PVP 23

Code: 23CS3302, 23IT3302, 23AM3302, 23DS3302

II B.Tech I Semester – Supplementary Examinations – APRIL 2026

OBJECT ORIENTED PROGRAMMING THROUGH JAVA

(Common for CSE, IT, AIML, DS)

Duration: 3 hours Max. Marks: 70

Note: 1. This question paper contains two Parts A and B.
2. Part-A contains 10 short answer questions. Each Question carries 2 Marks.
3. Part-B contains 5 essay questions with an internal choice from each unit. Each Question carries 10 marks.
4. All parts of Question paper must be answered in one place.

PART – A

1.a)	List the charactertics of OOP.
1.b)	What is meant by type casting in Java?
1.c)	What is a nested class in Java? Write a simple example.
1.d)	Explain the difference between == operator and equals() method when comparing strings.
1.e)	What is meant by dynamic method dispatch in Java?
1.f)	How is multiple inheritance achieved in Java?
1.g)	What is the difference between checked and unchecked exceptions in Java?
1.h)	Explain the role of the import statement in Java packages.
1.i)	State the different thread priorities in Java.
1.j)	What is the purpose of the ArrayList class in the Collection Framework?

PART – B

			Max. Marks
UNIT-I			
2	a)	What are Java buzzwords? Explain any six with examples.	5 M
	b)	Write a program in Java to illustrate the use of relational and logical operators.	5 M
OR			
3	a)	Explain the structure of a basic Java program, including the purpose of the main() method and the importance of class definitions.	5 M
	b)	Explain command line arguments in Java with example.	5 M
UNIT-II			
4	a)	Write a program to demonstrate method overloading in Java.	5 M
	b)	Explain the role of final keyword in Java. Explain with suitable example.	5 M
OR			
5	a)	What is recursion? Explain key considerations when writing recursive methods.	5 M
	b)	Explain the concept of string handling in Java. Give proper example.	5 M
UNIT-III			
6		Explain interfaces in Java. Write a program to implement multiple interfaces. Also explain the use of default methods.	10 M

		OR	
7	a)	Write a Java program to demonstrate multilevel inheritance.	5 M
	b)	Explain the differences between super and this keywords with suitable examples.	5 M
		UNIT-IV	
8	a)	Write the steps to create and use a user-defined package with a program.	5 M
	b)	Write a Java program to demonstrate multiple catch blocks.	5 M
		OR	
9	a)	Explain autoboxing and unboxing with an example program.	5 M
	b)	Develop a Java Program to print the contents of a file.	5 M
		UNIT-V	
10		Explain thread synchronization in Java. Why is it necessary? Illustrate with a program.	10 M
		OR	
11	a)	What are the different states of a thread in Java? Explain with a diagram.	5 M
	b)	Write a Java program to demonstrate the use of PriorityQueue.	5 M