



Question - 1

Find Duplicate elements from among 2 arrays

SCORE: 40 points

#Duplicate

Given 2 Lists of integer as input to the function, return a **Sorted List (Descending)** containing integers common to both input Lists.

Eg:

input 1 [2, 3, 5, 7, 27, 1, 6]

input 2 [8, 55, 77, 5, 9, 6, 1]

answer [6, 5, 1]

Explanation:

- the elements -1, -6 and 5 are present in both the input lists
- the returned values need to be in descending order thus, 5 (highest) to -1 (lowest).

Assumptions:

no element in input arrays would be repeated.

Question - 2

Inheritance

SCORE: 10 points

```
class A {
    public static int eval(int a, int b){
        return a + b;
    }
}
class B extends A{
    public static int eval(int a, int b, int
c){
        return a * b * c;
    }
}
class C extends B {
    public static void main(String args[]) {
        System.out.println("Sum = " +
eval(2,3,2));
    }
}
```

- ☐ Sum = 10
- ☐ Sum = 7
- ☒ Sum = 12
- ☐ Product = 10

Question - 3

SCORE: 10 points

Application Development

Java

Which of the following statement is true about the code below?

```
class A {  
    int a;  
    public A(int x){a = x;}  
};  
  
class B{  
    int b;  
    public B(int x):b(x){}  
};
```

☐ Class A and Class B constructors represent two ways of initializing the member variables.

- ☐ Class B object would initialize faster.
- ☒ Class B object initialization is invalid Java syntax.
- ☐ Depends on the compiler

Question - 4 String Matching

SCORE: 10 points

```
String s = "superman";  
String b = "batman";  
String s1 = "superman";
```

```
if (s == b){  
    System.out.println("Bruce is Superman");  
} else if(s == s1){  
    System.out.println("Clark is Superman !!!");  
} else if(s1 == s){  
    System.out.println("is Clark Superman ???");  
}
```

```
System.out.println("we love RDJ");
```

- ☒ Clark is Superman !!! we love RDJ
- ☐ Clark is Superman !!! is Clark Superman ??? we love RDJ
- ☐ Bruce is Superman
- ☐ we love RDJ

Question - 5

SCORE: 10 points

Question X

What's the output when *printAnswer()* is invoked ?

```
private void printAnswer() {  
    //getName() method returns value set using .setName()  
  
    Person p1 = new Person();  
    p1.setName("name-1");  
  
    Person p2 = p1;  
    p2.setName("name-2");  
  
    System.out.println(p1.getName());  
    System.out.println(p2.getName());  
  
}
```

- ☐ name1 name2
- ☐ name-1 name-2
- ☐ name1 name-2
- ☒ name-2 name-2

Question - 6

Storage

SCORE: 10 points

Which interface provides the capability to store objects using a key-value pair?

- ☒ Java.util.Map
- ☐ Java.util.Set
- ☐ Java.util. List
- ☐ Java.util.Collection

Question - 7

Increment Decrement Operators

SCORE: 10 points

```
class Solution{  
    public static void main(String[] args){  
        int a = 10;  
        System.out.println("ABC " + (--a) + (a--));  
        int b = a;  
        System.out.println("ABC " + (b--) + (--b));  
    }  
}
```



Compilation Error. Post-Increment and Pre-increment operators used in a wrong way

- ☐ Program would run. Output : ABC 98 ABC 76
- ☐ Program would run. Output : ABC 99 ABC 66
- ☒ Program would run. Output : ABC 99 ABC 86