

CMPT 307-d1 (2013)
Practice problem

Stability Testing problem.

Consider the following preference lists for Men and Women:

Men preference list:

1	2	4	1	3
2	3	1	4	2
3	2	3	1	4
4	4	1	3	2

Women preference list:

1	2	1	4	3
2	4	3	1	2
3	1	4	3	2
4	2	1	4	3

Answer the following questions:

1. Show that the matching $\{(1, 1), (2, 2), (3, 4), (4, 3)\}$ is unstable. Determine all the unstable pairs for the given matching.
2. Determine the total number of unmatched pairs considered for the stability testing in the above case.
3. Besides the stable matching $\{(1, 4), (2, 1), (3, 2), (4, 3)\}$, is there any other stable matching?