R20 Regulation *Subject code:3P5EA*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech V Semester Supplementary Examinations, May 2025

OBJECT ORIENTED ANALYSIS & DESIGN

(CSE)

Maximum Marks: 70 Date: 17.06.2025 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 UML.	2M	1	L1
2	Explain common mechanisms in UML.	2M	1	L1
3	Discuss about aggregation.	2M	2	L1
4	Name the roles and multiplicity for 'Person to Organization'.	2M	2	L1
5	Define interactions.	2M	3	L1
6	List different kinds of messages among interactions.	2M	3	L1
7	List various parts of a transition.	2M	4	L1
8	State how component and interface are related.	2M	4	L1
9	Define Analysis model.	2M	5	L1
10	Define frameworks.	2M	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
11	A) Discuss the principles of modeling and B) explain various relationships in UML.	5M 5M	1	L2
	OR			
12	A) What is a model and what are the aims of modeling? B) Explain briefly about the various diagrams in UML.	5M 5M	1	L2
13	Enumerate the steps for modeling simple dependencies and compare is-a relationship with has-a relationship.	10M	2	L2
	OR			
14	Draw and explain the class diagram for a bank ATM system.	10M	2	L2
15	Design a sequence diagrams that specifies the flow of control involved in initiating a simple, two-party phone call and explain every element in the designed model.	10M	3	L2
	OR			
16	A) Discuss modeling behavior of an element in use case diagram B) Enumerate modeling an operation in activity diagram.	5M 5M	3	L2

17	Contrast action with activity. Define state and event. What are the various parts of a state? Explain briefly.	10M	4	L2
	OR			
18	A) Define node. Contrast node with components. B) Illustrate modeling Fully distributed system.	5M 5M	4	L2
19	Design use cases diagram for library Application.	10M	5	L2
	OR			
20	Design activity diagram for library Application.	10M	5	L2