7

udent
n class
details
g.

```
import java.util.Scanner;
class Subject {
    int subjectMarks;
    int credits;
    int grades;
}
class Student {
    String name;
    String usn;
    double SGPA;
    Scanner s;
    Subject[] subjects;

Student() {
    int i;
    subjects = new Subject[9];
    for(i = 0; i<9; i++){
        subjects[i] = new Subject();
    }
    s = new Scanner(System.in);
}

void getStudentDetails() {
    System.out.println("Enter student name:");
    name = s.nextLine();
    System.out.println("Enter student usn:");
    usn = s.nextLine();
}
void getMarks() {
    for (int i = 0; i<9; i++) {
    System.out.println("Enter marks subject " + (i+1) + ":");
    subjects[i].subjectMarks = s.nextInt();

    subjects[i].credits = 3;

    if(subjects[i].subjectMarks >= 90) {
        subjects[i].grade = 10;
    } else if (subjects[i].subjectMarks >= 75) {
        subjects[i].grade = 9;
    } else if (subjects[i].subjectMarks >= 60) {
        subjects[i].grade = 8;
    } else if (subjects[i].subjectMarks >= 50) {
        subjects[i].grade = 7;
```

```
        else if (subjects[i].subjectMarks >= 40){
            subjects[i].grade = 6;
        } else {
            subjects[i].grade = 0;
        }
    }
}
void computeSGPA(){
    double totalCredits=0;
    double totalGradePoints = 0;
    for (int i=0; i<9; i++){
        totalGradePoints += subjects[i].grade * subjects[i].credits;
        totalCredits += subjects[i].credits;
    }
    SGPA = totalGradePoints / totalCredits;
}
}
public class Main {
    public static void main(String[] args){
        Student s1 = new Student();
        s1.getMarks();
        s1.computeSGPA();

        System.out.println("\nStudent Details:");
        System.out.println("Name :" + s1.name);
        System.out.println("USN:" + s1.usn);
        System.out.println("SGPA :" + s1.SGPA);
    }
}
```

Output :-

```
Enter student name:
rachana
Enter student USN:
609
Enter marks for subject 1:
95
Enter marks for subject 2:
65
Enter marks for subject 3:
92
Enter marks for subject 4:
81
Enter marks for subject 5:
90
Enter marks for subject 6:
89
Enter marks for subject 7:
85
```

Enter marks for subject 4:
95

Student Details:
Name: rachana
USN: 608
SGPA: 9.333333334

2)

```
class ClassDemo
{
private int a,b;
int c,d;
void setValue(int x, int y)
{
a=x;
b=y;
}
void printValue()
{
System.out.println("the values given are\n a="+a+" b="+b+"
                    c="+c+" d="+d);
}
int returnSum()
{
return(a+b+c+d);
}
}
class ClassDemo_main
{
public static void main(String sw[])
{
System.out.println("c1 object:");
ClassDemo c1=new ClassDemo();
c1.setValue(1,2);
c1.c=3;
c1.d=4;
c1.printValue();
System.out.println("c2 object:");
ClassDemo c2=new ClassDemo();
c2.printValue();
c2.setValue(11,12);
c2.c=13;
c2.d=14;
c2.printValue();
```

```
ClassDemo c2 = new ClassDemo();
c1.setValue(1,2);
c1.c=3;
c1.d=4;
c1.printValue();
System.out.println("c2 object:");
ClassDemo c2 = new ClassDemo();
c2.printValue();
c2.setValue(11,12);
c2.c=13;
c2.d=14;
c2.printValue();
ClassDemo c3;
c3=c1;
c1.printValue();
ClassDemo c3;
c3=c1;
c1.printValue();
c3.printValue();
System.out.println("c1 sum of values:" + c1.returnSum());
System.out.println("c2 sum of values:" + c2.returnSum());
System.out.println("c3 sum of values:" + c3.returnSum
c3.setValue(10,20);
System.out.println("c1 sum of values:" +c1.returnSum()
System.out.println("c3 sum of values:" + c3.returnSum()
}
}
```

output:

```
c1 object:
the values given are
   a=1  b=2  c=3  d=4
c2 objects:
the values given are
a=0  b=0  c=0  d=0
the values given are
a=11  b=12  c=13  d=14
the values given are
 a=1  b=2  c=3  d=14
```

c1 sum of values : 10
c2 sum of values : 50
c3 sum of values : 10
c1 sum of values : 37
c3 sum of values : 37

19.12.22

3) operators :-

```
class Modules{
public static void main(String args[]){
int x=41;
double y=42.25;
System.out.println("x mod 10 = " + x %. 10);
System.out.println("y mod 10 = " + y %. 10);
y=21;
System.out.println("y mod 10 = " + y%. -10);
x=42;
y= ++x;
System.out.println("x = " + x +" y="+y);
x=42;
y = x++;
System.out.println("x = " + x +" y = " + y);
byte a=64, b, b1;
int i;
i= a<< 2;
b=(byte)(a<<2);
i=a<<2;
System.out.println("original value of a : " +a);
System.out.println(" i and b:" +i+" " +b);
int a1 = -1;
a1= a1>>24;
System.out.println("value of a1 : "+a1);
a1 = -1;
a1 = a1>>>24;
System.out.println("value of a1:"+a1);
}
}
```

Output :-
x mod 10 = 1
y mod 10 = 2.25
y mod 10 = 1.0
x = 43 y= 43.0
x = 43 y = 42.0
original value of a : 64
i and b : 256 value of a1 : -1
value of a1 : 255