



R20 Regulation

Subject code: 3P5EA

# TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

**B.Tech V Semester Supplementary Examinations, July 2024**

## OBJECT ORIENTED ANALYSIS AND DESIGN

(CSE)

Maximum Marks: 70

Date: 19.07.2024 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		What are the principles of modeling's In UML?	1	L1
2		What is UML?	1	L1
3		State the different types of relationships	2	L1
4		What are packages in UML? What is the UMLs symbol for a package?	2	L1
5		Define actors that can exist in a use case diagram.	3	L1
6		What are the two kinds of interaction diagrams?	3	L1
7		Define component	4	L1
8		Define state. List out the parts of a state	4	L1
9		What are the three types of design patterns?	5	L1
10		What is a framework object?	5	L1
Part-B				
Answer All the following questions. (5X10M=50Marks)				Bloom Tx level
11	a	Describe the different phases of software development life cycle. [5]	1	L2
	b	Discuss the major elements of conceptual model of UML. [5]	1	L2
OR				
12	a	Why is it necessary to have a variety of diagrams in a model of a system? [5]	1	L3
	b	Explain the various views considered in modeling a system's architecture. [5]	1	L2
13	a	What is class diagram? Explain the contents of class diagram. State the common uses of class diagrams. [5]	2	L2
	b	Define relationship? Explain the four adornments that apply to an association and dependency. [5]	2	L2
OR				
14	a	Discuss about common mechanisms of UML. [5]	2	L2
	b	Define an object. Write in details about UML class diagram by considering school management system. [5]	2	L3

15	a	Explain with an example how use case modeling is used to describe functional requirements, identify actors, scenario and use cases for the example. [5]	3	L2
	b	Explain the two interaction diagrams for “issue of a book” and “renewal of a book” operations in a library. [5]	3	L2
	OR			
16	a	Draw and explain briefly a use case diagram that depicts the context of a credit card validation system. [5]	3	L3
	b	Describe activity diagram for restaurant. [5]	3	L2
17	a	Explain the steps to model executables and source code using component diagrams. [5]	4	L2
	b	Explain states and events and discuss the preparation of state chart diagram. [5]	4	L2
	OR			
18	a	What are the differences between component and deployment diagrams? What are the types of components in UML. [5]	4	L2
	b	Compare collaboration diagram and state chart diagram of UML. [5]	4	L5
19	What is activity diagram? Explain the elements of activity diagram. [10]		5	L2
	OR			
20	Compose the activity diagram for library application. [10]		5	L6