

START OF QUIZ

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Question 1

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 2

Topic: Lecture 2

Source: Lecture 2

Conceptually, obliques and nmods are very similar. How do they differ, and what does this actually mean, from a linguistic perspective (ie, when would we use one over the other)? (1)

Question 3

Topic: Lecture 1

Source: Lecture 1

Write the parenthetical parse of the following sentence: "I will not eat green eggs and ham." (1)

Question 4

Topic: Lecture 1

Source: Lecture 1

Why does the substitution test work for identifying constituents? Do you think there are any constraints on what can be substituted? Explain briefly. (1)

Question 5

Topic: Lecture 3

Source: Lecture 3

Explain how phrasal attachment errors produce ambiguity. (1)

Question 6

Topic: Lecture 4

Source: Lecture 4

Given two parse trees, calculate the PARSEVAL score. Also briefly describe whether any errors are "syntacto-semantic" errors (ie, an error that requires real-world knowledge to arrive at the correct parse). 1: (S (NP (DT The) (JJ quick) (JJ brown) (NN fox)) (VP (VBZ jumps) (PP (IN over) (NP (DT the) (JJ lazy) (NN dog)))))) (2): (S (NP (NP (DT The) (NP (JJ quick) (NP (JJ brown) (NN fox))))) (VP (VBZ jumps) (PP (IN over) (NP (DT the) (JJ lazy) (NN dog))))))

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 4

Source: Lecture 4

Basque is an "ergative-absolutive" language - instead of defining NPs with respect to labels such as "subject" and "direct object", NPs are defined with respect to "subject of a transitive verb" (ergative) or "subject of an intransitive verb OR object of a transitive verb" (absolutive). Explain what features would need to be defined in such a grammar, and how they would interact (you can assume a similar SVO order as English). (2)

Question 9

Topic: Long

Source: Lecture 1

Imagine you're a text-to-speech (TTS) engineer. You've been asked by your boss to make your system sound more authentic by incorporating intonation into your model. Intonation is a pitch and stress pattern that differs between different pragmatic conditions. For example, English yes-no questions have a rising pitch on the end of the clause, imperative statements (ie, commands) have a falling pitch, and declarative sentences, while also falling, are not typically as sharp a fall as imperative sentences. How might you use this information, along with a parser, to modify your TTS system? Are there any complications or ambiguities that you can think of? (3)

END OF QUIZ