Artificial Intelligence for Robots
Questions Chapter 3

Maximilian Schöbel
Mahbub Alam
Petr Lukin
Due Date: 9.11.2015 09:00am

1 Is greedy best first search optimal?

No it is not, because it is "greedy". At each step it chooses the node with the least heuristic value, not considering, that there could be other paths with better overall path costs.

2 What is the evaluation function used in A* search?

The evaluation function is: $f(n) = g(n) + h(n)$ where g is the total cost to reach node n and h is the heuristic (the estimated cost to reac the goal).

3 What is an admissible heuristic?

A heuristic is called admissible if it never overestimates the cost to reach the goal.