# Language Fundamental & Operator Exercise

## For The Associates:

The documents details two flavors of problem statements

- **Statement # 1:** Few problem solutions have been provided for associates should analyze the program and write down the program output. The associates can try   running the program in eclipse and check if the output with what they have written.
- **Stamen # 2:** There are some problem statements provided similar to the final assessment and associates need to solve it. This will enhance the programming skills of the associates.
  **IMPORTANT:**  These exercises will gear you up for the core java assessment so please develop/analyze the exercise independently. In case you are stuck up reach out to the trainers.

## Exercises:

1. What is the output of running the following code?

```java
public class Tester {
public static void main(String[] args) {
boolean flag = true;

int x = 5;
int result = (8 * 2) % x;
System.out.print(!(result > 0) ^ true ^ (flag = false));
System.out.print(flag);

}
}
```

2. What is the output of running the following code?

```java
public static void main(String[] args) {
int x = 0, y = 0;

x = 5 + y++;
System.out.print(x + "" + y);

x = 0;

y = 0;
x = 5 + ++y;
System.out.print(x + "" + y);
}
```

3. What will be the output of the program?

```
class Tester
{
    public static void main(String [] args)
    {
        int x = 100;
        double y = 100.1;
        boolean b = (x = y);
        System.out.println(b);
    }
}
```

4. What is the result of compiling and running the following code?

```
public static void main(String[] args) {
int x = 0, y = 0;
x = 5 + y++;
System.out.print(x + "" + y);
x = 0;
y = 0;
x = 5 + ++y;
System.out.print(x + "" + y);
}
```

5. What is the result of compiling and running the following code?

```
public class Test {

public static void main(String… args) {

int a =5 , b=6, c =7;

System.out.println("Value is "+ b +c);

System.out.println(a + b +c);

System.out.println("String "+(b+c));

}

}
```

6. What is the result of compiling and running the following code?

```
public class Test {

public static void main() {

System.out.println("hello";

}

}
```

7. Create a class with a method which can accept a String name and print a message "hello<name>"

| Class Name | MessagePrinter |
|---|---|
| Method Name | printMessage |
| Method Description | Prints the message |
| Argument | String name |
| Return Type | Void |
| Logic | Print the message using the console output command. |

8. Create a class which contains methods for finding the sum and difference of two numbers

| Class Name | Calculator |
|---|---|
| Method Name | calculateSum |
| Method Description | Calculates the sum of two numbers |
| Argument | int number1, int number2 |
| Return Type | int - Sum |
| Logic | Calculate the sum of the two numbers number1 nad number2 and return the sum. |
| Method Name | calculateDifference |
| Method Description | Calculates the difference between two numbers |
| Argument | int number1 , int number2 |
| Return Type | int - difference |
| Logic | Calculate the difference between the numbers number1 and number2 and return the difference. |