اقتصاد خرد ۲ دکته محمد حسین دهقان

تمرینهای سری ۲

زمان تحویل: دوشنبه ۱۳۹۸/۱۲/۱۲ پیش از شروع کلاس

Chapter 7: MWG Exercises 7.D.2

<u>Chapter 8:</u> MWG Exercises 8.B.5a, 8.C.4 (NOTE: the first η in the (D, l)-box should be a π .), 8.D.3, 5.

Additional Exercise 1: Consider the following game:

Player 2 L C RPlayer 1 M 0, -2 0, -3 0, -3 0, -2 0, -3 0, -2 0, -3 0, -2 0, -3 0, -2 0, -3 0, -2 0, -3 0, -2 0, -3 0, -2 0, -3 0, -2 0, -3 0, -2 0, -3 0, -2 0, -3

- a) Find all the strategy profiles that survive iterated deletion of strictly dominated strategies.
- b) Find all the Nash equilibria (including those in mixed strategies).

Additional Exercise 2: Find all the Nash equilibria of the following game:

Player 2 bd \boldsymbol{a} c3, 1 1, 0 0, 00, 01. 1 1. 1 1, 2 1, 0 Player 1 1, 2 0, 4 6, 2 1, 1 0, 4 2, 3 1, 0 1, 1

Additional Exercise 3: Consider the following symmetric, two-player, simultaneous-move game: each player i chooses an action from the set $A1 = A2 = \{100, 200, 300\}$. The payoffs are as follows:

$$u_i(a_i, a_{-i}) = \begin{cases} a_i + 200 & \text{if } a_i < a_{-i} \\ a_i & \text{if } a_i = a_{-i} \\ a_i - 200 & \text{if } a_i > a_{-i} \end{cases}$$

- **a.** Write down the normal form payoff matrix for this game.
- **b.** Which actions are strictly dominated? Which actions are weakly dominated?
- c. Find all of the pure-strategy Nash equilibria.
- **d.** Find all of the Nash equilibria, including those in mixed strategies.