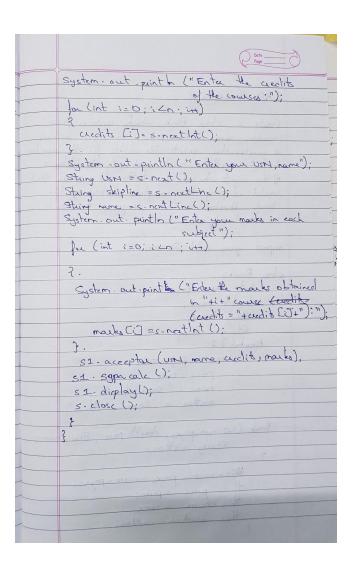## Lab Program 1:

Develop a Java program to create a class Student with members usn, name, an array credits and an array marks. Include methods to accept and display details and a method to calculate SGPA of a student.

Code:

```
LAB PROGRAM 2

Develop a Java program to create a class
Student with members USN, Name, an array
credits and an array marks. Include
methods to accept and display details and a
method to calculate SGPA of a student.

import java.util.Scanner;
class Student {
    String name;
    String USN;
    int marks [];
    int credits [];
    double sgpa = 0;
    int cts = 0;
    int totcred = 0;

    void acceptor (String USN, String name, int
                   credits [], int marks [])
    {
        this. USN = USN;
        this. name = name;
        this. credits = credits;
        this. marks = marks;
    }
    Student (int credsize)
    {
        credits = new int [credsize];
        marks = new int [credsize];
    }
```

```
    void display () {
        System.out.print ("USN : " + USN + "\n" + "name:"
                        + name + "\n" + "sgpa:" + sgpa);
    }
    void sgpacalc () {

        for (int i=0; i<marks.length; i++)
        {
            if (marks [i] >= 90) cts = 10;
            else if (marks [i] >= 80) cts = 9;
            else if (marks [i] >= 70) cts = 8;
            else if (marks [i] >= 60) cts = 7;
            else if (marks [i] >= 50) cts = 6;
            else if (marks [i] >= 40) cts = 5;
            else if (marks [i] > 36) cts = 4;
            else if (marks [i] > 0) cts = 0;
            sgpa += cts * credits [i];
            totcred += credits [i] * 10;
        }
        sgpa = (sgpa / totcred) * 10;
    }

    class lab-3 {
        public static void main (String [] args)
        {
            Scanner s = new Scanner (System.in);
            System.out.println ("Enter the number of
                                 courses");
            int n = s.next Int ();
            int credits [] = new int [n];
            int marks [] = new int [n];
            Student s1 = new Student (n);
```

```java
System.out.println ("Enter the credits
                    of the courses :");
for (int i=0; i<n; i++)
{
    credits [i]= s.nextInt();
}
System.out.println ("Enter your USN, name");
String USN = s.next();
String skipline = s.nextLine();
String name = s.nextLine();
System.out.println ("Enter your marks in each
                    subject");
for (int i=0; i<n; i++)

{
    System.out.println ("Enter the marks obtained
                        in "+i+" course credit
                        (credit = "+credit[i]+"):");
    marks[i] = s.nextInt();
}
s1. acceptor (USN, name, credits, marks),
s1. sgpa calc ();
s1. display();
s.close ();

}
}
```

Output:

```
Command Prompt

Microsoft Windows [Version 10.0.19045.2251]
(c) Microsoft Corporation. All rights reserved.

C:\Users\bmsce>cd C:\Users\bmsce\Desktop\1BM21CS017

C:\Users\bmsce\Desktop\1BM21CS017>javac Lab_2_java.java

C:\Users\bmsce\Desktop\1BM21CS017>java lab_2
Enter the number of courses
3
Enter the creadits of the courses:
3
4
2
Enter your  usn,name
1BM21CS002
Aadi
Enter your marks in each subject
enter the marks obtained in 0 course (credits= 3) :89
enter the marks obtained in 1 course (credits= 4) :97
enter the marks obtained in 2 course (credits= 2) :56

------------
usn:1BM21CS002
name:Aadi
sgpa:8.777777777777779

C:\Users\bmsce\Desktop\1BM21CS017>
```