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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

B.Tech

SEM: VI - THEORY EXAMINATION (2022-2023)

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. | Which are multiple word sequences ? [CO1] | 1 |
| | (a) Corpus | |
| | (b) Ngrams | |
| | (c) Stopwords | |
| | (d) Tokenization | |
| 1-b. | After stemming , the words which we get after removing the affixes is called ? [CO1] | 1 |
| | (a) Stemmed words | |
| | (b) Stemma | |
| | (c) Fruit Word | |
| | (d) Shoot Word | |
| 1-c. | What is classification in data mining ? [CO2] | 1 |
| | (a) Setting up a target data | |
| | (b) Data mining procedure to sort data | |

- (c) A method to find data
(d) Generalizing structures
- 1-d. Data mining is also known as knowledge mining of data ? [CO2] 1
(a) TRUE
(b) FALSE
- 1-e. How does PageRank work ? [CO3] 1
(a) It counts the number of times a page has been liked or shared
(b) It considers the links between pages, giving higher rank to pages that are linked to by other high-ranking pages
(c) It ranks pages based on the number of comments they receive
(d) It ranks pages based on the number of followers they have
- 1-f. What is a "filter bubble" in social media analytics ? [CO3] 1
(a) The tendency of users to only consume information that confirms their existing beliefs or opinions
(b) The tendency of users to ignore information from their friends and family
(c) The tendency of users to only follow users who are similar to themselves
(d) The tendency of users to only post positive content on social media
- 1-g. Topic model techniques is/are _____ ? [CO4] 1
(a) Latent semantic indexing (LSI).
(b) Probabilistic latent semantic analysis (PLSA).
(c) Latent Dirichlet allocation (LDA).
(d) All of the above.
- 1-h. Which of the following is not a type of classification problem ? [CO4] 1
(a) Binary classification
(b) Multi-class classification
(c) Multi-label classification
(d) Clustering
- 1-i. Trend analysis ? [CO5] 1
(a) is used only in financial planning.
(b) can improve control system response
(c) requires a very expensive system to implement
(d) is a brand new concept.
- 1-j. What data is Google Analytics Goals unable to track ? [CO5] 1

- (a) Customer's lifetime value
- (b) Making a purchase
- (c) Watching a video
- (d) Signing up for a newsletter

2. Attempt all parts:-

- 2.a. What do you understand by Natural Language Processing ? [CO1] 2
- 2.b. Is Google a web search? [CO2] 2
- 2.c. What is Node in Essentials of social media ? [CO3] 2
- 2.d. Why classification is needed? [CO4] 2
- 2.e. What is social media analytics and how does it benefit an organization ? [CO5] 2

SECTION B

30

3. Answer any five of the following:-

- 3-a. Explain various methods of NER ? [CO1] 6
- 3-b. Explain unigram, bigram and trigram model ? [CO1] 6
- 3-c. Explain various benefits of data mining in detail ? [CO2] 6
- 3-d. Describe the concept of social graphs ? [CO2] 6
- 3.e. What are the benefits of recommendations in social media ? [CO3] 6
- 3.f. How can LDA be used in real-world applications such as recommender systems or sentiment analysis ? [CO4] 6
- 3.g. Explain few key areas where we can use social media analytics ? [CO5] 6

SECTION C

50

4. Answer any one of the following:-

- 4-a. Explain N-gram model. What is N-gram model used for ? [CO1] 10
- 4-b. Explain the complete process of sentiment classification ? [CO1] 10

5. Answer any one of the following:-

- 5-a. Explain various types of social graphs in detail ? [CO2] 10
- 5-b. Explain with diagram role of social graphs in digital marketing ? [CO2] 10

6. Answer any one of the following:-

- 6-a. What is machine learning, and how is it used in social media analytics ,explain with an example ? [CO3] 10
- 6-b. How can influence be measured in social networks, and what are some common methods used to identify influential nodes or communities ? [CO3] 10

7. Answer any one of the following:-

- 7-a. What is text processing and what are its applications, Explain in detail with example ? [CO4] 10
- 7-b. Can Phrase Mining be used to extract sentiment from text data, if yes please explain with an example ? [CO4] 10

8. Answer any one of the following:-

- 8-a. Explain various types of trend analysis also compare between Text, Web, and Social Media Analytics with their importance in business needs and scenarios ? [CO5] 10
- 8-b. Explain five real world examples of text mining also explain how Twitter analytics and Google Analytics work ? [CO5] 10

2022-23 Jan _ June