1. What will be output of following?

```
// filename Test.java
class Test {
        public static void main(String[] args) {
                for(int i = 0; 1; i++) {
                        System.out.println("Hello");
                        break;
                }
        }
}
```

2. What will be the output of following?

```
class Main {
        public static void main(String args[]) {
                System.out.println(fun());
        }
        int fun() {
                return 20;
        }
}
```

3. What will be the output of following?

```
// filename Test.java
class Test {
        public static void main(String args[]) {
                System.out.println(fun());
        }
        static int fun() {
                static int x= 0;
                return ++x;
        }
}
```

4. What will be the output of following?

```
// filename: Test.java
class Test {
        int x = 10;
        public static void main(String[] args) {
                Test t = new Test();
                System.out.println(t.x);
        }
}
```

5. What will be the output of following?

```
// filename: Test.java
class Test {
        int y = 2;
        int x = y+2;
        public static void main(String[] args) {
                Test m = new Test();
                System.out.println("x = " + m.x + ", y = " + m.y);
        }
}
```

6. What will be the output of following?

```
// filename: Test.java
public class Test
{
        int x = 2;
        Test(int i) { x = i; }
        public static void main(String[] args) {
                Test t = new Test(5);
                System.out.println("x = " + t.x);
        }
}
```

7. What will be the output of following?

```
class Derived
{
        protected final void getDetails()
        {
                System.out.println("Derived class");
        }
}

public class Test extends Derived
{
        protected final void getDetails()
        {
                System.out.println("Test class");
        }
        public static void main(String[] args)
        {
                Derived obj = new Derived();
                obj.getDetails();
        }
}
```

8. What will be the output of following?

```
class Derived
{
	public void getDetails()
	{
		System.out.printf("Derived class ");
	}
}

public class Test extends Derived
{
	public void getDetails()
	{
		System.out.printf("Test class ");
		super.getDetails();
	}
	public static void main(String[] args)
	{
		Derived obj = new Test();
		obj.getDetails();
	}
}
```

9. What will be the output of following?

```
public class Test
{
	public static void main(String[] args)
	{
		Test t = new Test();
		// making t eligible for garbage collection
		t = null;

		// calling garbage collector
		System.gc();
		System.out.println("end main");
	}

	@Override
	protected void finalize()
	{
		System.out.println("finalize method called");
	}

}
```

10. What will be the output of following?

```
public class Test
{
	public static void main(String[] args)
	{
		String str = new String("Test");
		// making str eligible for gc
		str = null;

		// calling garbage collector
		System.gc();
		System.out.println("end of main");
	}
	@Override
	protected void finalize()
	{
		System.out.println("finalize method called");
	}
}
```

11. What will be the output of following?

```
package main;
class Base {
	public void Print()
	{
		System.out.println("Base");
	}
}
class Derived extends Base {
	public void Print(){
		System.out.println("Derived");
	}
}
class Main {
	public static void DoPrint(Base o){
		o.Print();
	}
	public static void main(String[] args){
		Base x = new Base();
		Base y = new Derived();
		Derived z = new Derived();
		DoPrint(x);
		DoPrint(y);
		DoPrint(z);
	}
}
```