Question Paper Code:2437155

B.E. / B.Tech. DEGREE EXAMINATIONS, NOV/ DEC 2024
Seventh Semester
Artificial Intelligence and Data Science
U20AI704 – DATA VISUALIZATION TECHNIQUES
(Regulation 2020)

Time: Three Hours   Maximum: 100 Marks

Answer ALL questions

PART – A   (10 x 2 = 20 Marks

1.   What is the purpose of reference lines and regions in Visualizations?

2.   What are the pros and cons of using analytical navigation tools?

3.   Explain the importance of time-series displays.

4.   Demonstrate a simple ranking pattern using a set of data.

5.   Define correlation in statistical terms.

6.   Explain why best practices are important in correlation analysis.

7.   Explain the importance of assessing user needs in Dashboard design.

8.   Give an example of a consideration for designing a dashboard.

9.   What are the advantages of using graphics in data presentation?

10. What are the common elements found in a library of graphs?

PART – B   (5 x 16 = 80 Marks)

11. (a) Explain the effectiveness of different traits of meaningful data in a real-world example.   (16)

(OR)

(b) Outline how details on demand can improve user understanding of complex datasets.   (16)

12. (a) Explain the strengths and weaknesses of different methods used for deviation analysis in research.   (16)

(OR)

(b) Summarize the trends in a provided time-series dataset and identify any seasonal effects.   (16)

13. (a) Explain the strengths and weaknesses of different techniques in practice.   (16)

(OR)

(b) Discuss the comprehensive report that integrates distribution, correlation, and multivariate analysis techniques to solve a real-world problem.   (16)

14. (a) Explain the fundamental components of an information dashboard.   (16)

(OR)

(b) How do different stakeholders influence the design of a dashboard? (16)

15. (a) Describe the key components of a bullet graph and its purpose.   (16)

(OR)

(b) Explain the significance of critical design practices in creating effective dashboards.   (16)

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