

START OF QUIZ

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Academic honesty is essential to the continued functioning of the University of British Columbia as an institution of higher learning and research. All UBC students are expected to behave as honest and responsible members of an academic community. Failure to follow the appropriate policies, principles, rules, and guidelines of the University with respect to academic honesty may result in disciplinary action.

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: “I never got to bat in the major leagues.” (1)

Question 2

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 3

Topic: Lecture 1

Source: Lecture 5

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

Question 4

Topic: Lecture 2

Source: Lecture 2

In dependency parsing, why might modifiers (like adjectives or adverbs) be easier to detect than obliques, and how does this relate to the chunking exercises we did in the lab? (1)

Question 5

Topic: Lecture 4

Source: Lecture 4

Imagine that you are a comedian writing jokes. How might you use an automatic parser to help you find material? Briefly explain. (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 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 3

Source: Lecture 3

Clitics are a special type of syntactic headache. Unlike affixes, which attach at the word level, clitics can attach at the phrase level. For example: “The man who saw the bird’s camera was not quick enough.” or “Those of us who lived through the ’90s’ve experienced a world without the internet.” Explain why phrase-level clitic attachment is problematic for a CFG, and discuss how (if at all) a CFG could be adapted to model this behavior. (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