

Code No.: IT743PE

R20

H.T.No.

8

R

**CMR ENGINEERING COLLEGE: : HYDERABAD**  
**UGC AUTONOMOUS**

**IV–B.TECH–I–Semester End Examinations (Supply) – April-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 objectives of semantic web architecture? [2M]
- b) Which is solvable on the Web? [2M]
- c) Model and Describe RDF. [2M]
- d) Discuss about ontology mapping. [2M]
- e) Explain about monotonic and nonmonotonic rules. [2M]
- f) List out the semantic web applications. [2M]
- g) Distinguish the relationship between a service and profile. [2M]
- h) Extend the key concepts of social network analysis. [2M]
- i) Explain about Graph Util. [2M]
- j) Make use of Electronic discussion networks. [2M]

**PART-B**

**(50 Marks)**

2. Explain how HTML limits the manipulation of information AND also explain reasoning with semantic networks. [10M]

**OR**

3. What is meant by adaptive software? And Relate the need of soft computing for this? [10M]

4. What are the requirements for web ontology language and Relate with RDF schema? [10M]

**OR**

5. Identify the compatibility of OWL and RDF/RDFS. [10M]

6. Compare Ontology Methods and Semantic Bioinformatics. [10M]

**OR**

7. Discuss about the logic, inference, semantic Web applications and Web services. [10M]

8. Define knowledge and knowledge base and Explain XMLbased Web Services. [10M]

**OR**

9. What is social network? How is social network analysis a different approach to social phenomenon? [10M]

10. Develop the building blocks of Semantic Web applications with social network [10M] features.

**OR**

11. Demonstrate Electronic discussion networks, blogs and also The generic architecture of [10M] semantic Web applications.

\*\*\*\*\*