# START OF QUIZ Student ID: 97170732,Liu,Jinhong

#### ${\bf Question}\ 1$

Topic: Lecture 6 Source: Lecture 6

For the ELQ algorithm, we talked about how the entity encoder typically takes the title and first 128 tokens of an encyclopedia article. Imagine we were building a database from books. What might we use as the input to the entity encoder that would have a similar effect. Explain. (2)

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)

Topic: Lecture 7 Source: Lecture 7

How might we make Elize more robust (don't just say that you would have her use Chat-GPT's API). (1)

Topic: Lecture 5 Source: Lecture 5

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

Topic: Lecture 8 Source: Lecture 8

Explain why we train BERT dialogue systems with delexicalized entries. (1)

Topic: Lecture 6 Source: Lecture 6

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

Topic: Lecture 7 Source: Lecture 7

We discussed slot error rate in class, but it's fully-supervised. Can you think of a distantly-supervised way to calculate essentially the same thing? (1)

Topic: Lecture 5 Source: Lecture 5

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

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