Stat/Econ 473 Game Theory
Problem Set 10

Due: Thursday November 30

From the Text: Do problems: Chapter 14: 2, 4, 5

1) Suppose there are six men M1, M2,..., M6 and six women W1, W2, ...,
W6 and the following tables give the preference for each man and woman.

Men's Preferences

man	first choice	second choice	third choice	fourth choice	fifth choice	sixth choice
M1	W1	W6	W5	W4	W2	W3
M2	W6	W2	W1	W3	W5	W4
M3	W1	W5	W4	W6	W3	W2
M4	W2	W4	W6	W1	W5	W3
M5	W6	W2	W3	W1	W4	W5
M6	W1	W6	W2	W3	W4	W5

Women's Preferences

man	first choice	second choice	third choice	fourth choice	fifth choice	sixth choice
W1	M6	M3	M5	M2	M4	M1
W2	M5	M4	M1	M3	M6	M2
W3	M6	M3	M4	M5	M2	M1
W4	M1	M5	M6	M2	M3	M4
W5	M2	M5	M4	M1	M3	M6
W6	M2	M1	M4	M3	M6	M5

Use the usual Gayle-Shapley algorithm (where men propose and women
reply truthfully) to find a stable matching. Show which proposals are made
at each stage and which are declined.