2016 Fall CIS200 – Lab 9

Student Name: Section Number :

1. **Question 1**: Write a function **quadEquation**() which takes five double arguments. The first 3 represent **a, b,** and **c**, in the equation *ax*2 + *bx* + *c* = 0. The last 2 parameters are passed by reference and are the roots of the equation. (Recall that )

Create classes for the all the exceptions you need. Throw exceptions for division by zero, square root (sqrt) of a negative number, and if there is only 1 repeated root. The repeated root error should hold the single root, and when you catch it, you should print it out with the appropriate message.

Write a main that calls this function with a try statement and appropriate catch statements. Write the specification for the above function described above by specifying the pre-conditions, post-conditions and what exceptions are thrown when so that the caller understand how it’s behaves.

2. **Question 2**: Write a function foo(int a) , which calls a function bar(int a), which calls function bell(int a).

Write a main to call foo and handle ALL the exceptions. Make foo throw an exception if a is negative, If not call bar(a). Bar will throw an exception if a is odd . If even, the call bell. Bell will throw an exception if a is a power of 2. Otherwise bell with print out the message “ordinary value”. The handlers will just write appropriate messages.

**Submission:**

Provide a Microsoft word that contains the following items:

1. Name and section
2. Source code (identify which compiler you used)
3. Test data and expected results
4. Running log/output in the format of screenshots

Submit the word document to Canvas. The file name should be yourName\_lab9.doc.