CS 411 - Artificial Intelligence I
Fall 2018
Assignment 1
Department of Computer Science, University of Illinois at Chicago

Total Points: 25

1. Refer to figure 2.6 of AIMA text book (page 45) and explain why the game of poker is characterized with properties such as partial observability, multi-agent and so on. [6*1] Also give Performance measure, set of actions and set of observations for a poker playing agent. [2*3]

2. Explain the difference between rational agent and autonomous agent in your own words [6]

3. You have the agent program for **simple reflex agent** as shown in figure 2.8 . Now suppose you can use one more action "NoOp" which does nothing.

    a. Would it be desirable to use this action in this agent program to prevent vacuum cleaner from moving after all squares are cleaned? If yes, modify the simple reflex agent program adding "NoOp" action and if not give an argument that despite the option of "NoOp" the agent is bound to keep moving. [4]

    b. If you have a choice of using other type of agents, which one would you choose and how would it prevent vacuum from moving after all squares are cleaned? [3]

(Use the assumptions listed on page 38)