



Gambathu

Avinashilingam Institute for Home Science and Higher Education for Women

Deemed to be University Estd. u/s 3 of UGC Act 1956, Category A by MHRD (now MoE)

Re-accredited with A++ Grade by NAAC. CGPA 3.65/4, Category I by UGC

Coimbatore -641043, Tamil Nadu, India

Bachelor's Degree Examination – November 2025

III Semester

Class : II UG

Major : Computer Applications

Time : 3 Hours

Max. Marks : 100

23BCAC06 Programming in Java

Course Outcomes:

CO1: Understand the concepts of OOP, JAVA features, types, control structures and arrays

CO2: Identify classes, objects, members of a class and relationship among them to solve a specific problem.

CO3: Learned the implementation of packages to solve the complex problems and applying exception handling mechanisms

CO4: Learned the various methods in string and string buffer class

CO5: Knows how to develop the client side programming using Applet and AWT

Part A

10 x 1 = 10

Choose the Correct Answer

1. Identify the feature not supported by Java CO1K1
a. Object-oriented b. Platform-independent
c. Use of pointers d. Robust
2. Which method is the entry point of a Java program? CO1K2
a. start() b. init()
c. main() d. run()
3. Select the data type used to store a single character in Java CO2K1
a. String b. char
c. int d. byte
4. Name the keyword used to declare constants in Java CO2K3
a. constant b. static
c. final d. const
5. Which of the following is used to exit from a loop in Java? CO3K1
a. continue b. break
c. return d. exit
6. What is it called when two methods have the same name but different parameters? CO3K2
a. Method hiding b. Method overriding
c. Method overloading d. Constructor overloading
7. Which keyword is used to declare an interface in Java? CO4K2
a. class b. abstract
c. interface d. extends
8. Identify the correct keyword used to derive one class from another in Java CO4K1
a. this b. implements
c. extends d. inherits
9. Which statement is used to handle exceptions in Java? CO5K2
a. exception b. catch
c. try d. throw
10. What is the first method called during an applet's lifecycle? CO5K1
a. start() b. init()

Part B

5 x 6 = 30

Answer ALL questions

Each answer should not exceed 400 words or two pages

- 11.a. Explain the key features of Java that make it a robust and portable programming language. CO1K2
(or)
- 11.b. Describe the structure of a basic Java program and explain how command-line arguments are used. CO1K3
- 12.a. Explain the concepts of constructor and constructor overloading with examples. CO2K3
(or)
- 12.b. What are wrapper classes in Java? Differentiate between primitive and wrapper types with examples. CO2K3
- 13.a. Describe the different types of inheritance supported in Java with examples. CO3K2
(or)
- 13.b. Explain the concept of method overriding. How does it differ from method overloading? CO3K3
- 14.a. What is an interface in Java? How do you implement and extend interfaces? CO4K2
(or)
- 14.b. Write short notes on creating a user-defined package and importing it in another program. CO4K3
- 15.a. Describe Java exception handling with try, catch, throw, and finally blocks with an example. CO5K3
(or)
- 15.b. Explain the applet life cycle methods. Write a short code to draw a circle using paint() method. CO5K4

Part C

5 x 12 = 60

Answer ALL questions

Each answer should not exceed 800 words or four pages

- 16.a. Discuss the evolution of Java and explain in detail the features that distinguish it from other programming languages. CO3K4
(or)
- 16.b. Describe the Java Virtual Machine (JVM). Explain how the JVM, JRE, and JDK are interrelated in the execution of a Java program. CO4K4
- 17.a. Write a Java program to demonstrate the use of constructor overloading and method overloading. Explain the output. CO2K3
(or)
- 17.b. Explain the role of static members in Java with appropriate code. Compare static and non-static members in terms of memory and usage. CO3K4
- 18.a. Explain how ambiguity in multiple inheritance is handled using interfaces. CO3K4
(or)
- 18.b. Define abstract class and abstract method. Write a Java program using abstract classes and demonstrate runtime polymorphism. CO3K4
- 19.a. Explain how interfaces support multiple inheritance in Java. Illustrate with an example that implements more than one interface. CO4K4
(or)
- 19.b. What is a package in Java? Describe how to create and access user-defined packages with an example. Also explain the package hierarchy and import statement. CO4K3
- 20.a. Write a program using try, catch, finally, and throw statements to handle different types of exceptions. CO5K3
(or)
- 20.b. Discuss event handling with examples. CO5K4
