Assignment - 1

Conditional Statements

(If, If- Else, If-Else If Ladder, Switch case)

No. 1

Write a java program to get a number from the user and print whether it is positive or negative.

```
/*Java program to get a number from user check if the number is positive or negative. */

//Importing packages
import java.util.*;

//Implementing main class
public class _1_PositiveNegative {

	//Implementing main method
	public static void main(String[] x) {
		//Variable & Object Declaration
		Scanner scan = new Scanner(System.in);
		int n1;

		//Getting values
		System.out.print("\nEnter a number:\t");
		n1 = scan.nextInt();

		//Logic Block
		if(n1 >= 0)
```

```
                System.out.println("\n" + n1 + " is a positive number.");
        else
                System.out.println("\n" + n1 + " is a negative number.");
    }
}
```

No. 2

Write a program to find maximum number from given 3 numbers.

```
/*Java program to check the maximum number out of three given numbers. */

//Importing packages.
import java.util.*;

//Implementing main class.
public class _2_MaxOutOf3 {

    //Implementing the main method.
    public static void main(String[] x) {
        //Declaring variables and objects.
        Scanner scan = new Scanner(System.in);
        int n1, n2, n3, M;

        //Getting values from user.
        System.out.println("\nEnter any three numbers:");
        n1 = scan.nextInt();
        n2 = scan.nextInt();
        n3 = scan.nextInt();

        //Logic implementation.
```

```
                System.out.println("\n");
                if (n1 > n2) {
                        if(n1 > n3)
                                System.out.println(n1 + " is the biggest number.");
                        else
                                System.out.println(n3 + " is the biggest number.");
                }
                else {
                        if(n2 > n3)
                                System.out.println(n2 + " is the biggest number.");
                        else
                                System.out.println(n3 + " is the biggest number.");
                }
        }
}
```

No. 3

The marks obtained by a student in 5 different subjects are input through the keyboard.

- The Students gets a division as per the following rules:
  - *Percentage above or equal to 60-first division*
  - *Percentage between 50 to 59-second division*
  - *Percentage between 40 to 49-third division*
  - *Percentage less than 40-fail*

Write a program to calculate the division obtained by the student.

```
/*Java program to get marks of 5 subjects and show the results and grade. */


//Importing required packages
import java.util.*;
```

```
//Implementing main class
public class _3_Marksheet {

	//Implementing the main method
	public static void main(String[] x) {
		//Variable and objects decleration
		Scanner scan = new Scanner(System.in);
		int s1, s2, s3, s4, s5;
		float p;
		boolean check = false;

		//Getting inputs from user
		System.out.println("\nEnter marks within 100 for 5 subjects:");
		s1 = scan.nextInt();
		s2 = scan.nextInt();
		s3 = scan.nextInt();
		s4 = scan.nextInt();
		s5 = scan.nextInt();
		//Check for invalid input
		if((s1 > 100 || s1 < 0) || (s2 > 100 || s2 < 0) || (s3 > 100 || s3 < 0) || (s4 > 100 || s4 < 0) || (s5 > 100 || s5 < 0)) {
			System.out.println("\nOne or more inputs were invalid.\n\nPlease retry.\n");
			check = true;
		}

		//Logic implementation
		if(check == false) {
			p = (s1 + s2 + s3 + s4 + s5) / (float)(5);

			System.out.println();
```

```
                        if(p >= 60)
                                System.out.println("You scored in First Division with " + p +
"%.");
                        else if(p >= 50 && p <= 59)
                                System.out.println("You scored in Second Division with " + p +
"%.");
                        else if(p >= 40 && p <= 49)
                                System.out.println("You scored in Third Division with " + p +
"%.");
                        else
                                System.out.println("You failed with only " + p + "% score.");
                }

        }
}
```

No. 4

Write a java program that takes a number from the user and displays a name of the weekday accordingly (For example if user enter 1 program should return Monday).

```
/*Java program to display the a day respective to the input number. */

//Importing required packages
import java.util.*;

//Implementing main class
public class _4_Day {

        //Implementing the main method
        public static void main(String[] x) {
```

```
//Declaring required variables and objects
Scanner scan = new Scanner(System.in);
int check;

//Getting input from user
System.out.println("\nEnter any number from 1 to 7:");
check = scan.nextInt();

//Logic Implementation
System.out.println();
switch(check) {
	case 1:
		System.out.println("Monday");
		break;
	case 2:
		System.out.println("Tuesday");
		break;
	case 3:
		System.out.println("Wednesday");
		break;
	case 4:
		System.out.println("Thursday");
		break;
	case 5:
		System.out.println("Friday");
		break;
	case 6:
		System.out.println("Saturday");
		break;
	case 7:
		System.out.println("Sunday");
```

```
                        break;
                default:
                        System.out.println("Invalid input.\n");
            }
        }
}
```