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# **ED-2874**

## B. C. A. (Part III) EXAMINATION, 2021

Paper Fourth

## (Programming in JAVA)

Time: Three Hours

Maximum Marks: 100

**Note:** Attempt any *two* questions from each Unit. All questions carry equal marks.

### Unit—I

- 1. (a) Explain the following types of classes and their uses:
  - (i) inner class
  - (ii) final class, and
  - (iii) wrapper class?
  - (b) How is Java different from a structured programming language?
  - (c) Write a program to find the transpose of a given matrix.

#### Unit—II

2. (a) What is the difference between method overriding and method overloading?

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- (b) How to create a package? Explain with example.
- (c) How to add class or interface to a package?

#### Unit—III

- 3. (a) Explain the following terms with respect to exception handling.
  - (i) try
  - (ii) catch
  - (iii) throw
  - (iv) finally
  - (b) Discuss about suspending, resuming and stopping thread in brief.
  - (c) What is Java thread model ? Discuss about creation of threads in Java.

## Unit-IV

- 4. (a) Write a program to implement the operations of random access file.
  - (b) Explain the types of drivers used in JDBC.
  - (c) Define stream. Explain Byte and character stream in Java.

#### Unit-V

5. (a) What is an applet ? How it different from an application ?

- (b) Describe about various components in AWT.
- (c) Write an applet for each of following graphics methods.
  - (i) drawoval()
  - (ii) drawrect()