Java Questions

.1.Create a class named 'Student' with String variable 'name' and integer variable 'roll\_no'. Assign the value of roll\_no as '2' and that of name as "John" by creating an object of the class Student.

Code: **package** secondproject;

**public** **class** student {

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

String name="JOHN";

**int** roll\_no=2;

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

System.***out***.println(roll\_no);

}

}.

Output: JOHN

2

------------------------------------------------------------------------------  
2.Assign and print the roll number, phone number and address of two students having names "Sam" and "John" respectively by creating two objects of class 'Student'.

Code: **package** secondproject;

**public** **class** students2 {

String name;

**int** rollno;

**int** phoneno;

String address;

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

students2 s1=**new** students2();

s1.name="sam";

s1.rollno=12;

s1.phoneno=986758639;

s1.address="flatno:303,krishna sai residence,kphb,kukatpally";

System.***out***.println(s1.name);

System.***out***.println(s1.rollno);

System.***out***.println(s1.phoneno);

System.***out***.println(s1.address);

students2 s2=**new** students2();

s2.name="tom";

s2.rollno=14;

s2.phoneno=847832932;

s2.address="flatno:104,krishna sai residence,kphb,kukatpally";

System.***out***.println(s2.name);

System.***out***.println(s2.rollno);

System.***out***.println(s2.phoneno);

System.***out***.println(s2.address);

}

}

Output: 12

986758639

flatno:303,krishna sai residence,kphb,kukatpally

tom

14

847832932

flatno:104,krishna sai residence,kphb,Kukatpally.

----------------------------------------------------------------------------------3. Write a program to print the area and perimeter of a triangle having sides of 3, 4 and 5 units by creating a class named 'Triangle' without any parameter in its constructor.

Code: **package** secondproject;

**public** **class** triangle2 {

**private** **static** triangle2 *traingle2t1*;

**static** **double** *a*;

**static** **double** *b*;

**static** **double** *c*;

**static** **double** *perimeter*;

**static** **double** *s*;

**static** **double** *Area*;

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

triangle2 t1=**new** triangle2();

t1.*a*=3;

t1.*b*=4;

t1.*c*=5;

*perimeter*=(*a* + *b* + *c*);

*s*= (*a* + *b* + *c*)/2;

*Area*= Math.*sqrt*(*s*\*(*s*-*a*)\*(*s*-*b*)\*(*s*-*c*));

System.***out***.println("the perimeter of the triangle is"+ *perimeter*);

System.***out***.println("s value is " + *s*);

System.***out***.println("finaly the area is" + *Area*);

}

}

Output: the perimeter of the triangle is12.0

s value is 6.0

finaly the area is6.0

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

4.Write a program to print the area and perimeter of a triangle having sides of 3, 4 and 5 units by creating a class named 'Triangle' with constructor having the three sides as its parameters.

Code: **package** secondproject;

**import** java.util.Scanner;

**public** **class** triangle {

**private** **static** Scanner *sc*;

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

**double** a, b, c, Perimeter, s, Area;

*sc* = **new** Scanner(System.***in***);

System.***out***.println("\n Please Enter Three sides of triangle: ");

a = *sc*.nextDouble();

b = *sc*.nextDouble();

c = *sc*.nextDouble();

Perimeter = a + b + c;

s = (a + b + c)/2;

Area = Math.*sqrt*(s\*(s-a)\*(s-b)\*(s-c));

System.***out***.format("\n The Perimeter of Triangle = %.2f\n", Perimeter);

System.***out***.format("\n The Semi Perimeter of Triangle = %.2f\n",s);

System.***out***.format("\n The Area of triangle = %.2f\n",Area);

}

}

Output: 6,9,35

The Perimeter of Traiangle = 50.00

The Semi Perimeter of Traiangle = 25.00

The Area of triangle = NaN

5. Write a program to print the area of two rectangles having sides (4,5) and (5,8) respectively by creating a class named 'Rectangle' with a method named 'Area' which returns the area and length and breadth passed as parameters to its constructor.

