Reg.No.:								

VIVEKANANDHA COLLEGE OF ENGINEERING FOR WOMEN
[AUTONOMOUS INSTITUTION AFFILIATED TO ANNA UNIVERSITY, CHENNAI]
Elayampalayam – 637 205, Tiruchengode, Namakkal Dt., Tamil Nadu.

Question Paper Code: 5033

M.E. / M.Tech. DEGREE END-SEMESTER EXAMINATIONS – DECEMBER 2019
First Semester
Computer Science and Engineering
P15CSE30 – SOCIAL NETWORK MINING AND ANALYSIS
(Regulation 2015)

Time : Three Hours | Maximum : 100 Marks

Answer ALL the questions

PART – A

(10 x 2 = 20 Marks)

1. Differentiate "supervised" from "unsupervised" Learning.
2. Mention the limitations of Markov Clustering.
3. How is web community extracted?
4. List the applications of community mining algorithms.
5. How to model and aggregate social network data?
6. State the significance of Node-Edge diagrams.
7. What is Irony detection in option mining?
8. What is document sentiment classification?
9. What is meant by evolution in Social Networks?
10. List various algorithms for social influence analysis.

PART – B

(5 x 13 = 65 Marks)

11. a) Briefly describe the advantages and limitations of vector space model. (7+6)

(OR)

b) Briefly describe the applications and limitations of latent semantic indexing. (7+6)

12. a) Why detecting communities from given social networks are practically important? How communities are evaluated? (8+5)

(OR)

b) List the core methods and explain how they are used for community detection.

13. a) How to interpret ontological representation of social network.

(OR)

b) Explain about Visualizing social networks with matrix-based representation.

14. a) Why sentiment analysis is important? How does sentiment analysis work? (3+10)

(OR)

b) Compare data mining and text mining. Also discuss their benefits. (8+5)

15. a) Discuss the four dimensions that are associated to knowledge discovery in social networks and evaluate on their interplay in the context of evolution. (8+5)

(OR)

b) Design the following in social network:

i. Expert location without graph constraints. (6.5)

ii. Expert location with score propagation (6.5)

PART – C

(1 x 15 = 15 Marks)

16. a) Evaluate the following application of community mining algorithms used in social network analysis:

i. Discovering scientific collaboration groups from social networks.(7.5)

ii. Mining communities from distributed and dynamic networks. (7.5)

(OR)

b) How the following models are used in generating link prediction in social networks:

i. Feature based link prediction. (7.5)

ii. Bayesian probabilistic models. (7.5)