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 2024

SOFTWARE ENGINEERING

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

Maximum Marks: 60 Date:10.12.2024 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	CO	Bloom Tx
All the following questions carry equal marks (10X1M=10 Marks)			
1.a)	Give four examples for application software.	CO1	BL1
b)	Write a brief note on waterfall model.	CO1	BL2
c)	Define feasibility study.	CO2	BL1
d)	How to manage the changing requirements during the requirements elicitation process?	CO2	BL2
e)	What does SDLC stand for in software engineering?	CO3	BL1
f)	Give the purpose of a deployment diagram in UML.	CO3	BL2
g)	What is white box testing?	CO4	BL1
h)	Give the testing principles the software engineer must apply while performing the software testing.	CO4	BL2
i)	Define software reliability.	CO5	BL1
j)	What is risk projection in risk management?	CO5	BL1
	Part-B		
Answer All the following questions. (5X10M=50Marks)			
2	a) Describe about agile modelling in detail. [5M] b) Explain the component-based software development model with a neat sketch. [5M]	CO1	BL3
	OR		
3	Explain in detail the following software process models with a neat diagram. a) Incremental Process Model. [5M] b) Spiral Process Model. [5M]	CO1	BL3
4	a) Differentiate functional and non-functional requirements. [5M] b) Give the steps involved in initiating requirements engineering. [5M]	CO2	BL4
	OR		
5	Classify the different types of checks carried out on the requirements in the requirements document during the validation process. Demonstrate on the requirement validation techniques. [10M]	CO2	BL4

6	a) Describe architecture in software design. [5M] b) Outline the different types of architectural styles used in developing a software product. [5M]	CO3	BL3
	OR		
7	Explain the stages of the software development life cycle and discuss the importance of each stage. Provide examples of activities and deliverables for each stage. [10M]	CO3	BL3
8	Define software testing. Explain different software testing strategies. [10M]	CO4	BL3
	OR		
9	a) Contrast the validation testing with system testing. [5M] b) Interpret the art of debugging in software testing methodology. [5M]	CO4	BL4
10	a) Discuss about the important activities involved in management of software quality assurance. [5M] b) Briefly explain about goals attributes and metrics of software quality assurance. [5M]	CO5	BL2
	OR		
11	a) Discuss about risk management in a software development life cycle. [5M] b) Discuss on the concept of RMMM. [5M]	CO5	BL3