

Reg. No.

Name


**VIT**  
**BHOPAL**

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## MID TERM EXAMINATIONS – March 2025

B.Tech.	Semester	Winter Semester 2024-25
Programming in Java	Course Code	CSE2006
10 March 2025 / Session 1	Slot	C11+C12
1 ½ hours	Max. Marks	50

Answer all the Questions

Question Description	Marks
Differentiate iterative and recursive approaches to solving problems in Java. Provide examples of when each approach in details.	10
Write a Java program that uses a switch statement to simulate a simple calculator, performing arithmetic operations based on user input.	10
Design and implement a Java program that meets the requirements of the university course registration system. Your program should include: <ol style="list-style-type: none"> <li>1. A Course class that represents a course, with attributes for course name, course number, credits, and department.</li> <li>2. A Department class that represents a department, with attributes for department name and courses.</li> <li>3. A Section class that represents a section, with attributes for section number, course, and students.</li> <li>4. A Student class that represents a student, with attributes for student name, student ID, and registered courses.</li> <li>5. Methods for registering and dropping courses, viewing course schedules, and adding, modifying, and deleting courses, departments, and sections.</li> </ol>	10
Examine the use of abstract classes and interfaces, and explain the differences with suitable example.	10
Create a Java program that uses throw and throws keywords to declare and throw a custom exception. The program should simulate a banking system where an <code>InsufficientFundsException</code> is thrown when a withdrawal exceeds the account balance.	10

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