R22 Regulation *Subject code:4E4EA*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech IV Semester Regular/Supplementary Examinations, June 2026

OBJECT ORIENTED PROGRAMMING THROUGH JAVA

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

Maximum Marks: 60 Date:08.06.2026 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 the difference between a class and an object?	1M	1	L2
b)	List any four Java buzzwords.	1M	1	L1
c)	What is a package in Java?	1M	2	L1
d)	What is the difference between byte stream and character stream	1M	2	L1
e)	What is the purpose of the try-catch block?	1M	3	L1
f)	What is deadlock?	1M	3	L1
g)	What is the Java Collections Framework?	1M	4	L1
h)	What is the difference between List and Set?	1M	4	L1
i)	What is AWT?	1M	5	L1
j)	What is an event in Java?	1M	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	Bloom Tx
2	a) Explain the features of Object-Oriented Programming Languages in detail.	5M	1	L2
	b) Describe the structure of a typical Java program with an example.	5M	1	L3
	OR			
3	a) Briefly explain about different Data types in Java.	5M	1	L2
	b) What is overloading? How method overloading be implemented JAVA?	5M	1	L3
4	a) How to design and implement an interface in Java? Give an example.	5M	2	L3
	b) Explain classes in java.io package.	5M	2	L2
	OR			
5	a) Describe the process of importing and accessing a package with suitable examples.	5M	2	L3
	b) Explain about Character Streams.	5M	2	L2

6	a) Differentiate between an Exception and an Error? How are Runtime exceptions handled? Explain the syntax? b) Explain about Thread synchronization.	5M 5M	3 3	L4 L2
	OR			
7	a) Describe the usage of try-catch-finally in Exception handling mechanism. b) Explain the life cycle of a thread with a neat sketch.	5M 5M	3 3	L3 L2
8	a) Write a detailed note on key-value mapping in Java. Explain how maps differ from collections. b) Explain the working of HashSet and TreeSet.	5M 5M	4 4	L4 L2
	OR			
9	a) Explain the role of Collection, List, Set interfaces with examples. b) Compare Iterator and For-Each loop for traversing collections.	5M 5M	4 4	L2 L4
10	a) Explain MVC Architecture with a neat sketch. b) Explain the Grid Layout with a sample program.	5M 5M	5 5	L2 L3
	OR			
11	a) Briefly explain about components in AWT. b) Discuss about Mouse Events in detail.	5M 5M	5 5	L2 L2