

**START OF QUIZ**

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## Question 1

Topic: Lecture 5

Source: Lecture 5

Briefly describe a “factoid-based” question, and one way that a QA system might answer it.  
(1)

## Question 2

Topic: Lecture 5

Source: Lecture 5

Explain why a good IR tool is necessary to perform Bert-based Q/A. (1)

### Question 3

Topic: Lecture 6

Source: Lecture 6

What tools are necessary to extract an RDF triple from a question? Provide at least 2, and briefly explain. (1)

## Question 4

Topic: Lecture 7

Source: Lecture 7

Describe at least one piece of grounding in real life (outside the examples given in class). (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

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 8

Source: Lecture 8

Imagine that we have a dialogue system trained with reinforcement learning. What part of a dialogue might result in a negative reward (ie, a penalty) to the system's policy algorithm?  
(2)

## Question 9

Topic: Coding

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**