



R22 Regulation

Subject code:4E2AR

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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



B.Tech II Semester Supplementary Examinations, January 2026

Introduction To Object Oriented Programming & Data Structures Using Java (CSE(DS))

Maximum Marks: 60

Date: 22.01.2026

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 rows of questions related to Java control statements, inheritance, exceptions, and collections.

Part-B

Table with 5 columns: Question ID, Question Text, Marks, CO, BTL. Contains 6 rows of questions related to Java classes, access modifiers, visibility, packages, and recursive functions.

	OR			
7	a) Explain about exception handling in Java with example program. b) Explain about recursion with example.	5M 5M	CO3	L4 L4
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 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	L1, L2 L2
10	a) What is the difference between Array and Array List? Explain the use of Array List with the help of an example b) Illustrate the applications of Map, HashMap utilities	5M 5M	CO5	L4 L3
	OR			
11	Explain about Java collection frame work with example program.	10M	CO5	L2