R20 Regulation *Subject code: 3P5FA*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech V Semester Regular/Supplementary Examinations, February 2024

SOFTWARE ENGINEERING

(Information Technology)

Maximum Marks: 70 Date:27.02.2024 Duration: 3 hours

Note: **1.This question paper contains two parts A and B.**
2. Part A is compulsory which carries 20 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 level
All the following questions carry equal marks (10x2M=20 Marks)			
1	Why does it take so long to get software finished?	CO1	L1
2	List the generic framework activities present in every software process?	CO1	L1
3	What are the underlying concepts that lead to good requirements analysis?	CO2	L1
4	How domain analysis is related to the concept of requirements patterns?	CO2	L1
5	Do you design software when you "write" a program?	CO3	L2
6	How to derive a database schema from the UML Class Diagram?	CO3	L1
7	Who should perform the validation test—the software developer or the software user?Justify your answer?	CO4	L2
8	Why should "testing" begin with object-oriented analysis and design?	CO4	L2
9	Explain the difference between an *error* and a *defect?*	CO5	L2
10	You have been given the responsibility for improving the quality of software in your organization.What is the first thing that you should do? What's next?	CO5	L1
	Part-B		
Answer All the following questions. (5X10M=50Marks)			Bloom Tx level
11	a. The foundation for software engineering is the *process* layer-Elucidate?[5] b. Discuss three examples of software projects that would be amenable to the waterfall model. Be specific. [5]	CO1 CO1	L2 L2
	OR		
12	a. Is software engineering applicable when WebApps are built? If so, how might it be modified to accommodate the unique characteristics of WebApps? [5] b. Explain CMMI process area capability profile with a neat diagram? [5]	CO1 CO1	L3 L2
13	a. Develop a complete use case for Making a deposit, withdrawal at ATM? [5] b. Discuss how Data modelling is used to describe the information space that will be constructed or manipulated by the software? [5]	CO2 CO2	L3 L2

	OR		
14	a. Explain Functional and Non-Functional Requirements. [5] b. Discuss Context Models. [5]	CO2 CO2	L2 L2
15	a. Design is pivotal to successful software engineering-How? [5] b. Model the ATM case study using Use Case Diagram, Sequence Diagrams Class Diagram and Component Diagram? [5]	CO3 CO3	L2 L3
	OR		
16	a. Discuss Pattern based Software Design. [5] b. Explain Architectural Styles and Patterns. [5]	CO3 CO3	L2 L2
17	a. Compare and Contrast Black-Box Testing with White-Box Testing? [5] b. Explain the metrics for software quality. [5]	CO4 CO4	L4 L2
	OR		
18	a. What is Validation Testing? Explain with an example? [5] b. Explain the metrics for software maintenance. [5]	CO4 CO4	L2 L2
19	a. Compare Reactive with Proactive Risk strategies? [5] b. What are the generic characteristics of high-quality software? [5]	CO5 CO5	L4 L2
	OR		
20	a. Discuss RMMM Plan. [5] b. Software reviews are a "filter" for the software process-How? [5]	CO5 CO5	L2 L2