

CMR ENGINEERING COLLEGE: : HYDERABAD**UGC AUTONOMOUS****IV–B.TECH–I–Semester End Examinations (Supply) - December- 2025****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) What are the limitations of Today's web? [2M]
- b) Differentiate Machine Learning and Artificial Intelligence. [2M]
- c) Give an overview of Web ontology language. [2M]
- d) Explain about XML. [2M]
- e) Describe about the ontology mapping tools. [2M]
- f) Write a note on ontology libraries. [2M]
- g) Define semantic search. [2M]
- h) Explain about semantic Bioinformatics. [2M]
- i) Explain about Sesame. [2M]
- j) How does referral chaining play a role in social network analysis, and what are its implications for understanding social connections? [2M]

PART-B**(50 Marks)**

2. Explore the evolution of the Information Age and the contributions of the World Wide Web to this development. [10M]

OR

3. Describe the Semantic web road map. [10M]

4. Explain the basic elements of RDF language. [10M]

OR

5. Explain about Resource description framework schema. [10M]

6. Discuss about ontology engineering and ontology development tools. [10M]

OR

7. Write a note on:
 - a) Inference Engine [5M]
 - b) RDF Inference Engine [5M]

8. Describe the process of creating an OWL-S ontology for web services, emphasizing the significance of this approach. [10M]

OR

9. Explain about XML based web services. [10M]

10. Write a short notes on:
 - a) Blogs and Online Communication [5M]
 - b) Electronic discussion networks [5M]

OR

11. Explain about web-based networks. [10M]
