Assignment 6

1.
   a. Edge Coverage TR: \([ (1, 2), (1, 3), (1, 4), (2, 4), (4, 3) ] \)
   b. Edge-Pair Coverage TR: \([ (1, 2, 4), (1, 4, 3), (2, 4, 3), (1, 3) ] \)
   c. Test case 1: \((a = 3, b = 3) \rightarrow\) test path \([1, 4, 3]\)
      Test case 2: \((a = 1, b = 3) \rightarrow\) test path \([1, 2, 4, 3]\)

2.
   a) 

   ![Graph Image]

   b) 

   1. \([1,2,3]\) \hspace{1cm} p2 \hspace{1cm} p3
   2. \([1,2,4]\) \hspace{1cm} p1 \hspace{1cm} p2 \hspace{1cm} p3
   3. \([2,3,2]\) \hspace{1cm} p2 \hspace{1cm} p3
   4. \([2,4,5]\) \hspace{1cm} p1 \hspace{1cm} p3
   5. \([2,4,6]\) \hspace{1cm} p2
   6. \([3,2,3]\) \hspace{1cm} None
   7. \([3,2,4]\) \hspace{1cm} p2 \hspace{1cm} p3
   8. \([4,5,6]\) \hspace{1cm} p1 \hspace{1cm} p3
   9. \([4,6,1]\) \hspace{1cm} p2
   10. \([5,6,1]\) \hspace{1cm} p1 \hspace{1cm} p3
   11. \([6,1,7]\) \hspace{1cm} p1 \hspace{1cm} p2 \hspace{1cm} p3
   12. \([6,1,2]\) \hspace{1cm} None
c) $P_1 = [1, 2, 4, 5, 6, 1, 7]
   P_2 = [1, 2, 3, 2, 4, 6, 1, 7]
   P_3 = [1, 2, 3, 2, 4, 5, 6, 1, 7]
   The test paths provided do not satisfy Edge Pair Coverage since it fails to check TR 6 and TR 12 above.

d) Subpath: [3, 2, 4, 5, 6]
   Test paths that tour the subpath:
   P_3

e) NC TR = \{1,2,3,4,5,6,7\}

f) EC TR = \{(1,2), (1,7), (2,3), (2,4), (3,2), (4,5), (4,6), (5,6), (6,1)\}

g) P_3
   P_1 and P_2 do not have node coverage, only P_3 does. However, P_3 does not cover the edge (4,6) so it doesn't have edge coverage.