Assignment Problem 1

PGDCA II Semester
PS02CDC33: Object Technology
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Student Mark-sheet

1. Define a class of **Student with structure as follows:**

   int no;
   String name;
   int m1; int m2; int m3; int m4; int m5; int m6;

2. Define at least one **constructor** having above all parameters of the
   Student class.

3. Also define a method **void print()**, which prints students mark sheet
   with total and percentages.

4. Define and initialize an **array of DCA** students as follows in the main
   method.

   Student[] DCA = new Student[5];

   DCA[0] = new Student(1001, "Sita", 70,80,80,70,70,80);
   DCA[1] = new Student(1002, "Gita", 70,70,70,70,70,70);
   DCA[2] = new Student(1003, "Rita", 50,50,50,50,50,50);
   DCA[3] = new Student(1004, "Mita", 80,80,80,80,80,80);
   DCA[4] = new Student(1005, "Nita", 30,30,30,30,30,30);

5. Develop a **for loop** which prints mark sheets of the above five students
   from the Studentnn class.   Use format as shown below.

   ```
   G H Patel P G Dept of Computer Science And Technology
   -------------------------------------------------------
   No: 1001
   Name: Sita
   -------------------------------------------------------
   D31 D32   D33   D34   D35   D35
   70  80    80    70    70    80
   -------------------------------------------------------
   Total: 450
   Percentages: 75.0
   Result: Pass
   -------------------------------------------------------
   ```

Solution

```java
package student;

public class Student {
        int no;   String name;
        int m1; int m2; int m3; int m4; int m5; int m6;

Student()
{ no=0;
  name=" ";
  m1=m2=m3=m4=m5=m6=0; }  // default constructor

Student(int no,String name,int m1,int m2,int m3,int m4,int m5,int m6)
{ this.no=no;     this.name=name;
  this.m1=m1;   this.m2=m2;    this.m3=m3;    this.m4=m4;   this.m5=m5;    this.m6=m6;
 } // parameterized constructor

void print ()
{System.out.println ("G H Patel P G Dept of Computer Science And Technology ");
 System.out.println ("--------------------------------------------");
 System.out.println("No: " + no);
 System.out.println("Name: " + name);

 System.out.println ("--------------------------------------------");
 System.out.println("D31" + "\t" + "D32" + "\t" + "D33" + "\t" + "D34" + "\t" + "D35" + "\t" + "D35" );

 System.out.print (m1 + "\t" + m2 + "\t" + m3 + "\t" + m4 + "\t" +  m5 + "\t" + m6 +"\n");
 System.out.println ("--------------------------------------------");

 int total= m1+m2+m3+m4+m5+m6;
 double per= total/6;
 System.out.println("Total: " +total);
 System.out.println("Percentages: " + per);

 if (per>=40) System.out.println ("Result: Pass"); else  System.out.println ("Result: Fail");

 System.out.println ("--------------------------------------------");
 System.out.println("\n \n");
}

public static void main(String[] args) {
        Student[] DCA = new Student[5];

        DCA[0] = new Student(1001, "Sita", 70,80,80,70,70,80);
        DCA[1] = new Student(1002, "Gita", 70,70,70,70,70,70);
        DCA[2] = new Student(1003, "Rita", 50,50,50,50,50,50);
        DCA[3] = new Student(1004, "Mita", 80,80,80,80,80,80);
        DCA[4] = new Student(1005, "Nita", 30,30,30,30,30,30);

        for (int i=0; i<5; i++)
            DCA[i].print();

  }  // end of main

}//end of class
```