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JAVA

Name: Student University Roll No.:	Printed Pages:

School of Engineering
Second Theory Sessional Examination
Odd Semester (AS: 2024-25)

B. Tech: CSE [Year:2nd] [Semester:3rd]

Course Title: Core and Advance Java
Course Code: NCS4304

Max Marks: 30
Time: 1hrs

Instructions if any: Read the question Carefully.

SECTION 'A' **Q.N.1. Attempt all parts of the following:**		**Course Objective**	**Marks**
a)	What is garbage collection?	CO1	1
b)	Define thread. How is it different from a process?	CO2	1
c)	What is byte code? How it will be generated?	CO1	1
d)	What is event delegation model? Discuss.	CO3	1
e)	What is the difference between an interface and an abstract class?	CO2	1
SECTION 'B' **Q.N.2. Attempt any two parts of the following:**		**Course Objective**	**Marks**
a)	What are the various types of exceptions available in Java? Also discuss on how they are handled?	CO3	7.5
b)	What is the role of event listeners in event handling? List the Java event iistener. Also write down a program to Explain.	CO4	7.5
c)	What is a package? Illustrate with a program the steps in creating a user defined package?	CO4	7.5
SECTION 'C' **Q.N.3. Attempt any one part of the following:**		**Course Objective**	**Marks**
a)	What is a stream? What is the difference between byte streams and character streams? How are they used to capture input from the user?	CO3	10
b)	Write a Java program to create a class Employee with the following details: • Instance variables: name, id, salary. • Constructor to initialize these variables. • Method displayDetails() to display employee information. • Demonstrate the use of this class by creating at least two objects and displaying their details.	CO1	10
c)	Explain the concept of multithreading in Java. • Write a Java program to create two threads: one thread prints even numbers from 1 to 20, and the other thread prints odd numbers from 1 to 20. Use the Thread class or the Runnable interface.	CO2	10

Table 1: Mapping between COs and questions
(Number of COs may vary from course to course)

COs	Questions Numbers	Total Marks
CO1	1(a),(c) 3(b)	12
CO2	1(b),(e) 3(c)	12
CO3	1(d) 2(a) 3(a)	18.5
CO4	2(b),(c)	15