

**START OF QUIZ**

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## Question 1

Topic: Lecture 7

Source: Lecture 7

Why do we use a combination of a stack and a queue in SR parsing? (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 6

Source: Lecture 6

The CYK parser only applies those rules that apply to its tokens, but the Earley parser expands its rules to every viable rule, which seems inefficient. Explain why this doesn't lead to a lot of bad parses. (1)

## Question 4

Topic: Lecture 8

Source: Lecture 8

Does Chu-Liu-Edwards algorithm collapse all cycles in a graph? Explain. (1)

## Question 5

Topic: Lecture 5

Source: Lecture 5

What is fenceposting? Give two reasons we need it in the CYK algorithm. (1)

## Question 6

Topic: Lecture 7

Source: Lecture 7

In class, we saw that LLMs can struggle with long-term dependencies, why do you think that is, given what you know about language models and dependency parsing. (2)

## Question 7

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 8

Topic: Lecture 6

Source: Lecture 6

What difficulties do you envision when using the Earley parser with a language with large amounts of agreement? (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: "Xihan finished her work early, so she decided to go for a walk in the park.". This sentence has 2 clauses (one dependent, and one independent). Draw out the chart for the dependent clause (you can start with "she"). You can provide any reasonable grammar (the only POS you might need that we haven't talked about in class is "TO" for non-finite verb markers like "to"), although the clause must be produced from an "S" rule. Secondly, describe how you would represent multiple S clauses in a grammar, and why the parser wouldn't stop when it successfully parses one of them. (3)

**END OF QUIZ**