INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)
Dundigal-500043, Hyderabad

B.TECH IV SEMESTER END EXAMINATIONS (REGULAR/SUPPLEMENTARY) - AUGUST 2023
Regulation: UG20
DATA MANAGEMENT AND REPRESENTATION

Time: 3 Hours   **CSE(DATA SCIENCE)**   Max Marks: **70**

Answer ALL questions in Module I and II
Answer ONE out of two questions in Modules III, IV and V
All Questions Carry Equal Marks
All parts of the question must be answered in one place only

MODULE – I

1. (a) List the major sources of data collection. Explain about the various stages of data cleaning.

    [BL: Understand| CO: 1|Marks: 7]

   (b) Classify various types of naming conventions. Illustrate how to change from concepts to variables with an example. [BL: Understand| CO: 1|Marks: 7]

MODULE – II

2. (a) Discuss about various types of secondary data. Illustrate briefly about simple test conceptual model. [BL: Understand| CO: 2|Marks: 7]

   (b) How to manage administrative data in medical records? Consider the given application and write the procedure to download relevant data for transformation. [BL: Understand| CO: 2|Marks: 7]

MODULE – III

3. (a) Why missing data is a problem? How to prevent missing data in industries? Explain.

    [BL: Understand| CO: 3|Marks: 7]

   (b) Write the effective strategies to handle missing values in data for educational sector with a suitable example. [BL: Analyze| CO: 3|Marks: 7]

4. (a) What is logical inference? Describe about addressing of missing data in the analysis stage.

    [BL: Understand| CO: 4|Marks: 7]

   (b) Demostrate various forms of missing data for representing a data. How is it possible to engineer various forms of missing data for representing a data? [BL: Understand| CO: 4|Marks: 7]

MODULE – IV

5. (a) Illustrate about various types of graphics. Describe about clarity and precision principles in data visualization. [BL: Understand| CO: 5|Marks: 7]

   (b) "Bar charts are important for statistical data". Analyze this statement with example.

    [BL: Analyze| CO: 5|Marks: 7]

6. (a) Classify different types of tables for data presentation. Explain how the data is to be presented and visualized. [BL: Understand| CO: 5|Marks: 7]

(b) How principles of data presentation improves your visualization? Build the data visiualization of any application using graphs and tables. [BL: Apply| CO: 5|Marks: 7]

MODULE – V

7. (a) Why table is important in data presentation? Develop an effective graphical presentation of an application by using tables. [BL: Understand| CO: 6|Marks: 7]

(b) Explain the most beneficial approach and the necessity of graphics. Differentiate tables and graphics with an example. [BL: Understand| CO:6|Marks: 7]

8. (a) Explain the rules for graphical data representation. Write advantage and disadvantage graphical data representation. [BL: Understand| CO: 6|Marks: 7]

(b) List out the various ways in which you would improve dot plots. Develop a line graph and scatter plot for any application. [BL: Apply| CO: 6|Marks: 7]

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