

Dr. Babasaheb Ambedkar Open University
Term End Examination January – 2026

Course	: BSCCS	Date	: 2026
Subject Code	: BSCCS-401	Time	: 03:00pm to 04:00pm
Subject Name	: Object Oriented Programming using Java	Duration	: 1 Hour
		Max. Marks	: 35

Section A

Answer the following (Attempt any three) (30)

1. Explain the concept of objects and classes in Java with suitable examples
2. Discuss constructors in Java. How are they different from methods?
3. What is inheritance in Java? Explain its types with examples.
4. What is an ArrayList in Java? How is it different from arrays?
5. Explain the lifecycle of a thread in Java.

Section B

Answer the following (Attempt any four) (20)

1. Explain interfaces in Java. How are they different from abstract classes?
2. Discuss the use of final keyword in Java with respect to variables, methods, and classes.
3. Explain the concept of input and output streams in Java with examples.
4. Explain AWT controls in Java. Describe any five commonly used AWT controls.
5. What is the Graphics class in Java? Explain its commonly used methods.
6. Discuss different types of event listeners in Java.

Section C

Part – A (Multiple Choice Questions) (10)

1. In Java, a class is:
A) A blueprint for objects
B) A variable type
C) A method call
D) A package
2. Which of the following supports multiple inheritance in Java?
A) Class
B) Interface
C) Abstract class
D) Object
3. What is true about constructors in Java?
A) Constructors have return type void
B) Constructors initialize objects
C) Constructors are inherited
D) Constructors cannot be overloaded
4. Which of the following is a resizable array in Java?
A) Array
B) ArrayList
C) LinkedList
D) Vector
5. In a Linked List, each node contains:
A) Only data
B) Only pointer
C) Data and pointer to next node
D) Only address of first node
6. Which class is used for reading bytes from a file in Java?
A) FileReader
B) FileWriter
C) FileInputStream
D) BufferedWriter
7. The start() method is used to:
A) Stop a thread
B) Start execution of a thread
C) Pause a thread
D) Destroy a thread

8. AWT stands for:
A) Abstract Window Toolkit
B) Advanced Window Toolkit
C) Application Window Toolkit
D) Automated Window Toolkit
9. In Java GUI, which method is called when an event occurs?
A) run()
B) main()
C) actionPerformed()
D) init()
10. The Graphics class is used to:
A) Handle database connections
B) Draw shapes and images
C) Manage threads
D) Handle arrays

Part – B (State whether the following statements are true or false)

(10)

- 1 Objects are instances of classes in Java.
- 2 Java supports multiple inheritance through classes.
- 3 An interface can contain abstract methods and default methods.
- 4 ArrayList in Java can grow or shrink dynamically.
- 5 Linked List nodes are stored in contiguous memory locations.
- 6 FileOutputStream is used to write bytes to a file.
- 7 The run() method defines the code that executes in a thread.
- 8 AWT components are lightweight compared to Swing components.
- 9 The Event Delegation Model is used to handle GUI events efficiently.
- 10 The Graphics class cannot draw text on a GUI component.
