CS-E4410 Semantic Web
23.5..2017

DISCLAIMER!
Questions written from memory right after the exam. Question paper had to be returned with answers :(

Total 27p

1. Explain briefly the following notations by comparing them to Turtle: N-Triples, RDF/XML, RDFa. (3p)

2. What does reification mean in the context of RDF? Give an example. (2p)

3. How can you represent an n:ary predicate p(X1….Xn) using RDF triples? (2p)

4. What new properties can be inferred for :x and :y based on RDFS semantics and the data below? (4p)
        :C1 rdfs:subClassOf :C2
        :p1 rdfs:subPropertyOf :p2 ;
                rdfs:domain :C1 ;
                Rdfs:range :C2 .
        :x :p1 :y .

5. Explain shortly the criteria of the stars in the Linked Open Data "5-star model". (5p)

6. URI dereferencing, explain 1) hash URIs 2) 303 URIs (3p)

7. What are inverse functional properties in OWL? Give an example. (2p)

8. What does Unique Name Assumption (UNA) mean on the Semantic Web? (4p)
    A) Does OWL use UNA?
    B) If 2 objects has same rdfs:label and UNA is used, can objects be different?
    C) If 2 objects has different URI and UNA is not used, can objects be same?
    D) If 2 objects has same URI and UNA is not used, can objects be same?
Note: Can't remember 100% sure how A-D were presented

9. Description Logic Programs (DLP) and why they are useful (2p)