START OF QUIZ
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Question 1

Topic: Lecture 3
Source: Lecture 3

Imagine that we are doing machine translation instead of POS-tagging. What would be the equivalent of emission probabilities and transition probabilities? Explain. (2)

Question 2

Topic: Lecture 4
Source: Lecture 4

What is the main purpose of semi-supervised learning in EM? That is, how does it affect the overall model, and where is the effect the largest? (1)

Question 3

Topic: Lecture 3
Source: Lecture 3

Explain the purpose of Laplace smoothing, and how it accomplishes its goal. (1)

Question 4

Topic: Lecture 1
Source: Lecture 1

Explain what modifications would need to be made to our dynamic edit distance algorithm to incorporate weighted edit distance. (2)

Question 5

Topic: Lecture 1
Source: Lecture 1

What is the main difference between Hamming Distance and Edit Distance? (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 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 8

Why is the Forgy initialization sub-optimal? (1)

Question 9

Topic: Long
Source: Lecture 3

In class, we built a collocation matrix for a bigram language model. Modify the function so that it can handle a trigram language model and implements "add-alpha" smoothing, instead of "add-one" smoothing. (3)

END OF QUIZ