Code No.: DS742PE

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CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS
IV–B.TECH–I–Semester End Examinations (Regular) - November- 2023
DATA VISUALIZATION
(CSD)

[Time: 3 Hours]   [Max. Marks: 70]

Note: This question paper contains two parts A and B.
  Part A is compulsory which carries 20 marks. Answer all questions in Part A.
  Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART-A   (20 Marks)

1. a) Define Filtering.   [2M]
   b) What are line charts?   [2M]
   c) State the purpose of getJSON().   [2M]
   d) Which method is used to get any XML file and send the data to a custom parser function?   [2M]
   e) What options does Google Charts provide for working with chart animations?   [2M]
   f) How can animations be added to HTML5 Canvas charts?   [2M]
   g) What are smart margin conventions?   [2M]
   h) Differentiate between linear and ordinal scales.   [2M]
   i) What is a data join in D3?   [2M]
   j) What advantages does encapsulating the update phase in a function offer when implementing a "Play" feature in a D3 chart?   [2M]

PART-B   (50 Marks)

2. Explain the applications of Data Visualization.   [10M]

OR

3. What is the purpose of surface charts in data visualization, and where can they be applied effectively?   [10M]

4. Explain the Techniques for working with different data formats (CSV, XML and JSON).   [10M]

OR

5. How can well-designed data tables contribute to better data visualization?   [10M]

6. How does linear interpolation play a role in creating smooth transitions and animations in HTML5 Canvas charts?   [10M]

OR

7. Explain the process of creating a basic pie chart with Google Charts, and what are the customization options available?   [10M]

8. Examine the significance of data filtering in D3, and how can it be used to refine data visualization based on specific criteria?   [10M]

OR

9. Explain the process of adding axes to a D3 chart and how they improve the readability of the charts?   [10M]

10. Design a page by Adding a Play button and explain the procedure of it.   [10M]

OR

11. Describe the process of updating a D3 chart with new data and smoothly transitioning between the old and new states.   [10M]

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