

# Mock Test 1 ( Lessons 1-5)

15 OF 15 QUESTIONS REMAINING

## Test Content

### Question 1

1 Point

The Turing Test is a method of inquiry in artificial intelligence (AI) for determining whether a computer is capable of thinking like a human being

A True

B False

[Clear selection](#)

### Question 2

1 Point

Ethical issues related to AI include privacy concerns and the impact on job markets.

A True

B False

[Clear selection](#)

## Details & Information

### Assessment due date

No due date

### Attempts

Unlimited | 1 submitted

### Marking



Maximum points

50 points

### Question 3

1 Point

If we interpret the predicate **Spouse(x,z)** as “x is the Spouse of z”, the following FOL formula means “Everyone can be the spouse of any given person.”

$$\exists x \forall y, z \text{ Spouse}(x,z) \wedge \text{Spouse}(y,z) \Rightarrow x=y$$

A True

B False

[Clear selection](#)

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### Question 4

1 Point

Ethical issues related to AI include privacy concerns and the impact on job markets.

A True

B False

[Clear selection](#)

### Question 5

1 Point

Move ordering has no effect on Alpha-Beta pruning

- A True
- B False

[Clear selection](#)

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### Question 6

1 Point

The minimax algorithm is only applicable to two-player, zero-sum games.

- A True
- B False

[Clear selection](#)

### Question 7

3 Points

Which among the following is not a primary characteristic of an intelligent agent?

- A Reactivity
- B Ability to play board games
- C Proactiveness
- D Autonomy

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### Question 8

6 Points

What is the CNF form for the following sentence?

$$(P \Rightarrow P) \Leftrightarrow Q$$

- A  $(P \vee \neg P \vee \neg Q) \wedge (\neg P \vee Q) \wedge (P \vee Q)$
- B  $(\neg P \vee \neg Q) \wedge (\neg P \vee Q) \wedge (P \vee Q)$
- C  $(P \wedge \neg Q) \vee (\neg P \wedge Q) \vee (P \wedge Q)$
- D  $(P \wedge \neg P) \vee (\neg Q \wedge \neg P) \vee (Q \wedge P)$

## Question 9

4 Points

The CNF (Clausal) form of  $A \rightarrow (B \wedge C)$  is

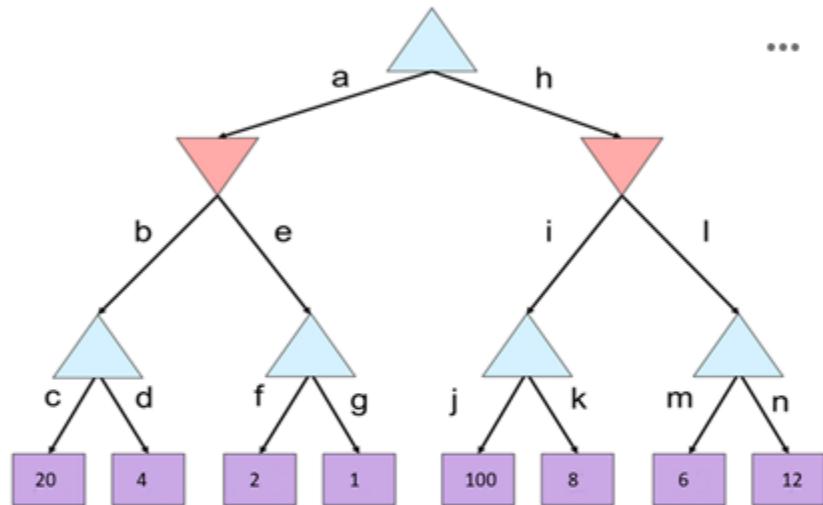
- A  $(AVB) \wedge (\neg AVC)$
- B  $(\neg AV \neg B) \wedge (AVC)$
- C  $(AV \neg B) \wedge (AV \neg C)$
- D  $(\neg AVB) \wedge (\neg AVC)$

### Question 10

5 Points

The following game tree generated using the MiniMax algorithm.

What will be the value in the root node?



(A) 100

(B) 2

(C) 12

(D) 20

## Question 11

2 Points

Which of the following is an Informed Search technique?

