R20 Regulation *Subject code: 3P4EC*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech IV Semester Supplementary Examinations, June 2026

SOFTWARE ENGINEERING

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

Maximum Marks: 70 Date: 12.06.2026 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

All the following questions carry equal marks (10X2M=20 Marks)		Marks	CO	BTL
1	Define legacy software.	2M	1	L1
2	What is incremental model?	2M	1	L1
3	What is meant system requirements?	2M	2	L1
4	What are non-functional requirements?	2M	2	L1
5	What is design?	2M	3	L1
6	Write about interface design evaluation.	2M	3	L1
7	Define system testing.	2M	4	L1
8	What is meant by software reliability?	2M	4	L1
9	What are the types of software risks?	2M	5	L1
10	Discuss the reactive risk strategy.	2M	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
11	a) State and explain various software myths. b) Explain CMMI with a neat diagram.	5M 5M	1	L2
	OR			
12	a) Explain about the waterfall model with neat diagram. b) Explain about incremental process model.	5M 5M	1	L2
13	Show how we represent a) Data models. b) Explain behavioral models and object models.	 5M 5M	2	L2
	OR			
14	a) What are the characteristics of software requirement documentation (SRD)? b) Explain about requirements validation.	5M 5M	2	L2
15	Write about design quality and design concepts in detail.	10M	3	L2
	OR			
16	Define software architecture. Explain why it may be necessary to design the system architecture before the specifications. Compare function oriented and object-oriented design.	10M	3	L2

17	What is black box testing? What is boundary value analysis? Explain the technique specifying rules and its usage with the help of an example.	10M	4	L2
	OR			
18	What is meant by software quality? Explain the metrics for design model.	10M	4	L2
19	a) Discuss the process of risk management. b) What types of risks occur during software development? Discuss.	5M 5M	5	L2
	OR			
20	List the major risks in software project. What are the ways to abate the risk of coast and schedule overruns.	10M	5	L2