Q>

```
class Thingy { Meter m = new Meter(); }
class Component { void go() { System.out.print("c"); } }
class Meter extends Component { void go() { System.out.print("m"); } }
class DeluxeThingy extends Thingy {
    //meter object would come and meter would extend component so navigation is possible
    public static void main(String[] args) {
            DeluxeThingy dt = new DeluxeThingy();
            dt.m.go();
            Thingy t = new DeluxeThingy();
            t.m.go();
    }
}
```

Which two are true? (Choose two.)

A. The output is mm.

B. The output is mc.

C. Component is-a Meter.

D. Component has-a Meter.

E. DeluxeThingy is-a Component.

F. DeluxeThingy has-a Component.

relationship b/w 2 classes as inheritance => IS-A relation

relationship b/w 2 classes which are used for navigation => HAS-A relationship

Answer: A F

Q>

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

        boolean a =new Boolean(Boolean.valueOf(args[0]));//new Boolean(false)
        System.out.println(a);//false

        boolean b =new Boolean(args[1]);//new Boolean("null")
        System.out.println(b);//false
    }
}
```

And the commands are

```
javac Test.java
java Test 1 null
```

commandline arguments

```
====================
args[0] = "1"
args[1] = "null"
```

What is the result?

A. 1 null

B. true false

C. false false

D. true true

E.   Class cast Exception is thrown at the runtime

Answer: C

Q>

```
public class Test {
    public static void doSum(int x, int y){
          System.out.println("int sum is:: "+(x+y));
    }
    public static void doSum(Integer x, Integer y){
          System.out.println("Integer sum is:: "+(x+y));
    }
    public static void doSum(double x, double y){
          System.out.println("double sum is:: "+(x+y));
    }
    public static void doSum(float x, float y){
          System.out.println("float sum is:: "+(x+y));
    }
    public static void main(String[] args) {
          doSum(10,20);
          doSum(10.0,20.0);
    }
}
```

What is the result?

A. int sum is :: 30
float sum is :: 30.0

B. int sum is :: 30
double sum is :: 30.0

C. Integer sum is :: 30
double sum is :: 30.0

D. Integer sum is:: 30
float sum is :: 30.0

Answer: B

Q>
Given:

```
public class BuildStuff {
        public static void main(String[] args) {
                Boolean test = new Boolean(true);//test = true
                Integer x = 343;
                Integer y = new BuildStuff().go(test, x);// true,343
                System.out.println(y);//49
        }
        int go(Boolean b, int i) {
            if(b) return (i/7);// return 343/7 => 49
            return (i/49);
        }
}
```

What is the result?

A. 7

B. 49

C. 343

D. Compilation fails.

E. An exception is thrown at runtime.

Answer: B

Q>

```
class Vehicle{
      int x;
      Vehicle(){
            this(10);
      }
      Vehicle(int x){
            this.x = x;
      }
}
class Car extends Vehicle{
      int y;
      Car(){
            super(); // line-n1
            this(20);//line-n2
      }
      Car(int y){
            this.y= y;
      }
      public String toString(){
            return super.x + " " + this.y;
      }
}
public class Test {
      public static void main(String[] args) {
            Vehicle y= new Car();
            System.out.println(y);
      }
}
```

Predict the answer

A. 10:20

B. 0:20

C. Compilation fails at line n1

D. Compilation fails at line n2

Answer: D

Q>

```
public static void main(String[] args) {
             Integer i = new Integer(1) + new Integer(2);//line-12
            switch(i) {//line-13
                  case 3: System.out.println("three"); break;
                  default: System.out.println("other"); break;//line-15
            }
}
```

What is the result?

A. three

B. other

C. An exception is thrown at runtime.

D. Compilation fails because of an error on line 12.

E. Compilation fails because of an error on line 13.

F. Compilation fails because of an error on line 15.

Answer: A

Q>

Given:

```
public class Foo {
            static int[] a;
            static { a[0]=2; }
            public static void main( String[] args ) {}
}
```

Which exception or error will be thrown when a programmer attempts to run this

code?
A. java.lang.StackOverflowError
B. java.lang.IllegalStateException
C. java.lang.ExceptionInInitializerError
D. java.lang.ArrayIndexOutOfBoundsException

```
static{
      //if some excpetion occurs during initialization then it is called as "ExceptionInInitalizerError"
}
```

Q>
Given:

```
interface Jumper { public void jump(); }
...
class Animal {}
...
class Dog extends Animal {//Dog IS-A Animal , Dog Has-A tail
        Tail tail;
}
...
class Beagle extends Dog implements Jumper{//Beagle is a Dog,Beagle is a Animal,Beagle has-a tail, Beagle is-A jumper
        public void jump() {}
}
...
class Cat implements Jumper{//Cat is-a jumper
        public void jump() {}
}
```

Which three are true? (Choose three.)
A. Cat is-a Animal
B. Cat is-a Jumper
C. Dog is-a Animal
D. Dog is-a Jumper
E. Cat has-a Animal
F. Beagle has-a Tail
G. Beagle has-a Jumper

Answer: BCF

QUESTION
Given:

```
class X {
   X() { System.out.print(1); }
   X(int x) {
         this(); System.out.print(2);
   }
}
public class Y extends X {
   Y() { super(6); System.out.print(3); }
   Y(int y) {
         this(); System.out.println(4);
   }
public static void main(String[] a) { new Y(5); }
}
```

What is the result?
A. 13
B. 134
C. 1234

D. 2134
E. 2143
F. 4321

Answer: C(1234)