

**START OF QUIZ**

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## Question 1

Topic: Lecture 2

Source: Lecture 2

If we're building a CRF for relation extraction, what other NLP tools might be useful for generating feature vectors? (At least 3) (1)

## Question 2

Topic: Lecture 4

Source: Lecture 4

Can you think of a way to combine the two neural SRL models we looked at in class? (1)

## Question 3

Topic: Lecture 3

Source: Lecture 3

How might theta roles help in the task of anaphora resolution? (1)

## Question 4

Topic: Lecture 4

Source: Lecture 4

We talked about a few other constraints for the ILP solver, such as making sure that "ARG0 must occur before ARG1". How would you implement this as an ILP constraint? (You don't need to write the pulp code - just explain how you would force the constraint.) (2)

## Question 5

Topic: Lecture 2

Source: Lecture 2

Identify the events in the following sentences, and place them in order. Identify the cues you used to determine the order. Every morning, on my walk to the University, I read an audiobook while watching for birds. I start up my laptop after I get to class, and then wait for students to arrive so I can start the lecture. (2)

## Question 6

Topic: Lecture 1

Source: Lecture 1

Why are CRFs generally preferable to HMMs when it comes to NER? (1)

## Question 7

Topic: Lecture 1  
Source: Lecture 1

Imagine that we were using the Viterbi algorithm to ensure that our sequence of NER tags is valid. What might the scores in the transition matrix look like? (2)



## Question 8

Topic: Lecture 3

Source: Lecture 3

Imagine that we came across the word “extrambulate” in the following sentence: “Realizing that she was going to be late for the bus, Jane extrambulated to the stop.” What verb class does this verb belong to? What are 2 features that distinguish it from the prototype of the class? (1)

## Question 9

Topic: Coding

Source: Lecture 4

Assume that our fancy SR labeler has been run on the following sentence: "Do androids dream of electric sheep?" Imagine that we ran the sentence with 2 different predicates: "dream" and "do", and obtained the following scores. NP1 = (NP(NNs androids)) NP2 = (NP(JJ electric NNS sheep)) NP3 = (PP(of (NP2)) do: NP1: 0.5, 0.3 NP2: 0.3, 0.5 NP3: 0.2, 0.4 dream: NP1: 0.4, 0.6 NP2: 0.2, 0.3 NP3: 0.4, 0.7 Assuming the standard constraints we talked about in class, what is the most likely parse? Show your work! (3)

**END OF QUIZ**