OCP QUESTION 14

You want to create a singleton class by using the Singleton design pattern. Which two statements enforce the singleton nature of the design?

A. Make the class static.
B. Make the constructor private.
C. Override equals() and hashCode() methods of the java.lang.Object class.
D. Use a static reference to point to the single instance.
E. Implement the Serializable interface.

OCP QUESTION 28

For which two reasons should you use interfaces instead of abstract classes?

A. You expect that classes that implement your interfaces have many common methods or fields, or require access modifiers other than public.
B. You expect that unrelated classes would implement your interfaces.
C. You want to share code among several closely related classes.
D. You want to declare non-static or non-final fields.
E. You want to take advantage of multiple inheritance of type.

OCP QUESTION 37

Given:

```
interface Answerable {
    public void answer(String question);
}
```

Which two class definitions compile?

A.
```
abstract class Test implements Answerable {
        public void write(String essay) { }
   }
```

B.
```
abstract class Exam implements Answerable {
        public abstract void answer(String str) { }
        public void faint(Boolean bool) { }
   }
```

C.
```
class Quiz implements Answerable {
        public void answer(Integer num) { }
   }
```

D.
```
class BlindDate implements Answerable {
        public void answer(Integer age) { }
        public String grin(Integer numberOfMissingTeeth) { }
   }
```

E.
```
class Interrogation implements Answerable {
        public void answer(String nameAndRank) { }
        public void answer(Integer serialNumber) { }
        public void refuse(String otherQuestions) { }
   }
```

OCP QUESTION 41

Given:

```
1. abstract class Comsat {
2.    Comsat( ) { System.out.println ("Communication Satellite"); }
3.     protected void transmit( ) { System.out.println ("Communication Satellite"); }
4. }
5.
6. class Constellation extends Comsat {
7.    int num;
8.    Constellation(int num) {
9.    /* insert code here */
10.      this.num = num;
11.   }
12.    public void transmit( ) { System.out.println ("Constellation of comsats"); }
13. }
14. class Galileo extends Constellation {
15.    int height, incl;
16.    Galileo(int x, int y) {
17.       /* insert code here */
18.       height = x; incl = y;
19.    }
20.    void transmit( ) { System.out.println ("Galileo"); }
21.}
```

Which two modifications enable the code to compile?

A. At line 1, remove abstract
B. At line 9, insert super ( );
C. At line 12, remove public
D. At line 17, insert super(x);
E. At line 17, insert super(); super.num = x;
F. At line 20, use public void transmit( ) {

OCP QUESTION 53

Given:

```
public enum Season {
    WINTER (6),
    SPRING(10),
    SUMMER (25),
    FALL(14);
    private int averageTemp;
    public Season(int averageTemp) {
        this.averageTemp = averageTemp;
    }
    public int getTemp() {return averageTemp;}
}

public class Vacationer {
    public static void main (String[] args) {
        Season ssn = new Season.SUMMER;
        System.out.println(ssn.getTemp());
    }
}
```

Which two modifications enable the given code to compile?

A. Nest the Season enumeration declaration within the Vacationer class.
B. Make the Season enumeration constructor private.
C. Remove the new keyword from the instantion of ssn.
D. Make the getter method of averageTemp as a static method.
E. Add the final keyword in the declaration of averageTemp.

OCP QUESTION 71

Given:

```
class Gadget {
    int id;
    String name;
    public Gadget(int id, String name) {
        this.id = id;
        this.name = name;
    }
    public boolean equals(Object obj) {      // line n1
        boolean result = false;
        Gadget b = (Gadget) obj;
        if (this.name.equals(b.name)) {
            result = true;
        }
        return result;
    }
}
```

and the code fragment:

```
Gadget g1 = new Gadget(01, "iPhone");
Gadget g2 = new Gadget(10, "iPhone");
System.out.println(g1.equals(g2));           // line n2
```

Which statement is true?

A. The program prints true.
B. The program prints false.
C. A compilation error occurs. To ensure successful compilation, replace line n1 with:
```
boolean equals (Gadget obj) {
```
D. A compilation error occurs. To ensure successful compilation, replace line n2 with:
```
System.out.println(g1.equals((Object) g2));
```

OCP QUESTION 90

Given:

```
public class Test<T> {
    private T t;
    public T getT() {
        return t;
    }
    public void setT(T t) {
        this.t = t;
    }
    public static void main(String args[]) {
        Test<String> obj1 = new Test<>();
        Test obj2 = new Test();                 // line n1
        obj1.setT("1Z0");
        obj2.setT(809);                         // line n2
        System.out.print(obj1.getT() + "-" + obj2.getT());
    }
}
```

What is the result?

A. 1Z0-809

B. java.lang.String@<hashcode>
java.lang.Integer@<hashcode>

C. A compilation error occurs. To rectify it, replace line n1 with:
```
Test<Integer> obj2 = new Test<>();
```

D. A compilation error occurs. To rectify it, replace line n2 with:
```
obj2.setT(Integer(809));
```