



R22 Regulation

Subject code:4E2AR

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech II Semester Regular/Supplementary Examinations, July 2025

INTRODUCTION TO OBJECT ORIENTED PROGRAMMING & DATA STRUCTURES USING JAVA

(CSE(DS))

Maximum Marks: 60

Date:15.07.2025

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

Table with 5 columns: Question ID, Question Text, Marks, CO, BTL. Contains 10 questions (1.a-j) about Java data types, methods, interfaces, and classes.

Part-B

Table with 5 columns: Question ID, Question Text, Marks, CO, BTL. Contains 5 questions (2-6) about Boolean operators, inheritance, byte code, and packages in Java.

6	What do you mean by Exception? How are they handled in Java? Explain try, catch-finally block with an example.	10M	CO3	L2
OR				
7	a) Compare Checked and Unchecked exception with examples. b) Explain about recursion in Java with example.	5M 5M	CO3	L2 L2
8	a) Define the concept of sorting and demonstrate the Bubble Sort technique with an example. b) Explain how Singly Linked Lists works with the help of an example.	5M 5M	CO4	L1 L2
OR				
9	a) Explain the term Sorting and describe how Insertion Sort is implemented using an example. b) Explain the concept of Doubly Linked Lists using an example.	5M 5M	CO4	L2 L2
10	a) What is the HashSet class in Java and how does it store elements? Explain. b) Illustrate the applications of Map, HashMap utilities.	5M 5M	CO5	L1 L2
OR				
11	Explain about Java collection frame work with neat diagram with example programs.	10M	CO5	L2