R22 Regulation *Subject code: 4O7AB*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VII Semester Supplementary Examinations, May 2026

OBJECT ORIENTED PROGRAMMING THROUGH JAVA

(CE)

Maximum Marks: 60 Date: 14.05.2026 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

All the following questions carry equal marks (10X1M=10 Marks)		Marks	CO	Bloom Tx
1.a)	What is java bytecode?	1M	1	L1
b)	What is the use of the super keyword in Java?	1M	1	L1
c)	How is an interface different from an abstract class?	1M	2	L2
d)	Write the purpose of CLASSPATH.	1M	2	L1
e)	List the benefits exception handling.	1M	3	L2
f)	What is the importance of **thread priorities**?	1M	3	L2
g)	How is a Collection different from a Map?	1M	4	L2
h)	Can we remove elements from a Collection while iterating? How?	1M	4	L2
i)	Why are layout managers used in GUI design?	1M	5	L1
j)	Write the role of **adapter classes** in event handling.	1M	5	L2

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	Bloom Tx
2	Why we need constructor in Java programming? Explain the types of constructors with the help of an example Program?	10M	1	L4
	OR			
3	(a) Give an example where interface can be used to support multiple inheritance. (b) Describe the uses of the final keyword in inheritance.	5M 5M	1	L3 L3
4	(a) How is an interface implemented in Java? Explain with a suitable program. (b) What are generics in Java? Discuss their advantages. Write a program to demonstrate a generic class or method.	5M 5M	2	L4 L4
	OR			
5	Define a package. Explain the steps to create, compile, and use a user-defined package with an example.	10M	2	L5

6	Explain the fundamentals (Keywords) of exception handling in Java. Why is exception handling important.	10M	3	L2
	OR			
7	(a) Elaborate the lifecycle of a thread with a neat diagram. (b) Explain two ways to create a thread in Java with suitable programs.	5M 5M	3 3	L3 L2
8	Explain the key interfaces of the Collections Framework (Collection, List, Set, Queue, and Map).	10M	4	L2
	OR			
9	Explain how to access elements of a Collection using an Iterator.	10M	4	L2
10	What is a layout manager? Explain different types of Layout managers.	10M	5	L2
	OR			
11	Explain the Delegation Event Model in Java with a neat diagram.	10M	5	L2