Reg. No. :		 					

Question Paper Code: 40366

M.E./M.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2018.

Elective

Biometrics and Cyber Security

CP 5074 — SOCIAL NETWORK ANALYSIS

(Common to M.E. Computer Science and Engineering/M.E. Computer Science and Engineering (With Specialization in Networks)/M.E. Multimedia Technology/M.Tech. Information Technology)

(Regulations 2017)

Time: Three hours

Maximum: 100 marks

Answer ALL questions.

PART A — $(10 \times 2 = 20 \text{ marks})$

- Define the term Web.
- 2. What is the need of Semantic web?
- 3. Why is visualization required?
- 4. What is the limitation of FOAF?
- 5. Why is community detection required in social networks?
- 6. What is meant by community in social network?
- 7. What is social influence?
- 8. What is meant by influence maximization?
- 9. What are the categories of emotions?
- 10. What is meant by opinion?

PART B — $(5 \times 13 = 65 \text{ marks})$

11. (a) Explain the components of Ontologies in detail.

Or

- (b) "Social networks as a Graph". Justify.
- 12. (a) Write short note on structural visualization of social networks.

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- (b) How is ontology used to represent social relationship in social networks? Explain.
- 13. (a) How is node classification done in social networks using Naïve method? Discuss.

Or

- (b) Briefly explain the quality functions for evaluating communities.
- 14. (a) What are influence related statistics? Explain.

Or

- (b) What is Expert-location problem? How do you solve it?
- 15. (a) Write your methodology to perform real time emotion classification of tweets.

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(b) How do you assess the Opinions of Facebook users on a particular product?

PART C
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 (1 × 15 = 15 marks)

16. (a) Explain on "viral marketing as an optimization problem".

Or

(b) How do you discover scientific collaborative groups from social networks? Discuss.