

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

Course	: BSCIT	Date	: 21/07/2026
Subject Code	: BSCITRMA-401	Time	: 03:00pm to 05:15pm
Subject Name	: Object Oriented Programming using Java	Duration	: 02.15 Hours
		Max. Marks	: 70

Section A

Answer the following (Attempt any three) (30)

1. Explain primitive data types and variables in Java with examples.
2. Explain Java Virtual Machine (JVM). Differentiate between Compiler, Interpreter and Just-In-Time Compiler.
3. Explain the concepts of Class, Object, Inheritance, Polymorphism and Information Hiding with suitable examples.
4. Explain ArrayList and Linked Data Structures in Java. Compare them with suitable examples and applications.
5. Describe the thread life cycle and discuss the advantages of multithreaded programming.

Section B

Answer the following (Attempt any four) (20)

1. Explain the Fetch-Execute Cycle with a neat diagram.
2. Differentiate between Syntax and Semantics of a programming language.
3. Explain loops and branching statements in Java with suitable examples.
4. What are Interfaces in Java? Explain their importance in software development.
5. Explain Input/Output Streams and File Handling in Java.
6. Explain Event Delegation Model and its significance in GUI programming.

Section C

Part – A (Multiple Choice Questions) (10)

1. Which component performs arithmetic and logical operations?
A) RAM B) ALU
C) ROM D) Cache
2. Java source code is converted into:
A) Machine Code B) Bytecode
C) Binary File D) Object Code
3. Which keyword is used to inherit a class?
A) implement B) import
C) extends D) package
4. Which collection class allows dynamic resizing?
A) Array B) ArrayList
C) String D) Scanner
5. Which method starts execution of a thread?
A) execute() B) run()
C) begin() D) start()
6. Which package contains classes related to Input/Output operations?
A) java.lang B) java.util
C) java.io D) java.net

7. Which GUI toolkit is discussed in the syllabus?

- A) Swing
- B) JavaFX
- C) AWT
- D) SWT

8. Which statement is used for decision making?

- A) for
- B) while
- C) if
- D) continue

9. Which of the following is not an OOP feature?

- A) Encapsulation
- B) Polymorphism
- C) Compilation
- D) Inheritance

10. Event handling in Java is based on:

- A) Polling Model
- B) Event Delegation Model
- C) Sequential Model
- D) Queue Mode

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

(10)

- 1 Java Bytecode is executed directly by the physical CPU.
- 2 JVM makes Java platform independent.
- 3 An object is an instance of a class.
- 4 Inheritance promotes code reusability.
- 5 ArrayList has fixed size.
- 6 A thread is a lightweight process.
- 7 File streams are used for reading and writing data.
- 8 AWT is used for GUI development.
- 9 Event handlers respond to user-generated events.
- 10 Polymorphism allows one interface to represent multiple forms.
