**Quizzes.**

Java Functions:

1.

class Main {

public static void main(String args[]) {

System.out.println(fun());

}

int fun()

{

return 20;

}

}

2. **public** **class** Main {

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

       String x = null;

       giveMeAString(x);

       System.out.println(x);

    }

**static** **void** giveMeAString(String y)

    {

       y = "GeeksQuiz";

    }

}

3. **class** Test {

**public** **static** **void** swap(Integer i, Integer j) {

      Integer temp = **new** Integer(i);

      i = j;

      j = temp;

   }

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

      Integer i = **new** Integer(10);

      Integer j = **new** Integer(20);

      swap(i, j);

      System.out.println("i = " + i + ", j = " + j);

   }

}

4.

**class** intWrap {

**int** x;

}

**public** **class** Main {

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

       intWrap i = **new** intWrap();

       i.x = 10;

       intWrap j = **new** intWrap();

       j.x = 20;

       swap(i, j);

       System.out.println("i.x = " + i.x + ", j.x = " + j.x);

    }

**public** **static** **void** swap(intWrap i, intWrap j) {

**int** temp = i.x;

       i.x = j.x;

       j.x = temp;

    }

}

6.

**class** Main {

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

             System.out.println(fun());

    }

**static** **int** fun(**int** x = 0)

    {

**return** x;

    }

}

7.

**class** Test

{

**public** **void** demo(String str)

    {

        String[] arr = str.split(";");

**for** (String s : arr)

        {

            System.out.println(s);

        }

    }

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

    {

**char** array[] = {'a', 'b', ' ', 'c', 'd', ';', 'e', 'f', ' ',

                        'g', 'h', ';', 'i', 'j', ' ', 'k', 'l'};

        String str = **new** String(array);

        Test obj = **new** Test();

        obj.demo(str);

    }

}

8.

**lass** Test

{

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

    {

        StringBuffer a = **new** StringBuffer("geeks");

        StringBuffer b = **new** StringBuffer("forgeeks");

        a.delete(1,3);

        a.append(b);

        System.out.println(a);

    }

}

9.

**class** Test

{

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

    {

        String obj1 = **new** String("geeks");

        String obj2 = **new** String("geeks");

**if**(obj1.hashCode() == obj2.hashCode())

            System.out.println("hashCode of object1 is equal to object2");

**if**(obj1 == obj2)

            System.out.println("memory address of object1 is same as object2");

**if**(obj1.equals(obj2))

            System.out.println("value of object1 is equal to object2");

    }

}

10.

**class** Test **implements** Cloneable

{

**int** a;

    Test cloning()

    {

**try**

        {

**return** (Test) **super**.clone();

        }

**catch**(CloneNotSupportedException e)

        {

            System.out.println("CloneNotSupportedException is caught");

**return** **this**;

        }

    }

}

**class** demo

{

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

    {

        Test obj1 = **new** Test();

        Test obj2;

        obj1.a = 10;

        obj2 = obj1.cloning();

        obj2.a = 20;

        System.out.println("obj1.a = " + obj1.a);

        System.out.println("obj2.a = " + obj2.a);

    }

}

11.

**class** Test

{

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

    {

        String str = "geeks";

        str.toUpperCase();

        str += "forgeeks";

        String string = str.substring(2,13);

        string = string + str.charAt(4);;

        System.out.println(string);

    }

}

12.

**int** f (**int** n) {

**if** (n <= 1) **return** 1;

**else** **if** (n % 2  ==  0) **return** f(n/2);

**else** **return** f(3n - 1);

}

13.

program side-effect (input, output);

var x, result: integer;

function f (var x:integer):integer;

begin

x:x+1;f:=x;

end;

begin

x:=5;

result:=f(x)\*f(x);

writeln(result);

end;

14.

int [ ] p = new int [10];

int [ ] q = new int [10];

for (int k = 0; k < 10; k ++)

p[k] = array [k];

q = p;

p[4] = 20;

System.out.println(array [4] + “ : ” + q[4]);

15.

public class First {

public static int CBSE (int x) {

if (x < 100) x = CBSE (x + 10);

return (x – 1);

}

public static void main (String[] args){

System.out.print(First.CBSE(60));

}

}

16.

public class While

2 {

3 public void loop()

4 {

5 int x = 0;

6 while(1)

7 {

8 System.out.println("x plus one is" +(x+1));

9 }

10 }

11 }

17.

//precondition: x>=0

public void demo(int x)

{

System.out.print(x % 10);

if (x % 10 != 0)

{

demo(x/10);

}

System.out.print(x%10);

}

Final keywords:

2.

**class** Main {

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

**final** **int** i;

   i = 20;

   System.out.println(i);

 }

}

Java Operators:

**1.**

**class** Test {

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

**int** x = -4;

       System.out.println(x>>1);

**int** y = 4;

       System.out.println(y>>1);

    }

}

2.

**class** Test {

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

**int** x = -1;

       System.out.println(x>>>29);

       System.out.println(x>>>30);

       System.out.println(x>>>31);

   }

}

3.

**class** Test {

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

       System.out.println(10  +  20 + "GeeksQuiz");

       System.out.println("GeeksQuiz" + 10 + 20);

   }

}

4.

**class** Test {

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

       System.out.println(10\*20 + "GeeksQuiz");

       System.out.println("GeeksQuiz" + 10\*20);

   }

}

5.

6.

**class** Base {}

**class** Derived **extends** Base {

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

      Base a = **new** Derived();

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

   }

}

7.

**class** Test

{

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

    {

        String s1 = "geeksquiz";

        String s2 = "geeksquiz";

        System.out.println("s1 == s2 is:" + s1 == s2);

    }

}

8.

**lass** demo

{

**int** a, b, c;

    demo(**int** a, **int** b, **int** c)

    {

**this**.a = a;

**this**.b = b;

    }

    demo()

    {

        a = b = c = 0;

    }

    demo operator+(**const** demo &obj)

    {

        demo object;

        object.a = **this**.a + obj.a;

        object.b = **this**.b + obj.b;

        object.c = **this**.c + obj.c;

**return** object;

    }

}

**class** Test

{

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

    {

        demo obj1 = **new** demo(1, 2, 3);

        demo obj2 = **new** demo(1, 2, 3);

        demo obj3 = **new** demo();

        obj3 = obj1 + obj2;

        System.out.println ("obj3.a = " + obj3.a);

        System.out.println ("obj3.b = " + obj3.c);

        System.out.println ("obj3.c = " + obj3.c);

    }

}

9.

99. **class** Test

{

**boolean**[] array = **new** **boolean**[3];

**int** count = 0;

**void** set(**boolean**[] arr, **int** x)

    {

        arr[x] = **true**;

        count++;

    }

**void** func()

    {

**if**(array[0] && array[++count - 2] | array [count - 1])

            count++;

        System.out.println("count = " + count);

    }

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

    {

        Test object = **new** Test();

        object.set(object.array, 0);

        object.set(object.array, 1);

        object.func();

    }

}

10.

Class Test

{

public static void main (String [] args)

{

int x = 0;

int y = 0;

for (int z = 0; z < 5; z++)

{

if((++x > 2) || (++y > 2))

{

x++;

}

}

System.out.println( x + " " + y);

}

}

11.