



Question - 1

Java: Find the Output

SCORE: 10 points

Java

General Programming

Exception Handling

Language-Specific

Core CS

Basic Programming

Consider the following Java code snippet:

```
public int divide(int a, int b) {  
    int c = -1;  
  
    try {  
        c = a / b;  
    }  
    catch (Exception e) {  
        System.err.print("Exception ");  
    }  
    finally {  
        System.err.println("Finally ");  
    }  
  
    return c;  
}
```

What will our code *print* when we call *divide(4, 0)*?

- ☒ Exception Finally
- ☐ Finally Exception
- ☐ Exception
- ☐ Finally
- ☐ No output
- ☐ -1

Question - 2

Java: Constructor, Exception Handling and Inheritance

SCORE: 10 points

Language Fundamentals

Constructors

Java

Exception Handling

Inheritance

Language-Specific

Core CS

What should be the output of the following code?

```
class AirPlane {  
    public AirPlane() throws IOException {  
        System.out.print("AirPlane");  
        throw new IOException();  
    }  
}
```

[? Help](#)

```

    }
    class AirJet extends AirPlane {
        public AirJet() throws IOException {
            try {
                super();
            } catch (IOException e) {
                System.out.print("IOException is thrown
in AirJet");
            }
        }
    }
}
public class Tester {
    public static void main(String args[]) {
        try {
            new AirJet();
        } catch (IOException e) {
            System.out.print("IOException is
thrown in Tester");
        }
    }
}

```

☐ "AirPlaneIOException is thrown in AirJet" will be printed.



"AirPlaneIOException is thrown in AirJetIOException is thrown in Tester" will be printed.



"AirPlaneIOException is thrown in Tester" will be printed.



Compile error.

Question - 3

SCORE: 10 points

Java

Easy

Inheritance

Object Oriented Programming

What is the output for the below code ?

```

1. public class A {
2.     int add(int i, int j){
3.         return i+j;
4.     }
5. }
6. public class B extends A{
7.     public static void main(String argv[]){
8.         short s = 9;
9.         System.out.println(add(s,6));
10.    }
11.}

```



Compile fail due to error on line no 2



Compile fail due to error on line no 9 due to the non-static method referenced from a static context.



Compile fail due to error on line no 9 due to type mismatch.



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Question - 4

SCORE: 10 points

Java

Easy

Iteration

What is the output for the below Java code ?

```
public class Test {  
    public static void main(String[] args){  
        int i = 010;  
        int j = 07;  
        System.out.println(i);  
        System.out.println(j);  
    }  
}
```

- ☒ 8 7
- ☐ 10 7
- ☐ C.Compilation fails with an error at line 3
- ☐ D.Compilation fails with an error at line 5

Question - 5

SCORE: 10 points

Java: String Array

Application Development

Java

Arrays

Core CS

Language-Specific

Which of the following Java declaration of the String array is correct?

- ☐ String temp [] = new String {"j" "a" "z"};
- ☐ String temp [] = { "j " " b" "c"};
- ☐ String temp = {"a", "b", "c"};
- ☒ String temp [] = {"a", "b", "c"};

Question - 6

SCORE: 10 points

Application Development

Java

Given the following declarations

```
String s1=new String("Hello")  
String s2=new String("there");  
String s3=new String();
```

Which of the following are legal operations?

- ☒ s3=s1 + s2;
- ☐ s3=s1 - s2;
- ☐ s3=s1 & s2
- ☐ s3=s1 && s2

Question - 7

SCORE: 10 points

Which answer(s) match the given pattern?

pattern: a*b+

- ☐ aa
- ☒ bb
- ☒ ab
- ☐ ba

Question - 8

SCORE: 10 points

Choose the correct output according to following code:

```
public class Q {
    static int c = 0;
    public static void main(String[] args) {
        Q q1 = c();
        Q q2 = c(q1);
        Q q3 = c(q2);
        Q q4 = c(q3);
    }
    private Q() {
        System.out.print("c = " + c + " ");
    }
    static Q c() {
        return c++ <= 0 ? new Q() : null;
    }
    static Q c(Q w) {
        return w.c++ == 1 ? new Q() : null;
    }
}
```

- ☐ c = 2 c = 1
- ☒ c = 1 c = 2
- ☐ c = 1 c = 2 c = 3
- ☐ NullPointerException

What is the output of this program?

```
public class Demo {  
  
    public static void main(String []args) {  
        for (int i = 0; i < 10; i++) {  
            if (i == 2 || i == 4 || i == 6) {  
                System.out.print(i + " ");  
                continue;  
            }  
            if (i == 4) {  
                System.out.print(i + " ");  
                break;  
            }  
            return;  
        }  
    }  
}
```

- ☐ 2
- ☐ 2 4
- ☐ 2 4 6
- ☒ nothing gets printed

Question - 10

SCORE: 10 points

What is the correct order for system design?

- ☐ Problem Definition --> Specification --> Design --> Implementation
- ☒ Problem Definition --> Design --> Specification --> Implementation
- ☐ Specification --> Problem Definition --> Design --> Implementation
- ☐ Problem Definition --> Design --> Implementation --> Specification