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PRESIDENCY UNIVERSITY BENGALURU

School Of Computer Science and Engineering & Information Science

End-Term Examinations, Aug 2024 (Set1)

Fourth Semester (4LCA) B.Tech Lateral Entry

Odd Semester: 2023 - 24

Course Code: CSE2026

Course Name: Data Handling and Visualization

Department: CSE

Date: 14-08-2024

Time: 09.30am to 12.30pm

Max Marks: 100

Weightage: 50%

Instructions:

(i) Read the all questions carefully and answer accordingly.

(ii) Do not write any matter on the question paper other than roll number.

| Q. | Questions | Ma rks | СО | RB T | | | | | | |
|----|---|-----------|-----|---------|--|--|--|--|--|--|
| 1 | a. What is Primary Data Collection in terms of Data Handling Analysis | 4 | CO1 | L1 | | | | | | |
| | b. Explain about Removing Duplicates using Data Transformation | 6 | CO1 | L2 | | | | | | |
| | c. Explain about Data Cleaning and the Steps involved in Data cleaning process | 10 | CO1 | L3 | | | | | | |
| OR | | | | | | | | | | |
| 2 | a. What are the Benefits of Quantitative Data Collection | 4 | CO1 | L1 | | | | | | |
| | b. Explain about Transforming Data Using a Function or Mapping | 6 | CO1 | L2 | | | | | | |
| | Explain the overview of Data in the Real World used in Data Handling and Visualization. | 10 | CO1 | L3 | | | | | | |
| | | | | | | | | | | |
| | a. What is Tree map in Data Handling and visualization? | 4 | CO2 | L1 | | | | | | |
| 3 | b. Explain Methods for using Choropleth Maps with an example in context with Data Analysis. | 6 | CO2 | L2 | | | | | | |
| | c. Discuss about Transfer Functions in scalar Visualization. With a neat diagram. | 10 | CO2 | L3 | | | | | | |

OR

| | a. Write the difference between space-filling and non-space-filling | 4 | CO2 | L1 |
|---|---|-----|-----|----|
| 4 | a. Discuss the importance of time-oriented data visualization and explain head it can be effectively implemented in the analysis of financial trends over decade. Include specific graphical techniques and tools that might be use | a 6 | CO2 | L2 |
| | b. Provide a thorough analysis of how spatial data visualization can enhan decision-making processes in environmental science, specifically in track climate change effects. | | CO2 | L3 |

| | a. What is Time Series Data in Data Analysis? | 4 | CO3 | L1 | | | | | |
|-----|--|----|----------|------|--|--|--|--|--|
| 5 | b. Explain any two Types of Multivariate Data Visualization? | 6 | CO3 | L2 | | | | | |
| | c. Explain Text Data Visualization Write a program to Display Wordcloud graph in python using netflix_titles.csv | 10 | CO3 | L3 | | | | | |
| OR | | | | | | | | | |
| 6 | a. Explain any two Text Data Visualization Examples? | 4 | CO3 | L1 | | | | | |
| | b. Explain about WordArt in Text Data Visualization | 6 | CO3 | L2 | | | | | |
| | Explain any four types of Multivariate Data Visualization with an example each. | | CO3 | L3 | | | | | |
| | | | | | | | | | |
| | a. What is Data Streaming in data analysis? | 4 | CO4 | L1 | | | | | |
| 7 | b. Write the difference between Database Management System and Data Stream Management system. | 6 | CO4 | L2 | | | | | |
| | a. Articulate a comprehensive discussion on the dos and don'ts of data | 10 | CO4 | L3 | | | | | |
| | visualization process. | 10 | 004 | LS | | | | | |
| | OR | | | _ | | | | | |
| | a. What is Sensor Data in Data Streaming? | 4 | l CO | 4 L1 | | | | | |
| | b. Discuss various streaming visualization techniques and their applications in | | | | | | | | |
| 8 | monitoring network traffic. Explain the benefits and limitations of each technique in terms of scalability and real-time performance | 6 | 5 CO | 4 L2 | | | | | |
| | c. Describe about Data Streams with a neat diagram of Generic Data Stream Management System Architecture | 1 | 0 CO | 4 L3 | | | | | |
| | O y | l | <u> </u> | | | | | | |
| | a. What is the difference between Data Cleaning and Data Transformation? | 4 | CO1 | L1 | | | | | |
| 9 | b. Explain about Detecting and Filtering Outliers in Data Analysis | 6 | CO1 | L2 | | | | | |
| | c. Discuss in detail about Pandas library of python in data visualization with an example. | 10 | CO1 | L3 | | | | | |
| OR | | | | | | | | | |
| 1 0 | a. Explain about Matplot library and different types of plots used in Matplot library . | 4 | CO2 | L1 | | | | | |
| | b. Explain about Sunburst displays in Data Handling | 6 | CO2 | L2 | | | | | |
| | c. Discuss about NumPy library of python in data visualization with an example. | 10 | CO2 | L3 | | | | | |