POLS 308: Game Theoretic Methods in Political Science (Spring 2017)
Professor Ahmer Tarar   NAME:_____
<u>Homework Assignment #4</u> (due at beginning of class on **Friday, March 31**)

<u>Instructions</u>: Please write neatly. Remember to **staple** your sheets together before turning it in.

(1) Exercise U1 on p.208 (Chapter 6) of the textbook (4th edition of the textbook). Just do parts (a) and (b). (20 pts)

(2) Exercise U2 on p.209 (Chapter 6) of the textbook (4th edition of the textbook). (15 pts)

(3) Exercise U3 on p.209 (Chapter 6) of the textbook (4th edition of the textbook). (15 pts)

(4) Exercise U5 on p.209 (Chapter 6) of the textbook (4th edition of the textbook). Note that if a firm advertises, it pays the cost of advertising regardless of whether or not the other side advertises as well. Also be sure to use the payoff numbers that the text gives (instead of payoffs like 4, 3, 2, and 1). In part (b), find the subgame perfect equilibrium (rollback equilibrium) as well. (25 pts)