**JAVA TEST – 4 (Encapsulation/Static/Constructor)**

Que 1. Can we call static Methods using “this” within nonstatic methods?

**a) Yes**

b) No

2. Which of the these is the functionality of ‘Encapsulation’?  
**a) Binds together code and data**  
b) Using single interface for general class of actions.  
c) Reduce Complexity  
d) All of the mentioned

3. How will a class protect the code inside it?  
**a) Using Access specifiers**  
b) Polymorphism  
c) Use of Inheritance  
d) All of the mentioned

4. What is the output of this program?

class Test {

int a;

public int b;

private int c;

}

class AcessTest {

public static void main(String args[])

{

Test ob = new Test();

ob.a = 10;

ob.b = 20;

ob.c = 30;

System.out.println(" Output :a, b, and c" + ob.a + " " + ob.b + " " + ob.c);

}

}

**O/p – compilation Error (Private members of a class cannot be accessed directly. In the above program, the variable c is a private member of class ‘Test’ and can only be accessed through its methods.)**

5.What is the return type of Constructors? – **NO return Type**

6. Which keyword is used by method to refer to the object that invoked it? – **this**

7. What is the output of this program?

class Test{

public void show(){

this=null; //L.H. S must be variable

}

public static void main(String args[])

{

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

}

}

**O/p: Compilation Error**

8. What is the output of this program?

class box {

int width;

int height;

int length;

int volume;

box() {

width = 5;

height = 5;

length = 6;

}

void volume() {

volume = width\*height\*length;

}

}

class constructor\_output {

public static void main(String args[])

{

box obj = new box();

obj.volume();

System.out.println(obj.volume);

}

}

**O/p- 150**

9. What is the output of this program?

class area {

int width;

int length;

int area;

void area(int width, int length) {

this.width = width;

this.length = length;

}

}

class Output {

public static void main(String args[])

{

area obj = new area();

obj.area(5 , 6);

System.out.println(obj.length + " " + obj.width);

}

}

**O/p – 6 5**

10. Arrays in Java are implemented as\_\_\_\_\_\_\_\_object

11.class A {

int i;

int j;

A() {

i = 1;

j = 2;

}

}

class Output {

public static void main(String args[])

{

A obj1 = new A();

A obj2 = new A();

System.out.print(obj1.equals(obj2));

}

}

**a) false**  
b) true  
c) 1  
d) Compilation Error

12. Which of the following statements are incorrect?  
a) static methods can call other static methods only.  
b) static methods can only access static data.  
c) static methods can not refer to this or super in any way.  
**d) when object of class is declared, each object contains its own copy of static variables.**

13. What is the output of this program?

class access{

public int x;

static int y;

void cal(int a, int b){

x += a ;

y += b;

}

}

class static\_specifier {

public static void main(String args[])

{

access obj1 = new access();

access obj2 = new access();

obj1.x = 0;

obj1.y = 0;

obj1.cal(1, 2);

obj2.x = 0;

obj2.cal(2, 3);

System.out.println(obj1.x + " " + obj2.y);

}

}

**O/P – 1 5**

**14.** What is the output of this program?

class access{

static int x;

void increment(){

x++;

}

}

class static\_use {

public static void main(String args[])

{

access obj1 = new access();

access obj2 = new access();

obj1.x = 0;

obj1.increment();

obj2.increment();

System.out.println(obj1.x + " " + obj2.x);

} }

**O/P – 2 2 [All objects of class share same static variable, all the objects share same copy of static members, obj1.x and obj2.x refer to same element of class which has been incremented twice and its value is 2.]**

15. What is the output of this program?

class static\_out {

static int x;

static int y;

void add(int a , int b){

x = a + b;

y = x + b;

}

}

class static\_use {

public static void main(String args[])

{

static\_out obj1 = new static\_out();

static\_out obj2 = new static\_out();

int a = 2;

obj1.add(a, a + 1);

obj2.add(5, a);

System.out.println(obj1.x + " " + obj2.y);

}

}

**O/P - 7 9**

16. What is the output of this program?

class Output {

public static void main(String args[])

{

int a1[] = new int[10];

int a2[] = {1, 2, 3, 4, 5};

System.out.println(a1.length + " " + a2.length);

}

}

**O/P – 10 5**

17. What is the output of this program?

class equality {

String x;

String y;

boolean isequal(){

return(x == y);

}

}

class Output {

public static void main(String args[])

{

equality obj = new equality();

obj.x = “hello”;

obj.y = “hello”;

System.out.println(obj.isequal());

}

}

**O/P – true[from one object we are initialize the values to variables]**

**18. What will be the output of the following program**

public class Time {  
    int a = 50;  
    int b = 10;  
    public static void main(String args[]) {  
        a += b--; //instance variables can’t access directly  
        System.out.println(a);  
    }  
}

1. 60
2. 50
3. 59
4. **Compilation Error**

**19. What will be the output of the following program**

public class sketch {

static int *ad* = 100;

static int *bc* = 200;

static {

*ad* += 1;

*bc* += 1;

}

public static void main(String args[]) {

*ad* += 5;

*bc* += 10;

System.*out*.println(*ad* + *bc*);

}

static {

*ad* += 100;

*bc* += 200;

}

}

A)317

b)615

**c)617**

d)Compilation Error or Runtime Error

20. Can we overload Main method in a class?

**a) Yes**

b) No

**21. What will this code print?** int arr[] = new int [5];  
 System.out.print(arr);………id with @symbol……………………..

System.out.print(arr[0]);……0………………………..

System.out.print(arr.length);…5…

22. **What will this code print?** String arr[] = new String [5];  
 System.out.print(arr);……… [Ljava.lang.String;@ id with

System.out.print(arr[0]);……null………………………..

System.out.print(arr.length);…5…

**23. What will this code print?** String arr[][] = new String [5][];  
 System.out.print(arr);……… id along with null pointer exception

System.out.print(arr[0][0]);……null Pointer exception………………………..

System.out.print(arr[0]);……null………………………..