

**START OF QUIZ**

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## Question 1

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 2

Topic: Lecture 3

Source: Lecture 3

What potential features of low-resource languages (other than data scarcity) might prevent the successful transfer of information from a HRL? (1)

### Question 3

Topic: Lecture 4

Source: Lecture 4

Could you implement Viterbi as an extension of the forward-backward algorithm? What additional constraints might be needed, if so? (1)

## Question 4

Topic: Lecture 2

Source: Lecture 2

What is the role of cognates in transfer learning? (1)

## Question 5

Topic: Lecture 4

Source: Lecture 4

Are there any situations where the alpha and beta score at a particular timestep would be equal? (1)

## Question 6

Topic: Lecture 2

Source: Lecture 2

In transfer learning, how do you decide which layers of a pre-trained model to freeze and which to fine-tune when adapting it to a new language or task? Give an example of when you might choose to freeze or fine-tune specific layers. (2)

## Question 7

Topic: Lecture 1

Source: Lecture 1

Many existing tools and annotation formats make assumptions about the languages that they are processing. If you were creating an ML corpus for a new language, would you prefer to start from scratch, or to adapt an existing annotation schema? Would this change depending on if you were working with a Class 1 or a Class 5 language? Explain. (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 4

I'm working with a few field linguists who have been annotating a low-resource language for the last year, and they present me with their “huge” dataset of 1000 annotated sentences, assuming I can create a 95

**END OF QUIZ**