START OF QUIZ
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Question 1

Topic: Topic4
Source: Lecture 4

Briefly describe why soft EM might provide more accurate tagging results than hard EM.

Question 2

Topic: Topic1
Source: Lecture 1

Discuss why one might do unsupervised learning instead of supervised learning.

Question 3

Topic: Topic2
Source: Lecture 2

When is it more appropriate to use hierarchical clustering than k-means?

Question 4

Topic: Topic3
Source: Lecture 3

Describe the noisy channel model, and how it can be used to represent POS-Tagging.

Question 5

Topic: Topic3
Source: Lecture 3

If our vocabulary consists of just symbols A and B, and our corpus consists of the sequence: B A A B B A, and we build a bigram language model by applying add-one smoothing to the MLE from the corpus, what is the probability of P(B||A)? Please show your work.

Question 6

Topic: Topic1
Source: Lecture 1

Explain why edit distance (given our formulation) will always choose a substitution, if it can.

Question 7

Topic: Topic4
Source: Lecture 4

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

Question 8

Topic: Topic2
Source: Lecture 2

Why is the Forgy initialization sub-optimal?

Question 9

Topic: Coding
Source: Lecture 2

Imagine we have three clusters [[X, Y], [M, N, P], [A, B, C, D]], and a point [R]. Write a function that determines which cluster to add R to, given the max linkage criterion.

END OF QUIZ