CS 4501/6501: In-class 8
Graph Coverage Criteria

10-Oct-2017

Names:

Purpose: Understand the basic concept of graph and apply graph coverage criteria
Instruction: Work with your neighbors in groups. Consider the following graph and test paths

```
N  = { 1, 2, 3, 4, 5, 6, 7, 8 }
N0 = { 1 }
Nf = { 8 }
E  = { (1, 2), (2, 3) (2, 8), (3, 4), (3, 5),
       (4, 3), (5, 6) (5, 7), (6, 7), (7, 2) }

t1 = [1, 2, 8]
t2 = [1, 2, 3, 5, 7, 2, 8]
t3 = [1, 2, 3, 5, 6, 7, 2, 8]
t4 = [1, 2, 3, 4, 3, 5, 7, 2, 8]
t5 = [1, 2, 3, 4, 3, 4, 3, 5, 6, 7, 2, 8]
t6 = [1, 2, 3, 4, 3, 5, 7, 2, 3, 5, 6, 7, 2, 8]
```

1. Draw the graph

2. List a minimal set of test paths that achieve Node coverage

3. List a minimal set of test paths that achieve Edge coverage

4. List the test requirements for Edge-Pair Coverage (hint: you should get 14 requirements of length 2)

5. Does the given set of test paths satisfy Node Coverage? If not, what is missing.

6. Does the given set of test paths satisfy Edge Coverage? If not, what is missing.

7. Does the given set of test paths satisfy Edge-Pair Coverage? If not, what is missing.