

CT-3

Total Marks: 30

Time Limit: 25 minutes + 10 minutes for submission

1. Point out the errors in the following code snippets (a & b) (You do not need to rewrite the code). Give reasons for your answer.

[15]

| (a) | (b) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <pre> class HelloWorld{ static int x; static int y; int z; void firstMethod() { this.x = 5; } static void secondMethod() { System.out.println("y = " + y); System.out.println("z = " + z); this.x = 5; } } </pre> | <pre> final class A{ final x; final void method() { System.out.println("a final method"); } } class B extends A{ void newMethod() { System.out.println("not a final method"); } } class C{ final void anotherMethod() { System.out.println("inside another method"); } } class D extends C{ void anotherMethod() { System.out.println("new another method"); } } </pre> |

2. Write the output of the following code: (You do not need to rewrite the code). Give reasons for your answer.

[15]

```
public class Main {
    public static void main(String[] args) {
        int v1 = 4;
        int v2 = -2;
        try {
            try {
                test(v1);
                return;
            } catch (ArithmeticException e) {
                System.out.println("Inner catch: " + e.getMessage());
                test(v2);
            } finally {
                System.out.println("I don't care about exceptions");
            }
        } catch (Exception e) {
            System.out.println("Outer catch: " + e.getMessage());
        }
    } // End of main function

    static void test(int a) {
        testException(a);
        return;
    }

    static void testException(int a) {
        if (a < 0) {
            throw new NumberFormatException("Negative value not allowed");
        } else if (a % 2 == 0) {
            throw new ArithmeticException("Even integer found");
        } else {
            System.out.println("Input " + a);
        }
    }
}
```