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 8
Source: Lecture 8

Explain why the distance between words (either on the buffer or the stack) might be a useful feature for a shift-reduce parser. (1)

Question 2

Topic: Lecture 8
Source: Lecture 8

Describe what we mean by a cascaded learning model, and one advantage and disadvantage to using one. (1)

Question 3

Topic: Lecture 5
Source: Lecture 5

What does each cell in the CYK chart represent (ie, what does cell 2,5 represent)? (1)

Question 4

Topic: Lecture 7
Source: Lecture 7

Why do we create a dummy variable for the root of the sentence? (1)

Question 5

Topic: Lecture 7
Source: Lecture 7

What is a projective sentence? Why does this matter for the shift-reduce algorithm? (1)

Question 6

Topic: Lecture 5
Source: Lecture 5

Let's say we wanted to modify PARSEVAL to take ambiguity into account. How might we use a PCFG and two gold references to account for ambiguous parsing? (2)

Question 7

Topic: Lecture 6
Source: Lecture 6

If you have a sentence (or, more generally, a language) with more nesting structures, would you prefer to parse with Earley or CYK? Explain. (2)

Question 8

Imagine that we want to take the best of both worlds of the CYK parser and the Earley parser. To take advantage of parallel processing, we create a "meet-in-the-middle" parser that simultaneously starts parsing from the top and the bottom. Describe at least 2 difficulties with this approach. (2)

Question 9

In class, all of our parsing examples contained a single clause, so were relatively easy to parse. Consider the sentence: "The dog that barked all night finally went to sleep.". This sentence has 2 clauses (one relative, and one independent). Given that the subject of the independent clause is separated from its verb by a relative clause, can CYK parse this sentence? If so, provide the rules that would be necessary, and explain how we would represent it in the chart. If not, explain what features make it unparseable using CYK or CFG. (3)

END OF QUIZ