END SEMESTER EXAMINATION : NOVEMBER 2023
SEMESTER 5 : INTEGRATED M.Sc. PROGRAMME COMPUTER SCIENCE
COURSE : **21UP5CRMCP16 : PROGRAMMING IN JAVA**
(For Regular 2021 Admission)

Time : Three Hours   **Max. Weightage : 30**

PART A
Answer any 8

1.   Describe clipping.
2.   A ____ control is a dialogue window that allows the user to pick a file.
3.   Describe the use of "new" keyword.
4.   Mention the method used to draw a rectangle in Java graphics.
5.   Describe multithreading in Java.
6.   Illustrate an abstract method declaration.
7.   Mention any two most commonly occured exception.
8.   Define a constant in Java.
9.   Define the primary concept in Object-Oriented Programming.
10.   A ____ is a one-line input field that allows the user to choose a number or an object value from an ordered sequence.

(1 x 8 = 8 Weight)

PART B
Answer any 6

11.   Analyze the advantages and disadvantages of using a null layout manager in Swing.
12.   Analyse the advantages of using a 2D array over a 1D array
13.   Observe the efficiency of the "switch" statement compared to multiple "if-else" statements in Java.
14.   Differentiate between a Statement and a PreparedStatement in JDBC.
15.   Explain the concept of one-dimensional array with example program.
16.   Discuss Java branching statements with examples .
17.   Distinguish between "extends" and "implements" in Java inheritance.
18.   Illustrate the concept of polymorphism in Java in detail.

(2 x 6 = 12 Weight)

PART C
Answer any 2

19.   Implement a Java program to illustrate the concept of hybrid inheritance and explain the concept in detail.
20.   Create a Java applet that accepts a number and prints its factorial. Also draw the sample design of the result.
21.   Design a class that represents a dynamic array (similar to ArrayList) with add and remove operations.
22.   Evaluate the efficiency of a specific loop structure in Java with example.

(5 x 2 = 10 Weight)