

**START OF QUIZ**

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## Question 1

Topic: Lecture 4

Source: Lecture 4

Imagine that you are a comedian writing jokes. How might you use an automatic parser to help you find material? Briefly explain. (1)

## Question 2

Topic: Lecture 4

Source: Lecture 4

Why do we not evaluate parsers by the number of correct nodes in the tree? (1)

### Question 3

Topic: Lecture 2

Source: Lecture 2

What properties of English syntax make regular expressions suitable for chunking? Do you think that this functionality would extend to many other languages? Briefly explain. (1)

## Question 4

Topic: Lecture 3

Source: Lecture 3

Explain why the following rule is not valid in a CFG:  $\text{dog VB} \rightarrow \text{dog barks}$  (1)

## Question 5

Topic: Lecture 1

Source: Lecture 1

Imagine we were trying to create a treebank for an unknown language. We start by creating a list of words with their parts of speech. Do you think it would make sense to collect open or closed classes first? Explain. (1)

## Question 6

Topic: Lecture 1

Source: Lecture 1

We use trees to represent the structure of a parse, but that doesn't necessarily mean we have to use a Python Tree to represent them. Can you think of an alternative way of representing a syntax tree, preserving the hierarchy and traversal features inherent in a tree (no, you can't just create a "Shrub" class). Write some pseudocode that shows how this structure works. (2)

## Question 7

Topic: Lecture 2

Source: Lecture 2

Do you think that we could do dependency parsing and a constituency-based task (such as chunking) at the same time? What features of the tasks might support each other (additive qualities), and which might make such a task more difficult (adversarial qualities)? (2)



## Question 8

Topic: Lecture 3

Source: Lecture 3

Post-positive adjectives are adjectives that occur after the noun phrase they are modifying (such as "attorney/surgeon general", "somewhere nice", "nothing important"). Given that they tend to occur in set phrases, do you think it would be better to write a general class of PostAdj, and create PostAdj phrases in a CFG, or just list them as valid NPs (ie, NP = surgeon general)? Discuss the pros and cons of either decision. (2)

## Question 9

Topic: Long

Source: Lecture 2

L1 speakers are generally able to understand other speakers, even when they get the syntax of a sentence a little bit wrong - this is mostly not true of our automatic systems. What do you think this says about the purpose of syntax from a linguistic perspective? If we were to completely remove a language's syntax, do you think comprehension would still be possible? Do you think that languages with strong or weaker syntactic adherence are easier for our learning algorithms? What qualities of either do you think could be advantageous or detrimental to learning? (3)

**END OF QUIZ**