

T-Y B se (comp-se) CBES
Sem-IV

07.10.2024

(2 1/2 Hours)

[Total Marks: 75]

N. B.: (1) All questions are compulsory.

(2) Make suitable assumptions wherever necessary and state the assumptions made.

(3) Answers to the same question must be written together.

(4) Numbers to the right indicate marks.

(5) Draw neat labeled diagrams wherever necessary.

(6) Use of Non-programmable calculators is allowed.

1. Attempt any four of the following:

20

- What different kinds of data?
- What are methods of collection the quantitative data?
- Why are IDEs important?
- What are the types of exploratory data analysis?
- Why Do We Need Data Collection?
- Explain Data Cleaning Process?

2. Attempt any four of the following:

20

- What are Main stages of Data Curation Iterative process?
- Explain operations in Relational Algebra?
- Write short note on "Aggregate / Group Functions".
- Write short note on "DCL (Data Control Language)".
- Write short note on "Semi-Structural Data"
- What is XML? Explain its advantages and disadvantages

3. Attempt any four of the following:

20

- What are main types of regularization techniques?
- Explain the Parsimony Model?
- What are approaches of dimension reduction?
- Describe various feature extraction techniques
- Explain Time series models and techniques?
- Write short note on "PRINCIPAL COMPONENTS ANALYSIS (PCA)"

4. Attempt any Three of the following:

15

- a. What are types of Data Analysis?
- b. What are Data modeling techniques?
- c. Write the difference between Web Scraping and Web Crawling.
- d. Explain Advantages and disadvantages of Cloud Computing ?
- e. What are types of linear model?
- f. Explain Working of k-means algorithm?
