Assignment#2

Q1. A satisfiable class must always have a non-empty interpretation. (5 marks)

(A) True   (B) False   (C) Don't know

Q2. An unsatisfiable class might have a non-empty interpretation in some model. (5 marks)

(A) True   (B) False   (C) Don't know

Q3. An unsatisfiable class will be a subclass of any other class. (5 marks)

(A) True   (B) False   (C) Don't know

Q4. What are Competency Questions? How would you use them during the process of ontology development? (approx. 150 words in PDF) (15 marks)

Q5. If you had only existential (exists/some) or only universal (forall/only) restrictions in your ontology, which, from a modelling perspective, would be preferable, and why? (approx. 150 words in PDF) (15 marks)

Q6. In the first assignment, you produced a basic hierarchy of sushi ingredients. For this assignment, you are to repeat the exercise of producing an ontology (based on the one you produced for Assignment#1), but using the experience and information that you have gained along with the competency question you have been identifying. Your ontology should be sufficient to enable the set of competency questions for the ontology that you, as a class, will formulate. These competency questions are those that you would wish an intelligent, ontology driven restaurant sushi menu to be able to answer. These competency questions will form the basis for evaluating your ontology. There are several things you will do in developing your sushi ontology:
- Produce some competency questions that will guide the ontology's content, design and evaluation what should the ontology be "competent" to answer"? (15 marks)
- Produce a hierarchy of sushi ingredients such that each type of sushi can be described. (10 marks)
- Design the axioms patterns that allow sushi and platters of sushi to be described according to the competency questions. (15 marks)
- Produce the sushi ontology, that covers both sushi and platters of sushi, that will allow a broad range of queries from the competency to be answered. (15 marks)