Code: **package** secondproject;

**public** **class** rectangle {

**private** **static** rectangle *rectangler1*;

**private** **static** rectangle *rectangle2*;

**static** **int** *a*;

**static** **int** *b*;

**static** **int** *area*;

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

rectangle r1=**new** rectangle();

r1.*a*=4;

r1.*b*=5;

r1.*area*= *a* \* *b*;

System.***out***.println("The Area of rectangle1 is " + *area*);

rectangle r2=**new** rectangle();

r2.*a*=5;

r2.*b*=8;

r2.*area*= *a* \* *b*;

System.***out***.println("The Area of rectangle2 is " + *area*);

System.***out***.println("the total area of rectangle including is " + (r1.*area* + r2.*area*));

}

}

Output: The Area of rectangle1 is 20

The Area of rectangle2 is 40

the total area of rectangle including is 60

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

6. Write a program to print the area of a rectangle by creating a class named 'Area' taking the values of its length and breadth as parameters of its constructor and having a method named 'returnArea' which returns the area of the rectangle. Length and breadth of rectangle are entered through keyboard.

Code: **package** secondproject;

**public** **class** Area {

**public** **static** **int** Returnarea(**int** a,**int** b) {

**return** a \* b;

}

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

System.***out***.println("area of rectangle is " + *Returnarea*(5,7));

}

}

Output: area of rectangle is 35

7. Print the sum, difference and product of two complex numbers by creating a class named 'Complex' with separate methods for each operation whose real and imaginary parts are entered by user.

**package** secondproject;

**import** java.util.Scanner;

**public** **class** complex {

**int** a,b,c,d,r,i;

complexNos(**int** a,**int** b, **int** c, **int** d){

**this**.a=a;

**this**.b=b;

**this**.c=c;

**this**.d=d;

}

**void** add() {

r=a+c;

i=b+d;

System.***out***.println("sum is :"+r+"+"+i+"i");

}

**void** sub() {

r=a-c;

i=b-d;

System.***out***.println("difference is :"+r+i+"i");

}

**void** mul() {

r=(a\*c)-(b\*d);

i=(a\*d)-(b\*c);

System.***out***.println("product is :"+r+i+"i");

}

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

**int** a,b,c,d;

Scanner s=**new** Scanner(System.***in***);

System.***out***.println("enter real part num 1: ");

a=s.nextInt();

System.***out***.println("enter imag part num 1: ");

b=s.nextInt();

System.***out***.println("enter real part num 2: ");

c=s.nextInt();

System.***out***.println("enter imag part num 2: ");

d=s.nextInt();

complexNos com=**new** complexNos(a,b,c,d);

com.add();

com.sub();

com.mul();

}

}

}

}

enter real part num 1:

2

enter imag part num 1:

3

enter real part num 2:

4

enter imag part num 2:

5

sum is :6+8i

difference is :-2-2i

product is :-7-2i

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

8.Write a program that would print the information (name, year of joining, salary, address) of three employees by creating a class named 'Employee'. The output should be as follows:  
Name        Year of joining        Address  
Robert            1994                64C- WallsStreat  
Sam                2000                68D- WallsStreat  
John                1999                26B- WallsStreat

Code: **package** secondproject;

**public** **class** employee{

String name;

**int** YOJ;

String Address;

**void** setData(String n ,**int** yoj,String ad){

name=n;

YOJ=yoj;

Address=ad;

}

**void** display(){

System.***out***.println(name+"\t\t"+YOJ+"\t\t"+Address);

}

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

//array of object

employee arr[]= **new** employee[3];

arr[0]=**new** employee();

arr[1]=**new** employee();

arr[2]=**new** employee();

arr[1].setData("Raja",1994,"KLU vijayawada");

arr[2].setData("chandu",2000,"hyderabad");

arr[0].setData("ram",1999,"khamman");

System.***out***.println("NAME\t YEAR OF JOINING\tADDRESS");

**for**(**int** i=0;i<3;i++) {

arr[i].display();

