U.S.N.										

B.M.S. College of Engineering, Bengaluru-560019

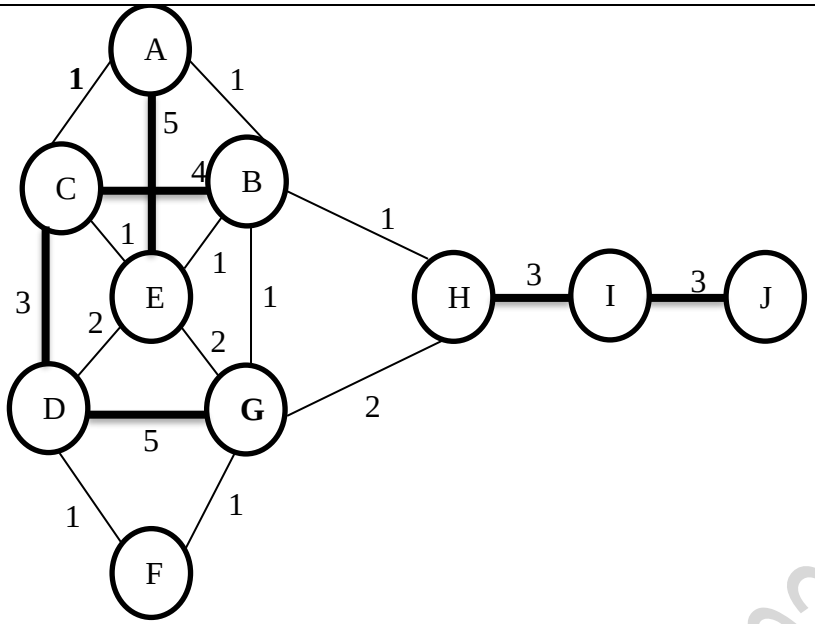
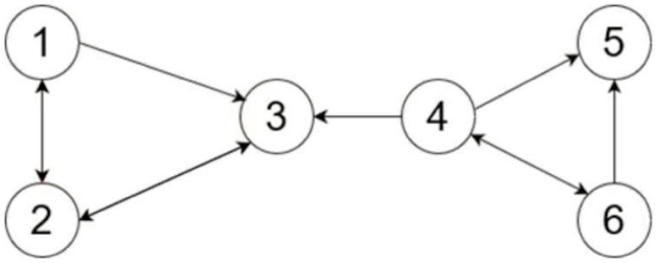
Autonomous Institute Affiliated to VTU

July 2023 Semester End Main Examinations

Programme: B.E. **Semester: VI**
Branch: Artificial Intelligence and Machine Learning **Duration: 3 hrs.**
Course Code: 22AM6PESMA **Max Marks: 100**
Course: Social Media Analytics **Date: 14.07.2023**

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may be suitably assumed.

		UNIT - I	*CO*	*PO*	Marks
1	a)	Determine the types of social media analytics. Address the challenges faced by social media analytics.	*CO1*	*PO1*	**8**
	b)	Differentiate Web 1.0, Web 2.0, and Web 3.0.	*CO2*	*PO2*	**4**
	c)	Nutella – Incredible content that makes you salivate. Each post makes you want to eat Nutella. There are a lot of people who take photos of their food before they eat it. Nutella does the same and it works. Nutella isn't afraid to be fun and creative with different ingredients. Nutella is just a chocolate spread yet they manage to have fun with it. Assume a product of your own to compete with Nutella, and demonstrate: i. How would you advertise your product in social media. ii. How would you engage customers in your product webpage. iii. What social media analytics do you perform to increase your business.	*CO3*	*PO3*	**8**
		UNIT - II			
2	a)	Discuss the steps in social media text analytics with the help of a diagram.	*CO2*	*PO2*	**8**
	b)	Calculate the closeness centrality of all nodes in the network below and rank them accordingly. Note: calculate distance between the nodes based on the cost and consider the shortest paths between the nodes to calculate closeness.	*CO3*	*PO3*	**12**

						
			UNIT - III			
3	a)	Demonstrate the working of random surfer page rank model. Rank the nodes (web pages) in the network below using the same. Assume damping factor = 0.85, iteration =1, initial page rank of all pages=1. 	*CO3*	*PO3*	**10**
	b)	Determine the need of mobile app analytics and discuss categories of mobile applications.	*CO2*	*PO2*	**10**
		OR			
4	a)	Analyses the ways in which hyperlink analytics are performed. Discuss the tools available for the same in the market.	*CO2*	*PO2*	**10**
	b)	Describe action analytics with a suitable example. Explore all possible actions performed in social media platforms.	*CO1*	*PO1*	**10**
		UNIT - IV			
5	a)	Categorize and explain location analytics based on its scope and applications.	*CO1*	*PO1*	**10**
	b)	Demonstrate the possible ways in which search engine analytics is performed. Mention any for tools for search engine analytics.	*CO2*	*PO2*	**10**
		UNIT - V			
6	a)	Provide an overview of basic Models of Recommender Systems.	*CO1*	*PO1*	**12**

		b)	Explain three primary types of evaluation paradigms of recommender systems.	*CO1*	*CO1*	**8**
			OR			
	7	a)	Elucidate the general goals in evaluating recommender systems.	*CO1*	*CO1*	**10**
		b)	Summarize the following terminologies with an example for each: i. The Cold-Start Problem in Recommender Systems ii. Attack-Resistant Recommender Systems iii. Multi-Criteria Recommender Systems iv. Active Learning in Recommender Systems v. Group Recommender Systems	*CO2*	*PO2*	**10**

****