



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)

QUESTIONBANK(DESCRIPTIVE)

Subject Name with Code: Data Visualization (23A3212T)

Course & Branch: B.TECH CSE(DS)

Year& Semester: III-II Regulation: RG23

UNIT - I

S.No.	Question	[BT Level CO Marks]
1	Describe the scope and applications of Data Visualization in different fields.	L2 / CO1 / 10M
2	Explain different data types and data sources used in data visualization.	L2 / CO1 / 10M
3	Write a short note on visual perception and discuss pre-attentive processing in data visualization.	L2 / CO1 / 10M
4	Explain Gestalt principles and their role in effective visualization design.	L2 / CO1 / 10M
5	Explain the concept of data-ink ratio, data density, and lie factor in data visualization with examples.	L2 / CO1 / 10M
6	Explain the visualization process from raw data to visual insight in detail with a neat sketch.	L2 / CO1 / 10M
7	Write a short note on various design principles used in data visualization in detail with examples.	L2 / CO1 / 10M
8	Explain the features and applications of Tableau & Power BI as a visualization tool in detail.	L2 / CO1 / 10M
9	Explain the role of Python libraries in data visualization in detail with examples.	L2 / CO1 / 10M

UNIT - II

S.No.	Question	[BT Level CO Marks]
1	Explain various charts used for quantitative data including histograms and line charts in data visualization.	L3 / CO2 / 10M
2	Apply appropriate chart types for representing categorical and quantitative datasets in data visualization with real time implementation.	L3 / CO2 / 10M
3	Explain different chart types and justify the most effective visualization for multivariate data in data visualization.	L3 / CO2 / 10M
4	Differentiate between bar charts versus pie charts in data visualization. Briefly explain about it.	L3 / CO2 / 10M
5	Write a short note on labeling, coloring, and scaling to improve chart readability in data visualization. Briefly explain about it.	L3 / CO2 / 10M
6	Explain the structure and interpretation of boxplots and scatter plots in data visualization.	L3 / CO2 / 10M
7	Explain how improper coloring and scaling can mislead data interpretation in detail with a neat sketch.	L3 / CO2 / 10M
8	Explain briefly about bubble charts and heatmaps with suitable use cases in data visualization.	L3 / CO2 / 10M
9	Write a short note on the principles of choosing the right chart type for a given visualization scenario. Briefly explain about it.	L3 / CO2 / 10M
10	Explain the charts used for categorical data such as bar charts, pie charts, and column charts in data visualization.	L3 / CO2 / 10M

Signature of the Staff:

Signature of Department Academic Committee Member 1:

Signature of Department Academic Committee Member 2:

Signature of Department Academic Committee Member 3: