QP CODE: 23002937

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Reg No : .....

Name : .....

M Sc DEGREE (CSS) EXAMINATION, MARCH 2023

Third Semester

Faculty of Science

M Sc COMPUTER SCIENCE (DATA ANALYTICS)

Elective - CA860301 - SOCIAL MEDIA MINING

2019 ADMISSION ONWARDS

FFD1C701

Time: 3 Hours Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

*Weight **1** each.*

1. Prove that summation of degrees in an undirected graph is twice the number of edges.
2. What are the different types of graph representation?
3. Evaluate Term-Frequency(TF) and Inverse Document Frequency(IDF) for the following documents d1="social media mining" d2="social media data" d3="financial market data"
4. Write short note on data preprocessing.
5. Identify a method to find all maximal cliques in a graph
6. Define densification in evolving networks.
7. Explain the terms Influence, Homophily and Confounding
8. Describe the method used for measuring homophily.
9. Define Cascade Models
10. Compute similarity between nodes using jaccard similarity and adamic adar in behavior prediction

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

*Weight **2** each.*

11. Explain challenges imposed on Social media mining

12. Explain properties of real world networks
13. Discuss briefly different types of regression methods
14. Describe information diffusion in social media
15. Discuss Independent Cascade Model that can be utilized to model information cascades
16. Explain in detail about Influence Significance Test
17. Distinguish between recommender systems and web search
18. Explain in detail about the four step methodology used in behaviour analysis of an individual in social media.

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

*Weight **5** each.*

19. Describe any two graph algorithms in detail.
20. Differentiate between supervised and unsupervised learning algorithms
21. Explain in detail about community evaluation?
22. Describe the influence modeling techniques used in implicit and explicit networks.

(2×5=10 weightage)