



### Question - 1

#### Strings

SCORE: 10 points

What sort of thing is `"Nothing New"` as in the following:

```
String str = "Nothing New";
```

- ☐ A String shortcut
- ☒ A String literal
- ☐ A quoted String
- ☐ An optimized String

### Question - 2

#### Objects

SCORE: 10 points

What type of object cannot be altered after it is constructed?

- ☐ unchangeable
- ☐ malleable
- ☐ adamant
- ☒ immutable

### Question - 3

#### Parameters

SCORE: 10 points

What is an *actual parameter*?

- ☐ The value that is returned by a method.



The identifier used in a method to stand for the value that is passed into a method by a caller.

- ☒ The value that is passed into a method by a caller.
- ☐ A variable used to control a counting loop.

### Question - 4

#### Arguments

SCORE: 10 points

[? Help](#)

If a method assigns a new value to a *member* of an object it can access through an object reference parameter, will this have any effect on its caller?



Yes, this will change part of the object that both it and the caller are referring to.



Yes, the caller will now get a new object.



No, because it only has a copy of the object.



No, because it is not allowed to do this.

## Question - 5

### Strings and Objects

SCORE: 10 points

Can a programmer (you) design a class whose objects are *immutable*?



No, only a few predefined Java classes like String are immutable.



Yes, by making all instance variables and member methods private.



Yes, by making all instance variables of the class private.



No, all pre-defined classes are immutable, and all programmer defined classes are not.

## Question - 6

### Arrays

SCORE: 10 points

What is the output of the following?

```
class LowHighSwap
{
    static void doIt( int[] z )
    {
        z[ z.length-1 ] = z[0] ;
        z[0] = z[ z.length-1 ] ;
    }
}

class TestIt
{
    public static void main ( String[] args )
    {
        int[] myArray = {1, 2, 3, 4, 5} ;

        LowHighSwap.doIt( myArray );

        for (int j=0; j<myArray.length; j++ )
            System.out.print( myArray[j] + " " ) ;
    }
}
```

- ☐ 1 2 3 4 5
- ☐ 5 2 3 4 1
- ☒ 1 2 3 4 1
- ☐ 4 2 3 1 5

### Question - 7

#### Insertion in Array

SCORE: 20 points

Given a sorted array and a target array, return an array of index for each target element in the final array if they were to be placed in the sorted array preserving the sorted order.

Eg:

sorted array -> [ 1, 7, 15, 79, 93 ]

target array -> [ 9, 28, 33, 92 ]

answer -> [ 2, 4, 5, 7 ] as the final array would look something like

[1, 7, 9, 15, 28, 33, 79, 92, 93 ]

**Assumptions :**

1. there are no duplicates.
2. elements are always sorted in ascending order.

### Question - 8

#### Java

SCORE: 10 points

The package \_\_\_\_\_ is automatically imported in every java program.

- ☐ java.util
- ☒ java.lang.\*
- ☐ java.util.\*
- ☐ B & C

### Question - 9

SCORE: 10 points

Easy

Java

Standard Library

Which of the following statements is correct. Select the one correct answer.



Each Java file must have exactly one package statement to specify where the class is stored.



If a Java file has both import and package statement, the import statement must come before package statement.

☐ A Java file has at least one class defined.



If a Java file has a package statement, it must be the first statement (except comments).