

# START OF QUIZ

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## Question 1

Topic: Lecture 8

Source: Lecture 8

Where do you think pragmatic learning (ie, intent) might fall within the layers of an LLM? Explain briefly. How might we test for it? (1)

## Question 2

Topic: Lecture 8

Source: Lecture 8

If we were to build an LLM on L2 instead of L1 language, what impact do you think it might have on the morphology and syntax of the model? (1)

### Question 3

Topic: Lecture 5

Source: Lecture 5

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

## Question 4

Topic: Lecture 7

Source: Lecture 7

Describe gemination in terms of edit actions. (1)

## Question 5

Topic: Lecture 7

Source: Lecture 7

Describe metathesis in terms of edit actions. (1)

## Question 6

Topic: Lecture 6

Source: Lecture 6

We know that domain shift can have a significant impact on the quality of our models - despite POS tagging being an “easy” task, POS taggers fail spectacularly when we try to use them on different domains. Do you think the same would be true of (contextual) morphological analysers? What similarities and differences between POS and MSD led you to this conclusion? (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 6

Source: Lecture 6

Feature engineering can be incorporated into encoder-decoder models through the use of multiple encoders. If you could have any extra annotation for morphological analysis, and were able to pass each through a separate encoder, what types of features would you include? Do you see any potential problems with using this extra annotation? (2)

## Question 9

Topic: Long

Source: Lecture 7

In class, I've mentioned that irregular morphology tends to wear down over time, as languages become more and more regular. However, most modern languages still have many irregular forms that exist, despite being spoken for centuries. If humanity were a constantly training LLM, do you think that this would still be the case? Explain what features of LLMs / DL models might preserve or alter this trend, and whether this LLM might preserve a similar amount, more, or fewer irregular forms. (3)

**END OF QUIZ**