## Programming Assignment 5 - Friendship Graph Algorithms

## **Test Cases**

## • shortestChain: 25 pts

1. 2 pts: file <u>sptest1.txt</u> Input: aparna, kaitlin Result: Empty

2. 3 pts: file <u>subtest3.txt</u> Input: kaitlin, nick Result: [kaitlin,nick]

3. 5 pts: file <u>assnsample.txt</u> Input: nick, aparna

Result: [nick,ricardo,aparna]

4. 5 pts: file sptest4.txt

Input: p1, p50

Result: [p1,p49,p50] OR [p1,p51,p50]

5. 5 pts: file subtest5.txt

Input: p1, p10

Result: [p1,p2,p3,p4,p5,p6,p7,p8,p9,p10]

6. 5 pts: file subtest5.txt Input: p301, p198

Result: [p301,p100,p99,p98,p198]

• cliques: 20 pts

Note: For the non-empty results, order of names within a list does not matter. So any permutation of the results given here would be fine. (This includes a different order of lists within the top level list, as well.]

1. 2 pt: file subtest1 2.txt

Input: cornell Result: Empty

2. 2 pt: file subtest1 2.txt

Input: rutgers
Result: [[kaitlin]]

3. 4 pts: file subtest3.txt

Input: rutgers

Result: [[sara],[kaitlin]]

4. 4 pts: file clqtest4.txt

Input: rutgers

Result: [[p1,p2,p3,p4]]

5. 4 pt: file assnsample.txt

Input: rutgers

Result: [[sam,jane,bob,kaitlin],[sergei,aparna]]

6. 4 pt: file <u>subtest5.txt</u> Input: rutgers

Result: [[p3,p104,p4,p204],[p98,p199,p99,p299]]

• connectors: 35 pts

Note: For the non-empty results, order of names within a list does not matter. So any permutation of the results for #5 and #6 given here would be fine.

1. 3 pts: file subtest1 2.txt

Result: Empty

2. 4 pts: file <u>clqtest4.txt</u>

Result: Empty

3. 7 pts: file subtest3.txt

Result: [nick]

4. 7 pts: file subtest4.txt

Result: [p1]

5. 7 pts: file <u>assnsample.txt</u>

Result: [jane, aparna, nick, tom, michele]

6. 7 pts: file <u>conntest6.txt</u> Result: [p2,p3,p4]