

## CSC2340 Exercises on Java Exceptions

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 1) A Java exception is an instance of \_\_\_\_\_. 1) \_\_\_\_\_
- A) RuntimeException
  - B) Exception
  - C) Error
  - D) Throwable
  - E) NumberFormatException

- 2) An instance of \_\_\_\_\_ describes programming errors, such as bad casting, accessing an out-of-bounds array, and numeric errors. 2) \_\_\_\_\_
- A) RuntimeException
  - B) Exception
  - C) Error
  - D) Throwable
  - E) NumberFormatException

- 3) What exception type does the following program throw? 3) \_\_\_\_\_

```
public class Test {  
    public static void main(String[] args) {  
        System.out.println(1 / 0);  
    }  
}
```

- A) ArithmeticException
- B) ArrayIndexOutOfBoundsException
- C) StringIndexOutOfBoundsException
- D) ClassCastException
- E) No exception

- 4) What exception type does the following program throw? 4) \_\_\_\_\_

```
public class Test {  
    public static void main(String[] args) {  
        String s = "abc";  
        System.out.println(s.charAt(3));  
    }  
}
```

- A) ArithmeticException
- B) ArrayIndexOutOfBoundsException
- C) StringIndexOutOfBoundsException
- D) ClassCastException
- E) No exception

5) What exception type does the following program throw?

5) \_\_\_\_\_

```
public class Test {  
    public static void main(String[] args) {  
        Object o = null;  
        System.out.println(o.toString());  
    }  
}
```

- A) ArithmeticException
- B) ArrayIndexOutOfBoundsException
- C) StringIndexOutOfBoundsException
- D) ClassCastException
- E) NullPointerException

6) A method must declare to throw \_\_\_\_\_.

6) \_\_\_\_\_

- A) Error
- B) RuntimeException
- C) unchecked exceptions
- D) checked exceptions

7) Which of the following statements are true?

7) \_\_\_\_\_

- A) If a checked exception occurs in a method, it must be either caught or declared to be thrown from the method.
- B) You use the keyword throws to declare exceptions in the method heading.
- C) To throw an exception, use the key word throw.
- D) A method may declare to throw multiple exceptions.

8) What is displayed on the console when running the following program?

8) \_\_\_\_\_

```
class Test {
    public static void main(String[] args) {
        try {
            method();
            System.out.println("After the method call");
        }
        catch (RuntimeException ex) {
            System.out.println("RuntimeException");
        }
        catch (Exception ex) {
            System.out.println("Exception");
        }
    }

    static void method() throws Exception {
        try {
            String s = "5.6";
            Integer.parseInt(s); // Cause a NumberFormatException

            int i = 0;
            int y = 2 / i;
            System.out.println("Welcome to Java");
        }
        catch (RuntimeException ex) {
            System.out.println("RuntimeException");
        }
        catch (Exception ex) {
            System.out.println("Exception");
        }
    }
}
```

- A) The program displays RuntimeException twice.
- B) The program has a compilation error.
- C) The program displays Exception followed by RuntimeException.
- D) The program displays RuntimeException followed by After the method call.
- E) The program displays Exception twice.