

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (ECE) (Sem.-5)

**PROGRAMMING IN JAVA**

Subject Code : BTEC/905D/18

M.Code : 78710

Date of Examination : 24-05-2024

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTIONS TO CANDIDATES :**

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

**SECTION-A**

**1. Write briefly :**

- a) How does the JVM handle Java bytecode?
- b) What is a wrapper in Java?
- c) What is the difference between the == operator and the equals ()method?
- d) Name the three main types of loops in Java.
- e) Describe the effect of the return statement within a method.
- f) How does an interface differ from a class?
- g) What is an exception in Java?
- h) What is AWT in Java?
- i) What is a JFrame in Swing?
- j) What is BeanBox in Java?

## SECTION-B

2. Illustrate with examples how jump statements can alter the flow of control in nested loops and switch cases?
3. Analyze the lifecycle of a Java object from creation to garbage collection, highlighting the role of constructors and finalizers.
4. What is CORBA & RMI in Java?
5. Write a Java program that handles an array index out-of-bounds exception.
6. Write a Java program to copy the contents of one text file to another. The program should prompt the user to enter the names of the input and output files.

## SECTION-C

7. Explain the Life Cycle of a Thread in detail.
8. Explain the classes and interfaces in the java.io package that are used for reading and writing files, discussing their key methods and usage.
9. Explain various control statements available in Java with examples.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**