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. b. Explain the structures of JAVA with an example. [5+5]	CO1	L2
	OR		
3	a. List the primitive data types available in Java and explain. b. What is the purpose of constructor in Java programming? [5+5]	CO1	L2
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. b. Explain the process of defining and creating a package with suitable examples. [5+5]	CO2	L2
6	Explain about exceptional handling with an example. [10]	CO3	L2
	OR		