START OF QUIZ
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Question 1

Topic: Lecture 4
Source: Lecture 4

Why can we use logarithms for the Viterbi algorithm, but not the forward algorithm? (1)

Question 2

Topic: Lecture 3
Source: Lecture 3

Explain the purpose of padding in language modeling. (1)

Question 3

Topic: Lecture 4
Source: Lecture 4

How is it that EM can arrive at a good solution, even if we have a random initialization of parameters? (1)

Question 4

Topic: Lecture 1
Source: Lecture 1

Why is cosine distance typically a more suitable distance metric for semantic spaces than Euclidean distance? (1)

Question 5

Topic: Lecture 3
Source: Lecture 3

In your own words, explain the Markov assumption, and how it is used in language modeling. (1)

Question 6

Topic: Lecture 2
Source: Lecture 2

Imagine we were using k-means to cluster misspellings around their correct spellings. How many clusters would we need, and what would be a good distance function? Explain. (2)

Question 7

Topic: Lecture 1
Source: Lecture 1

What is the primary concern of a semantic vector space (ie, a vector space representing meaning), and how does it relate to our use of cosine similarity to measure word similarity? Can you think of any sorts of words for which it might be very difficult to satisfy this concern? (2)

Question 8

Topic: Lecture 2
Source: Lecture 2

What kinds of data might be difficult to cluster using k-means? Is it a shortcoming of the algorithm, or does it just need very careful feature engineering and distance calculations? (2)

Question 9

Topic: Long
Source: Lecture 4

Please see the long question from lecture 4 in the quiz bank on Github. (3)

END OF QUIZ