

CIA-I [Even Semester-(AY 2024-25)]

Date : 02/05/25
Subject Code : BCS-403
Max. Marks : 20

Section-A

Attempt all the questions of this section

(1 X5=5)

Q. No.	Question	Marks	CO	BL/ KC*
1.	a List out the fundamental features of Java that make it a robust and portable programming language.	1	CO1	K1
	b State the keyword used for defining a constant variable in Java.	1	CO1	K1
	c Define JVM and byte code in Java Architecture.	1	CO1	K1
	d Describe the basic structure of a Java source file.	1	CO1	K2
	e Define the concept of JRE in Java.	1	CO1	K1

Section-B

Attempt all the questions of this Section

(3X3=9)

2.	Define the concept of classes and object in Java with a suitable example.	3	CO1	K2
	OR Explain Interfaces in Java with suitable example.			
3.	Elaborate on the concept of inheritance with a code example showing superclass and subclass relation.	3	CO1	K2, K4
	OR Explain method over loading in Java with a proper example. Describe the rules that must be followed for method overloading.			
4.	Describe the use of control flow statements in Java with examples.	3	CO1	K2
	OR Describe the concept of abstraction using abstract classes and interfaces with examples.			

Section-C

*Knowledge Categories (KCs): F-Factual, C-Conceptual, P-Procedural, M-Metacognitive

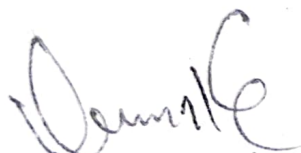


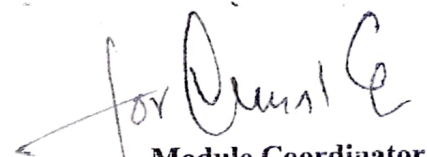
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DEPARTMENT OF Computer Science and Engineering

Attempt all the questions of this Section				(6X1=6)		
5.	Illustrate Constructors and their applications in Java. Describe the types of constructors used in Java. Write a class with name Student with attributes roll_number, name, branch and email. Write all argument constructor for class Student and create two objects with this constructor.			6	CO1	K2
	OR					
	Illustrate polymorphism and its types in Java. Differentiate between run-time and compile-time polymorphism. Write super class Shape with method displayArea() and sub class Rectangle. Demonstrate method overriding with this example.					


NBA Coordinator


Module Coordinator