

**MCA372 Programming in Java : CAT2- Debugging Test**  
**AY201-22 Date:9/4/2022**  
**Time:40minutes Marks 25.**

**Name:**

**Registration Number :**

**Section :**

1. What is the output of the following?

```
public static void main(String[] args) {  
    String chair, table = "metal";  
    chair = chair + table;  
    System.out.println(chair);  
}
```

- A. metal
- B. metalmetal
- C. nullmetal
- D. The code does not compile

2. Will the below piece of code execute successful?. If Yes write the output, if No state the problem.

```
public class MyQuestion  
{  
    public static void JavaLove(String s)  
    {  
        System.out.println("LOVE JAVA");  
    }  
    public static void JavaLove(Object o)  
    {  
        System.out.println("LOVE JAVA OBJECTS");  
    }  
}
```

class IfStatement{

```
public static void main(String args[])  
  
{  
  
    int a=2, b=3;  
  
    if (a==3)  
  
    if (b==3)  
  
        System.out.println("=====");  
  
    else  
  
        System.out.println("#####");  
  
        System.out.println("&&&&&&&&&&");  
  
}
```

```

    }
    public static void JavaLove(int i)
    {
        System.out.println("LOVE JAVA INTEGERS");
    }
    public static void main(String []str)
    {
        JavaLove(null);
    }
}

```

ANSWER:-----

3. How many of the String objects are eligible for garbage collection right before the end of the main method?

```

public static void main(String[] fruits) {
    String fruit1 = new String("apple");
    String fruit2 = new String("orange");
    String fruit3 = new String("pear");
    fruit3 = fruit1;
    fruit2 = fruit3;
    fruit1 = fruit2;
}

```

A. None  
 B. One  
 C. Two  
 D. Three

```

class IfStatement{

    public static void main(String args[])

    {

        int a=2, b=3;

        if (a==3)

        if (b==3)

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

        else

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

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

    }
}

```

4. Will the below piece of code execute successful?. If Yes write the output, if No state the problem

```
public class JavaEcstasy
{
    int a=4;
    public static void main(String args[])
    {
        New JavaEcstasy().goforit();
    }
    void goforit()
    {
        int a;
        goforit2(++a);
    }
    void goforit2(int b)
    {
        int a=++b;
        System.out.println(a);
    }
}
```

ANSWER: -----

5. Will the below piece of code execute successful?. If Yes write the output, if No state the problem

```
public class JavaTheBest

                                class IfStatement{

    public static void main(String args[])

    {

        int a=2, b=3;

        if (a==3)

        if (b==3)

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

        else

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

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

    }
```

```

{
    public static void main(String [] s)
    {
        String str1="xyz";
        String str2=str1;
        str1+="w";
        System.out.println(str1+" "+str2+" "+(str1==str2));
        String Buffer sbr=new StringBuffer("xyz");
        StringBuffer sbr2=sbr1;
        sbr1.append("w");
        System.out.println(sbr1+" "+sbr2+" "+(sbr1==sbr2));
    }
}
ANSWER: -----

```

6. Will the below piece of code execute successful?. If Yes write the output, if No state the problem

```

public class JavaIntegerDemo{
    public static void main(String[] arr){
        Integer n1 = 100;
        Integer n2 = 100;
        Integer n3 = 500;
        Integer n4 = 500;

        if(n1==n2){
            System.out.println("n1 == n2");
        }
        else{
            System.out.println("n1 != n2");
        }
    }
}

```

```

class IfStatement{

    public static void main(String args[])

    {

        int a=2, b=3;

        if (a==3)

        if (b==3)

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

        else

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

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

    }
}

```

```

    }
    if(num3 == num4){
        System.out.println("n3 == n4");
    }
    else{
        System.out.println("n3 != n4");
    }
}
}

```

ANSWER: -----

7. Will the below piece of code execute successful?. If Yes write the output, if No state the problem.

```

public class JavaLove
{
    public void mymethod(String arg)
    {
        arg=" I am Java Geek";
    }
    public static void main(String [] args)
    {
        JavaLove JL=new JavaLove();
        String iAmMadAtJava="This is code war";
        JL.mymethod(iAmMadAtJava);
        System.out.println(iAmMadAtJava);
    }
}

```

```

class IfStatement{

    public static void main(String args[])

    {

        int a=2, b=3;

        if (a==3)

        if (b==3)

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

        else

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

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

    }
}

```

ANSWER: -----

8. Will the below piece of code execute successful?. If Yes write the output, if No state the problem

```
public class JavaOverloadingDemo{
    public static void main(String[] arg){

    }
    public static void main(String arrg{

    }
}
```

ANSWER: -----

9. Consider the following code fragment

```
Rectangle r1 = new Rectangle();
r1.setColor(Color.blue);
Rectangle r2 = r1;
r2.setColor(Color.red);
```

After the above piece of code is executed, what are the colors of r1 and r2 (in this order)?

