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

Why are the forward and Viterbi algorithms considered to be dynamic programming, and why do we care? (1)

Question 3

Topic: Lecture 3
Source: Lecture 3

Describe the noisy channel model, and how it can be used to represent [Machine Translation, ASR, POS-tagging]. (1)

Question 4

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 5

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 6

Topic: Lecture 1
Source: Lecture 1

Suppose we are filling the table for the Levenshtein distance algorithm. We are in cell (x, y). The values of cell (x-1, y-1), (x-1, y), and (x, y-1) are 5, 3, and 1, respectively. What is the value we will put in cell (x, y), given that the letters are equal? (1)

Question 7

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 8

Topic: Lecture 2
Source: Lecture 2

Why do outliers cause problems for clustering algorithms like k-means? How can we deal with them? (1)

Question 9

Topic: Long
Source: Lecture 4

Please refer to the ”Long” question from Lecture 4.

END OF QUIZ