

START OF QUIZ

Student ID:

60918802,Jazouli,Rayan

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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 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 2

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 3

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 4

Topic: Lecture 1

Source: Lecture 5

Why are treebanks expensive or difficult to create? Give two reasons. (1)

Question 5

Topic: Lecture 3

Source: Lecture 3

CFGs do not explicitly allow for optionality. How do we handle optionality in a CFG? (1)

Question 6

Topic: Lecture 4

Source: Lecture 4

Given the following parse trees, calculate the PARSEVAL score. GOLD: (S (NP (DT The) (NNS tourists)) (VP (VBD photographed) (NP (DT the) (NN mountain) (PP (IN with) (NP (NN snow)))))) SYSTEM: (S (NP (DT The) (NNS tourists)) (VP (VBD photographed) (NP (DT the) (NN mountain)) (PP (IN with) (NP (NN snow)))) 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 7

Topic: Lecture 4

Source: Lecture 4

We've looked at grammars as being constraints that can identify parses, but we could theoretically use them to infer features, instead. Imagine we encountered a new noun in a language with grammatical gender. How might we use a feature-based parser to infer the gender of the noun, and use that information to expand our grammar? (2)

Question 8

Topic: Lecture 1

Source: Lecture 5

You are building a parser for a language with much freer word order than English. What assumptions do you need to weaken before building the parser. Do you think it will have much of an impact on the quality of the parser? (2)

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