}

}

}

Output: NAME YEAR OF JOINING ADDRESS

ram 1999 khamman

Raja 1994 KLU vijayawada

chandu 2000 hyderabad

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

9. The Matrix class has methods for each of the following:  
1 - get the number of rows  
2 - get the number of columns  
3 - set the elements of the matrix at given position (i,j)  
4 - adding two matrices. If the matrices are not addable, "Matrices cannot be added" will be displayed.  
5 - multiplying the two matrices

Code: **package** secondproject;

**import** java.util.Scanner;

**public** **class** matrix {

**int** a[][]=**new** **int**[3][3];

**int** r[][]=**new** **int**[3][3];

matrix(**int** a[][]){

**this**.a=a;

}

**void** getRow() {

System.***out***.println(a.length);

}

**void** getCol() {

System.***out***.println(a[0].length);

}

**void** setEle(**int** i,**int** j,**int** e) {

a[i][j]=e;

display(a,"setEle");

}

**void** add(**int** a[][],**int** b[][] ) {

**if**(a.length!=b.length || a[0].length!=b[0].length)

{

System.***out***.println("addition is not posible");

}

**else** {

**for**(**int** i=0;i<a.length;i++) {

**for**(**int** j=0;j<b[0].length;j++) {

r[i][j]=a[i][j]+b[i][j];

}

}

display (r,"add");

}

}

**void** mul(**int** a[][],**int** b[][]) {

**if**(a[0].length!=b.length)

{

System.***out***.println("multiplication is not posible");

}

**else** {

**for**(**int** i=0;i<a.length;i++) {

**for**(**int** j=0;j<a[0].length;j++) {

r[i][j]=0;

**for**(**int** k=0;k<3;k++) {

r[i][j]+=a[i][j]\*b[i][j];

}

}

}

display(r,"mul");

}

}

**void** display(**int** a[][],String str){

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

**for**(**int** i=0;i<a.length;i++) {

**for**(**int** j=0;j<a[0].length;j++) {

System.***out***.print(" "+a[i][j]);

}

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

}

System.***out***.println("\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_");

}

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

// **TODO** Auto-generated method stub

Scanner s=**new** Scanner(System.***in***);

**int** a[][]= {{1,2,3},{4,5,6},{7,8,9}};

**int** b[][]= {{2,4,6},{8,10,12},{14,16,18}};

**int** c[][]= {{3,6},{9,12},{6,7}};

matrix m1=**new** matrix(a);

matrix m2=**new** matrix(b);

matrix m3=**new** matrix(c);

m1.display(a,"A matrix");

m2.display(b,"B matrix");

m3.display(c,"C matrix");

m1.getRow();

m3.getCol();

m1.setEle(0, 0, 9);

m2.setEle(2, 2, 1);

m1.add(a, b);

m3.add(a,c);

m2.mul(a, b);

m3.mul(c, b);

}

}

Output: A matrix

1 2 3

4 5 6

7 8 9

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

B matrix

2 4 6

8 10 12

14 16 18

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

C matrix

3 6

9 12

6 7

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3

2

setEle

9 2 3

4 5 6

7 8 9

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

setEle

2 4 6

8 10 12

14 16 1

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

add

11 6 9

12 15 18

21 24 10

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

addition is not posible

mul

54 24 54

96 150 216

294 384 27

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

multiplication is not posible

10. Write a program to print the names of students by creating a Student class. If no name is passed while creating an object of Student class, then the name should be "Unknown", otherwise the name should be equal to the String value passed while creating object of Student class.

