

START OF QUIZ

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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 8

Source: Lecture 8

Why do we evaluate UAS and LAS separately? (1)

Question 2

Topic: Lecture 5

Source: Lecture 5

How do we obtain the probabilities for a PCFG? (1)

Question 3

Topic: Lecture 6

Source: Lecture 6

What does it mean for an Earley item to be “complete,” and what happens when it is? (1)

Question 4

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 5

Topic: Lecture 7

Source: Lecture 7

When we update the stack after an arc, we return the head of the operation. Why? (1)

Question 6

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 7

Topic: Lecture 7

Source: Lecture 7

In class, we discussed PCFGs as a way of modeling syntactic ambiguity. Do you think something like PSR would benefit dependency parsing in a similar way? Briefly explain. (2)

Question 8

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 9

Topic: Long

Source: Lecture 5

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