

Quiz 6**Name:** _____

1. Given the following classes:

```
// in Car.java

public class Car {

    public Car() {
        System.out.println("Car");
    }

    public Car(String name) {
        System.out.println("Car " + name);
    }

    public void doSomething() {
        System.out.println("apple");
    }
}
```

```
// in SmartCar.java

public class SmartCar extends Car {
    public SmartCar() {
        System.out.println("SmartCar");
    }

    public SmartCar(String name) {
        System.out.println("SmartCar " + name);
    }

    public void doSomething() {
        System.out.println("orange");
    }
}
```

Which is the output for the following code?

```
public class Test {
    public static void main(String[] args) {
        Car c1 = new SmartCar();
        Car c2 = new Car();

        c1.doSomething();
        c2.doSomething();
    }
}
```

2. Given the following program that will compile successfully.

```
public class Q2 {
    public static void doX(int x) {
        try {
            doY(x);
        } catch (Exception e) {
            System.out.println("orange");
        }
    }

    public static void doY(int x) {
        try {
            doZ(x);
        } finally {
            System.out.println("apple");
        }
    }

    public static void doZ(int x) {
        if (x < 4) {
            throw new VirusException("COVID-19");
        }
    }

    public static void main(String[] args) {
        try {
            doX(3);
        } catch (VirusException e) {
            System.out.println(e.getMessage());
        }
    }
}
```

- (A) Is `VirusException` is a checked or unchecked exception?
- (B) What is the output for this program?
- (C) Implement the `VirusException` class.

Answer Sheet

Q1

```
Car  
SmartCar  
Car  
orange  
apple
```

Q2(A)

```
apple  
orange
```

Q2(B)

```
Unchecked Exception
```

Q2(C)

```
public class VirusException extends RuntimeException {  
    public VirusException(String name) {  
        super(name);  
    }  
}
```