

Code: 13A12801

B.Tech IV Year II Semester (R13) Advanced Supplementary Examinations July 2017

**SOCIAL NETWORK ANALYSIS**

(Information Technology)

Time: 3 hours

Max. Marks: 70

**PART – A**

(Compulsory Question)

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- 1 Answer the following: (10 X 02 = 20 Marks)
- (a) What are the 4 layers which are important to make semantic web real?
  - (b) What is social network analysis?
  - (c) Enlist the characteristics of social relationships.
  - (d) Illustrate two kinds of extensions that RDF schema makes over RDF.
  - (e) Explain vertex similarity.
  - (f) Explain quality function: modularity.
  - (g) What is context awareness?
  - (h) What constitutes trust network analysis?
  - (i) Explain co-citation networks.
  - (j) Define augmenting matrices.

**PART – B**

(Answer all five units, 5 X 10 = 50 Marks)

**UNIT – I**

- 2 Briefly explain the electronic sources for network analysis.

**OR**

- 3 Elaborate on how semantic web reduce the knowledge gap between human and machine.

**UNIT – II**

- 4 Define ontology and list its features. Explain in detail the role of ontology in semantic web.

**OR**

- 5 Explain the basic elements of OWL in detail.

**UNIT – III**

- 6 Define community. Why community detection is important? Explain in detail about various methods for community detection.

**OR**

- 7 Elaborate on various challenges for decentralized online social networks.

**UNIT – IV**

- 8 Explain in detail with a diagram the human behavior understanding and prediction process.

**OR**

- 9 What is trust transitivity analysis? Explain in detail uncertainty favoring trust transitivity and base rate sensitive transitivity with example.

**UNIT – V**

- 10 What is visualization? What is its purpose? Explain the visual representation employed in visualizing social networks.

**OR**

- 11 Elaborate on online social network visualizations based on different views of social relationships.

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