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 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 2

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 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 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 5

Topic: Lecture 3
Source: Lecture 3

Explain how phrasal attachment errors produce ambiguity. Provide an example other than what we discussed in class. (1)

Question 6

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 7

Topic: Lecture 1
Source: Lecture 5

Imagine that two linguists are creating a treebank, but even though they have a clear annotation schema, they disagree on annotations about 10 percent of the time. How could you mitigate the effects of this disagreement on your downstream parser? (2)

Question 8

Topic: Lecture 4
Source: Lecture 4

Given the following parse trees, calulate the PARSEVAL score. GOLD: (S (NP (DT The) (NN professor)) (VP (VBD discussed) (NP (DT the) (NN student) (PP (IN of) (NP (DT the) (NN colleague) (PP (IN from) (NP (NN France))))))))

SYSTEM: (S (NP (DT The) (NN professor)) (VP (VBD discussed) (NP (DT the) (NN student) (PP (IN of) (NP (DT the) (NN colleague))) (PP (IN from) (NP (NN France))))))

Also briefly describe whether any errors are "syntacto-semantic" errors (ie, an error that requires real-world knowledge to arrive at the correct parse). (2)

Question 9

Topic: Long
Source: Lecture 2

When learning a language (whether an L1 or L2), speakers often make grammatical mistakes, but are still understandable by other speakers. What do you think this says about the role of syntax in language, and how do you think it could help us create more robust language recognition systems? (3)

END OF QUIZ