

Natural Language and Speech Processing
M.E. (CSE), II Sem. 2012
Assignment #3

1. What are the challenges of meaning representation in Natural language? Explain.
2. What are the basic concepts/ideas for representation of meaning of any given sentence?
3. Why the basic predicate logic cannot be used for representation of meaning? Justify.
4. Explain with examples, the meaning in following classes, using FOPL:
 - (a) Category
 - (b) Events
 - (c) Time
 - (d) Aspect
 - (e) Representation of beliefs
5. How the following methods can be used for representation of meaning:
 - Semantic Networks
 - Conceptual Graphs
 - Conceptual dependencies
6. Represent the meaning of the sentence **I ate noodles with fork**, using:
 - (a) Predicate logic
 - (b) semantic network
 - (c) conceptual graph
 - (d) conceptual dependencies
7. What are the various criteria for meaning representation in respect of:
 - Efficiency
 - Inferencing
8. Give FOPL translation of following sentences:
 - (a) Vegetarians do not eat meat.
 - (b) Not all the vegetarians eat meat
9. Give a set of facts and inferences necessary to prove the following assertions:
 - (a) McDonald is not a vegetarian restaurant.
 - (b) Some vegetarians can eat at McDonald.
10. Give FOPL translation for the following sentence that capture the temporal relationships between the events:
 - (a) When Mary's flight landed, I ate Lunch.
 - (b) When Mary's flight landed, I had eaten Lunch.

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