

**Question - 1**  
**Question 1**

SCORE: 10 points

What's the correct order for system design?

☐

Problem Definition -> Design -> Implementation -> Specification

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Problem Definition -> Specification -> Design -> Implementation

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Problem Definition -> Design -> Specification -> Implementation

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Specification -> Problem Definition -> Design -> Implementation

**Question - 2**  
**Question 2**

SCORE: 10 points

ArrayLists are dynamic Arrays that can grow as needed

☒

True

☐

False

**Question - 3**  
**Question 3**

SCORE: 10 points

What's the output of the java segment below?

```
public class StringObj{
    public static void main(String []args){
        String a = "abc";
        String b = new String("abc");
        String c = "abc";
        System.out.println(a.equals(b));
        System.out.println(a==b);
        System.out.println(a==c);
    }
}
```

☐

true true true

☐

true false false

☐

false true true

### Question - 4

#### Question 4

SCORE: 10 points

Which operator can be used to concatenate two or more String objects?

- ☒ +
- ☐ &
- ☐ ||
- ☐ \*

### Question - 5

#### Question 5

SCORE: 10 points

Git: After creating a new file called index.class. Which of the following statement will stage this one file so we can commit it?

- ☐ git push index.class
- ☐ git add new
- ☒ git add index.class
- ☐ git commit index.class

### Question - 6

#### Question 6

SCORE: 10 points

The \_\_\_\_\_ can be accessed by the class of the same package, or by the sub-class of this class, or within the same class.

- ☐ public
- ☐ private
- ☒ protected
- ☐ default

### Question - 7

#### Question 7

SCORE: 10 points

Examine the following code:

```
ArrayList<String> list = new ArrayList<String>();
```

```
list.add( "A" );  
list.add( "B" );  
list.add( "C" );  
list.add( "D" );  
list.add( "E" );
```

Which of the following will replace the element "C" with "R"?

- ☐ list[2]="R";
- ☒ list.set(list.indexOf("C"),"R");
- ☐ list.set( "R", "C" );
- ☐ ist.add( "R", list.indexOf("C") );

### Question - 8

#### Question 8

SCORE: 10 points

Examine the following code:

```
ArrayList<String> list = new ArrayList<String>();  
list.add( "Cupcake" );  
list.add( "Gingerbread" );  
list.add( "Lollipop" );  
list.add(0, "Oreo " );
```

What element will be at index 2 of the list?

- ☐ Cupcake
- ☐ Lollipop
- ☒ Gingerbread
- ☐ Oreo

### Question - 9

#### Coding : ArrayList

SCORE: 20 points

Give you an ArrayList with several Integers in it, return an ArrayList with all even number from the ArrayList given.

example:

Input:[1,2,3,4,5,6]

Output :[2,4,6]