

**START OF QUIZ**

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## Question 1

Topic: Lecture 6

Source: Lecture 6

Briefly describe why entity-linking is necessary in any Q/A system. (1)

## Question 2

Topic: Lecture 8

Source: Lecture 8

Do you think a dialogue policy state graph is a Markov Chain? Briefly describe why or why not. (If you can't remember Markov chains, we talked about them in DSCI 572). (1)

### Question 3

Topic: Lecture 5

Source: Lecture 5

Describe the two ways that we can construct Q/A databases, and how they differ. (2)

## Question 4

Topic: Lecture 5

Source: Lecture 5

How does Bert deal with the potentially infinite vocabulary required to answer questions? (1)

## Question 5

Topic: Lecture 7

Source: Lecture 7

Many times when speaking to an ASR dialogue agent (like Alexa), I will try to correct her while she is speaking, and she will completely ignore me. Provide a reasonable explanation of why you think that is. (1)

## Question 6

Topic: Lecture 8

Source: Lecture 8

We waited until the last week of classes to talk about policy-making systems (like the one in ChatGPT), but several other systems you've looked at over the program could be considered to have a policy algorithm in place. Briefly describe one, and how you view it as a decision policy. (2)

## Question 7

Topic: Lecture 6

Source: Lecture 6

Explain the purpose of mean reciprocal rank, and how it works. (1)



## Question 8

Topic: Lecture 7

Source: Lecture 7

Imagine that we have a great dialogue Q/A system that can fill slots with ease, and return relevant answers with high probability. However, our ASR system is pretty bad (it does really poorly with accents that are not “General American”). The model was trained on standard English text. Describe a few of the errors you can imagine the system making, and how we can improve the quality of our model (assume we can’t improve the ASR). (2)

## Question 9

Topic: Long

Source: Lecture 5

Imagine that we are using a Q/A system for movie recommendation (by asking questions like “What is a good movie like Shawshank Redemption?”). Bert is likely not going to be sufficient to answer this question. Describe how you could modify the Bert Q/A reader to find good answers. (3)

**END OF QUIZ**