

**START OF QUIZ**

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## Question 1

Topic: Lecture 5

Source: Lecture 5

Why do we attach an embedding layer before passing information to the hidden layer(s)? (1)

## Question 2

Topic: Lecture 8

Source: Lecture 8

Nonce words are almost always in open classes of words, but there are some exceptions (such as pronouns, which do allow some flexibility). Do you think that LLMs would react to new words in traditionally closed classes the same way as in open classes? (1)

### Question 3

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 4

Topic: Lecture 5

Source: Lecture 5

What are the advantages of using an encoder-decoder instead of a sequential tagger for POS-tagging? (1)

## Question 5

Topic: Lecture 6

Source: Lecture 6

Explain how an MSD differs from a POS tag, and how it's similar. (1)

## Question 6

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 7

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 8

Topic: Lecture 7

Source: Lecture 7

What benefits might encoding MSDs with a second encoder have over a single encoder approach? Can you think of any disadvantages? (2)

## Question 9

Topic: Long

Source: Lecture 6

Linguistic determinism is the (somewhat outdated, and originally quite racist) idea that the language we speak shapes the way that we see the world. Although it's been shown to only have a small influence on humans (called weak determinism), there haven't really been many studies that look into it in machines. However, given that our methodologies are so heavily influenced by embedding spaces, we can say that modern ML models are entirely shaped by the language they speak (the language here being the constraints of the embedding space). If we had a well-annotated morphological corpus, how might we set up an experiment to test this theory? (3)

**END OF QUIZ**