

**GEETHANJALI INSTITUTE OF SCIENCE & TECHNOLOGY****(AN AUTONOMOUS INSTITUTION)****(Approved by AICTE, New Delhi & Affiliated to JNTUA, Ananthapuramu)****(Accredited by NAAC with "A" Grade, NBA (EEE,ECE & ME) & ISO9001:2008 Certified Institution)****QUESTION BANK (DESCRIPTIVE)****DATA VISUALIZATION****A.Y2024-25****Subject Name with Code: 22A3206T****Branch: CSE(DS)****Year& Semester:III-II****Regulation:RG22****UNIT – I**

Data Visualization: Introduction, A Brief History of Data Visualization, Good Graphics - Scientific Design Choices in Data Visualization, Static Graphics- Complete Plots, Customization, Data Visualization Through Their Graph Representations, High-dimensional Data Visualization, Linked Data Views.

UNIT-1: Data Visualization

S. No.	Question	[BT Level] [CO] [Marks]
Descriptive Questions (Long)		
1	What is Data Visualization? Briefly explain about its overview with a neat sketch?	L2/CO1/10M
2	Write a short note on good graphics and static graphics in real time?and explain them with a neat sketch?	L2/CO1/10M
3	Explain briefly about the history of Data visualization in various domains/platforms in real time?	L2/CO1/10M
4	Write a short note on customization and complete plots in real time ?Explain them with an example?	L2/CO1/10M
5	Explain briefly about the how data visualization represented through their graph in real time ?with a neat sketch?	L2/CO1/10M
6	Explain briefly about the scientific design choices in Data Visualization with a neat sketch?	L2/CO1/10M
7	Explain briefly about the high dimensional data visualization in real time?with a neat sketch	L2/CO1/10M
8	Write a short note on Adjacency matrix &Adjacency list in data visualization?Explain them with an example?	L2/CO1/10M
9	Write a short note on linked data views and Art &science in data visualization?	L2/CO1/10M
10	Write a short note on PCA&UMAP in data visualization with a neat sketch?	L2/CO1/10M
11	How data is converted /getting started with data visualization through programming language ? Briefly explain about it?	L2/CO1/10M
12	Write a short note on RBFNS &T-SNE in data visualization with a neat sketch?	L2/CO1/10M

UNIT - II

Methodologies-I: Interactive Linked Micro Map Plots for the Display of Geographically Referenced Statistical Data, Manual Controls.

Regression by Parts: Fitting Visually Interpretable Models with guide, Smoothing Techniques for Visualization

UNIT-2. Methodologies-I

S. No.	Question	[BT Level] [CO][Marks]
Descriptive Questions (Long)		
1.	What is Micro map? Explain briefly about the interactive micro map plots in data visualization? with an example?	L2/CO2/10M
2.	Explain briefly about the manual controls in data visualization with neat sketch?	L2/CO2/10M
3.	Explain how display of geographically referenced statistical data is occurred in data visualization with examples?	L2/CO2/10M
4.	Write a short on Regression by plots in data visualization with neat sketch?	L2/CO2/10M
5.	Explain briefly about the smoothing techniques for data visualization in real time ?with an example?	L2/CO2/10M
6.	Explain briefly about how visually fitting interpretable models is Occurred in data visualization with guide? with a neat sketch?	L2/CO2/10M
7.	What is meant by yellow brick tool?&explain briefly about them with a neat sketch?	L2/CO2/10M
8.	What is meant by Regression &explain briefly about the types of regression techniques in data visualization?	L2/CO2/10M
9.	Write a short note on geospatial data &geographical information system in data visualization?	L2/CO2/10M
10.	Write a short note on methodologies & reporting in data visualization?	L2/CO2/10M

UNIT – III

Visualizing Cluster Analysis and Finite Mixture Models, Mosaic Plots and Their Variants, Matrix Visualization, Visualization in Bayesian Data Analysis.

UNIT-3 Methodologies-II

S. No.	Question	[BT Level] [CO][Marks]
1.	What is meant by Cluster analysis? Explain how visually cluster analysis is occurred in data visualization?.	L2/CO3/10M
2.	What is mean by mosaic plots? Explain how mosaic plots is linked with their variants in real time?	L2/CO3/10M
3.	Explain briefly about the finite combination models in data visualization with a neat sketch?	L2/CO3/10M
4.	Explain how visualization is occurred in Bayesian data analysis in real time	L2/CO3/10M
5.	Explain briefly about the matrix visualization in data visualization with a neat sketch?	L2/CO3/10M
6.	Write a short note on hierarchial clustering &dendrogram in data visualization with a neat sketch?	L2/CO3/10M
7.	Explain briefly about the practical implementation of mosaic plots &it steps in data visualization in real time?	L2/CO3/10M
8.	Write a short on guassian &Bayesian mixture models in the data visualization?	L2/CO3/10M