Code: **package** secondproject;

**public** **class** studentss {

**private** **static** **final** String ***UNKNOWN*** = **null**;

String stud=***UNKNOWN***;

**void** student(){

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

}

**void** student(String str){

stud=str;

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

}

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

student s1=**new** student();

student s2= **new** student();

}

}

Output:null

11. Will the following code snippet compile successfully? If yes, what is the output of the following program?

public class Myclass

{

private int x = 10;

static int m1() {

int y = x;

return y;

}

public static void main(String[] args) {

m1();

}

}

Ans: No ,it does not compile successfully,

12.Identify the error in the following code snippet. If there is no error then what will be the output of the program?

public class Myclass

{

private int x = 10;

static int m1()

{

Myclass obj = new Myclass();

int y = obj.x;

return y;

}

public static void main(String[] args) {

System.out.println(m1());

}

}

Ans: 10

13.what is the output

public class Myclass

{

static int a = 20;

static int b = 30;

static int c = 40;

Myclass()

{

a = 200;

}

static void m1() {

b = 300;

}

static {

c = 400;

}

public static void main(String[] args) {

System.out.println(a);

System.out.println(b);

System.out.println(c);

}

}

Ans: 20

30

400

14.whats the output

public class Myclass {

static int a = 20;

Myclass() {

a = 200;

}

public static void main(String[] args) {

new Myclass();

System.out.println(a);

}

}

Ans: 200.

15.Whats the error in the code

public class Myclass {

static int a = 20;

Myclass() {

a++;

}

void m1() {

a++;

System.out.println(a);

}

public static void main(String[] args)

{

Myclass obj = new Myclass();

Myclass obj2 = new Myclass();

Myclass obj3 = new Myclass();

obj3.m1();

}

}

Ans: No error,24

16.Will this program execute what will be the output

public class Test

{

Test(Test t) {

m1();

System.out.println("Constructor");

}

void m1() {

m2();

System.out.println("Instance method");

}

static void m2() {

System.out.println("Static method");

}

public static void main(String[] args)

{

new Test(null);

}

}

Ans: Static method

Instance method

Constructor

17.whats the output

import java.util.Scanner;

class Figure

{

final int length = 5;

final int bredth = 4;

final void area()

{

int a = length \* bredth;

System.out.println("Area:"+a);

}

}

class Rectangle extends Figure

{

final void rect()

{

System.out.println("This is rectangle");

}

}

final public class Final\_Use extends Rectangle

{

public static void main(String[] args)

{

Final\_Use obj = new Final\_Use();

obj.rect();

obj.area();

}

}

Ans: This is rectangle

Area:20

18. Create a class with a method that prints "This is parent class" and its subclass with another method that prints "This is child class". Now, create an object for each of the class and call  
a - method of parent class by object of parent class  
b - method of child class by object of child class  
c - method of parent class by object of child class.

Code:

**package** secondproject;

**public** **class** Parent{

**void** display() {

System.***out***.println("I am Parent");

}

}

**public** **class** child **extends** parent{

**void** show(){

System.***out***.println("I am child");

}

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

parent p=**new** parent();

child c=**new** child();

p.display();

c.show();

c.display();

}

}

Output : I am Parent

I am child

I am Parent

19.  
Create a class named 'Member' having the following members:  
Data members  
1 - Name  
2 - Age  
3 - Phone number  
4 - Address  
5 - Salary  
It also has a method named 'printSalary' which prints the salary of the members.  
Two classes 'Employee' and 'Manager' inherits the 'Member' class. The 'Employee' and 'Manager' classes have data members 'specialization' and 'department' respectively. Now, assign name, age, phone number, address and salary to an employee and a manager by making an object of both of these classes and print the same.

Code: **package** secondproject;

**public** **class** members{

String name;

**int** age;

**double** PH;

String Address;

**int** Salary;

**void** printSalary() {

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

}

}

**class** Manager **extends** members{

String Specizattion;

String Department;

}

**public** **class** employe **extends** members{

String Specizattion;

String Department;

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

// **TODO** Auto-generated method stub

employe e= **new** employe();

e.name="Bose";

e.age=22;

e.Address="Ashok nagar";

e.PH=1234567895;

e.Salary=24000;

Manager a=**new** Manager();

a.name="subash";

a.age=32;

a.Address="kk nagar";

a.PH=1234567895;

a.Salary=360000;

e.printSalary();

a.printSalary();

}

}

20.

