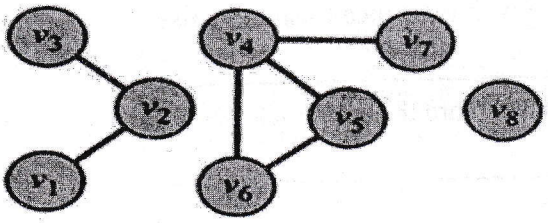
K. J. Somaiya Institute of Technology, Sion, Mumbai-22
(Autonomous College Affiliated to University of Mumbai)

May-June 2025
Program: B. Tech. Scheme: IIB
Regular Examination: LY Semester: VIII
Course Code: CEDLC8031 and Course Name: Social Media Analytics
Date of Exam: Duration: 02.5 Hours Max. Marks: 60

Instructions:
(1)All questions are compulsory.
(2)Draw neat diagrams wherever applicable.
(3)Assume suitable data, if necessary.

Q. No.	Question	Max. Marks	CO	BT level
Q 1	**Solve any two questions out of three: (05 marks each)**	**10**		
a)	Explain different data sources available through various social media channels and their significance in analytics.		CO1	U
b)	Describe the structural visualizations commonly used in social media analytics and explain how it helps in data interpretation.		CO2	U
c)	Imagine you have a corpus with three documents as mentioned below: Document 1: "The cat sat on the mat." Document 2: "The dog played in the park." Document 3: "Cats and dogs are great pets." Calculate the TF-IDF score for the terms 'cat, dog' in these documents.		CO3	Ap
Q 2	**Solve any two questions out of three: (05 marks each)**	**10**		
a)	Demonstrate the concept of Betweenness Centrality with an example and explain its importance in network analysis.		CO4	U
b)	For the graph shown below, compute the similarity between node 5 and 7 using similarity measure methods and interpret the result. 		CO5	Ap

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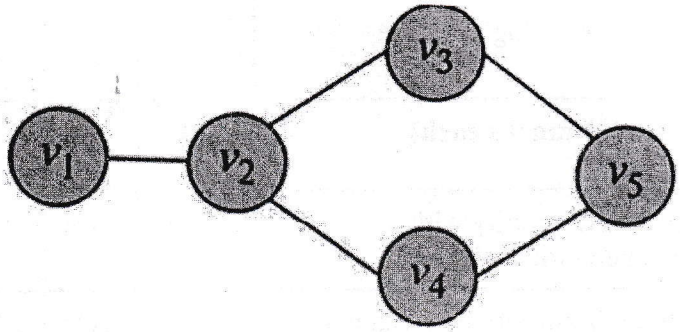
c)	List and explain the sequential steps to analyze Twitter data using the Tweet Characteristic Features from Twitter API.		CO6	Ap
Q.3	**Solve any two questions out of three. (10 marks each)**	**20**		
a)	Explain social media life cycle and analyze the evolution of data generation on digital platforms.		CO1	U
b)	Explain matrix-oriented techniques in social media analytics and analyze their application in measuring user influence.		CO2	U
c)	Compare and contrast the three graph exploration methods—Backward Search, Bidirectional Search, and Index-based Search—and evaluate their use cases in large-scale social networks.		CO3	U
Q.4	**Solve any two questions out of three. (10 marks each)**	**20**		
a)	Explain the concept of Group Centrality in social networks and illustrate how it is used to identify influential groups. (5M) Consider the graph given below and computer closeness centrality.(5M) 		CO4	Ap
b)	Explain collective behavior prediction with reference to suitable use case.		CO5	U
c)	Describe the step-by-step procedure to explore the Facebook Social Graph API with examples.		CO6	U

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