

Artificial Intelligence 2

Quiz #06 (Decision problems)

What is a decision network? How is the decision selected using decision networks?

What is a Markov Decision Process? What is a solution to MDP?

What is a difference between reward and utility?

What is a policy? What is the difference between policies if we have finite or infinite time horizon? How is utility usually defined for infinite time horizon? Why that way?

Does optimal policy for infinite time horizon depend on the initial state? Does policy depend on actual rewards in states?

How is optimal policy obtained if we know utilities of states and a transition model?

Describe the Bellman equation.

Which method does converge faster – value iteration or policy iteration? Describe both methods.

What is a POMDP and how it differs from MDP?

Can POMDP be translated to MDP? If possible what properties of MDP do we need for this translation?

Describe another method for solving POMDP.