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**Presidency University**

**Bengaluru**

 **SCHOOL OF ENGINEERING**

**MAKE UP EXAMINATION – SEPTEMBER 2023**

**Course Code**: CSE234

**Course Name**: Social Media Analytics

**Program** : BTech

**Date**: 01.10.2023

**Time**: 1:00PM to4:00PM

**Max Marks**: 100

**Weightage**: 50%

 **Instructions:**

1. *Read all questions carefully and answer accordingly.*
2. *All questions are compulsory*

**Part A [Memory Recall Questions]**

**Answer all the Questions. (20Qx 1M= 20M)**

1. Define social media analytics? **[CO1, Knowledge]**
2. A Facebook measurement tool that allows you to research, create, and segment Facebook audiences **[CO1, Knowledge]**
3. YouTube Analytics metric that provides you a summary of the sort of viewers watching your videos

 **[CO1, Knowledge]**

1. Information without a predefined data model is called \_\_\_\_\_ **[CO1, Knowledge]**
2. A social graph where individuals are related on their mutual interests **[CO1, Knowledge]**
3. The REST API of Facebook is called \_\_\_\_\_\_ **[CO2, Knowledge]**
4. What are the two API authentication models using OAuth **[CO2, Knowledge]**
5. Name the 3 APIs provided by Facebook? **[CO2, Knowledge]**
6. The access token provided by Graph API will be valid for \_\_ hours from the time of its creation **[CO2, Knowledge]**
7. **A**n easy to read, flexible text based format that can be used to store and communicate information **[CO2, Knowledge]**
8. What is the rate limits imposed by the Graph API **[CO2, Knowledge]**
9. List the variables obtained on registering your Twitter application? **[CO3, Knowledge]**
10. Name the function used to create an instance of tweepy.API **[CO3, Knowledge]**
11. What is the limit set by Twitter when retrieving tweets from a specific user timeline using the user\_timeline method **[CO3, Knowledge]**
12. What is the purpose of ***following***suffix? **[CO3, Knowledge]**
13. Name two semantic algorithms usedto understand what the tweets are about **[CO4, Knowledge]**
14. List steps to gather the data from the Twitter feeds **[CO4, Knowledge]**
15. \_\_\_\_\_\_ API is used to filter a particular keyword and download massive amounts of tweets about it

 **[CO4, Knowledge]**

1. What are the steps involved in cleaning of textual data obtained from tweets **[CO4, Knowledge]**
2. Name the sentiment analyser available with Python's NLTK library **[CO4, Knowledge]**

**Part B [Thought Provoking Questions]**

**Answer all the Questions. (4Qx 5M= 20M)**

1. Describe the steps that are required to put in place a client with OAuth authorization **[5](CO2) [Comprehension]**
2. Identify the metadata associated with the given tweet

“@Sampoet is writing @Anthologyofpoems, 2nd Ed. from his home town in Bangalore, India. Be #social: <http://on.fb.me/16WJAf9>” **[5](CO3) [Comprehension]**

1. Suppose you have violated Twitter API limits and continue performing more requests to the API. What will be the result? How can this be avoided? **[5](CO3) [Comprehension]**
2. Describe the parameters in the following statement **[5](CO4) [Comprehension]**



**Part C [Problem Solving Questions]**

**Answer all the Questions. (2Qx30M=60M)**

1. Write a python script to extract the user profile and friends of a given user of Facebook. Execute the same and show the results **[30](CO3)[ Application]**
2. A mutual friend is a friend who is a friend of every member of a group of Twitter users. Write a python script to find ALL mutual friends for a pair of users. For a given user, the friends list will be in a file called "<data>/users/<username>/friends.jsonl".

Hint: You should write a function called "getFriends(username)" that takes a username as input and returns a list of their friends, and another function called “getMutualFriends(user1, user2), which takes 2 friend lists as input and returns their mutual friends.

 **[30](CO4)[ Application]**