

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

April – May 2023

(B.Tech) Program: Computer Engineering Scheme : II  
 Examination: LY Semester: VIII

Course Code: CEDLC8031 and Course Name: Social Media Analytics

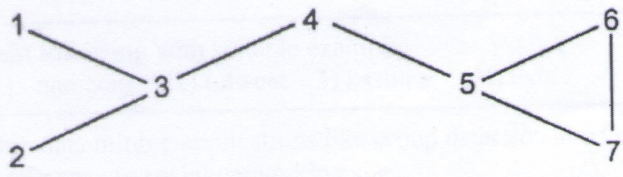
Date of Exam: 18/05/2023

Duration: 2.5 Hours

Max. Marks: 60

**Instructions:**

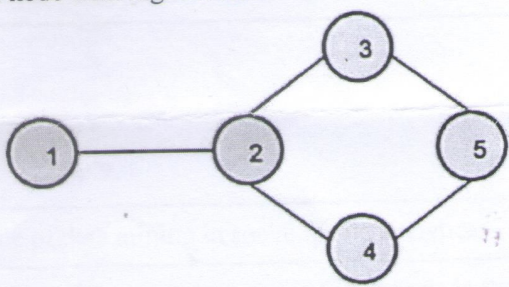
- (1) All questions are compulsory.
- (2) Draw neat diagrams wherever applicable.
- (3) Assume suitable data, if necessary.

		Max. Marks	CO	BT level
Q 1	Solve any six questions out of eight:	12		
i)	Explain role of data mining in social media analytics.	2	CO2	U
ii)	Calculate the degree centrality score of each node in the social graph given below.  	2	CO4	Ap
iii)	Explain the general parameters of user migration.	2	CO5	U
iv)	Explain how to identify location of a tweet.	2	CO6	U
v)	Explain the following terms A.) Group Betweenness Centrality B) Group Closeness Centrality	2	CO4	U
vi)	Explain Elbow method with reference to clustering.	2	CO3	U
vii)	Explain any two applications of social media analytics from Business growth perspective.	2	CO1	U
viii)	Imagine the term Social appears 20 times in a document that contains a total of 100 words. Calculate TF-IDF for the term Social.	2	CO3	Ap
Q.2	Solve any four questions out of six.	16		
i)	Differentiate between Traditional analytics and Social media analytics.	4	CO1	U
ii)	Explain sampling of online social networks.	4	CO3	U



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iii)	Consider the following network and calculate closeness centrality and identify the node with highest closeness centrality. 	4	CO4	Ap
iv)	Explain Individual online Behavior and its categories.	4	CO5	U
v)	Explain following with suitable example 1) nametag 2) retweet 3) hashtag 4) lists	4	CO6	U
vi)	Explain data mining applications like group detection and Group profiling with reference to social networking sites.	4	CO2	U
Q.3	Solve any two questions out of three.	16		
i)	Explain different ways of social media data acquisition.	8	CO1	U
ii)	Explain the term centrality and it's any four types.	8	CO4	U
iii)	Suppose you have to predict opening weekend revenue for a movie from its prerelease chapter among fans. Explain the steps to accomplish above mentioned task.	8	CO5	U
Q.4	Solve any two questions out of three.	16		
i)	Explain Node-link diagrams with respect to structural visualization.	8	CO2	U
ii)	Explain Keyword search over XML and relational data in detail.	8	CO3	U
iii)	Explain Facebook's Social Graph API.	8	CO6	U

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