START OF QUIZ
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Question 1

Topic: Lecture 1
Source: Lecture 1

Write the parenthetic parse of the following sentence: "Yertle the Turtle is king of the pond." (1)

Question 2

Topic: Lecture 2
Source: Lecture 2

Why do we not use accuracy to evaluate chunkers? Can you think of any other tasks where this might be as big (or bigger) of a problem? (1)

Question 3

Topic: Lecture 2
Source: Lecture 2

Briefly describe chunking, why it's easier than parsing, and why it is an important task in NLP. (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

In class, we discussed how CFGs do not explicitly allow for optionality in the grammar. How can we adapt our grammars to allow for optional elements? (1)

Question 6

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 7

Topic: Lecture 3
Source: Lecture 3

Imagine, if you will, a "mildly-context-sensitive" grammar, that only allows for one non-terminal to appear as a contextual marker (let's call it "CON"). Anything not involving CON has to satisfy CFG rules. Do you think that this would be restrictive enough to satisfy the small number of cases that don't satisfy context-freedom, without just being a CSG in disguise? (2)

Question 8

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 9

Topic: Long
Source: Lecture 3

In class, we briefly mentioned OSASCOMP (the order of adjectives in English - Opinion, Size, Age, Shape, Colour, Origin, Material, Purpose). For example, we can have the "big red Italian car", but not the "red Italian big car". Please compose a CFG that can handle this ordering (you can assume that our grammar already knows what adjectives and noun phrases are). (3)

END OF QUIZ