Weekly Activity & Quiz Week05 Activity 9/26 Review Test Submission: Week05 Quiz Ch04

## Review Test Submission: Week05 Quiz Ch04

Started         9/26/15 9:23 PM           Submitted         9/26/15 9:27 PM           Due Date         9/26/15 11:59 PM           Status         Completed           Attempt Score         12 out of 12 points	User	Keerthi Teja Konuri	
Test         Week05 Quiz Ch04           Started         9/26/15 9:23 PM           Submitted         9/26/15 9:27 PM           Due Date         9/26/15 11:59 PM           Status         Completed           Attempt Score         12 out of 12 points           Time Elapsed         4 minutes out of 30 minutes	Course	CS 6364.001 - Artificial Intelligence - F15	
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**Question 1** 12 out of 12 points

Select one best answer for each question.

Question	Correct Match	Selected Match
is sometimes called greedy local search because it grabs a good neighbor state without thinking ahead about where to go next.	G. Hill climbing	G. Hill climbing
is a peak that is higher than each of its neighboring states but lower than the global maximum.	<ul><li>☑ D.</li><li>Local</li><li>Maximum</li></ul>	<ul><li>✓ D.</li><li>Local</li><li>Maximum</li></ul>
results in a sequence of local maxima that is very difficult for greedy algorithms to navigate	<b>⊘</b> J. Ridge	<b>⊘</b> J. Ridge
is a flat area of the state-space landscape. It can be a flat local maximum, from which no uphill exit exists, or a shoulder, from which progress is possible.	C. Plateau	C. Plateau
hill climbing chooses at random from among the uphill moves; the probability of selection can vary with the steepness of the uphill move.	H. Stochastic	<ul><li>H.</li><li>Stochastic</li></ul>
hill climbing implements stochastic hill climbing by generating successors randomly until one is generated that is better than the current state.	<ul><li>K.</li><li>First- choice</li></ul>	K. First- choice
hill climbing con-ducts a series of hill-climbing searches from	A.	A.

randomly generated initial states, until a goal is found.	Random- Restart	Random- Restart
If there are few local maxima and Plateaux, hill climbing will find a good solution very quickly.	<ul><li>✓ A.</li><li>Random-</li><li>Restart</li></ul>	<ul><li>✓ A.</li><li>Random-</li><li>Restart</li></ul>
solution is to start by shaking hard (i.e., at a high temperature) and then gradually reduce the intensity of the shaking (i.e., lower the temperature).	F. Simulated-annealing	F. Simulated-annealing
search algorithm keeps track of k states rather than just one. It begins with k randomly generated states. At each step, all the successors of all k states are generated. If goal is found, it halts. Otherwise, it selects the k best successors and repeats.	<ul><li>✓ E.</li><li>Local-</li><li>beam</li></ul>	<ul><li>✓ E.</li><li>Local-</li><li>beam</li></ul>
algorithm is a stochastic hill-climbing search in which a large population of states is maintained. New states are generated by mutation and by crossover, which combines pairs of states from the population.	<ul><li>✓ I.</li><li>Genetic</li></ul>	<ul><li>✓ I.</li><li>Genetic</li></ul>
In nondeterministic environments, agents can apply search to generate Con-tingent plans that reach the goal regardless of which outcomes occur during execution	✓ B. And-Or	✓ B. And-Or
All Answer Choices		
A. Random-Restart		
B. And-Or		
C. Plateau		
D. Local Maximum		
E. Local-beam		
F. Simulated-annealing		
G. Hill climbing		
H. Stochastic		
I. Genetic		
J. Ridge		
K. First-choice		

 $\leftarrow$  OK