1. What is the output of code snippets?

class X

{

//Class X Members

}

class Y

{

//Class Y Members

}

class Z extends X, Y

{

//Class Z Members

}

**Answer:** The code will not compile because Java does not support multiple inheritance directly. A class cannot extend more than one class.

2.What is the output of code snippets?

class A

{

int i = 10;

}

class B extends A

{

int i = 20;

}

public class MainClass

{

public static void main(String[] args)

{

A a = new B();

System.out.println(a.i);

}

}

**Answer: 10**

This is because a is of type A, and the field i of class A is accessed, which has the value 10.

3.What is the output of code snippets?

class A

{

{

System.out.println(1);

}

}

class B extends A

{

{

System.out.println(2);

}

}

class C extends B

{

{

System.out.println(3);

}

}

public class MainClass

{

public static void main(String[] args)

{

C c = new C();

}

}

**Answer:**

**1**

**2**

**3**

The instance initializers are executed in the order of inheritance when an instance of C is created.

4.What is the output of code snippets?

class A

{

String s = "Class A";

}

class B extends A

{

String s = "Class B";

{

System.out.println(super.s);

}

}

class C extends B

{

String s = "Class C";

{

System.out.println(super.s);

}

}

public class MainClass

{

public static void main(String[] args)

{

C c = new C();

System.out.println(c.s);

}

}

**Answer:**

**Class A**

**Class B**

**Class C**

The instance initializers of class B and C print super.s, which refers to the s field of their superclass. Finally, c.s prints the s field of class C.

5.What is the output of code snippets?

class A

{

static

{

System.out.println("THIRD");

}

}

class B extends A

{

static

{

System.out.println("SECOND");

}

}

class C extends B

{

static

{

System.out.println("FIRST");

}

}

public class MainClass

{

public static void main(String[] args)

{

C c = new C();

}

}

**Answer:**

THIRD SECOND FIRST

The static initializers are executed in the order of inheritance hierarchy when the class is first loaded.

6.What is the output of code snippets?

class A

{

public A()

{

System.out.println("Class A Constructor");

}

}

class B extends A

{

public B()

{

System.out.println("Class B Constructor");

}

}

class C extends B

{

public C()

{

System.out.println("Class C Constructor");

}

}

public class MainClass

{

public static void main(String[] args)

{

C c = new C();

}

}

**Answer:**

**Class A Constructor**

**Class B Constructor**

**Class C Constructor**

The constructors are called in the order of inheritance hierarchy when an instance of C is created.