# Java Assessment

\*\*Duration:\*\* 1 Hour  
\*\*Total Marks:\*\* 50

## Section 1: Multiple Choice Questions (MCQs) - [10 Marks]

\*(Each question carries 2 marks)\*

1. What will be the output of the following code?  
  
 ```java  
 String str = "Hello, World!";  
 System.out.println(str.substring(7));  
 ```  
 a) Hello  
 b) World  
 c) Hello, World!  
 d) World!

2. What is the purpose of a `switch` statement in Java?  
 a) To execute a block of code only once  
 b) To iterate through a loop  
 c) To select one of many blocks of code to execute  
 d) To handle exceptions

3. Which of the following is NOT a valid conditional statement in Java?  
 a) `if`  
 b) `else if`  
 c) `elif`  
 d) `else`

4. How many times will the following loop execute?  
  
 ```java  
 for (int i = 0; i < 5; i++) {  
 System.out.println(i);  
 }  
 ```  
 a) 4  
 b) 5  
 c) 6  
 d) Infinite

5. Which of the following is NOT a valid Java string method?  
 a) `length()`  
 b) `charAt()`  
 c) `reverse()`  
 d) `substring()`

## Section 2: Short Answer Questions - [20 Marks]

\*(Each question carries 5 marks)\*

6. Write a Java program to check whether a given string is a palindrome.

7. Using a `switch` statement, write a program that takes a day of the week as input (1 for Monday, 2 for Tuesday, etc.) and prints whether it is a weekday or weekend.

8. Write a program that prints the first 10 numbers of the Fibonacci series using a `for` loop.

9. Write a Java program using conditional statements to determine whether a given number is positive, negative, or zero.

## Section 3: Coding Problems - [20 Marks]

\*(Each problem carries 10 marks)\*

10. \*\*String Manipulation:\*\*  
 Write a Java program that takes a sentence as input, splits it into words, and prints the following:  
 - The number of words in the sentence  
 - Each word in reverse  
  
 \*\*Example Input:\*\*  
 `Hello World Java`  
 \*\*Example Output:\*\*  
 - Number of words: 3  
 - Reversed words:  
 `olleH`  
 `dlroW`  
 `avaJ`

11. \*\*Conditional Statements and Loops:\*\*  
 Write a Java program to print all numbers between 1 and 50 that are divisible by 3 or 5 but not both.