

St. Claret College

Autonomous, Bengaluru

UG END SEMESTER EXAMINATION-MAY 2025

BCA – II SEMESTER

CA 2224: OBJECT-ORIENTED PROGRAMMING USING JAVA

10

TIME: 3 hours.

MAX. MARKS: 80

This paper contains TWO printed pages and FOUR parts

Instructions:

1. Verify and ensure that the question paper is completely printed.
2. Any discrepancies or questions about the exam paper must be reported to the COE within 1 hour after the examination.
3. Students must check the course title and course code before answering the questions.

PART-A

Answer ALL questions. Each answer carries ONE mark.

[10x1=10]

1. Which of the following is not a principle of OOP?
a) Encapsulation b) Inheritance c) Polymorphism d) Compilation
2. The blueprint for creating objects, which defines attributes and behaviors, is called a _____.
a) Class b) Interface c) Method d) Constructor
3. What makes Java platform-independent?
a) Compiler b) Bytecode c) JVM d) Classloader
4. Which keyword is used to call the parent class constructor in Java?
a) parent b) base c) super d) this
5. Which of the following access modifiers provides the most restricted access?
a) private b) default c) protected d) public
6. Which of the following methods cannot be overridden in Java?
a) Static b) Final c) Private d) All of the above
7. Which of the following is not a part of Java's event handling?
a) Event classes b) Event listeners c) Event handlers d) Event schedulers
8. Which component is used to create a drop-down list?
a) JComboBox b) JList c) JCheckBox d) JRadioButton
9. Which method starts a thread execution?
a) start() b) run() c) execute() d) begin()
10. Which class implements the List interface?
a) HashSet b) TreeSet c) ArrayList d) HashMap



PART-B

Answer any FIVE questions. Each answer carries TWO marks.

[5x2=10]

11. List any two key differences between C and Java programming languages
12. Why is Java called a compiled and interpreted language?
13. Write two differences between method overloading and method overriding in Java
14. Write syntax and example for the standard I/O streams in Java.
15. Briefly explain the types of events in Java.
16. What is the purpose of a CheckBox in Java GUI? Give the syntax of creating an object for the same.
17. Write the syntax and example of try, catch and finally block.

PART-C

Answer any FOUR questions. Each answer carries FIVE marks.

[4x5=20]

18. Give a summary chart of various datatypes in Java.
19. What is a package? List out the various packages in Java.
20. Describe visibility modifiers in Java. How do private, protected, and public affect inheritance?
21. Write a Java program to find maximum of three numbers.
22. What is a String? Explain any two string handling methods with examples.
23. Describe JavaBeans.

PART-D

Answer any FOUR questions. Each answer carries TEN marks.

[4x10=40]

24. Explain the structure of a java program in detail with syntax and example.
25. a) Write a program to implement single inheritance.
b) Explain method overloading with an example. (5+5)
26. Discuss the util, AWT, and swing packages in Java with examples for each.
27. Describe the steps involved in developing and running an applet. Provide an example of a basic applet program.
28. Describe the use of GUI components such as Buttons, Checkboxes, Radio Buttons, Labels and Text Fields. Provide relevant examples to demonstrate their usage.
29. a) Write a note on thread synchronization.
b) Explain the importance of generic programming. (5+5)