



R22 Regulation

Subject code:4E3FD

# TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

**B.Tech III Semester Regular/Supplementary Examinations, December 2025**

## OBJECT ORIENTED PROGRAMMING THROUGH JAVA

(IT)

Maximum Marks: 60

Date:19.12.2025

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	BTL
1.a)	What is an interface? Mention one advantage of using it.	1M	1	BT1
b)	What is an object in Java? Give one example.	1M	1	BT1
c)	Define exception. Give an example of a runtime exception.	1M	2	BT1
d)	What is the difference between throw and throws?	1M	2	BT1
e)	What is the purpose of File Input Stream?	1M	3	BT1
f)	Differentiate between a byte stream and a character stream.	1M	3	BT2
g)	What is event-driven programming?	1M	4	BT1
h)	Define an applet. Mention any one applet lifecycle method.	1M	4	BT1
i)	List any two states of a thread lifecycle.	1M	5	BT1
j)	Define deadlock.	1M	5	BT1

### Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
2	a) What is a constructor? List types of constructors. b) Write a Java program to illustrate the parameterized constructor	5M 5M	1	BT1
OR				
3	Illustrate the polymorphism and overloading with an example.	10M	1	BT2
4	a) What is a finally block? b) Write a Java program to demonstrate exceptional handling using a finally block.	3M 7M	2	BT1
OR				
5	Implement a Java program that demonstrates the use of both equals() and hashCode() methods. Your program should create two objects with the same data and store them in a HashSet. Show the output with and without correctly overriding hashCode().	10M	2	BT3

6	Describe the process of reading and writing byte data using Java I/O streams. Write a program to copy the contents of one file to another.	10M	3	BT1
OR				
7	a) Explain text input and output streams. b) Write a program to read and write text files.	5M 5M	3	BT2
8	Explain in detail about AWT.	10M	4	BT2
OR				
9	Write an applet to draw a smiley picture, accept a username as a parameter, and display a welcome message.	10M	4	BT3
10	a) Explain multithreading? b) What are the ways to create multiple threads in Java	3M 7M	5	BT2
OR				
11	Demonstrate a Java program to illustrate thread priorities	10M	5	BT3