FACULTY OF ENGINEERING

B.E. (CSE) III - Semester (AICTE) (Main & Backlog) (New) Examination, February/ March 2024

Subject: OOPS using Java

Time: 3 Hours   **Max. Marks: 70**

Note: (i) First question is compulsory and answer any four questions from the remaining six questions. Each questions carries 14 Marks.

(ii) Answer to each question must be written at one place only and in the same order as they occur in the question paper.

(iii) Missing data, if any, may be suitably assumed.

1. a) Define Object-Oriented Programming and its key principles.
   b) What is an interface in Java? Give an example.
   c) What is the Java Collection Framework?
   d) What are Event Classes in Java?
   e) Describe the Swing library in Java.
   f) Describe the use of the 'this' keyword in Java.
   g) What is JDBC in Java?

2. a) Explain the concept of classes and objects with examples.
   b) Describe the role of control statements in Java programming.

3. a) Analyze the benefits of exception handling in Java.
   b) Analyze the role of packages in organizing Java classes.

4. a) Discuss the Java I/O classes and interfaces.
   b) Analyze the advantages of using Collection interfaces over legacy classes.

5. a) Discuss GUI programming with Java using AWT.
   b) Discuss the implementation of applets in Java and their applications.

6. a) Explain the lifecycle of a Servlet in Java.
   b) Explain the use of JList and JComboBox in Java applications.

7. a) Discuss the implementation of multithreading and its challenges in Java.
   b) Evaluate the use of Java in web-based application development.

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