

2023

M. E. (Information Technology)  
Second Semester  
MEIT-2108: Social Network Analysis

Time allowed: 3 Hours

Max. Marks: 50

*NOTE: Attempt five questions in all, including Question No. I which is compulsory and selecting two questions from each Unit.*

x-x-x

I. Explain the following terms:-

- a) Sparse Networks
- b) Sentiment Analysis
- c) Eigenvector Centrality
- d) Adjacency Matrix
- e) Clustering Coefficient

(5x2)

**UNIT - I**

II. Describe the various types of representation of social networks with the help of example. (10)

III. a) Explain the various types of network centrality measures.

b) What are the applications of clustering algorithms.

(5,5)

IV. What is the significance of block modelling? Explain any two types with the help of examples. (10)

**UNIT - II**

V. What are the various data collection and storage challenges for diverse social networks? How these challenges can be overcome? (10)

VI. Explain the concept of exponential random graph models. How these models can be applied for analysing social networks? (10)

VII. a) How linguistic analysis can be helpful in social data analytics?

b) Explain hypothesis Testing with the help of an example.

(5,5)

x-x-x