A. List the test requirements for Edge Coverage
   ○ TR = {(1,2),(1,4),(1,3),(2,4),(4,3)}

B. List the test requirements for Edge-Pair Coverage
   ○ TR = {(1,2,4),(1,4,3),(2,4,3),(1,3)}

C. Find test case inputs such that the corresponding test path visits edge (4, 3)
   ○ t = (a=1,b=1) maps to test path [1,4,3], which visits edge (4,3)
a. Draw the graph
   i. Image modified from this graph generator

b. List the test requirements for Edge-Pair coverage (hint: you should get 12 requirements of length 2)
   i. $\text{TR} = \{(1,2,4),(1,2,3),(2,3,2),(2,4,5),(2,4,6),(3,2,3),(3,2,4),(4,5,6),(4,6,1),(5,6,1),(6,1,7),(6,1,2)\}$

c. Does the given set of test paths satisfy Edge-Pair coverage? If not, state what is missing.
   i. No. (3,2,3) and (6,1,2) are missing.
d. Consider the subpath $[3, 2, 4, 5, 6]$, list test paths from the given set that tour the subpath directly
   i. $p_1 = [1, 2, 4, 5, 6, 1, 7]$ *Does not tour the subpath*
   ii. $p_2 = [1, 2, 3, 2, 4, 6, 1, 7]$ *Does not tour the subpath*
   iii. $p_3 = [1, 2, 3, 2, 4, 5, 6, 1, 7]$ *Tours the subpath*

e. List the test requirements for Node Coverage
   i. **Node** $N = \{1, 2, 3, 4, 5, 6, 7\}$

f. List the test requirements for Edge Coverage
   i. **Edge** $E = \{(1,2), (1,7), (2,3), (2,4), (3,2), (4,5), (4,6), (5,6), (6,1)\}$

g. List test paths from the given set that achieve Node Coverage but not Edge Coverage on the graph. List all uncovered edges.
   i. $p_1 = [1, 2, 4, 5, 6, 1, 7]$ *Doesn’t achieve Node Coverage (3 missing)*
   ii. $p_2 = [1, 2, 3, 2, 4, 6, 1, 7]$ *Doesn’t achieve Node Coverage (5 missing)*
   iii. $p_3 = [1, 2, 3, 2, 4, 5, 6, 1, 7]$
      1. $\{(1,2), (1,7), (2,3), (2,4), (3,2), (4,5), (4,6), (5,6), (6,1)\}$
      2. **Uncovered Edges**: $\{(4,6)\}$