# Java Programming Assignment

## Section 1: Java Data Types

1. What are the different primitive data types available in Java?

2. Explain the difference between primitive and non-primitive data types in Java.

3. Write a Java program that demonstrates the use of all primitive data types.

4. What is type casting? Provide an example of implicit and explicit casting in Java.

5. What is the default value of each primitive data type in Java?

## Section 2: Java Control Statements

1. What are control statements in Java? List the types with examples.

2. Write a Java program to demonstrate the use of if-else and switch-case statements.

3. What is the difference between break and continue statements?

4. Write a Java program to print even numbers between 1 to 50 using a for loop.

5. Explain the differences between while and do-while loops with examples.

## Section 3: Java Keywords and Operators

1. What are keywords in Java? List 10 commonly used keywords.

2. Explain the purpose of the following keywords: static, final, this, super.

3. What are the types of operators in Java?

4. Write a Java program demonstrating the use of arithmetic, relational, and logical operators.

5. What is operator precedence? How does it affect the outcome of expressions?

# Additional Questions

## Java Data Types

6. What is the size and range of each primitive data type in Java?

7. How does Java handle overflow and underflow with numeric types?

8. Write a program to convert a double value to an int without data loss.

9. What is the difference between char and String in Java?

10. Explain wrapper classes and their use in Java.

## Java Control Statements

6. Write a Java program using nested if statements.

7. Write a Java program to display the multiplication table of a number using a loop.

8. How do you exit from nested loops in Java?

9. Compare and contrast for, while, and do-while loops.

10. Write a program that uses a switch-case to simulate a basic calculator.

## Java Keywords and Operators

6. What is the use of the `instanceof` keyword in Java?

7. Explain the difference between `==` and `.equals()` in Java.

8. Write a program using the ternary operator.

9. What is the use of `this` and `super` in method overriding?

10. Explain bitwise operators with examples.