Printed Page:- **Subject Code**:- **ACSAI0622N**

Roll. No:

NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

B.Tech

SEM: VI - THEORY EXAMINATION (20 ..... - 20.....)

Subject: Social Media Analytics

Time: 3 Hours **Max. Marks: 100**

General Instructions:

IMP: *Verify that you have received the question paper with the correct course, code, branch etc.*

1. *This Question paper comprises of* ***three Sections -A, B, & C.*** *It consists of Multiple Choice Questions (MCQ's) & Subjective type questions.*

2. *Maximum marks for each question are indicated on right -hand side of each question.*

3. *Illustrate your answers with neat sketches wherever necessary.*

4. *Assume suitable data if necessary.*

5. *Preferably, write the answers in sequential order.*

6. *No sheet should be left blank. Any written material after a blank sheet will not be evaluated/checked.*

SECTION-A 20

1. Attempt all parts:-

1-a. Full form of NER is:(CO1,K1) 1

(a) Named Entity Recognition

(b) Neural Entity Recognition

(c) Name entity Representation

(d) Name Entry Recognition

1-b. Feature-based opinion mining focuses on-(CO1,K1) 1

(a) Whole document sentiment

(b) Sentiment about specific features

(c) Sentence tokenization

(d) Topic clustering

1-c. The goal of web usage mining is_(CO2,K1) 1

(a) Extracting useful information from web page content

(b) Analyzing the structure of hyperlinks

(c) Understanding user behavior on the web

(d) Identifying relationships between web pages

1-d. The process by which a search engine collects and stores information about web pages__(CO2,K1) 1

(a) Crawling

(b) Indexing

(c) Ranking
(d) Query processing

1-e. The term describing the spread of information through a social network.(CO3,K1) 1

(a) Social networking
(b) Social diffusion
(c) Social amplification
(d) Social contagion

1-f. A common metric for measuring the rate of information diffusion:(CO3,K1) 1

(a) Impressions
(b) Click-through rate
(c) Engagement rate
(d) Reach

1-g. SpaCy is mainly used for:(CO4,K1) 1

(a) Video editing
(b) Natural language tasks
(c) Image classification
(d) File compression

1-h. TF-IDF gives high score to words that are:(CO4,K2) 1

(a) Common across all docs
(b) Unique to a doc
(c) Stopwords
(d) None

1-i. The following are the movement(s) in the secular trend:(CO5,K1) 1

(a) Smooth
(b) Regular
(c) Steady
(d) All of the above

1-j. The term adopted for updates by Twitter users is:(CO5,K1) 1

(a) Twoots
(b) Tweets
(c) Post
(d) Twinks

2. Attempt all parts:-

2.a. Write the purpose of removing stop words in text preprocessing.(CO1,K1) 2

2.b. Define Types of Web Mining.(CO2,K1) 2

2.c. Define edges in a social graph.(CO3,K1) 2

2.d. Explain why sentence position is important in extractive summarization techniques.(CO4,K3) 2

.

2.e.	Describe the future of social media analytics.(CO5,K2)	2

SECTION-B 30

3. Answer any five of the following:-

3-a.	Describe semantic analysis applications in the healthcare domain.(CO1,K2)	6
3-b.	Compare the use of N-gram and Bag-of-Words in feature representation.(CO1,K4)	6
3-c.	Explain Web Mining and its Applications.(CO2,K2)	6
3-d.	Explain Interaction, Latent and Following Graphs.(CO2,K1)	6
3.e.	Describe how recommendations are generated in social media.(CO3,K2)	6
3.f.	Compare how summarization approaches vary for single-document vs. multi-document summarization tasks.(CO4,K4)	6
3.g.	Explain various advantages and disadvantages of trend analysis.(CO5,K2)	6

SECTION-C 50

4. Answer any one of the following:-

4-a.	Explain how N-gram models work. Discuss their advantages and limitations.(CO1,K2)	10
4-b.	List and explain key preprocessing steps in text mining with examples.(CO1,K2)	10

5. Answer any one of the following:-

5-a.	Explain the concept of Web Structure Mining, outlining its techniques, key components, and role in discovering structural patterns on the web.(CO2,K2)	10
5-b.	Describe the Importance of Query Optimization and all the Factors Influencing Query Performance in detail .(CO2,K2)	10

6. Answer any one of the following:-

6-a.	State ways to measure influence in social networks and methods for identifying influential nodes or communities.(CO3,K1)	10
6-b.	Explain how predictive models assist in decision-making in social media analytics with examples.(CO3,K2)	10

7. Answer any one of the following:-

7-a.	Compare and contrast extractive and abstractive summarization with suitable examples.(CO4,K3)	10
7-b.	Explain how anomaly detection and trend detection are useful in text mining with examples.(CO4,K2)	10

8. Answer any one of the following:-

8-a.	Explain the term trend analysis in social media. Explain five social media trends.(CO5,K2)	10
8-b.	Describe Twitter Analytics. How to access twitter analytics.(CO5,K3)	10