

**START OF QUIZ**

**Student ID:**

**37083607,zeng,zejiao**

## Question 1

Topic: Lecture 2

Source: Lecture 2

In class, I mentioned that we rarely do WSD explicitly, because we would need one model / word. In COLX 521, we saw that we could lemmatize words to reduce them to a common form. Why couldn't we do something similar (like reducing all synonyms to a common hypernym) for WSD? (2)

## Question 2

Topic: Lecture 4

Source: Lecture 4

Some verbs in English can take either one or two objects (such as "see" - I see a bird vs. I see a bird with binoculars). Explain, in terms of lambda calculus, why we would need separate predicates for these different uses of "see". (2)

### Question 3

Topic: Lecture 2

Source: Lecture 2

What is the meaning of "One document, one sense" as it applies to Word Sense Disambiguation? (1)

## Question 4

Topic: Lecture 3

Source: Lecture 3

Given that A is False, B is False, and C is False, list 3 complex statements that are true, and 2 that are false. (1)

## Question 5

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 6

Topic: Lecture 4

Source: Lecture 4

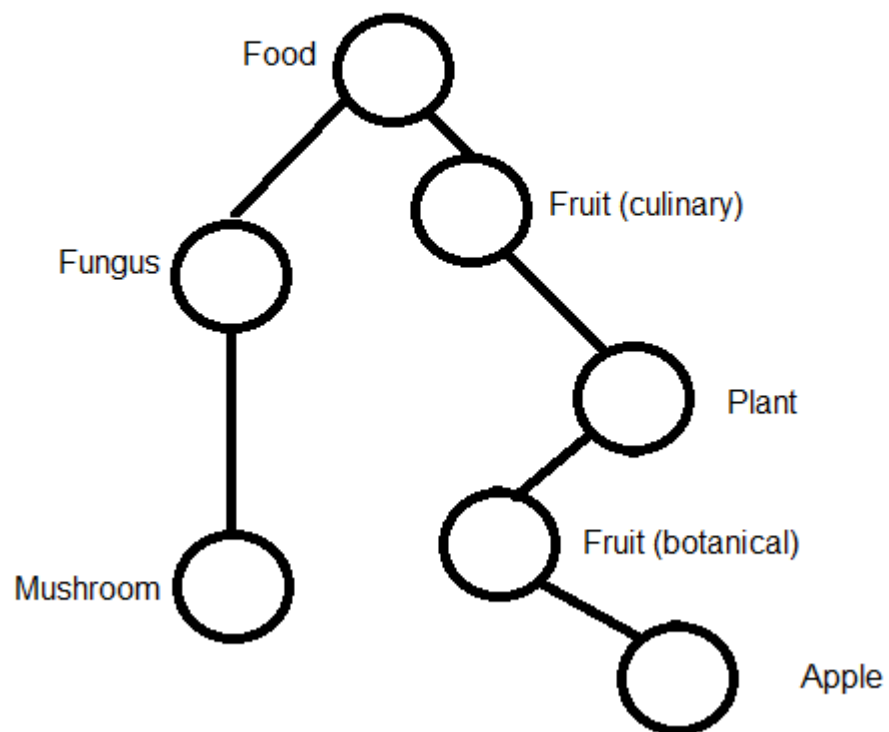
In class, we went over some common OWL and RDFS constraints that we can place on predicates, but we only ever attached one. Can you think of any instances of bivariate (ie, two parameter) predicates that could use multiple constraints? If so, briefly describe the predicate and its constraints, and if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

## Question 7

Topic: Lecture 1

Source: Lecture 1

Given the following tree, what is the WuP similarity between the two leaf nodes?





## Question 8

Topic: Lecture 1

Source: Lecture 1

Why is Wu-Palmer similarity more reliable than path similarity? (1)

## Question 9

Topic: Long

Source: Lecture 3

Write an FOL representation for the following sentences: Oranges are sweet, but some lemons are sweeter. Remakes of movies are always disappointing. Flying monkeys cannot exist. Not all cloudy days produce rain.

**END OF QUIZ**