

# START OF QUIZ

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## Question 1

Topic: Lecture 3

Source: Lecture 3

What are the benefits of using adapter layers instead of fine-tuning? (1)

## Question 2

Topic: Lecture 4

Source: Lecture 4

What's the intuition behind using the forward-backward algorithm for HMM state probability calculation? (1)

### Question 3

Topic: Lecture 2

Source: Lecture 2

Describe the concept of negative transfer with an example. (1)

## Question 4

Topic: Lecture 2

Source: Lecture 2

What is the intuition behind transfer learning? (1)

## Question 5

Topic: Lecture 1

Source: Lecture 1

Many languages are losing speakers over time. Briefly describe why this might be happening, and how NLP is contributing to this effect. (1)

## Question 6

Topic: Lecture 4

Source: Lecture 4

I briefly mentioned the idea of silver data and bootstrapping in class. What do you think are the limits of silver data? Can you think of any ways to counter them? (2)

## Question 7

Topic: Lecture 1

Source: Lecture 1

When working with underserved languages, field linguists often collect data from speakers on site. What ethical considerations must be taken into account when gathering linguistic data from these communities? (2)



## Question 8

Topic: Lecture 3

Source: Lecture 3

Imagine that we find a database lying around, and it's been very poorly maintained and documented. All we know is that it contains word embeddings for a language written in Arabic script (assume we can't read it, and the only Arabic speakers we know also can't read it - it's in a language they don't know). How might we go about trying to identify the language that it's written in, without finding speakers of all of the Arabic-derived languages? (2)

## Question 9

Topic: Long

Source: Lecture 1

Let's talk about sign languages. Many sign languages lack an orthography (ie, they are not written), and while some signers may also speak while signing, this is typically a translation from the signed language into a spoken one. This can make it difficult to build automatic tools for sign languages. If you were tasked with building a tool such as a POS tagger or translation system for sign language, what resources might you need, and how would you go about it? (3)

**END OF QUIZ**