OOP Java Exercise 3 Task 3 - Quizes

1)   Given:

```
public class Cat implements Animal      {

      ...

}
```

Which of the following statements are true?

a)   Cat is an interface.

b)   Animal is an interface.

c)   Cat is a Class.

d)   Animal is a class.

e)   Animal implements Cat.

2)   Given:

```
static public class Math1     {
      public int            a = 1;
      public int            doMath( )     {
            return a + 2;
      }
}
static public class Math2 extends Math1   {
      public int            doMath( )     {
            return a*2;
      }
}
public static void main(String[] args)      {
      Math2 m = new Math2();
      System.out.println( m.doMath( ) );
      return;
}
```

What will be returned?

a)   1

b)   2

c)   3

d)   4

e)   5

3) **Given:**

```
--------------------------------------------------
public class Box        {
        public          int     a = 1;
        private         int     b = 2;
        protected       int     c = 3;
        public int getA()       {
                return a;
        }
        protected int getB()  {
                return b;
        }
        private int getC()      {
                return c;
        }
}
public class Cube extends Box        {
        ...
}
--------------------------------------------------
```

      Which methods can be used by objects of the Cube class?
      a)   getA( )
      b)   getB( )
      c)   getC( )

4) **How can you add methods to an Interface, without breaking old code in Java?**
      a)   There is no way to do this.
      b)   Create a new interface with the new methods and extend the old one.
      c)   Create a second interface with the new methods.

5) **What does a Interface declaration in Java look like?**
      a)   private interface Test{}
      b)   public interfaces Testing{}
      c)   public interface Test extends TestFramework{}

6) **What are Interfaces in Java used for?**
      a)   They are used to connect to the internet.
      b)   They are used to as a contract between different programmers.
      c)   They are used as a blueprint.
      d)   They are used to show how the software interacts between different parts.

7) **Given:**

```java
public class Clothing{
        public String  name;
        private String color;
        Clothing(String s1 , String s2)
        {
                name = s1;
                color = s2;
        }
        ...
}

public class Pants extends Clothing        {
        Pants(String s1 , String s2)
        {
                (??)
        }
        ...
}
```

What can bes used instead of (??) to complete the constructor for Pants class?

a)   super.Clothing(s1 , s2);

b)   name = s1;
         color = s2;

c)   super(s1 , s2);

d)   Clothing(s1, s2);

8) **Interfaces in Java can also be used as ....?**

a)   a Type

b)   a Object

c)   a Class

d)   a Variable

9) **How many other interfaces can an interface extend at most?**

a)   0

b)   1

c)   32

d)   64

e)   any

10)   Given

```
abstract class Number        {
        public int n;
        public int getNum( ) {
                return n;
        }
        absract int calc( );
}
```

Which of the following are valid subclasses of Number?

a)   public class NumberDouble extends Number   {
                public int calc( )   {
                        return n * 2; }
        }

b)   abstract class NumberDouble extends Number   {
                public int calc( )   {
                        return n * 2; }
        }

c)   public class NumberTriple extends Number   {
                public int getNum( ) {
                        int i = n;
                        return i;   }
        }

d)   abstract class NumberTriple extends Number   {
                public int getNum( ) {
                        int i = n;
                        return i;   }
        }

e)   public class NumberQuadruple extends Number {
                public int calc( )   {
                        return n * 4; }
                public int getNum( ) {
                        int i = n;
                        return i;   }
        }

11) Constant values defined in interfaces can be

a) public

b) non-static

c) private

d) final

e) static

12) How is an interface used in a class declaration in Java?

a) public class Test extends TestInterface{}

b) public class Test implements TestInterface{}

c) public interface Test extends Test{}

d) private interface Test includes TestInterface{}

13) What can you do when you extend an interface in Java, which contains a default method?

a) Redeclare the default method

b) Not mention the default method at all

c) Redefine the default method

14) What happens if you redeclare a default method in an extend of an interface in Java?

a) It overrides the default method.

b) It inherites the default method.

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