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 3
Source: Lecture 3

The sentences “The man ate a sandwich” and “The sandwich ate a man” are both syntactically correct (DET NN VB DT NN), but only the first one is semantically correct. With reference to theta roles, explain why this is the case. (1)

Question 3

Topic: Lecture 1
Source: Lecture 1

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

Question 4

Topic: Lecture 4
Source: Lecture 4

If we were to attempt joint NER and SRL, how would we set up the model? Describe the input, the architecture, and the output. (2)

Question 5

Topic: Lecture 4
Source: Lecture 4

We talked about a few other contraints 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 6

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 7

Topic: Lecture 3
Source: Lecture 3

Thinking in terms of vector semantics, do you think that each dimension of word embeddings could be considered a "semantic fundamental" (like "speaking", "load", "incoherent", etc.). Briefly explain. (1)

Question 8

Topic: Lecture 1
Source: Lecture 1

What lexical features might you use to identify the named entities in the following sentences? "Ronald Reagan? The actor? Then who's Vice-President, Jerry Lewis? I suppose Jane Wyman is the First Lady! And Jack Benny is Secretary of the Treasury!" (At least 2) (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