- A Breadth first search
- B Depth first search
- C Depth limited search
- D A\* algorithm

## Question 12

6 Points

A knowledge base has the following rules

- 1.  $P \rightarrow Q$
- 2.  $L \wedge M \rightarrow P$
- 3.  $B \wedge L \rightarrow M$
- 4.  $A \wedge B \rightarrow L$
- 5.  $A$
- 6.  $B$

If the query  $Q$  has to be tested using backward chaining inference method, what sequence of the rule will be executed.

**(A)** 5,6,4,2,3,1

**(B)** 1,2,4,5,6,3

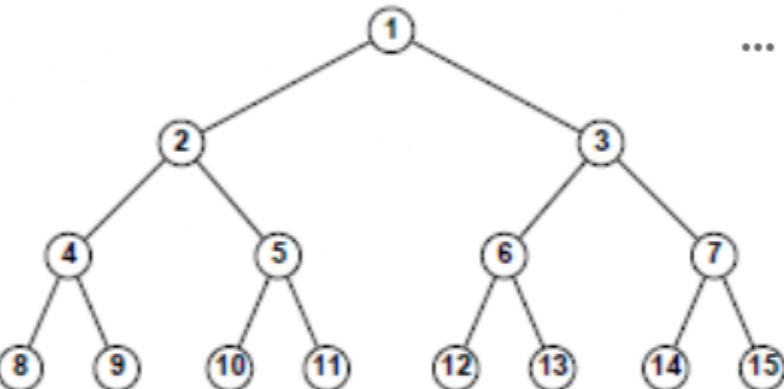
**(C)** 1, 5,6,2,3,4

**(D)** 5,6,2,3,4,1

### Question 13

5 Points

What is the sequence of nodes visited during Depth First Search?

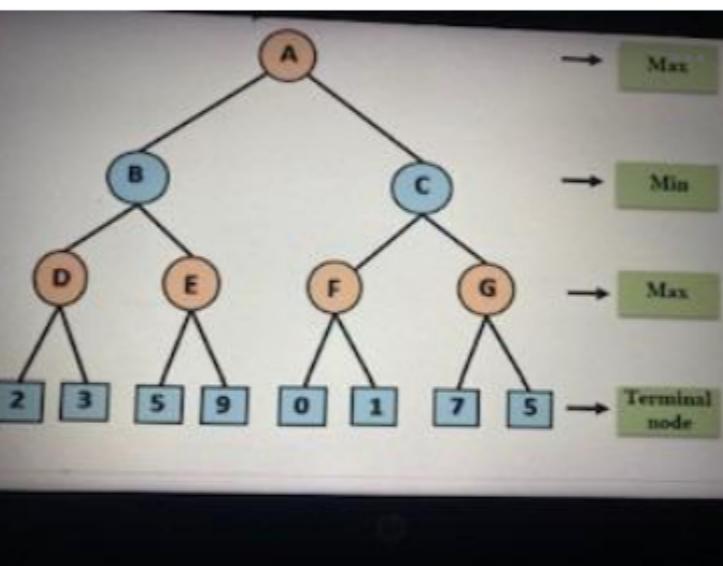


- A 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15
- B 1,2,4,8,9,5,10,11,3,6,12,13,7,14,15
- C 1,2,4,9,8,5,11,10,3,6,13,12,7,15,14
- D 13,6,12,13,7,14,15,2,4,8,9,5,10,11

### Question 14

6 Points

IF alpha-beta pruning is used in the following graph, which of the following gives the alpha and beta values of node (E)



(A) 2, 5

(B) 3, 5

(C) 5, 3

(D) 3, 9

## Question 15

7 Points

A\* is applied to the problem of getting from Craiova to Bucharest using the straight-line distance heuristic. What is the cost for Pitesti after the application of the evaluation function  $f(x) = g(x) + h(x)$ ?



Straight-line distance  
to Bucharest

	• • •
Arad	366
Bucharest	0
Craiova	160
Dobreta	242
Eforie	161
Fagaras	178
Giurgiu	77
Hirsova	151
Iasi	226
Lugoj	244
Mehadia	241
Neamt	234
Oradea	380
Pitesti	98
Rimnicu Vilcea	193
Sibiu	253
Timisoara	329
Urziceni	80
Vaslui	199
Zerind	374

Chapter 3

Add your answer

Integer, decimal or E notation allowed