Quiz 3

Due May 1 at 11:42am **Points** 5 **Questions** 5 **Available** May 1 at 11:32am - May 1 at 11:42am 10 minutes
Time Limit None

Instructions

This quiz is based on local search, real time search, constraint satisfaction, and adversarial search. It is closed book and closed notes.

This quiz was locked May 1 at 11:42am.

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	8 minutes	1.5 out of 5

Score for this quiz: **1.5** out of 5
Submitted May 1 at 10:13am
This attempt took 8 minutes.

Question 1

0 / 1 pts

What is the principal advantage of hill climbing over A* search?

You Answered

- (●) Hill climbing is guaranteed to find the global optimal solution.
- ( ) Hill climbing is guaranteed to find a solution if there is one.

Hill climbing finds a locally optimal solution.

Correct Answer

It employs much less memory than A*

Question 2

0.5 / 1 pts

Select all variants of local search below that address the problem of local optima of hill climbing.

You Answered

Backtracking search

Backtracking search is not a local search because it maintains a stack to revert back to and searches exhaustively in finite spaces.

Correct!

Random restart hill climbing

A* search

Correct!

Simulated annealing

Question 3

0 / 1 pts

What environments is Learning Real-time A* (LRTA*) search suitable for?

You Answered

Partially observable, deterministic, unknown environments

Partially observable, stochastic, unknown environments

Stochastic, fully observable, multi-agent environments

Correct Answer

Unknown, fully observable, and deterministic environments

Question 4

1 / 1 pts

The variable pair (X, Y) is arc-consistent if and only if:

There is a value in the domain of X and a value in the domain of Y that together satisfy all constraints.

For every value in the domain of Y there is a value in the domain of X that satisfies all constraints.

For every value in the domain of X all values in the domain of Y satisfy all constraints.

Correct!

For every value in the domain of X there is a value in the domain of Y that satisfies all constraints.

Question 5

0 / 1 pts

When does pruning happen under a MAX node?

You Answered

When the current value of the Max node is higher than the alpha value inherited from its ancestors.

Correct Answer

When the current value of a Max node is higher than the beta value inherited from its ancestors.

- When the current value of the Max node is lower than the beta value inherited from its ancestors.
- When the current value of the Max node is lower than the alpha value inherited from its ancestors.

Quiz Score: **1.5** out of 5