START OF QUIZ
Student ID:
64131204,Yang,Qian

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 3
Source: Lecture 3

Explain why the following rule: "with -> IN" is not valid in a CFG. (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

Write the parenthetic parse of the following sentence: "You built a time machine out of a DeLorean?" (1)

Question 4

Topic: Lecture 4
Source: Lecture 4

Why do we not evaluate parsers by the number of correct nodes in the tree? (1)

Question 5

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 6

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

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