START OF QUIZ
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Question 1

Topic: Lecture 5
Source: Lecture 5

Write a regex pattern that matches any valid email address (i.e., with basic rules like user@domain.com). What challenges might you face in accurately matching all possible email formats? (1)

Question 2

Topic: Lecture 6
Source: Lecture 6

What kinds of tags might be useful in the following text (describe at least two): ”But you liked Rashomon!” ”That’s not how I remember it!” (1)

Question 3

Topic: Lecture 8
Source: Lecture 8

If you were to encounter an alien text, which encoding might you want to use to digitize it? Explain briefly. (1)

Question 4

Topic: Lecture 7
Source: Lecture 7

Can you think of any classes of words in English where the stem and the lemma will always be identical? Why is that of little interest to us? (1)

Question 5

Topic: Lecture 7
Source: Lecture 7

What might the training data for a sentence segmenter look like? Do you think it would be easy or hard to train? Explain briefly. (1)

Question 6

Topic: Lecture 6
Source: Lecture 6

Consider using XML to represent a machine learning model's architecture. What XML tags might be useful for representing layers, activation functions, and connections between layers (you don't need to describe a deep-learning architecture - describe one you're familiar with)? If this doesn't seem possible, explain why not. (2)

Question 7

Topic: Lecture 8
Source: Lecture 8

Imagine that you're working with a linguist who is not very good with technology. They store all of their data in .docx files, scattered across their desktop. What arguments would you make for them to convert to .tsv or .json, and how would you alleviate their worries that they wouldn't be able to access or modify their information (no, you can't teach them Python)? (2)

Question 8

Topic: Lecture 5
Source: Lecture 5

Imagine you are processing a text document where dates are written in multiple formats, such as ”12-05-2024”, ”05/12/2024”, or ”12 December 2024”. How would you write a regex to capture these date formats (just the logic)? What assumptions would you make? (2)

Question 9

Topic: Long
Source: Lecture 6

You've been hired by a company that is working with their own version of XML that they call "NQAXML" (Not-Quite-As-eXtensible Markup Language). It provides stronger restrictions on tag names (they must be all uppercase, and no longer than 10 characters long), and it doesn't allow nested spans with identically-named tags. Like HTML, it also has a set of tags that must appear in every document. Describe your process for creating a data validator that takes an XML file, and ensures that it satisties the rules of NQAXML. (3)

END OF QUIZ