OOJ 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.

* Algorithm :-

1) START
2) READ the members usn, name, credits, marks in the method accept()
3) DISPLAY the student details in the method display()
4) CALCULATE the SGPA of the student in the method calculate() using array of credits and marks
5) In Student Main class, the object is created and the default constructor of class Student is called.
6) The other methods of class Student is also called/invoked in the main class.
7) SGPA is DISPLAYED from the return value of calculate
8) STOP.

→ CODE :-

```
import java.util.*;
class Student{
        private String usn;
        private String name;
        private int credits[];
        private int marks[];
        private int n;

    void accept()
      {
            Scanner s = new Scanner(System.in);
System.out.println("Enter student details");
System.out.println("USN:");
usn = s.next();
System.out.println("Name:");
name = s.next();
System.out.println("Enter the number of
                                subjects:");
 n = s.nextInt();
 credits = new int[n];
 marks = new int[n];
```

```
System.out.println("Enter credits and marks
attained by the student in each subject");
    for(int i=0; i<n; i++)
    {
        credits[i] = s.nextInt();
        marks[i] = s.nextInt();
    }
}
void display()
{
    System.out.println("Student details : ");
    System.out.println("USN : "+usn);
    System.out.println("Name : "+name);
    System.out.println("Marks in each subject : ");
  for(int i=0; i<n; i++)
    {
        System.out.println("Subject "+(i+1)+": "
                                    + marks[i]);
    }
}
```

```
double . calculate ()
  {
     int tcp = 0, tc = 0;
     for (int i=0 ; i<n; i++)
     {
        tc = tc + credits[i];
        if (marks[i] >= 40)
        {
          tcp = tcp + (((marks[i] /10 ) +1) *
                                credits [i]);
        }
else if (marks[i] >=40 && marks[i] <50)
     {
        tcp = tcp + (4* credits [i]);
     }
   }
   return (double) tcp/tc;
  }
}
   class StudentMain
  {
   public static void main (String .SS[])
  {
     Student s1 = new Student ();
```

```
        s1.accept();
        s1.display();
    System.out.println("SGPA : " + s1.calculate());
    }
}
```