

START OF QUIZ

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I agree that all answers provided are in my own words, and that I will not discuss the contents of this quiz with any of my fellow students until after the exam period has completed for everyone. Furthermore, any response that used generative AI tools has been rephrased into my own interpretation, and has been appropriately cited.

Signature: _____

Question 1

Topic: Lecture 1

Source: Lecture 5

Write the parenthetical parse of the following sentence: “You built a time machine out of a DeLorean?” (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 1

Source: Lecture 5

Up to this point, we've largely ignored function words, but they are extremely influential in parsing. Give 2 reasons why. (1)

Question 4

Topic: Lecture 3

Source: Lecture 3

Why is recursion essential in CFGs for modeling natural language? Give a simple example involving a noun phrase or verb phrase. (1)

Question 5

Topic: Lecture 4

Source: Lecture 4

What does it mean for two feature structures to be incompatible, and what happens during parsing when this occurs? (1)

Question 6

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 7

Topic: Lecture 2

Source: Lecture 2

Imagine that you're working with a copy-editor to tighten the prose of prospective novels. How might you use parsers to identify places where you can "trim the fat" without being too aggressive? (2)

Question 8

Topic: Lecture 2

Source: Lecture 2

Imagine you've been assigned the task of converting instructions in a recipe into a list of easy-to-accomplish goals for a cooking robot. How could you use a parser to aid your conversion? (2)

Question 9

Topic: Long

Source: Lecture 1

You have a generative AI model that produces English text. How might you use a constituency parser to evaluate the quality of the text, and why would that be insufficient? Give an example of one error that could be detected by the parser, and one that couldn't.
(3)

END OF QUIZ