

**START OF QUIZ**  
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## Question 1

Topic: Lecture 6

Source: Lecture 6

Would F1 score be an appropriate measure for gauging the quality of a morphological analyzer? Explain why or why not. (1)

## Question 2

Topic: Lecture 8

Source: Lecture 8

If we observe a DL model that is not properly modeling morphology (but handles syntax and semantics relatively well), what change might you propose to the architecture of the model (assume we don't have any annotated morphology data). (1)

### Question 3

Topic: Lecture 7

Source: Lecture 7

Describe elision in terms of edit actions. (1)

## Question 4

Topic: Lecture 6

Source: Lecture 6

What is the purpose of using normalized edit distance in the evaluation of a morphological analyzer? (1)

## Question 5

Topic: Lecture 5

Source: Lecture 5

Why is POS information so important (whether via tagging or embedded information)? (1)

## Question 6

Topic: Lecture 7

Source: Lecture 7

Imagine that we want to improve the quality of a morphological inflector/analyser, and we want to do so through multi-task learning (ie, two decoders predicting different tasks, with a composite loss function). Can you think of a task that might benefit morphological processing? Explain. (2)

## Question 7

Topic: Lecture 5

Source: Lecture 5

In DSCI 563, we discussed EM for POS tagging. Let's make it neural. Assume we have a small set of gold annotated sentences (100). How could we use contextualized embeddings to bootstrap more annotated data (assume that fine-tuning doesn't work)? (2)



## Question 8

Topic: Lecture 8

Source: Lecture 8

Imagine we have a good neural morphological analyzer, and we want to inject the knowledge into a larger NLP DL model (like an LLM, etc.). How might we do so in an efficient way? (2)

## Question 9

Topic: Long

Source: Lecture 8

Humans are pretty good at learning the morphology of their language, but they make mistakes. Kids will typically learn irregular morphology before regular morphology, then forget it, and then reacquire it (for example, kids will learn “I went outside”, then transition to “I goed outside”, before eventually coming back to “I went outside”). From your understanding of how DL models work, do you expect something similar to happen within neural language tools? Explain why this might or might not be the case. (3)

**END OF QUIZ**