



# **SNS COLLEGE OF ENGINEERING**

Kurumbapalayam (po), Coimbatore – 641 107

Accredited by NAAC-UGC with 'A' Grade



Approved by AICTE & Affiliated to Anna University, Chennai

**DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE**

## **19AD504 – DATA VISUALIZATION**

### **PART A**

1. List three types of visual elements used to compare data.
2. Why might a scatter plot be more effective than a bar chart for comparing two variables?
3. Define "cognitive load" in the context of visual perception.
4. What are preattentive attributes, and why are they important in visual design?
5. Explain how Gestalt principles can enhance the understanding of visual data.
6. Define cognitive load and discuss its impact on data visualization.
7. How can clutter in visual displays affect viewer comprehension?
8. List three preattentive attributes that can help in interpreting numerical data quickly.
9. What is the significance of visual order in data presentation?
10. How can size be utilized as a preattentive attribute in graphs?
11. Describe how color can enhance or hinder visual comparison in data displays.
12. What role does position play in the interpretation of visual information?
13. Explain the term "visual clutter" and provide two strategies for decluttering visual displays.
14. How does the principle of proximity contribute to visual perception in graphs?
15. Discuss the importance of contrast in reducing cognitive load during data analysis.

16. What is the effect of using multiple fonts in a visual display?
17. Describe one way to apply the principle of similarity to improve data visualization.
18. How can a well-structured layout help in reducing cognitive load for viewers?
19. How does clutter in a visual design impact user comprehension? Provide an example.
20. Discuss how the lack of visual order can affect a viewer's understanding of data.
21. Name one visual tool commonly used to show relative performance among competitors.
22. In what scenarios would a bullet chart be preferable for displaying relative performance compared to a traditional bar chart?
23. What are Gestalt Principles of Visual Perception? Name one principle.
24. Explain the concept of preattentive attributes. How do size and color contribute to quick visual processing?
25. In what ways can the position of elements in a graph influence viewer perception?