

**START OF QUIZ**

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## Question 1

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 2

Topic: Lecture 6

Source: Lecture 6

Neural Q/A (even before ChatGPT) was significantly better than previous models. Beyond just the traditional benefits of deep learning that we know of, (such as longer dependencies, etc.), why is this the case? (2)

### Question 3

Topic: Lecture 5

Source: Lecture 5

Jeopardy divides its questions into categories. Explain how this would help Watson improve the confidence in its answers. (1)

## Question 4

Topic: Lecture 5

Source: Lecture 5

Bert accepts a single string as input, but Q/A requires a question and a potential source. Describe how we deal with this problem. (1)

## Question 5

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 6

Topic: Lecture 8

Source: Lecture 8

How are dialogue acts similar to function calls? (1)

## Question 7

Topic: Lecture 6

Source: Lecture 6

Provide a reasonable logical representation of the question “Who starred in Casablanca?” (1)



## Question 8

Topic: Lecture 7

Source: Lecture 7

Generate a frame for a “recommend a movie” dialogue action. It should have at least 5 slots to fill. (2)

## Question 9

Topic: Long

Source: Lecture 6

Watson was a very specialized tool designed specifically to play the game of Jeopardy. I've tried playing Jeopardy with ChatGPT, and it is terrible at it. Describe the process of fine-tuning ChatGPT to be better at Jeopardy. Describe at least 3 things that we would need to specifically train it to succeed at (ignore the "buzzing" in part). (3)

**END OF QUIZ**