ANSWER: -----

10. Consider the following code and identify which of the statements are correct.

```
class IfStatement{

    public static void main(String args[])

    {

        int a=2, b=3;

        if (a==3)

        if (b==3)

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

        else

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

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

    }
```

Line No	Code Statement
1	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	}

- A. There is a syntax error at line 1
- B. There is a syntax error at line 1&6
- C. There is a syntax error at line 8
- D. There is a syntax error at line 6

11. What is the output of the following code?

```
public class OuterDemo
{
    public static int t1 = 1;
    private static int t2 = 2;
    public int t3 = 3;
    private int t4 = 4;

    public static class InnerDemo
    {
        private static int t5 = 5;
```

```
class IfStatement{
```

```
public static void main(String args[])
{
    int a=2, b=3;

    if (a==3)

    if (b==3)

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

    else

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

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

}
```

```

        private static int getSum()
        {
            return (t1 + t2 + t3 + t4 + t5);
        }
    }

    public static void main(String[] args)
    {
        OuterDemo.InnerDemo obj = new OuterDemo.InnerDemo();
        System.out.println(obj.getSum());
    }
}

```

- A. 15
- B. 9
- C. 5
- D. Compilation Error

12. What is the output of the following code?

```

public class OuterClass
{
    private static int data = 10;
    private static int LocalClass()
    {
        class InnerClass
        {
            public int data = 20;
            private int getData()

                class IfStatement{

public static void main(String args[])

{

int a=2, b=3;

if (a==3)

if (b==3)

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

else

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

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

}

```



```

        {
            return data;
        }
    };
    InnerClass inner = new Inner();
    return inner.getData();
}

public static void main(String[] args)
{
    System.out.println(data * LocalClass());
}
}

```

A. Compilation error  
 B. Runtime Error  
 C. 200  
 D. None of the above

13. What is the output of the code below?

```

class Helper
{
    private int data;
    private Helper()
    {
        data = 5;
    }
}

public class Test
{
    public static void main(String[] args)

        class IfStatement{

        public static void main(String args[])

        {

        int a=2, b=3;

        if (a==3)

        if (b==3)

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

        else

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

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

        }
    }
}

```

```

        {
            Helper help = new Helper();
            System.out.println(help.data);
        }
    }
}

```

ANSWER: -----

14. What is the output of the following code?

```

class TrickyClass
{
    private TrickyClass(int data)
    {
        System.out.printf(" Constructor called ");
    }
    protected static TrickyClass create(int data)
    {
        TrickyClass obj = new TrickyClass(data);
        return obj;
    }
    public void myMethod()
    {
        System.out.printf(" Method called ");
    }
}

```

```

public class TestTricky
{
    public static void main(String[] args)
    {

```

```

        class IfStatement{

        public static void main(String args[])

        {

        int a=2, b=3;

        if (a==3)

        if (b==3)

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

        else

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

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

        }

```

```

        TrickyClass obj = TrickyClass.create(20);
        obj.myMethod();
    }
}

```

ANSWER: -----

15. What is the output of the following code?

```

public class TestConst
{
    public TestConst()
    {
        System.out.printf("1");
        new TestConst(10);
        System.out.printf("5");
    }
    public TestConst(int temp)
    {
        System.out.printf("2");
        new TestConst(10, 20);
        System.out.printf("4");
    }
    public TestConst(int data, int temp)
    {
        System.out.printf("3");
    }

    public static void main(String[] args)

```

```

        class IfStatement{

        public static void main(String args[])

        {

        int a=2, b=3;

        if (a==3)

        if (b==3)

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

        else

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

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

        }

}

```

```

        {
            TestConst obj = new TestConst();
        }
    }

```

ANSWER: -----

16. Will the below piece of code execute successful?. If Yes write the output, if No state the problem

```

class BaseClass {
    protected void func1() {}
}
class DerivedClass extends BaseClass {
    void func1() {}
}
public class Main {
    public static void main(String args[]) {
        DerivedClass d = new DerivedClass();
        d.func1();
    }
}

```

ANSWER: -----

17. Will the below piece of code execute successful?. If Yes write the output, if No state the problem

```

class ComplexNumber {
    private double re, im;
}

class IfStatement{

    public static void main(String args[])

    {

        int a=2, b=3;

        if (a==3)

        if (b==3)

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

        else

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

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

    }
}

```

```

        public String toString() {
            return "(" + re + " + " + " + im + "i)";
        }
        ComplexNumber(ComplexNumber c) {
            re = c.re;
            im = c.im;
        }
    }

    public class DriverClass {
        public static void main(String[] args) {
            ComplexNumber c1 = new ComplexNumber();
            ComplexNumber c2 = new ComplexNumber(c1);
            System.out.println(c2);
        }
    }

