Q) 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{
    private String usn;
    private String name;
    private int[] credits;
    private int[] marks;
    private int numSubs;

public void acceptdetails()
{
    Scanner ob = new Scanner(System.in);
    System.out.println("Enter USN : ");
    usn = ob.nextLine();
    System.out.print("Enter Name : ");
    name = ob.nextLine();
    System.out.print("Enter number of subjects : ");
    numSubs = ob.nextInt();
    credits = new int[numSubs];
    marks = new int[numsubs];

    for(int i=0; i< numSubs; i++){
        System.out.print("Enter credits : ");
        credits[i] = ob.nextInt();
```

```
        System.out.println("Enter marks for subject :"+(i+1));
        marks[i] = ob.nextInt();
      }
    }

    public void display()
    {
      System.out.println("USN :"+usn);
      System.out.println("Name :"+name);
      System.out.println("No of subjects :"+numsubs);

      for(int i=0; i<numsubs; i++){
        System.out.println("Subject "+(i+1)+" : Credits = "+
        credits[i]+" Marks ="+marks[i]);
      }
    }

public double SGPA()
{
    int totalcredits =0;
    int totalgradepts =0;

    for(int i=0; i<numsubs; i++){
        int gradepoint = getgradepoint(marks[i]);
        totalgradepts += gradepoint * credit[i];
        totalcredits += credits[i];
    }
```

```
if (totalcredits >0) {
    return (double) totalgradepts/totalcredits;
  }
  else {
    return 0.0;
  }
}
public int getgradepoint(int marks) {
  if (marks >=90)
    return 10;
  else if(marks >=80)
    return 9;
  else if (marks >=70)
    return 8;
  else if (marks >=60)
    return 7;
  else if (marks >=50)
    return 6;
  else if (marks >=40)
    return 5;
  else
    return 0;
  }
}
public class Main{
  public static void main(String args[]) {
```

```
        Student s = new Student();
        s.acceptDetails();
        s.display();
        double sgpa = s.calcSGPA();
        System.out.println("\nSGPA " +sgpa);
    }
}
```

Enter USN: 1BM23CS001

Enter name: Hrishikesh

Enter number of subjects: 3

Enter credits for subject 1: 4

Enter marks for subject 1: 85

Enter credits for subject 2: 3

Enter marks for subject 2: 75

Enter credits for subject 3: 3

Enter marks for subject 3: 60

Student details:

USN: 1BM23CS001

Name: Hrishikesh

Number of subjects: 3

Subject 1: credits = 4, Marks = 85

Subject 2: credits = 3, Marks = 75

Subject 3: credits = 3, Marks = 60

SGPA: 8.1