

CS 411 - Artificial Intelligence I

Assignment 9

Department of Computer Science

University of Illinois at Chicago

Total Points: 25

1, 4	2, 4	3, 4	4, 4
1, 3 P?	2, 3	3, 3	4, 3
1, 2 B	2, 2 P?	3, 2	4, 2
1, 1	2, 1 B	3, 1 P?	4, 1

Consider the Wumpus world from textbook. (x, y) denotes the position of the cell in the grid.

Design a Bayesian network to predict the probabilities of pits in the positions:

[(3, 1), (2, 2), (1, 3)]

Given that the following positions have no pits and breeze was observed:

[(2, 1), (1, 2)]

You can use the software Netica, the free version will suffice for this assignment. Netica is incompatible with Mac OS. You can download and use Netica in any of the lab's computers.

The prior probabilities of pits on any position is 20%.
And the probability that breeze is observed on a tile given that a pit is adjacent to the tile is 100%.

The probabilities should line up with the textbook section 12.7, which can be used for reference for this homework.

The submission should contain screenshots of the network, the CPTs, and the final values.