

Code No: 815BK

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**MCA V Semester Examinations, August – 2017****SEMANTIC WEB AND SOCIAL NETWORKS****Time: 3 Hours****Max. Marks: 60****Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 20 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 8 marks and may have a, b, c as sub questions.

PART - A**5 × 4 Marks = 20**

- 1.a) What are limitations of today's web? Also comment on "next generation web". [4]
- b) How to map a RDF statement onto Relational Database model? [4]
- c) Discuss about Semantic Search and e-learning. [4]
- d) Write brief notes about "SWOOGLE". [4]
- e) Describe briefly about "Elmo". [4]

PART - B**5 × 8 Marks = 40**

2. Write short notes on the following:
a) Turing test b) Artificial Intelligence c) Semantic networks and frames. [2+3+3]
- OR**
3. Discuss about the following:
a) Semantic Web roadmap b) Logics on the semantic web. [4+4]
4. Design and explain an ontology about Geography including cities, countries, states, and so on. [8]
- OR**
5. Explain the following in brief.
a) Steps for constructing an ontology.
b) Ontology libraries. [4+4]
6. How "Logic and rules" are used on the semantic web to create inferences to produce new knowledge? Also discuss with an example of a "simple RDF inference engine". [8]
- OR**
7. Write short notes on the following:
a) Semantic Web Services
b) Semantic based enterprise application and data integration.
c) Knowledge base. [3+3+2]
8. "The vision of semantic web services is to automate web services through the use of machine processing". Prove and justify the statement with suitable example. [8]
- OR**
9. Describe shortly the "Key concepts of Social Network Analysis". [8]
10. Narrate the following 'Electronic sources on Network Analysis'.
a) Electronic discussion network b) Web based network. [4+4]
- OR**
11. Explain about "Sesame and GraphUtil" strategies in view of developing semantic web application with social network features. [8]