A–1152

Total Pages : 3 **Roll No. .....**

BCA (N)-EE

Programming in Java

Examination February, 2026

Time : 2:00 Hrs. Max. Marks : 70

Note* :–** This paper is of Seventy (70) marks divided into Two (02) Sections 'A' and 'B'. Attempt the questions contained in these Sections according to the detailed instructions given therein. ***Candidates should limit their answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.

Section–A

Long Answer Type Questions (2×19=38)

***Note* :–** Section 'A' contains Five (05) Long-answer type questions of Nineteen (19) marks each. Learners are required to answer any *two* (02) questions only.

1. Explain evolution of object-oriented methodology. Discuss paradigms of programming languages and applications of OOP.

2. What are control statements in Java ? Explain expressions, statements, arrays, and types of control statements with examples.

3. Explain inheritance in Java. Discuss access modifiers, multilevel inheritance, abstract classes and polymorphism.

4. Discuss Java I/O system. Explain predefined streams, reading/writing files, serialization, and Random-Access File.

5. Describe AWT and Swing GUI components. Explain layouts, containers, and event handling.

Section–B

Short Answer Type Questions (4×8=32)

***Note* :–** Section 'B' contains Eight (08) Short-answer type questions of Eight (08) marks each. Learners are required to answer any *four* (04) questions only.

1. What are Java primitive data types ? Explain with examples.

2. Explain method overriding and the use of the final keyword.

3. What are packages and their accessibility rules ? Explain using examples.

4. What is synchronization ? Explain thread synchronization methods.

5. Explain the String Buffer class and its commonly used methods.

6. What is Stream Tokenizer ? Explain its usage.

7. Explain components of an applet and applet skeleton.

8. (a) Write a method that passes a single parameter, N, that prints all the odd number from 1 to N.

   (b) Write a method that passes a single parameter N, that prints all the numbers divisible by 10 from N down to 1.

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