Code No.: R22DS734PE | R22 | H.T.No. | | | 8 | R | | | | | |

CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS
IV–B.TECH–I–Semester End Examinations (Regular) - December- 2025
ADVANCED TEXT AND MULTIMEDIA ANALYTICS
(CSD)

[Time: 3 Hours] **[Max. Marks: 60]**

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 10 marks. Answer all questions in Part A.
Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART-A **(10 Marks)**

1.	a)	Differentiate between unigram, bigram, and trigram models.	[1M]
	b)	Define tokenization.	[1M]
	c)	What is the importance of page ranking in web mining?	[1M]
	d)	Mention any two evaluation metrics for text classification.	[1M]
	e)	List the main phases of web crawling.	[1M]
	f)	What are crawler algorithms? Name a few commonly used ones.	[1M]
	g)	What is centrality in a social network?	[1M]
	h)	List any two models used for social network analysis.	[1M]
	i)	Mention any two applications of behavioral analytics.	[1M]
	j)	List two challenges in social media recommendation.	[1M]

PART-B **(50 Marks)**

2.		Discuss the role of feature vector representation in text mining.	[10M]
		OR	
3.		Explain Named Entity Recognition (NER) and its applications.	[10M]
4.	a)	Explain feature extraction and dimensionality reduction techniques used in text classification.	[5M]
	b)	Discuss the working and advantages of Hierarchical Dirichlet Process (HDP) for topic modeling.	[5M]
		OR	
5.		Compare and contrast LDA, PLSI, and HDP.	[10M]
6.		Explain the methods of visitor segmentation in web analytics and how it helps in personalization.	[10M]
		OR	
7.		Discuss the process of session identification in Web Usage Mining.	[10M]
8.		Describe various types of social network models and their significance.	[10M]
		OR	
9.		Explain information diffusion in social media with an example.	[10M]
10.		Explain the process of behavioral analytics in social media with suitable examples.	[10M]
		OR	
11.	a)	Describe the handling of comparative sentences in sentiment analysis.	[5M]
	b)	Give a brief note on Behavioral Analytics.	[5M]

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