# START OF QUIZ Student ID: 35366434,Choudhary,Tushar

Topic: Lecture 2 Source: Lecture 2

When is it more appropriate to use hierarchical clustering than k-means? (1)

Topic: Lecture 3 Source: Lecture 3

Explain why HMMs are a generative model, and how that differs from a discriminative model. (1)

Topic: Lecture 3 Source: Lecture 3

Why do we use log-probability intstead of linear probability? (1)

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)

Topic: Lecture 4 Source: Lecture 4

Iterative algorithms often require a stopping condition. Briefly explain why this is necessary, and why perplexity is a metric to use for stopping HMMs. (2)

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)

Topic: Lecture 2 Source: Lecture 2

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

Topic: Lecture 1 Source: Lecture 1

Do you think cosine similarity is more similar to Hamming distance or Levenshtein distance? Explain. Also briefly explain how it differs from your choice. (2)

Topic: Long

Source: Lecture 4

Please refer to the "Long" question from Lecture 4.  $\,$ 

# END OF QUIZ