

**START OF QUIZ**

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## Question 1

Topic: Lecture 1

Source: Lecture 1

What are the benefits of representing synonymy and hypernymy in a graph? Do you think there could be a better data structure or way of representing the information? Briefly explain. (2)

## Question 2

Topic: Lecture 1

Source: Lecture 1

Why are antonyms conditioned on lemmas, instead of synsets? (1)

### Question 3

Topic: Lecture 4

Source: Lecture 4

How would you describe the following sentence in FOL (you don't need to write the FOL statement - just describe how it would be structured)? After climbing a great hill, one only finds that there are many more hills to climb.

## Question 4

Topic: Lecture 2

Source: Lecture 2

Describe why the "most frequent sense" baseline is so strong. What are some assumptions that it makes? (2)

## Question 5

Topic: Lecture 2

Source: Lecture 2

What is the underlying assumption of the Lesk Algorithm? (1)

## Question 6

Topic: Lecture 3

Source: Lecture 3

Is implication transitive? That is, if  $A \rightarrow B$ , and  $B \rightarrow C$ , does  $A \rightarrow C$ ? Explain. (1)

## Question 7

Topic: Lecture 4

Source: Lecture 4

In class, we went over some common OWL and RDFS constraints that we can place on predicates, but we only ever attached one. Can you think of any instances of bivariate (ie, two parameter) predicates that could use multiple constraints? If so, briefly describe the predicate and its constraints, and if not, briefly describe why this is unnecessary. (2)



## Question 8

Topic: Lecture 3

Source: Lecture 3

What is the Modus Ponens conclusion available from the following statements (if Modus Ponens does not apply, state so) Explain. Examples: A: Only humans attend University. B: Bill attends University; C: ?; A: All red cars are fast. B: Alice's car is blue. C: ?; A: Cheese is made from milk B: Mice like cheese. C: ?; A: Rain is necessary for plants to grow. B: It has not been raining. C: ? (1)

## Question 9

Topic: Long

Source: Lecture 3

Write an FOL representation for the following sentences: Blueberries are sweet, but strawberries are sweeter. The book is always better than the movie. Some spiders are dangerous. In winter, it always rains in Vancouver.

**END OF QUIZ**