

**START OF QUIZ**

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## Question 1

Topic: Lecture 2

Source: Lecture 2

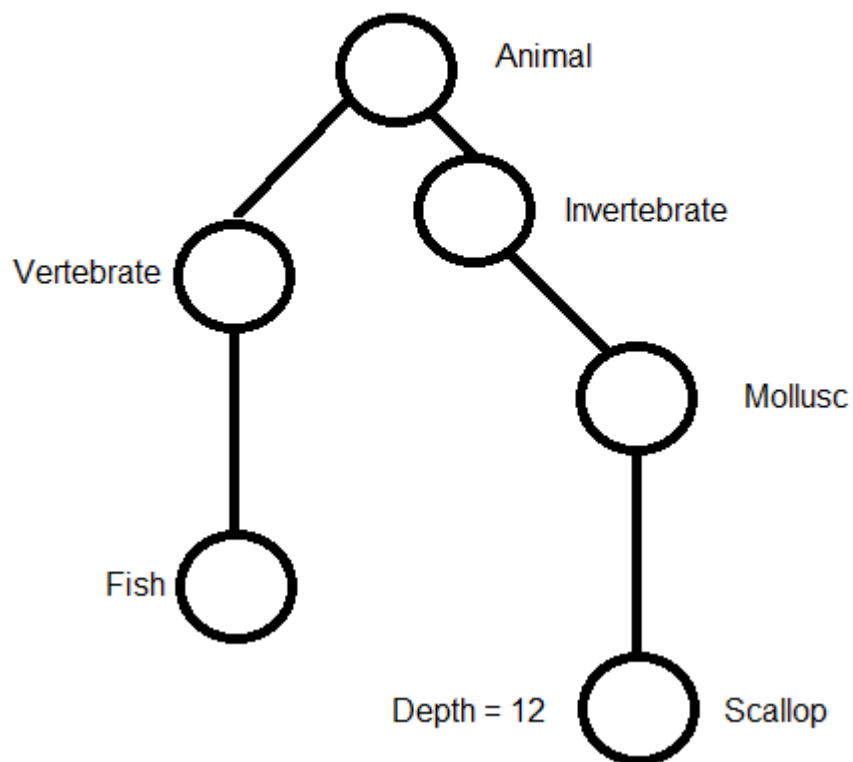
How might translation affect WSD? (1)

## Question 2

Topic: Lecture 1

Source: Lecture 1

Given the following tree, what is the path similarity between the two leaf nodes?



### Question 3

Topic: Lecture 4

Source: Lecture 4

Why is FOL more expressive than ontologies (Description logics)? ie, what can FOL do that ontologies can't? (1)

## Question 4

Topic: Lecture 2

Source: Lecture 2

In class, I mentioned that we rarely do WSD explicitly, because we would need one model / word. In COLX 521, we saw that we could lemmatize words to reduce them to a common form. Why couldn't we do something similar (like reducing all synonyms to a common hypernym) for WSD? (2)

## Question 5

Topic: Lecture 4

Source: Lecture 4

We have a knowledge base that is represented as a graph and we are converting it to FOL formula. If the nodes are all entities, what will the edges of the graph become in FOL? Be specific. (1)

## Question 6

Topic: Lecture 1

Source: Lecture 1

Define the LCS. Why is it important for calculating word similarity? (2)

## Question 7

Topic: Lecture 3

Source: Lecture 3

Given the following ambiguous sentence, give both meanings in unambiguous FOL. The lecturer said that there would be a test on Friday.



## Question 8

Topic: Lecture 3

Source: Lecture 3

Do we need both  $\&$  and  $|$ , or could we use some other operations to represent all complex information with just one of them (either one)? Briefly explain. (1)

## Question 9

Topic: Long

Source: Lecture 2

Neural models are often seen as a black box, where all we can observe is the output. That said, there is a lot of information available in the output of a neural model. Briefly describe how you might be able to use tools like LIWC (or GI) to build an AI-detector. Please list any assumptions about available data and experiments you would have to run. (3)

**END OF QUIZ**