

Reg. No.....

Name.....

END SEMESTER EXAMINATION – OCTOBER 2025**SEMESTER 9: INTEGRATED M.Sc. PROGRAMME IN COMPUTER SCIENCE -DATA SCIENCE****COURSE: 21UP9CRMCP32EL: SOCIAL MEDIA ANALYTICS***(For Regular 2021 Admission)*

Time: Three Hours

Max. Weightage: 30

PART A**Answer any 8 Questions****Weight:1**

1. List and briefly explain the four data quality aspects that need to be verified when preparing data for data mining algorithms. (U)
 2. State the relevance of cliques in community detection. (R)
 3. Give one real-world example of homophily in online communities. Justify your answer. (A)
 4. Define data preprocessing. (R)
 5. Write an example for Depth First Search. (A)
 6. Identify five emerging challenges in social media mining. (R)
 7. Define collective behavior. (R)
 8. State any three applications of recommendation systems in e-commerce platforms. (U)
 9. Define community and why is community analysis Important? (U)
 10. Write down the three categories of individual online behavior. (R)
- (1 x 8 = 8)**

PART B**Answer any 6 Questions****Weight:2**

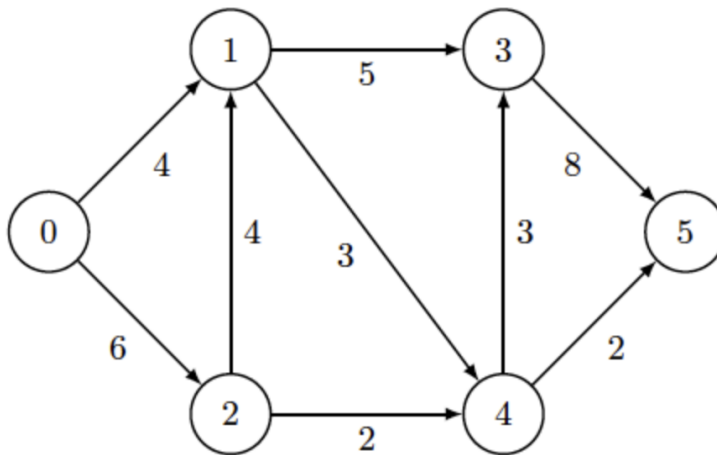
11. Distinguish between homophily and influence with examples. (An)
 12. Describe behavior analysis methodology. (U)
 13. Explain the working of Prim's Algorithm. (U)
 14. Prepare a note on Naïve bayes classifier and its relevance in social media analytics. (An)
 15. Explain transitivity and reciprocity with examples in social networks. (U)
 16. Define herd behavior. Discuss Bayesian Modeling of Herd Behavior with an example. (A)
 17. Explain Member-Based Community Detection in social networks with the help of an example. (A)
 18. Describe clustering in the context of unsupervised learning. (U)
- (2 x 6 = 12)**

PART C

Answer any 2 Questions

Weight:5

19. Explain in detail content-based methods in recommendation systems in social media. (U)
20. Demonstrate the working of Brute-force Clique Identification algorithm with an example. (A)
21. Prepare a detailed note on unsupervised learning evaluation. (An)
22. Explain the working of Ford-Fulkerson Algorithm with the graph given below where 0th node is source and 5th node is the sink: (A)



(5 x 2 = 10)