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FIFTH SEMESTER (CUFYUGP) DEGREE EXAMINATION, NOVEMBER 2026

COMPUTER SCIENCE

CSC5CJ302 – OBJECT ORIENTED PROGRAMMING (JAVA)

2024 Admission onwards

Maximum Time: 2 Hours | **Maximum Marks: 70**

Section A

All Questions can be answered. Each Question carries 3 marks (Ceiling: 24 Marks)

1	Define JVM. What is its role in Java?
2	Explain interfaces and abstract classes in Java.
3	What is the purpose of the “this” and “super” keywords in Java?
4	Explain one-dimensional and multidimensional arrays in Java.
5	What is exception hierarchy? Give examples of checked and unchecked exceptions.
6	Differentiate between throw and throws in Java.
7	What are the different states in the life cycle of a thread?
8	What is JDBC? State the purpose of a JDBC driver.
9	What is the MVC pattern in Swing?
10	Explain the role of event listeners in Java GUI programming.

Section B

All Questions can be answered. Each Question carries 6 marks (Ceiling: 36 Marks)

11	Explain the basic structure of a Java program with examples of data types, operators and control statements.
12	Discuss default, parameterized and copy constructors with suitable examples.
13	Explain inheritance in Java. Discuss the use of extends, super and final with suitable examples.
14	Explain interfaces and abstract classes in Java. Compare their features and applications.
15	Explain exception handling using try, catch and finally. Illustrate with a suitable Java program.
16	Explain the creation and execution of threads using the Thread class and Runnable interface.
17	Explain the steps for establishing a JDBC connection and the role of Connection, Statement and PreparedStatement.
18	Explain the basic components of Swing GUI programming and discuss any four fundamental Swing controls.

Section C

Answer any ONE. Each Question carries 10 marks (1x10=10 Marks)

19	a) Explain method overloading, method overriding and dynamic method dispatch in Java. b) Write a Java program to demonstrate dynamic method dispatch using inheritance.
20	a) Explain file handling in Java using FileInputStream, FileOutputStream, FileReader and FileWriter. b) Write a Java program to copy the contents of one file into another using appropriate I/O classes.