WEEK-3

M	T	W	T	F	S
Date: 20					A-4
Page No.					

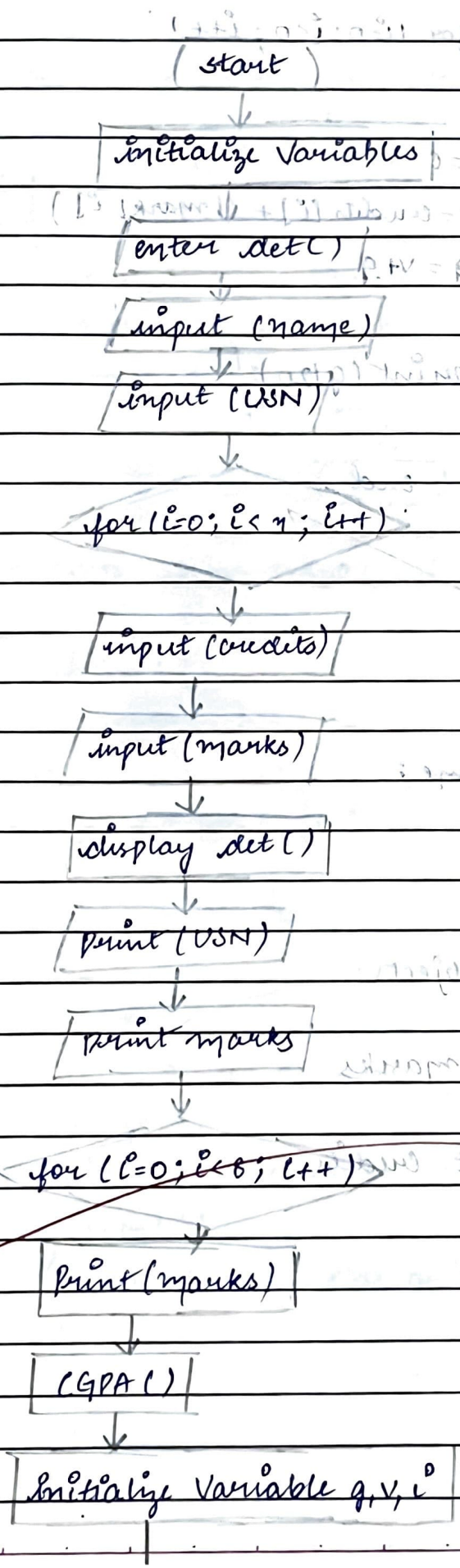
Develop a Java program to create a class student with members, USN, name, an array to include methods to accept and display details and a method to calculate SGPA of a student.

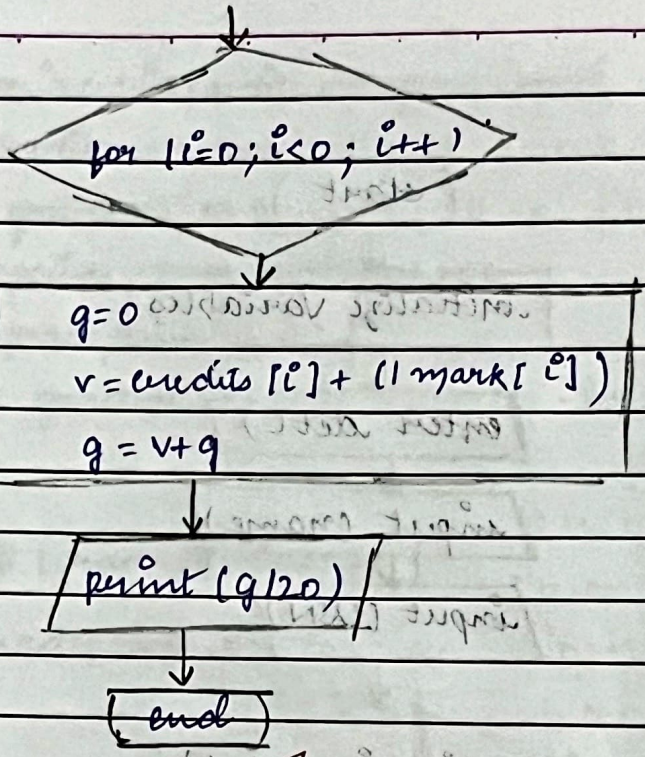
CODE

```
import java.util.scanner;
class student {
    string USN;
    string name;
    int[] credits = new int[8];
    int[] marks = new int[8];
    public void acceptDetails() {
     Scanner sc = new Scanner(System.in);
     System.out.print("Enter USN:");
     USN = scanner.nextLine();
    System.out.print("Enter Name:");
     name = scanner.nextLine();
     System.out.println("Enter details for each subject:\n");
     for(int i=0; i< credits.length; i++) {
       system.out.print("\n Enter credits for subject "+(i+1)+":");
        credits[i] = scanner.nextInt();
        System.out.print("\n Enter marks for subject "+(i+1)+":");
        marks[i] = scanner.nextInt();
     }
     scanner.close();
}
//Method to calculate SGPA
public double calculateSGPA() {
     int totalCredits = 0;
     int WeightedSum = 0;
     double ans;
```

```
for (int i=0; i<credits.length; i++) {
    totalCredits += credits[i];
    gradepoints = (marks[i]/10) + 1;
    if (gradepoints == 11) {
        gradepoints = 10;
    }
    else if (gradepoints >= 4) {
        gradepoints = marks[i]/10;
    }
    else {
        gradepoints = 0;
    }
    WeightedSum += gradepoints * credits[i];
}
double sgpa = (double) weightedSum / totalCredits;
return sgpa;
}
public class SGPA {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        Student student = new Student();
        student.acceptDetails();
        System.out.println("\n Student Details");
        System.out.println("USN : " + student.usn);
        System.out.println("Name : " + student.name);
        double sgpa = student.calculateSGPA();
        System.out.println("\n SGPA : " + SGPA());
        scanner.close();
    }
}
```

Flowchart:


start
initialize variables
enter det()
input (name)
input (USN)
for (i=0; i<n; i++)
input (credits)
input (marks)
display det()
print (USN)
print marks
for (i=0; i<6; i++)
Print (marks)
CGPA()
Initialize variable q, v, i



Qp: 7

Output:

Enter your name:
Hamsika
Enter your USN;
1BM22CS054
Enter no of subjects
1
Enter 1 subject marks
90
Enter 1 subject credits
4
Details:
Name: Hamsika
USN: 1BM22CS054
SGPA: 10.0

```
Enter name: shreya

Enter USN: 4567

Enter no. of subjects: 3
Enter marks and credits:
Marks for subject 1:
90
Credits for subject 1:
4
Marks for subject 2:
89
Credits for subject 2:
3
Marks for subject 3:
98
Credits for subject 3:
1
Name : shreya
USN : 4567
Subject 1 :      Marks= 90      Credits= 4
Subject 2 :      Marks= 89      Credits= 3
Subject 3 :      Marks= 98      Credits= 1

SGPA : 9.625
Name: Arugunta Hamsika C
USN: 1BM22CS054
```