CSCI 485 Programming Languages
Assignment 10

Due Monday, April 25

1. (20 points) Write a comparative analysis of the `throw` clause of C++ and the `throws` clause of Java.

2. (20 points) Consider the following C++ skeletal program,

```
class Big {
    int i;
    float f;
    void fun1() throw int {
        . . .
        try {
            . . .
            throw i;
            . . .
            throw f;
            . . .
        }
        catch(float) { . . . }
        . . .
    }
}
class Small {
    int j;
    float g;
    void fun2() throw float {
        . . .
        try {
            . . .
            try {
                Big.fun1();
                . . .
                throw j;
                . . .
                throw g;
                . . .
            }
            catch(int) { . . . }
            . . .
        }
        catch(float) { . . . }
    }
}
```

   In each of the four `throw` statements, where is the exception handled? Note that `fun1` is called from `fun2` in class Small.

3. (20 points) Write a detailed comparison of the exception-handling capabilities of ML and those of Java.

4. (10 points) What is the difference between checked and unchecked exceptions in Java?

5. (10 points) What role do delegates play in the process of registering event handlers?

6. (10 points) What did the designers of C get in return for not requiring subscript range checking?

7. (10 points) Describe three approaches to exception handling in languages that do not provide direct support for it.