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Quiz - 1 - Lesson 1 - 4

[15 Points]

Set - 1

I. Circle the suitable choice for multiple choices, some questions fill out answer in the line.

1. Write the memory storage for the given types from the clues. [2 Points]

[Clues : Heap , Stack , String Pool , Registers]

- a. Object Reference - stack ✓
b. String Literals - String pool ✓
c. Objects - Heap ✓
d. Local Variables - stack ✓

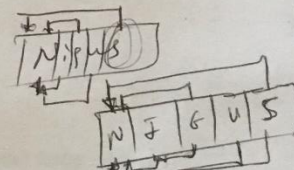
$A = \text{new } A()$
stack $B = 40$

15/15

2. Which statement below is true when the following code is compiled/run, and the input is a non-null String start and a char c?

- a. Invalid recursion, which leads to a runtime error.
b. Outputs true if the input string is empty, false otherwise
c. Outputs true if the character c is contained in the string start, false otherwise
d. Outputs true if the character c is *not* contained in the string start, false otherwise

```
public static boolean what(String start, char c){  
    if(start.equals("")) return false;  
    if(start.charAt(start.length() - 1) == c) return true;  
    return what(start.substring(0, start.length() - 1), c);  
}
```



3. Java performs extensive compile time and runtime error checking to gain reliability. This statement is true or false.

✓ (A) True B. False

4. What is output of the given code?

```
int x[] = new int[8];  
x[0] = 5; x[1] = 6;  
System.out.println(x.length);
```

A. 2 (B) 8 ✓ C. 5 D. 6

5. A Constructor has no return value and no return type. This statement is true or false.

(A) True B. False

6. Private constructor can be used to ensure that only one instance of a class is ever used. This

concept is generally called as _____ class.

A. Immutable

B. Mutable

(C) Singleton

D. Enum

7. What is the output of the following program?

```
String s1 = "Welcome to Java";  
String s2 = new String("Welcome to Java");  
String s3 = "Welcome to Java";  
System.out.println("s1 == s2 is " + (s1 == s2));  
System.out.println("s1 == s3 is " + (s1 == s3));
```

- ☒ A. s1 == s2 is false
s1 == s3 is true
- ☐ B. s1 == s2 is true
s1 == s3 is true
- ☐ C. s1 == s2 is false
s1 == s3 is false
- ☐ D. Error

8. What is the output of this given code?

```
public class Test {  
    static int count=0;  
    Test(){ ++count;}  
    public int getCount(){return count;}  
  
    public static void main(String[] args){  
        Test instance = null;  
        for(int i = 0; i < 5; ++i){  
            instance = new Test();  
        }  
        System.out.println(instance.getCount());  
    }  
}
```

- A. 0 B. 1 ☒ C. 5 D. The code has some error

9. What is the output of the given recursive algorithm if you pass a string "Quiz" ?

```
public static int test(String str) {  
    if (str == null || str.equals(""))  
        return 0;  
    else  
        return 1 + test(str.substring(1));  
}
```

Answer : 4

10. Is the given signature is valid overloading or not. Your answer should be Yes or No.

```
int myMethod(int input1, String input2);  
void myMethod(int x, String s);
```

Answer : NO

→ number of parameters
→ data type of parameters

11. What is the output of the given code?

```
class Operation{  
    int data=50;  
    void change(int data){  
        data=data+100;  
    }  
}
```

```
public static void main(String args[]){  
    Operation op=new Operation();  
    System.out.println(op.data);  
    op.change(500);  
    System.out.println(op.data);  
}
```

- A. 50
600
- B. 150
750
- C. 50
650
- ☒ D. 50
50

12. What is the output of the following program?

```
class MyClass
```

```
{  
    int i;  
    float j;  
    MyClass(int x, float y)  
    {  
        i=x;  
        j=y;  
    }  
}
```

```
public static void main(String[] args)
```

```
{  
    MyClass myObj= new MyClass();  
    System.out.println("myObj.i="+myObj.i+"", myObj.j="+myObj.j);  
}
```

- A. myObj.i=0, myObj.j=0.0
- C. Run Time Error
- ☒ B. Compile Time Error
- D. None

13. Write your answer with the word Mutable or Immutable for the given API. [2 Point]

a. LocalDate - Immutable

b. StringBuilder - Mutable