

Code No.: IT743PE

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CMR ENGINEERING COLLEGE: : HYDERABAD  
UGC AUTONOMOUS

IV-B.TECH-I-Semester End Examinations (Regular) - November- 2023  
SEMANTIC WEB & SOCIAL NETWORKS  
(IT)

[Time: 3 Hours]

[Max. Marks: 70]

**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 10 marks and may have a, b, c as sub questions.

**PART-A**

**(20 Marks)**

1. a) Define Artificial Intelligence? [2M]
- b) Define Ontology. [2M]
- c) Explain about HTML language. [2M]
- d) Analyze and evaluate the unique features of UML. [2M]
- e) What are the differences between monotonic and nonmonotonic rules in the context of logic and reasoning? [2M]
- f) List the famous ontology development tools. [2M]
- g) What is e-learning? Explain. [2M]
- h) Explain about the Google Search algorithm. [2M]
- i) What is social network analysis? [2M]
- j) Write a note on Elmo API [2M]

**PART-B**

**(50 Marks)**

2. Explain about Intelligent Web applications [10M]
- OR**
- 3.a) What is the concept of an agent, and could you provide insights into the different types of software agents? [5M]
- b) Explain the Semantic road map. [5M]
4. Explain how semantic web is used for knowledge representation. [10M]
- OR**
5. Describe about ontology web language. [10M]
6. Discuss about ontology mapping tools and their significance in the field of knowledge representation and semantic web? [10M]
- OR**
7. What are the semantic web applications and services? Explain how do they work. [10M]
8. What is Social Network Analysis? Explain the development of Social Network Analysis. [10M]
- OR**
9. Discuss about web search agents and semantic search technology. [10M]
10. Explain in detail about building semantic web applications with social network features. [10M]
- OR**
11. Explain about web-based networks. [10M]

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