CS161 - Quiz 2 Results for ZHANG, CHARLES XIAN

Score for this quiz: **4** out of 4

Submitted Feb 1 at 3:57pm

This attempt took 5 minutes.

Question 1   1 / 1 pts

When the cost for each step is not identical, which of the following searching algorithms is optimal?

Correct!

◉ Uniform-cost search

○ DFS

○ BFS

○ Iterative Deepening

Question 2   1 / 1 pts

Suppose the branching factor is b and the optimal solution is of depth d, then the space complexity of BFS is:

Correct!

◉ $O(b^d)$

○ $O(bd)$

○ $O(d^b)$

○ $O(1)$

Question 3   1 / 1 pts

The key advantages of local search algorithms include: (select all that you believe is true)

Correct!

☑ It usually takes less memory space.

☐ It always finds global optimum.

Correct!

☑ It can find solutions even in a large state space

☐ It always takes less time than global search algorithms.

Question 4   1 / 1 pts

Suppose you were using a genetic algorithm and try to perform the crossover step on the following two individuals, represented as strings of integers: 1324421 and 2751421, which of the following could be a possible result of performing crossover? (select all that you believe is true)

Correct!

☑ 1321421 and 2754421

Correct!

☑ 1324421 and 2751421

☐ None of the other options are possible.

☐ 1324421 and 2754421

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