FACULTY OF INFORMATICS

M.C.A. (2 Years Course) II Semester (CBCS) (Main & Backlog) (New) Examination, October/ November 2023

Subject: Data Engineering with Python

Time: 3 Hours   **Max. Marks: 70**

Note: I. Answer one question from each unit. All questions carry equal marks.
      II. Missing data, if any, may be suitably assumed.

Unit – I

1. a) Write about various features of Python
   b) Explain various string manipulation functions.

(OR)

2. a) Explain about identifiers and variables in Python.
   b) What are the various types of operators used in Python?

Unit – II

3. a) Write about various Python dictionary methods.
   b) What is Python regular expression? Explain briefly.

(OR)

4. a) Write a Python program to illustrate different set operations.
   b) What is tuple in Python? And what are its advantages.

Unit – III

5. a) Define data science and Explain the working mechanism of data science.
   b) Explain briefly about deserializing of JSON.

(OR)

6. a) Explain how to read and write the binary data in Python.
   b) What is data acquisition? Explain about data acquisition pipeline.

Unit – IV

7. a) Define document store. Explain about taming mongo DB document stores.
   b) Explain insert command of my SQL with example.

(OR)

8. a) Explain about reshaping of data frames in pandas.
   b) Explain about the arithmetic operations of pandas.

Unit – V

9. a) Discuss about implementing K-means clustering in Python.
   b) Explain about statistical measures used in python.

(OR)

10. a) Explain about linear regression.
    b) Explain about predictive analysis.

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