Create a class named 'Rectangle' with two data members 'length' and 'breadth' and two methods to print the area and perimeter of the rectangle respectively. Its constructor having parameters for length and breadth is used to initialize length and breadth of the rectangle. Let class 'Square' inherit the 'Rectangle' class with its constructor having a parameter for its side (suppose s) calling the constructor of its parent class as 'super(s,s)'. Print the area and perimeter of a rectangle and a square.

Code: **package** secondproject;

**public** **class** rctangle12{

**int** a,p;

**void** rectangle1(**int** l,**int** b){

a=l\*b;

p=(2\*l)+(2\*b);

}

**void** area() {

System.***out***.println("Area is"+a);

}

**void** perimeter() {

System.***out***.println("perimeter is"+p);

}

}

**public** **class** Square **extends** rectangle1{

Square(**int** l, **int** b) {

**super**(l, b);

// **TODO** Auto-generated constructor stub

}

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

Square s=**new** Square(3,3);

rectangle1 r=**new** rectangle1(3,9);

r.area();

r.perimeter();

s.area();

s.perimeter();

}

}

21 whats the output

class One

{

protected void getData()

{

System.out.println("Inside GFG");

}

}

class Two extends One

{

protected void getData()

{

System.out.println("Inside GeeksforGeeks");

}

}

public class Test

{

public static void main(String[] args)

{

One obj = new Two();

obj.getData();

}

}

ANS: Inside greeks of greeks.

22. **can we overload main() method?**

**Ans:** No we cant overload main() method because it is static.

**23.what is the output**

**public class Myclass {**

**static int a = 20;**

**Myclass() {**

**a = 200;**

**}**

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

**new Myclass();**

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

**}**

**}**

**Ans: 200**

**24.class A {**

**void sum(int x, int y){**

**System.out.println("Sum of two numbers: " +(x+y));**

**}**

**void sum(int x, int y, int z){**

**System.out.println("Sum of three numbers: " +(x+y+z));**

**}**

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

**A a = new A();**

**a.sum(20, 30);**

**a.sum(30, 40, 50);**

**}**

**}**

Ans: Sum of two numbers=50

Sum of three number=120

**25.what is the output**

**class A {**

**void sum(int x, int y){**

**System.out.println("Sum of two numbers: " +(x+y));**

**}**

**void sum(int y, int x){**

**System.out.println("Sum of three numbers: " +(x+y));**

**}**

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

**A a = new A();**

**a.sum(20, 30);**

**}**

**}**

Ans: Sum of two number is 50**.**

**26.what is the output**

**class A {**

**void m1(A a){**

**System.out.println("m1 method in class A");**

**}**

**}**

**class B extends A {**

**public void m1(A a){**

**System.out.println("m1 method in class B");**

**}**

**}**

**public class Test{**

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

**A a = new A();**

**a.m1(a);**

**a.m1(new B());**

**B b = new B();**

**b.m1(null);**

**a = b;**

**a.m1(null);**

**a.m1(new A());**

**}**

**}**

Output:

m1 method in class A

m1 method in class A

m1 method in class B

m1 method in class B

m1 method in class B

**27.What is the output**

**import java.io.FileNotFoundException;**

**import java.io.IOException;**

**import javax.sql.SQLException;**

**public class ExceptionInterviewQuestion\_01 {**

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

**try {**

**test();**

**} catch (IOException e) {**

**e.printStackTrace();**

**} catch (FileNotFoundException e) {**

**e.printStackTrace();**

**} catch (SQLException e) {\**

**e.printStackTrace();**

**}**

**}**

**public static void test() throws IOException, SQLException, FileNotFoundException{**

**System.out.println("Inside test() method");**

**}**

**}**

**28.what is the output**

**public class TestException3 {**

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

**try{**

**bar();**

**}catch(NullPointerException e){**

**e.printStackTrace();**

**}catch(Exception e){**

**e.printStackTrace();**

**}**

**foo();**

**}**

**public static void bar(){**

**}**

**public static void foo() throws NullPointerException{**

**}**

**}**

**Ans:** no output nor exception,

as there is nothing in bar().