1M	5	L2
j)	What is RMMM?	1M	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
2	a. Explain about the various Software Myths?	5M	1	L2
	b. Explain about Capability Maturity Model Integration (CMMI).	5M	1	L5
	OR			
3	a. What is Waterfall model? How is it different from other engineering process models? Explain.	5M	1	L2
	b. Define the term Software Engineering. Describe its various Characteristics.	5M	1	L5
4	Briefly discuss about Requirements Validation? Differentiate between Functional and Non-functional requirements.	10M	2	L2
	OR			
5	What is Requirements Management? Illustrate about Software Requirements Document with an example.	10M	2	L2
6	Explain the Architectural Design? Write about conducting Conceptual Level Design?	10M	3	L4
	OR			

7	What are Software Architecture and Architectural Design? Why is it so important?	10M	3	L4
8	What are the strategic approaches to Software Testing? Explain.	10M	4	L4
	OR			
9	Explain about the test strategies for Conventional Software? Discuss about Metrics for Process and Products.	10M	4	L4
10	Discuss about the elements of Software Quality Assurance. Discuss advantages and disadvantages of SQA?	10M	5	L2
	OR			
11	Illustrate Reactive vs. Proactive Risk Strategies in Risk Management. How far the risk refinement is useful in Risk Management.	10M	5	L2