



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 2024

**INTRODUCTION TO OBJECT-ORIENTED PROGRAMMING & DATA STRUCTURES
 USING JAVA
 (CSE(DS))**

Maximum Marks: 60

Date:25.01.2024 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)			
1.	a	Define the basic characteristics of object-oriented programming.	CO1	L1	
	b	What is java byte code? What is JVM?	CO1	L1	
	c	Contrast between abstract class and interface.	CO2	L1	
	d	What is a package?	CO2	L1	
	e	Write the syntax to define a "package".	CO3	L1	
	f	What is an exception? What are two exception types?	CO3	L1	
	g	How to construct a queue using stacks?	CO4	L1	
	h	Define a single linked list.	CO4	L1	
	i	Explain queue with an example?	CO5	L2	
	j	Define List ADT.	CO5	L1	

Part-B

Answer All the following questions.		(5X10M=50Marks)			
2	a.	What is meant by byte code? Briefly explain how Java is platform independent.	CO1	L2	
	b.	Explain the structures of JAVA with an example. [5+5]			
	OR				
3	a.	List the primitive data types available in Java and explain.	CO1	L2	
	b.	What is the purpose of constructor in Java programming? [5+5]			
4	Define inheritance. What are the benefits of inheritance? What costs are associated with inheritance? How to prevent a class from inheritance? [10]		CO2	L1.	
	OR				
5	a.	Explain the polymorphism and overloading with an example.	CO2	L2	
	b.	Explain the process of defining and creating a package with suitable examples. [5+5]			
6	Explain about exceptional handling with an example. [10]		CO3	L2	
	OR				