R22 Regulation *Subject code:4E4ED*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech IV Semester Supplementary Examinations, December 2025

SOFTWARE ENGINEERING

(Common to CSE, CSE(AI&ML) & CSE(DS))

Maximum Marks: 60 Date:23.12.2025 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 (10XİM=10 Marks)		Marks	CO	Bloom Tx
1.a)	What do you mean by the "changing nature of software"?	1M	CO1	BL2
b)	Give the main difference between traditional and agile models.	1M	CO1	BL2
c)	What do you mean by interface specification?	1M	CO2	BL1
d)	State the purpose of feasibility study.	1M	CO2	BL2
e)	What is a class diagram?	1M	CO3	BL1
f)	Mention two principles of good software design.	1M	CO3	BL2
g)	List the purpose of software measurement.	1M	CO4	BL1
h)	Define cyclomatic complexity.	1M	CO4	BL1
i)	Differentiate between reactive and proactive risk strategies.	1M	CO5	BL2
j)	What is software reliability?	1M	CO5	BL1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	Bloom Tx
2	Describe about agile modeling in detail.	10M	CO1	BL2
	OR			
3	a) Discuss in brief about different software myths and their consequences. b) Explain CMMI model with a neat sketch.	5M 5M	CO1	BL2
4	a) Differentiate between functional and non-functional requirements with suitable examples. b) What are the activities of requirements elicitation and analysis? Explain.	5M 5M	CO2	BL3
	OR			
5	a) What is feasibility study? How it helps in requirement engineering process? b) Discuss about principal requirements engineering activities and their relationships.	5M 5M	CO2	BL2
6	Explain the various phases of the Software Development Life Cycle (SDLC).	10M	CO3	BL2

	OR			
7	a) Demonstrate in detail about architectural design. b) Illustrate in detail about any four architectural styles.	5M 5M	CO3	BL3
8	a) Write the differences between black box testing and white box testing. b) Write short notes on unit testing.	5M 5M	CO4	BL3
	OR			
9	Discuss about the Metrics for software quality.	10M	CO4	BL2
10	What is RMMM? Explain about RMMM plan.	10M	CO5	BL2
	OR			
11	Describe the ISO 9000 quality standards and their application in software Engineering.	10M	CO5	BL3