**Create an interface Player with a method void play (). Write a class Cricket to implement Player. The play () method prints a message “Cricket Player”. The PlayerDemo class has main () method and creates an instance of Cricket and calls the overridden method.**

**package** q1;

**interface** Player {

**abstract** **void** play();

}

**class** Cricket **implements** Player{

@Override

**public** **void** play() {

System.***out***.println("Cricket Player");

}

}

**package** q1;

**public** **class** PlayerDemo {

**public** **static** **void** main(String[] args) {

Player p;

p=**new** Cricket();

p.play();

}

}

**Develop an abstract class Staff with ID, name as attributes and an abstract method computeSalary():double. The classes TeachingStaff and NonTeachingStaff inherit Staff. NonTeachingStaff has hoursWorked and hourlyWage as its attributes and the TeachingStaff has basic and allowance as attributes. The rules for the computation of salary are as follows: 1. For NonTeachingStaff, the salary is product of hoursWorked and hourlyWage. 2. For TeachingStaff the salary is basic + HRA(20 % of basic) + allowance. Code the constructors, toString() method.Write the Demo class with main() method to create objects of both subclasses and compute the salary.**

**package** q2;

**abstract** **class** Staff {

**protected** **static** **int** *ID*;

**protected** **static** String *Name*;

**abstract** **double** computeSalary();

Staff(**int** ID,String Name)

{

**this**.*ID*=ID;

**this**.*Name*=Name;

}

**public** String toString()

{

**return** String.*format*("ID=%d%n Name=%s",*ID*,*Name*);

}

}

**class** NonTeachingStaff **extends** Staff{

**int** hourWorked;

**int** hourWage;

NonTeachingStaff(**int** ID,String Name,**int** hw,**int** hwage)

{

**super**(ID, Name);

**this**.hourWorked=hw;

**this**.hourWage=hwage;

}

@Override

**double** computeSalary() {

**int** sal=hourWorked\*hourWage;

**return** sal;

}

}

**class** TeachingStaff **extends** Staff{

**int** basic;

**int** allowance;

TeachingStaff(**int** basic,**int** allowance) {

**super**(*ID*, *Name*);

**this**.basic=basic;

**this**.allowance=allowance;

}

@Override

**double** computeSalary() {

**int** HRA=(20/100)\*basic;

**int** sal=basic+allowance+HRA;

**return** sal;

}

}

**package** q2;

**public** **class** StaffDemo {

**public** **static** **void** main(String[] args) {

Staff s;

//new Staff(3490,"Niranjan");

s=**new** NonTeachingStaff(3490,"Niranjan",5,500);

System.***out***.println(s);

System.***out***.println("Salary of Non Teaching Staff is");

System.***out***.println(s.computeSalary());

s=**new** TeachingStaff(50000,5000);

System.***out***.println("Salary of Teaching Staff is");

System.***out***.println(s.computeSalary());

}

}