

## COMP1020 Winter 2024

### In-Class Participation Week 5 Tuesday

**Q1) What is the output for the code and why?**

**[0.5]**

```
public class Q1 {
    public static void main(String[] args) {
        try {
            System.out.println("Entered the try block.");
            int sum = 15 / 0;
            System.out.println(sum);
            System.out.println("Still in try block.");
        } catch (ArithmeticException e) {
            System.out.println("Sorry cannot divide by Zero.");
        } catch (Exception e) {
            System.out.println("An exception has occurred.");
        } finally {
            System.out.println("In finally block.");
        }
    }
}
```

**Q2) What is the type of exception is raised? Re-write the program to handle the exception.**

**[0.5]**

```
public class Q2 {
    public static void main(String[] args) {

        String str = "Exception handling";
        int a = Integer.parseInt(str);
        System.out.println("Printing the value of a: " + a);
    }
}
```

**Q3) Write a Java program to accept a string from the user and print the words (only alphabets) with a length less than or equal to 4 in a String. [1]**

**Example 1: Hello this is string.**

**Output: this is**

**Example 2: Midterm exam is on March 2.**

**Output: exam is on**

**Q4) Accept a string from the user. The string is an IPV4 address. Write a program to validate the address. [2]**

**Rules according to Wikipedia.org**

**IPv4 uses 32-bit addresses in dot-decimal notation, which consists of four decimal numbers, each ranging from 0 to 255, separated by dots.**

**Example 1:**

**Input:**

**192.0.2.265**

**Output:**

**Invalid IPV4**

**Example 2:**

**Input:**

**192.0.2.21**

**Output:**

**Valid IPV4**

**Input:**

**192.3.45.6.5**

**Output:**

**Invalid IPv4**

**Q5)a) Find the output**

**[0.5+0.5=1]**

```
public class Q5a {  
    public static void main(String[] args) {  
        int a = 8, b = 3, c = 2, d = 1;  
        try {  
            int result = a / (b - c + d);  
            System.out.println(result);  
        }  
  
        catch (ArithmeticException e) {  
            System.out.println("The arithmetic exception  
caught.");  
        } finally {  
            System.out.println("It is the finally block");  
        } }  
}
```

**b) What is the output if the values are a=6, b=2,c=1,d=3 and the result=a/(b+c-d)?**