BASIC

Assignment Questions

Q1. Explain the purpose of the escape sequence \n in Java. Provide an example of its usage in a program, and predict the output.

Output:

Hello, World!
Java is great.

Q2. Write a Java program that declares an integer variable, initializes it with a value, prints the value, updates the value, and prints the updated value.

Output:

Original Value: 5
Updated Value: 8

Q3. Create a Java program that performs arithmetic operations (addition, subtraction, multiplication, division) on integers, floats, and doubles. Print the results.

Output:

Integer Result: 15
Float Result: 12.3
Double Result: 24.5
Division Result: 5.0

Q4. Write a Java program that demonstrates the use of increment (++), decrement (--), and modulus (%) operators. Print the results.

Output:

Original Value: 10
After Increment: 11
After Decrement: 10
Remainder: 1

Q5. Write a Java program to calculate the area of a circle and the simple interest. Take necessary inputs from the user.

Output:

Enter the radius of the circle: 3.5
Area of Circle: 38.484512
Enter principal amount: 1000
Enter rate of interest: 5
Enter time (in years): 2
Simple Interest: 100.0

Q6. Provide examples of correct and incorrect variable names according to Java's naming rules.

Output:

Correct Variable Values:
Age: 25
Average Score: 92.5
Student Name: John

Q7. Write a Java program that uses boolean variables and relational operators to compare two numbers. Print whether the numbers are equal, not equal, greater, or less.

Output:

Are numbers equal? false
Are numbers not equal? true
Is the first number greater? false
Is the first number less? true