Assignment 1

Lab Assignment: Flowchart and Java Programming

1. Check Positive Number:

□ Task: Create a flowchart to check whether a number is positive.

□ Next Step: Write a Java program that checks if a predefined number is positive using an if-else statement and prints the appropriate message.

```
public class Positiveint {
    public static void main(String[] args) {
        int n = 10;
        if (n > 0) {
            System.out.println("the number is positive");
        } else {
            System.out.println("the number is not positive");
        }
    }
}
```

2. Check Negative Number:

□ Task: Create a flowchart to check whether a number is negative.

□ Next Step: Write a Java program that checks if a predefined number is negative using an if-else statement and displays the result.

```
public class Positiveint {
    public static void main(String[] args) {
        int n = -10;
        if (n > 0) {
            System.out.println("the number is positive");
        } else {
            System.out.println("the number is not positive");
        }
    }
}
```

3. Check Odd or Even Number:

□ Task: Create a flowchart to determine whether a number is odd or even.

□ Next Step: Write a Java program that checks if a predefined number is odd or even. Use

an if-else statement and the modulus operator (%) to determine whether the number is

divisible by 2 or not.

```
public class even_odd {
    public static void main(String[] args) {
        int n = 4;
        if (n % 2 == 0) {
            System.out.println(" number is even");
        } else {
            System.out.println("number is odd");
        }

    }
}
```

4. Display Good Morning Message Based on Time:

□ Task: Create a flowchart to display a "Good Morning" message based on a given time.

□ Next Step: Write a Java program that displays a "Good Morning" message if the

predefined time is between 5 AM and 12 PM. Use an if statement to implement the logic.

```
public class Greeting {
    public static void main(String[] args) {
        int time = 9;
        if (time >= 5 && time < 12) {
            System.out.println("Good Morning");
        }
    }
}
```

5. Print Area of a Square:

□ Task: Create a flowchart to calculate and print the area of a square.

□ Next Step: Write a Java program that calculates the area of a square using the formula

area = side * side. Use a predefined side length.

```
public class even_odd {
    public static void main(String[] args) {
        int n = 4;
        if (n % 2 == 0) {
            System.out.println(" number is even");
        } else {
            System.out.println("number is odd");
        }

    }
}
```

6. Print Area of a Rectangle:

□ Task: Create a flowchart to calculate and print the area of a rectangle.

□ Next Step: Write a Java program that calculates the area of a rectangle using the formula

area = length * width. Use predefined values for length and width.

```
public class Rectangle {
    public static void main(String[] args) {
        int length = 5;
        int width = 2;
        int area = length * width;
        System.out.println("Area of rectangle: " + area);
    }
}
```

7. Find the Largest of Three Numbers:

□ Task: Create a flowchart to find the largest of three numbers.

□ Next Step: Write a Java program that finds and prints the largest of three predefined numbers using if-else statements.

```
public class LargeNo {
    public static void main(String[] args) {
        int a = 10;
```

```
        int b = 20;
        int c = 30;
        int largest;
        if (a > b && a > c) {
            System.out.println("the largest no is: " + a);
        } else if (b > a && b > c) {
            System.out.println("the largest no is:" + b);
        } else if (c > a && c > b) {
            System.out.println("the largest no. is: " + c);
        } else {
            System.out.println("the numbers are same");
}
    }
}
```