1. Which of these results in compilation errors?

```
public interface One{
    1. public abstract void m1();
    2. abstract void m2();
    3. final abstract void m3();
    4. void m4();
}
```

A. 1 B. 2 C. 3 D. 1, 2, 3

2. Analyze the code snippet below & determine what modification makes this program compilation successful?

```
interface One{
    void m1();
}
public class Two implements One{
        void m1(){
            /* Code goes here */
        }
}
```

A. Make m1() as protected
B. Make m1() as private
C. Make m1() as public
D. Make class Two as abstract

3. Analyze the code snippet below & determine what modification makes the program compilation successful.

```
public class Demo{
        public  int getSum();
        final int getResult(){
        /* Code goes here*/}
}
```

A. getSum() declare as abstract method
B. Declare Demo class as abstract class
C. Add return 7 in getResult() method
D. All of the above

4. Analyze the code snippet below & determine the output:

```
interface TestA {int  toString(); }
  public  class TestB implements TestA{
     public int toString(){
              return 100; }
 }
public class TestC{
     public static void main(String… args){
              TestB obj=new TestB();
               System.out.println(obj);
     }
}
```

A. 100 B. No output C. Compilation Error D. Hashcode will be displayed

5. Analyze the code snippet below & choose the right option below.

```
     public interface One{
              public void m1();
       }
     public interface Two{
              public int m2();
     }
     public class Three implements One,Two{
     }
```

A. If the class Three is made as abstract, compilation succeeds

B. class can't implement two interfaces

C. Compilation error

D. Compilation success

6. Analyze the code snippet below:

```
     interface Foo {}
     class Alpha implements Foo {}
     class Beta extends Alpha {}
     class Delta extends Beta {
     public static void main( String[] args ) {
     Beta x = new Beta();
     7. //insert code here
```

```
    }
}
```

Which line of code, if inserted at line 7, will cause a java.lang.ClassCastException?

A. Alpha a = x;

B. Foo f = (Delta)x;

C. Foo f = (Alpha)x;

D. Beta b = (Beta)(Alpha)x;

7.Which of these is/are not valid declarations?

A. abstract interface A{}

B. private interface A{}

C. public abstract interface A{}

D. All of the above

8. Which of these are true about interfaces?

A) Interface contains only abstract methods and final variables.

B) We cannot create an object for an interface.

C) Interface contains only private methods

D) Interfaces contain constructor

9. An interface contains _____ methods.

A)Non-abstract

B) Implemented

C)Unimplemented

D)final methods

10. Can an Interface have an inner class?

A. Yes - Always

B. no

C. Yes - Sometimes

D. Cannot say

11. Determine the output of the code snippet below:

```
interface  A{
   void A();
}
 class B implements A{
        public static void main(String[] args) {
                new B().A();
        }
 public void A() {
        System.out.println("interface A");
 }
}
```

A. Compilation fails.

B. interface A

C. An exception is thrown at runtime.

D. none of the above

12. Which of the following are not true, if A, B, C &D are interfaces and E &F are classes (Multiple options are possible)

A. interface C extends A{}

B. interface D implements C{}

C. interface C extends A,B{}

D. class E implements A,B,C{}

E. class F extends D{}

13. Analyze the code snippet below & determine the output:

```
interface MyInterface {
        public void method1();
        public void method2();
}
class Test implements MyInterface               //1
{
        public void method1() {  }
}
class TestQuestion extends Test implements MyInterface //2
{
        public static void main(String s[])
        {       }
        public void method2()
        {       }
}
```

A. The program will compile and execute successfully, but no output will be shown.
B. The program will generate compilation error at the line marked as //2.
C. The program will generate compilation error at the line marked as //1.
D. The program will throw a runtime exception.

14. Analyze the code snippet below &pick the right option:

```
interface MyInterface {
        int funcA(int a);
        int funcB(String s);
}
```

A. private class Test implements MyInterface{}
B. interface Yourinterface extends MyInterface{}
C. interface Yourinterface implements Myinterface
D: None of these

15. Analyze the code snippet below & determine the output:

```
interface I {
        void m1();

}
public class TestQuestion implements I {
        public void m1(){
         System.out.println("hi");
        }
        public static void main(String... a){
                new TestQuestion().m1();
        }
}
```

A. The program will display the output as: hi
B. The program will generate compilation error.
C. The program will compile and execute successfully, but no output will be shown.
D. The program will throw a runtime exception.

16. What is the output of the following code snippet?

```
package spaneos.demo;
interface One{
        void show();
}
abstract class Two implements One {
```

```
	public void show1(){
		show();
	}
}
class Three extends Two{
		public void show1(){
			System.out.println("Show-2 method");
		}
		public void show(){
			System.out.println("Show-1 method");
		}
}
public class Example {
		public static void main(String[] args) {
			One obj1=new Three();
			Two obj2=(Two)obj1;
			obj1.show();
			obj2.show1();

		}
}
```

A. Show-1 method
   Show-2 method
B. Show-2 method
   Show-1 method
C. Show-1 method
D. Show-2 method
E. Leads to java.lang.ClassCastException

17. What is the output of the following code snippet?

```
interface One {

	int a = 100;

	void show();

}

class Two implements One {

	int a = 200;

	{

		int a = 300;

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

	}
```

```
        @Override
        public void show() {
                System.out.println("A =" + a);
        }   }
public class Example {
        public static void main(String[] args) {
                One obj = new Two();
                obj.show();
                System.out.println("A =" + obj.a);
        }         }
```

A. 100 200 300
B. 300 100 100
C. 300 200 100
D. 300 200 200
E. 300 300 100

18. Select the valid code snippet to make class “Two” as concrete class.

```
 package spaneos.demo;
import java.io.IOException;
interface One {
        void show1();
        public void show2()throws IOException;
}
public class Two implements One{
                //
}
```

A. public void show1(){ }
   public void show2()throws Exception{ }
B. void show1(){ }
   public void show2()throws IOException{ }
C. public void show1(){ }

public void show2()throws IOException{ }

D. void show1(){ }
   void show2()throws IOException{ }
E. public void show1(){ }
   public void show2()throws Exception{ }

19. Which of the following keywords are valid when preceding with the keyword **int** in the following code snippet?

```
public interface Demo {

        int val = 100;

}
```

A. public
B. protected
C. static
D. final
E. abstract

20. What is the output of the following code snippet?

```
abstract class Vehicle {

        public int speed() { return 0; }

}

class Car extends Vehicle {

        public int speed() { return 60; }

}

class RaceCar extends Car {

        public int speed() { return 150; }

}

public class Example {

        public static void main(String... args) {

                RaceCar racer = new RaceCar();

                Car car = new RaceCar();
```

```
                Vehicle vehicle = new RaceCar();
                System.out.println(racer.speed() + ", " + car.speed()
                 + ", " + vehicle.speed());

        }
}
```

A. 0, 0, 0

B. 150, 60, 0

C. Compilation fails.

D. 150, 150, 150

E. An exception is thrown at runtime.