**Gmagnel Talang Emmanuel**

Java Programming Language

Java inheritace Assignment

**Question 1.**

package parentclass;

public class ParClass {

public void parentmethod(){

System.out.println("This is parent class");

}

}

class Childclass extends ParClass{

public void childmethod(){

System.out.println("This is child class");

}

}

public class ParentClass {

public static void main(String[] args) {

ParClass dispparentclass = new ParClass();

Childclass dispchildclass = new Childclass();

//method to print the parent class using the object of the parent

dispparentclass.parentmethod();

//method to print the child class using the object of the child

dispchildclass.childmethod();

//method to print the parent class using the object of the child

dispchildclass.parentmethod();

}

}

**Output to the screen**

This is parent class

This is child class

This is parent class

**Question 2.**

package inheritanceque\_2;

public class Member {

String name;

int age;

String number;

String address;

double salary;

public void printSalary(){

System.out.println(salary);

}

}

class Employee extends Member{

String specialization;

}

class Manager extends Member{

String department;

}

package inheritanceque\_2;

public class InheritanceQue\_2 {

public static void main(String[] args) {

Employee emp = new Employee();

emp.name = "Gmagnel Talang Emmanuel";

emp.age = 23;

emp.number = "0245342295/0205542309";

emp.address = "P. O. Box 11, Yeji B/E";

emp.salary = 250.541;

emp.specialization = "Java prorammer";

Manager mg = new Manager();

mg.name = "Gmagnel Talang Emmanuel";

mg.age = 41;

mg.number = "0205542309";

mg.address = "P. O. Box 14, Madina";

mg.salary = 507.3301;

mg.department= "IT Department";

System.out.println("=======Employee's inforation=======");

System.out.println("-----------------------------------");

System.out.println(" Name: " + emp.name + "\n Age: " + emp.age + "\n Telephone Number: " + emp.number + "\n Address: " + emp.address + "\n Salary: GH&" + emp.salary +"\n Speciliztion: " + emp.specialization +"\n" );

// System.out.println("=======================================:");

System.out.println("=======Manager's inforation=======" );

System.out.println("----------------------------------");

System.out.println(" Name: " + mg.name + "\n Age: " + mg.age + "\n Telephone Number: " + mg.number + "\n Address: " + mg.address + "\n Salary: GH&" + mg.salary +"\n Department: " + mg.department );

}

}

**Output to the screen**

=======Employee's inforation=======

-----------------------------------

Name: Gmagnel Talang Emmanuel

Age: 23

Telephone Number: 0245342295/0205542309

Address: P. O. Box 11, Yeji B/E

Salary: GH&250.541

Speciliztion: Java prorammer

=======Manager's inforation=======

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Name: Gmagnel Talang Emmanuel

Age: 41

Telephone Number: 0205542309

Address: P. O. Box 14, Madina

Salary: GH&507.3301

Department: IT Department

**Question 3.**

package inheritanceretangl\_3;

public class Rectangle\_3 {

int len=4;

int bre=5;

public int Rectangle(int le,int br){

len=le;

bre=br;

return le\*br;

}

public void printArea(){

System.out.println(len\*bre);

}

public void printPerimeter(){

System.out.println(2\*(len+bre));

}

}

package inheritanceretangl\_3;

public class InheritanceRetangl\_3 {

public static void main(String[] args) {

Rectangle\_3 r = new Rectangle\_3();

System.out.print("The area of the rectangle(4, 5) is:");r.printArea();

System.out.print("The perimeter of the rectangle(4, 5) is:");r.printPerimeter();

}

}

**Output to the screen**

The area of the rectangle(4, 5) is:20

The perimeter of the rectangle(4, 5) is:18

**Question 4.**

package inheritancequetion\_4;

public class Rectangle {

int length;

int breadth;

public Rectangle(int l, int b){

length = l;

breadth = b;

}

public void printArea(){

System.out.println(length\*breadth);

}

public void printPerimeter(){

System.out.println(2\*(length+breadth));

}

}

class Square extends Rectangle{

int side;

public Square(int s){

super(s,s);

}

}

class Ans{

public static void main(String[] args){

Rectangle r = new Rectangle(4,5);

r.printArea();

r.printPerimeter();

Square s = new Square(4);

s.printArea();

s.printPerimeter();

Square[] a = new Square[10];

int k = 5;

for(int i = 0;i<10;i++){

a[i] = new Square(k);

k++;

}

for(int i = 0;i<10;i++){

a[i].printArea();

a[i].printPerimeter();

}

}

}

package inheritancequetion\_4;

public class InheritanceQuetion\_4 {

public static void main(String[] args) {

Rectangle rec = new Rectangle(4,5);

rec.printArea();

rec.printPerimeter();

Square sqr = new Square(4);

sqr.printArea();

sqr.printPerimeter();

Square[] a = new Square[10];

int k = 5;

for(int i = 0;i<10;i++){

a[i] = new Square(k);

k++;

}

for(int i = 0;i<10;i++){

a[i].printArea();

a[i].printPerimeter();

}

}

}