Q1. Explain class in java?

Ans:

Purpose: It is used to create a user defined data type in java

Definition: Class is the collection member data and Member Function

A class is a set of rules

A class is a blue print of an object

Member Data: Member data can specify what type data can be occur

Member function: Mediator between user and data

Q2. Write a java program to create a rectangle class and perform the operations?

```java
import java.util.Scanner;
class Rectangle{
int l;
int b;
// instance variable,member data, state
void acceptData(){
Scanner sk=new Scanner(System.in);
System.out.println("Enter Length : ");
l=sk.nextInt();
System.out.println("Enter Breadth : ");
b=sk.nextInt();
}

void showData(){
System.out.println("Length is : "+l);
System.out.println("Breadth is : "+b);
}

void getArea(){
```

```java
System.out.println("Area : "+(l*b));
}

void getPira(){
System.out.println("Pirameter of Rectangle : "+2*(l+b));
}
//Member function, Instance method

public static void main(String args[]){
Rectangle r=new  Rectangle();//r is an object of Rectangle class
r.acceptData();
r.showData();
r.getArea();
r.getPira();
}
}
```

Q3. Write a java Program to calculate area and circumference of Circle Using class?

```java
class Circle{

    float r;

    void acceptData(){}

    void showData(){}

    void getArea(){}

    void getCirc(){}



    }
```

```java
public static void main(String args[]){

    Circle c1=new Circle();
    c1.acceptData();
    c1.showData();
    c1.getArea();
    c1.getCirc();






    }
```

```java
import java.util.Scanner;
class Circle{
float r;
// instance variable,member data, state
void acceptData(){
Scanner sk=new Scanner(System.in);
System.out.println("Enter Radius: ");
r=sk.nextFloat();
}

void showData(){
System.out.println("Radius is : "+r);
}

void getArea(){
System.out.println("Area : "+Math.PI*Math.pow(r,2));
}

void getCirc(){
System.out.println("Circumference : "+2*Math.PI*r);
}
//Member function, Instance method

public static void main(String args[]){
Circle r=new Circle();//r is an object of Circle class
r.acceptData();
r.showData();
r.getArea();
r.getCirc();
}
}
```

Q3. Write a java Program to create a student class and perform following operations?

Enter Name: Akash

Enter Enrollment : 0103CS

Enter P : 67

Enter C :78

Enter M : 87

Enter H: 67

Enter E: 55

Total Marks:

Percentage:

```java
class Student{
String name;
String enroll;
int p;
int c;
int m;
int h;
int e;
//Member Data

void getData(){}

void showData(){}

int getTotalMarks(){}
float getPercentage(int totalmarks){}

public static void main(String args[]){

  Student st=new Student();

  st.getData();
  st.showData();
  int tm=st.getTotalMarks();
  System.out.println("Total Marks : "+tm);
  float p=st.getPercentage(tm);
  System.out.println("Percentage  is : "+p);


}

}
```