COSC 302 Study Guide
Exam #2
Spring 2008

1.) Black box testing attempts to find errors in 5 categories. Name 4 of them.

2.) Black box testing designed tests are designed to answer several questions, list 5 of them.

3.) Draw and describe an object relationship diagram for the newFile operation of a word processor.

4.) Describe a scenario in which transaction flow modeling would be useful.

5.) What guidelines should you follow while designing test cases for equivalence partitioning?

6.) What is equivalence partitioning?

7.) What is Boundary Value Analysis? Why should we use it?

8.) What is orthogonal array testing? Under what conditions is it typically used?

9.) What faults can orthogonal array testing detect and or isolate?

10.) What is scenario-based testing as it applies to an OO system?

11.) Fully describe three use-cases for the RDI system. Be sure to choose use-cases that are sufficiently complex.

12.) What is the difference between deep and surface testing?

13.) What is the cyclomatic complexity number (what does it measure)?

14.) Given this code snippet:

```
if ( x == 0)
        do stuff 1;
elif (x == 2)
        do stuff 2;

for (I from 0 to 10)
        while (x < 10)
                do stuff 3;
                if (y == 1)
                        do stuff 4
        x = 0
```

Generate the flow graph for this code. Also, calculate the cyclomatic complexity of this snippet.

15.) What is condition testing and how does it relate to basis-path testing?

16.) Define operability and observability in the context of creating software.

17.) There are 4 qualities that a good test case has (as defined by Kaner et al), what are they?

18.) Why can't we just use white-box testing?

19.) What are the four classes of loops that are tested under loop testing?

20.) List and describe eight of McCall's Quality Factors.