R15

Code No: 825AG

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
MCA V Semester Examinations, April/May - 2019
SEMANTIC WEB AND SOCIAL NETWORKS

Time: 3 Hours   **Max. Marks: 75**

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART - A

5 × 5 Marks = 25

1.a)   Define artificial intelligence. Correlate machine intelligence with this.   [5]
  b)   What are the merits and demerits of XML for semantic web?   [5]
  c)   Differentiate between forward chaining and backward chaining.   [5]
  d)   What is the significance of social network analysis?   [5]
  e)   Make a comparison of Jaccard coefficient method and average precision method.   [5]

PART - B

5 × 10 Marks = 50

2.   Explain the significance of World Wide Web in the era of ICT – information, Communication and Technology.   [10]

OR

3.   "Berner-Lee's contribution to the Web is remarkable" Support or oppose this statement with suitable illustrations.   [10]

4.   Explain the basic elements of Resource Description Framework language.   [10]

OR

5.   Demonstrate ontology construction with a case study.   [10]

6.   How does an inference engine work? Explain with illustrations.   [10]

OR

7.   Explain the generic architecture of semantic web applications.   [10]

8.a)   Explain the steps involved in creating an OWL-S based Ontology for a Web Service in detail.
  b)   What is the functionality of Swoogle?   [5+5]

OR

9.   What is an electronic discussion network? Is it an electronic source for network analysis? Justify your answer.   [10]

10.   Discuss the features of Blogs that have been used in various studies to establish a social network of bloggers.   [10]

OR

11.a) What criteria have to be met by an application to be considered as a semantic web application?
  b)   Describe briefly the functionality of Elmo Session class.   [5+5]