```

ANSWER: -----

18. What is the output of the following code?

```

public class testincrement
{
    public static void main(String args[])
    {
        int i = 0;
        i = i++ + i;
        System.out.println("I = " + i);
    }
}

```

```

class IfStatement{

    public static void main(String args[])

    {

        int a=2, b=3;

        if (a==3)

        if (b==3)

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

        else

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

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

    }
}

```

ANSWER: -----

19. Write the output of the below code.

```
public static int foo(int a, String s)
{
    s = "Yellow";
    a=a+2;
    return a;
}
public static void bar()
{
    int a=3;
    String s = "Blue";
    a = foo(a,s);
    System.out.println("a="+a+" s="+s);
}
public static void main(String args[])
{
    bar();
}
```

ANSWER: -----

20. Will the below piece of code execute successful?. If Yes write the output, if No state the problem  
}

ANSWER: -----

```
class IfStatement{

    public static void main(String args[])

    {

        int a=2, b=3;

        if (a==3)

        if (b==3)

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

        else

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

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

    }
```

21. Which is the first line to trigger a compiler error?

```
double d1 = 5f; // p1
```

```
double d2 = 5.0; // p2
```

```
float f1 = 5f; // p3
```

```
float f2 = 5.0; // p4
```

A.p1

B. p2

C. p3

D. p4

22. Consider the following program:

```
class prob1{  
    int puzzel(int n){  
  
        int result;  
  
        if (n==1)  
            return 1;  
        result = puzzel(n-1) * n;  
        return result;  
    }  
}
```

```
class IfStatement{  
  
    public static void main(String args[])  
  
    {  
  
        int a=2, b=3;  
  
        if (a==3)  
  
        if (b==3)  
  
        System.out.println("=====");  
  
        else  
  
        System.out.println("#####");  
  
        System.out.println("&&&&&&&&&");  
  
    }  
}
```

```

    }
}

class prob2{

public static void main(String args[])

{

prob1 f = new prob1();

System.out.println(" puzzel of 6 is = " + f.puzzel(6));

}
}

```

Which of the following will be the output of the above program?

- A.6
- B. 120
- C. 30
- D. 720
- E. 12.

23. What is the output of the following piece of code?

```

public class Test {
public static void main(String[] args) {
int count = 1;

                                class IfStatement{

public static void main(String args[])

{

int a=2, b=3;

if (a==3)

if (b==3)

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

else

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

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

}
}
}

```



```

while (count <= 15) {
    System.out.println(count % 2 == 1 ? "****" : "+++++");
    ++count;
}
}
}

```

ANSWER: -----

24. Find the output of the following code.

```

int Integer = 24;
char String = 'I';
System.out.print(Integer);
System.out.print(String);

```

ANSWER: -----

25. Find the output of the following code.

```

if(1 + 1 + 1 + 1 + 1 == 5){
    System.out.print("TRUE");
}
else{
    System.out.print("FALSE");
}

```

ANSWER: -----

26. What is the output of this code?

```

public class Test {

    class IfStatement{

        public static void main(String args[])

        {

            int a=2, b=3;

            if (a==3)

            if (b==3)

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

            else

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

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

        }

    }

}

```

```

        public static void main(String[] args) {
            for(int i=0; 0; i++) {
                System.out.println("Hello World!");
            }
        }
    }
}

```

ANSWER: -----

27. What is the output of the following application?

```

String john = "john";
String jon = new String(john);
System.out.println((john==jon) + " " + (john.equals(jon)));

```

- A. true true
- B. true false
- C. false true
- D. false false

28. What is the output of following program?

```

public class Test {

    public static void main(String[] args) {
        for(int i = 0; i < 5; i++) {
            System.out.println(i + ' ');
        }
    }
}

```

```

class IfStatement{

    public static void main(String args[])

    {

        int a=2, b=3;

        if (a==3)

        if (b==3)

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

        else

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

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

    }
}

```

ANSWER: -----

29. Will the below piece of code execute successful?. If Yes write the output, if No state the problem.

```
public class JavaMadness
{
    public static void main (String [] s)
    {
        short s=9;
        Int i=08;
        Int j=02;
        Int k=12345;
        s+="-z";
        System.out.println(""+i+j+s);
    }
}
```

ANSWER: -----

30. Will the below piece of code execute successful?. If Yes write the output, if No state the problem.

```
public class LoveJava
{
    Public static void main(String [] args)
    {
        If(null=null)
        System.out.println("I am a Java Geek!");
    }
}
```

```
class IfStatement{

    public static void main(String args[])

    {

        int a=2, b=3;

        if (a==3)

        if (b==3)

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

        else

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

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

    }
}
```

```
}
```

ANSWER:-----

```
class IfStatement{

public static void main(String args[])

{

int a=2, b=3;

if (a==3)

if (b==3)

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

else

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

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

}
```