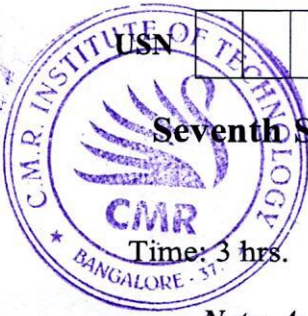


CBCS SCHEME

21AD71



Seventh Semester B.E./B.Tech. Degree Examination, Dec.2024/Jan.2025

Data Visualization

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Explain the importance of Data Visualization. (05 Marks)
- b. Explain the process of Data Wrangling. (07 Marks)
- c. Explain the various measures of Dispersion. (08 Marks)

OR

- 2 a. Explain indexing, slicing, splitting, sorting and combining operations in numpy with examples. (12 Marks)
- b. Explain the advantages and disadvantages of Pandas over numpy. (08 Marks)

Module-2

- 3 a. Explain distribution plots with neat diagrams. (10 Marks)
- b. Explain the following functions with examples: labels, titles, text, annotations and legends. (10 Marks)

OR

- 4 a. How can we create, close, display and save the figures? Explain with code snippet. (10 Marks)
- b. Explain the syntax and parameters of Piechart and Scatterplot in Matplotlib with examples. (10 Marks)

Module-3

- 5 a. Explain the types of color palettes with examples. (10 Marks)
- b. Explain the methods for customizing figure styles in seaborn with program code. (10 Marks)

OR

- 6 a. Explain kernel density estimation with code. (08 Marks)
- b. Explain despine() function with example. (06 Marks)
- c. Illustrate the Violin plots in seaborn. (06 Marks)

Module-4

- 7 a. Explain the architecture of Geoplotlib and also design principles of Geoplotlib. (10 Marks)
- b. Explain some basic gadgets with example. (10 Marks)

OR

- 8 a. Explain about Bokeh. Write its features. (06 Marks)
- b. Explain Bokeh server with neat diagram. (06 Marks)
- c. Explain Voronoi Tessellation and Delaunay triangulation with examples. (08 Marks)

Module-5

- 9 a. Explain socket and how socket connection can be established over TCP/IP connection. (10 Marks)
b. What is JSON? Illustrate the concept of parsing JSON python code. (10 Marks)
- OR
- 10 a. Explain XML and the concept of parsing XML with python code. (10 Marks)
b. Show a python program to parse the HTML with beautiful soup. (10 Marks)

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