Tutorial Artificial Intelligence, winter term 13/14 Information Systems and Machine Learning Lab (ISMLL) Ruth Janning, M.Sc., Carlotta Schatten M.Eng

## Tutorial sheet 2

Due: Monday, 04 November 2013, 11:00 p.m.

## Exercise 1 Theory (10 points)

- a) Explain with your own words what are sensors and actuators. (3 points)
- b) Explain the environment properties of the taxi driver example you discussed in class. Why is the environment not observable, deterministic, episodic, static, discrete and single-agent? (3 points)
- c) What is the difference between a goal based agent and a learning agent? Compare their advantages and disadvantages.

(4 points)

## Exercise 2 Practice (10 points)

- a) Describe the PEAS of the TIC-TAC-TOE game (3 points)
- b) Describe the environment properties (observable, deterministic, etc.) of a virtual tennis game (4 points)
- c) What is the difference between designing an agent acting in a game or in the real world? (3 points)