

Title: Java Control Statement:

Program 1:

```
package ict.twentyOne.className;
public static class SumClass{
    public static double sumSeries(){
        double sum = 0.0;
        double num = 1.0;
        do{
            sum += num;
            num -= 0.1;
        }while (num >= 0.01);
        return Math.round (sum*100.0)/100.0;
    }
}
```

Program 2:

```
package ict.twentyOne.className;
public class DivisorMultipleClass{
    public static int gcd (int a, int b){
        do{
            int temp = b;
            b = a % b;
            a = temp;
        }while (b != 0);
        return a;
    }
}
```

```
public static int lcm(int a, int b){
```

```
    return (a+b)/gcd(a,b);
```

```
}
```

```
}
```

Program 8:

```
Package int.twentyOne.ClassName;
```

```
public class NumberConversion{
```

```
    public static String decimalToBinary(int n){
```

```
        return Integer.toBinaryString(n);
```

```
    } public static String decimalToHex(int n){
```

```
        return Integer.toHexString(n);
```

```
}
```

```
    public static int toBinaryToDecimal(int n){
```

```
        return Integer.parseInt(bin, 2);
```

```
}
```

```
    public static int octalToDecimal(String Oct){
```

```
        return Integer.parseInt(Oct, 8);
```

```
}
```

```
    public static int hexToDecimal(String hex){
```

```
        return Integer.parseInt(hex, 16);
```

```
}
```

```
}
```

Program 4:

```
Package iet.twentytwo.className;
public class CustomPrintClass {
    public static void pre(String message) {
        System.out.println("[CustomPrint] " + message);
    }
}
```

Program 5:

```
Package iet.twentyTwo.className;
public class Main {
    static SumClass sumClass = new SumClass();
    static DivisorMultipleClass divMulClass = new DivisorMultipleClass();
    static NumberConversionClass numConvClass = new NumberConversionClass();
    static CustomPrintClass customPrint = new CustomPrintClass();
    public static void main(String[] args) {
        double total = sumClass.sumSeries();
        CustomPrintClass.pre("Sum of series = " + total);
        int a = 24, b = 36;
        CustomPrintClass.pre("GCD of " + a + b + " = " + DivisorMultipleClass.gcd(a, b));
        CustomPrintClass.pre("LCM of " + a + b + " = " + DivisorMultipleClass.lcm(a, b));
        int number = 95;
        customPrint.print(number + " in Binary: " + NumberConversionClass.decimal
            .toBinary(number));
        customPrint.print("Decimal " + number + " in Hex: " +
            NumberConversionClass.decimalToHex(number));
    }
}
```

```
CustomPrintClass::prc("Decimal "+number+" in Octal : "+ NumberConversion  
class::decimalToOctal(number));
```

```
CustomPrintClass::prc("Binary 101101 to Decimal : "+ NumberConversion  
class::binaryToDecimal("101101"));
```

```
CustomPrintClass::prc("Octal 55 to Decimal : "+ NumberConversion  
class::octalToDecimal ("55"));
```

```
CustomPrintClass::prc("Hex 2D to Decimal : "+ NumberConversion  
class::hexToDecimal("2D"));
```

}

3.

