END SEMESTER EXAMINATION - OCTOBER 2025

SEMESTER 5 : INTEGRATED M.Sc. PROGRAMME COMPUTER SCIENCE - DATA SCIENCE

COURSE : **21UP5CRMCP16 : PROGRAMMING IN JAVA**

(For Regular 2023 Admission and Supplementary 2022/2021 Admissions)

Time : Three Hours   Max. Weightage : 30

PART A
Answer any 8 questions

1. Describe exception in java.
2. Predict the output of the following code:

```
     public static void display()
    {
        int x= 123456;
        float f =100.12;
        System.out.println(f);
     }
```

3. State the main difference between static variables and instance variables in Java.
4. Describe how is method overloading achieved in Java.
5. Explain what the JRE stands for.
6. Illustrate the methods for string concatenation in Java.
7. Define an interface in Java.
8. Name the package that is used to include graphics methods in Java. Also, list any four built-in graphics methods.
9. Name the method that can be used to determine the type of an event. Give the signature of the method.
10. Define an event.

(1 x 8 = 8 Weight)

PART B
Answer any 6 questions

11. Discuss the logical operators used in java.
12. Explain the purpose of the setDefaultCloseOperation method in a JFrame.
13. Discuss the features of java in detail.
14. Discuss "when should you use the "this" keyword in a class"
15. Discuss the role of finally block in exception handling.
16. Discuss applet class loader, and explain what does it provide.
17. Design a class for a banking application with constructors, methods, and fields.
18. Describe how do you import classes from a user-defined package.

(2 x 6 = 12 Weight)

PART C
Answer any 2 questions

19. Explain the life cycle of Thread in detail.
20. Develop a Java program that reads the marks of 5 students and calculate the overall grade of the student in the semester.

21. Create a Java applet that accepts two numbers through textfields and displays their sum. Draw a sample output also.
22. Discuss method overriding with a java program.

(5 x 2 = 10 Weight)