

Unit 5 - Week 3: Problem Solving by Search - II

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Assignment 3

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2019-08-21, 23:59 IST.

- 1) A zero-sum game is one where _____ 1 point
- A. The payoff is never zero.
 B. One player's gain is the other player's loss.
 C. No one wins.
 D. None of the above
- No, the answer is incorrect.**
Score: 0
Accepted Answers:
B. One player's gain is the other player's loss.
- 2) The minimax rule backs up values from the children of a node. For a MAX node, it backs up the _____ 1 point
- A. Maximum of the values of the children.
 B. Minimum of the values of the leaf node.
 C. Maximum of the values of the leaf node.
 D. Minimum of the values of the children.
- No, the answer is incorrect.**
Score: 0
Accepted Answers:
A. Maximum of the values of the children.
- 3) A solution graph of an AND-OR graph is analogous to a _____ in an ordinary graph. 1 point
- A. Path
 B. Cycle
 C. Sub-graph
 D. All of above.
- No, the answer is incorrect.**
Score: 0
Accepted Answers:
A. Path
- 4) The AO* algorithm can best be seen as the following TWO major operations: 1 point
- A. 1. Top-down: graph-growing; 2. Bottom-up: cost-revising, SOLVE-labelling.
 B. 1. Bottom-up: graph-growing; 2. Top-down: cost-revising, SOLVE-labelling.
 C. 1. Top-down: graph-growing, SOLVE-labelling; 2. Bottom-up: cost-revising.
 D. 1. Bottom-up: graph-growing, SOLVE-labelling; 2. Top-down: cost-revising.
- No, the answer is incorrect.**
Score: 0
Accepted Answers:
A. 1. Top-down: graph-growing; 2. Bottom-up: cost-revising, SOLVE-labelling.
- 5) For a game tree: Each node has b children and a d-ply look ahead is performed. What is the number of leaf nodes to be examined? 1 point
- A. b^d
 B. $b \times d$
 C. d^b
 D. $b+d$
- No, the answer is incorrect.**
Score: 0
Accepted Answers:
A. b^d
- 6) Given a MIN node n; cutoff search below n, if $\beta(n) \leq \alpha(i)$ for some MAX node ancestor i of n, we have _____ cut-off. 1 point
- A. alpha
 B. beta
 C. deep
 D. min
- No, the answer is incorrect.**
Score: 0
Accepted Answers:
A. alpha
- 7) Given a MAX node n; cutoff search below n, if $\alpha(n) \geq \beta(i)$ for some MIN node ancestor i of n, we have _____ cut-off. 1 point
- A. alpha
 B. beta
 C. deep
 D. min
- No, the answer is incorrect.**
Score: 0
Accepted Answers:
B. beta
- 8) Alpha-beta is guaranteed to compute the same value for the root node as computed by _____ with less or equal computation. 1 point
- A. Breadth First Search
 B. Minimax
 C. Depth First Search
 D. None of the above.
- No, the answer is incorrect.**
Score: 0
Accepted Answers:
B. Minimax
- 9) For more complex games, such as chess or checker the AND/OR search to termination is out of question. Which of the following statements are true? 1 point
1. Our goal in searching such a game tree might be, instead, merely to find a good first move.
 2. Extract from the search graph an estimate of the 'best' first move.
- A. Both 1 and 2.
 B. Only 2
 C. Only 1
 D. Both 1 and 2 are false.
- No, the answer is incorrect.**
Score: 0
Accepted Answers:
A. Both 1 and 2.
- 10) Using alpha-beta pruning, in the best case, you examine only $(2b)^{(d/2)}$ leaf nodes. The result is you can search _____ as deep as minimax! 1 point
- A. Equal
 B. Twice
 C. Half
 D. One-fourth
- No, the answer is incorrect.**
Score: 0
Accepted Answers:
B. Twice