1. 1. Write a java program to perform the concept of method overriding for calculating simple interest of 3 banks A, B, C. Using dynamic method dispatch Bank A’s rate of interest-10%, Bank’s B rate of interest-9%, Bank’s C rate of interest-7%.
2. Create a class date with day, month and year as members. Write appropriate member functions. Create another class student, which has id, name, date of birth and marks of 3 subjects as members. Write appropriate constructor for the student which assigns.
3. Write a program in Java to create a Player class. Intermediate classes Cricket\_Player, Football\_Player and Hockey\_Player from Player class
4. Write a class Worker and derive classes DailyWorker and SalariedWorker from it. Every worker has a name and a salary rate. Write method Compay (int hours) to compute the week pay of every worker. A DailyWorker is paid on the basis of number of days she/he work. The SalariedWorker gets paid the wage for 40 hours a week no matter what actual hours is. Test this program to calculate the pay of workers. You are expected to use concept of polymorphism to write this program

1

class Bank{

int getRateOfInterest(){return 0;}

}

class SBI extends Bank{

int getRateOfInterest(){return 8;}

}

class ICICI extends Bank{

int getRateOfInterest(){return 7;}

}

class AXIS extends Bank{

int getRateOfInterest(){return 9;}

}

class Test2{

public static void main(String args[]){

SBI s=new SBI();

ICICI i=new ICICI();

AXIS a=new AXIS();

System.out.println("SBI Rate of Interest: "+s.getRateOfInterest());

System.out.println("ICICI Rate of Interest: "+i.getRateOfInterest());

System.out.println("AXIS Rate of Interest: "+a.getRateOfInterest());

}

}

2

import java.io.\*;  
import java.lang.\*;  
class Students extends Date  
{  
     int id;  
     String name;  
     Date d1;  
     int marks[] = new int[3];  
     Students(int id, String name, Date d, int s1, int s2, int s3)  
     {  
          this.id = id;  
          this.name = name;  
          marks[0] = s1;  
          marks[1] = s2;  
          marks[2] = s3;  
          d1 = new Date(d.day, d.month, d.year);  
     }  
     public void display()  
     {  
          System.out.println("\n\nID   Name\tDOB\t  Marks of 3 Subjects");  
          System.out.println("===  =====\t=======\t  ===================");  
          System.out.println(+id+"  "+name+" \t"+d1.day+"/"+d1.month+"/"+d1.year+"    "+marks[0]+"  "+marks[1]+" "+marks[2]);  
          System.out.println("===  =====\t=======\t  ===================");  
     }  
     public static void main(String ar[])  
     {  
          Date d = new Date(Integer.parseInt(ar[2]),Integer.parseInt(ar[3]),Integer.parseInt(ar[4]));  
          Students  s1 = new Students(Integer.parseInt(ar[0]),ar[1],d,Integer.parseInt(ar[5]),Integer.parseInt(ar[6]),Integer.parseInt(ar[7]));  
          s1.display();  
     }  
}

class Date  
{  
     int day, month, year;  
     Date(int day, int month, int year)  
     {  
          this.day = day;  
          this.month = month;  
          this.year = year;  
     }  
     Date(){}  
}

**3**

class player  
{  
String name;  
int age;  
player(String n,int a)  
{ name=n; age=a; }  
void show()  
{  
System.out.println("\n");  
System.out.println("Player name : "+name);  
System.out.println("Age : "+age);  
}  
}  
class criket\_player extends player  
{  
String type;  
criket\_player(String n,String t,int a)  
{  
super(n,a);  
type=t;  
}  
public void show()  
{  
super.show();  
System.out.println("Player type : "+type);  
}  
}  
class football\_player extends player  
{  
String type;  
football\_player(String n,String t,int a)  
{  
super(n,a);  
type=t;  
}  
public void show()  
{  
super.show();  
System.out.println("Player type : "+type);  
}  
}  
class hockey\_player extends player  
{  
String type;  
hockey\_player(String n,String t,int a)  
{  
super(n,a);  
type=t;  
}  
public void show()  
{  
super.show();  
System.out.println("Player type : "+type);  
}  
}  
  
class Main  
{  
public static void main(String args[])  
{  
criket\_player c=new criket\_player("Prajakta","criket",25);  
football\_player f=new football\_player("Prashant","foot ball",25);  
hockey\_player h=new hockey\_player("CDAC","hockey",25);  
c.show();  
f.show();  
h.show();  
}  
}

4

class worker  
{  
String name;  
int empno;  
worker(int no,String n)  
{ empno=no; name=n; }  
void show()  
{  
System.out.println("\n--------------------------");  
System.out.println("Employee number : "+empno);  
System.out.println("Employee name : "+name);  
}  
}  
class dailyworker extends worker  
{  
int rate;  
dailyworker(int no,String n,int r)  
{  
super(no,n);  
rate=r;  
}  
void compay(int h)  
{  
show();  
System.out.println("Salary : "+rate\*h);  
}  
}  
class salariedworker extends worker  
{  
int rate;  
salariedworker(int no,String n,int r)  
{  
super(no,n);  
rate=r;  
}  
int hour=40;  
void compay()  
{  
show();  
System.out.println("Salary : "+rate\*hour);  
}  
}  
  
class Main  
{  
public static void main(String args[])  
{  
dailyworker d=new dailyworker(254,"CDACJaipur",75);  
salariedworker s=new salariedworker(666,"CDAC",100);  
d.compay(45);  
s.compay();  
}  
}