

DATA VISUALIZATION (934E902) – QUESTION BANK

UNIT 1 – Data Visualization Basics

2 Mark Questions

1. What is the importance of data visualization in business intelligence?
2. Describe the evolution of data visualization and its characteristics.
3. What is the data visualization process?
4. Name two popular data visualization tools and software.
5. What are some common data visualization techniques?
6. What are some best practices in data visualization?
7. How does data visualization contribute to business intelligence?
8. Explain the importance of interactivity in data visualization.
9. What role does storytelling play in data visualization?
10. How can data visualization support decision-making in organizations?

5 Mark Questions

1. What is the importance of data visualization in business intelligence?
2. Explain the data visualization process.
3. Name two data visualization tools and software used in business intelligence.
4. What are some best practices in data visualization?
5. Describe one data visualization technique.

10 Mark Questions

1. Discuss the evolution and characteristics of data visualization in business intelligence.
2. Explain the importance of data visualization in decision-making for businesses with examples.
3. Compare and contrast two data visualization tools/software.
4. Discuss three common challenges faced in data visualization projects and how to overcome them.
5. Illustrate the data visualization process with a real-world example.

UNIT 2 – Tableau Fundamentals

2 Mark Questions

1. What is Tableau?
2. Describe the Tableau interface.
3. What is the importance of data connections in Tableau?
4. Name two common data sources that can be connected to Tableau.
5. What is the purpose of data preparation in Tableau?
6. What is the first step in exploring and analyzing data in Tableau?
7. Name one basic chart type that can be created in Tableau.
8. How can analytics be applied to a worksheet in Tableau?
9. What is the purpose of creating groups and hierarchies in Tableau?
10. How can mapping be used in Tableau?

5 Mark Questions

1. What is Tableau and why is it used in data visualization?
2. Describe the Tableau interface and its architecture briefly.
3. Explain the importance of data connections and data sources in Tableau.
4. What is the significance of data preparation in Tableau?
5. How can you share insights in Tableau with others?

10 Mark Questions

1. Explain the Tableau interface and its key components in detail.
2. Discuss the process of data connections and data sources in Tableau.
3. Describe the steps involved in preparing data in Tableau before visualization.
4. Explain the process of creating basic charts in Tableau with examples.
5. Illustrate the use of mapping in Tableau with a real-world example.

UNIT 3 – Advanced Tableau & Dashboards

2 Mark Questions

1. What feature in Tableau allows users to perform advanced calculations?
2. How can parameters be used in Tableau?
3. Name one type of special chart available in Tableau.
4. What is the purpose of creating dashboards in Tableau?
5. What are dashboard actions used for in Tableau?
6. What is a storyboard in Tableau?
7. How can users share their work in Tableau Public?
8. What is the purpose of profile creation in Tableau Public?

5 Mark Questions

1. What are advanced calculations in Tableau, and how are they useful?
2. Explain the concept of parameters in Tableau with an example.
3. What are special charts in Tableau, and when are they used?
4. How are dashboards created in Tableau, and what are their key components?
5. Discuss the concept of sharing work in Tableau and explain two methods.

10 Mark Questions

1. Explain advanced calculations in Tableau with examples.
2. Describe the concept of parameters in Tableau and their role in dynamic visualizations.
3. Discuss treemaps, bubble charts, and box plots in Tableau.
4. Explain the process of creating dashboards in Tableau with an example.
5. Describe the process of sharing work in Tableau and compare different methods.

UNIT 4 – Power BI

2 Mark Questions

1. What is Power BI?
2. What is Power BI Architecture & Process?
3. How can you connect Power BI with different data sources?
4. What is Power Query used for in Power BI?
5. What is Data Modeling in Power BI?
6. Name one visualization type in Power BI.
7. What are Static and Live Dashboards in Power BI?
8. What is Data Refresh in Power BI?
9. How does Power BI ensure security of data?

5 Mark Questions

1. What is Power BI, and why is it used for data analysis?
2. Explain the architecture and process of Power BI briefly.
3. How does Power BI connect with different data sources?
4. What is Power Query, and how is it used?
5. Discuss the importance of data modeling in Power BI.

10 Mark Questions

1. Explain the architecture and process of Power BI in detail.
2. Discuss the process of connecting Power BI with different data sources.
3. Explain the role of Power Query in data transformation.
4. Describe the process of data modeling in Power BI.
5. Discuss the importance of data refresh and security in Power BI.

UNIT 5 – Grammar of Graphics, R, Python & QlikView

2 Mark Questions

1. What is the concept of Grammar of Graphics?
2. What is ggplot in R?
3. Which libraries in Python are used for advanced visualizations?
4. What is QlikView?

5 Mark Questions

1. What is the Grammar of Graphics, and how does it influence data visualization?
2. Explain the concept of ggplot and its significance.
3. Discuss advanced visualizations using matplotlib, seaborn, and pyplot.
4. What is QlikView, and what are its key features?
5. How does QlikView provide an overview of data and insights?

10 Mark Questions

1. Discuss the principles of the Grammar of Graphics with examples.
2. Explain the usage of ggplot in R with examples.
3. Describe advanced visualizations using Python libraries.
4. Explain QlikView and its features for data exploration.
5. Compare visualizations using R, Python, and QlikView.