

Data Visualization 1st edition Camm Test Bank

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Chapter 01: Introduction

1. _____ is the graphical representation of data and information using displays such as charts, graphs, and maps.
- a. Data visualization
 - b. Data mining
 - c. Data analytics
 - d. Data science

ANSWER: a

2. _____ is the set of analytical tools that describe what has happened. This includes techniques such as data queries, reports, descriptive or summary statistics, and data visualization.
- a. Descriptive analytics
 - b. Predictive analytics
 - c. Prescriptive analytics
 - d. Restorative analytics

ANSWER: a

3. _____ consists of techniques that use mathematical models constructed from past data to predict future events or better understand the relationships between variables.
- a. Descriptive analytics
 - b. Predictive analytics
 - c. Prescriptive analytics
 - d. Restorative analytics

ANSWER: b

4. _____ are mathematical or logical models that suggest a decision or course of action. This category includes mathematical optimization models, decision analysis, and heuristic or rule-based systems.
- a. Descriptive analytics
 - b. Predictive analytics
 - c. Prescriptive analytics
 - d. Restorative analytics

ANSWER: c

5. _____ is the scientific process of transforming data into insights for making better decisions.
- a. Analytics
 - b. Visualization
 - c. Surveying
 - d. Sampling

ANSWER: a

6. Descriptive analytics is the set of analytical tools that describe _____.
- a. what has happened
 - b. what may happen
 - c. a course of action to take
 - d. future trends

ANSWER: a

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7. Predictive analytics consists of techniques that use mathematical models constructed from past data to predict future events or _____.

- a. describe what has happened in the past
- b. better understand the relationships between variables
- c. determine a course of action for the future
- d. suggest a decision

ANSWER: b

8. Prescriptive analytics are mathematical or logical models that _____.

- a. describe the past
- b. predict the future
- c. suggest a decision or course of action
- d. describe a relationship between two variables

ANSWER: c

9. Data for which numerical values are used to indicate magnitude, such as how many or how much are referred to as:

- a. Quantitative
- b. Qualitative
- c. Categorical
- d. Ordinal

ANSWER: a

10. _____ data are data for which categories of like items are identified by labels or names are referred to as:

- a. Quantitative
- b. Numerical
- c. Categorical
- d. Arithmetic

ANSWER: c

11. Which of the following arithmetic operations can be performed on categorical data?

- a. Addition
- b. Subtraction
- c. Multiplication
- d. None of these choices

ANSWER: d

12. If we collect data on the number of wins each team in the NFL had during the 2019–2020 season, we have _____ data.

- a. cross-sectional
- b. time series
- c. nonhistorical
- d. survey

ANSWER: a

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13. If we collect data on the number of wins the Dallas Cowboys earned each of the past 10 years, we have _____ data.

- a. cross-sectional
- b. time series
- c. nonhistorical
- d. survey

ANSWER: b

14. Which of the following is an example of a quantitative variable?

- a. Manufacturer of a cell phone
- b. A person's gender
- c. Mileage of a car
- d. Whether a person is a college graduate

ANSWER: c

15. Which of the following is an example of a categorical variable?

- a. Air temperature
- b. Whether a person has a traffic violation
- c. Bank account balance
- d. Value of company stock

ANSWER: b

16. A _____ variable takes on values that are numbers on the real number line.

- a. qualitative
- b. quantitative
- c. categorical
- d. nominative

ANSWER: b

17. The class ranking of a college student is an example of a(n) _____ variable.

- a. categorical
- b. quantitative
- c. ratio
- d. interval

ANSWER: a

18. The change in the daily price of a stock is what type of variable?

- a. Categorical
- b. Quantitative
- c. Ordinal
- d. Random

ANSWER: b

19. The _____ industry uses data visualization and Benford's Law to detect fraud.

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- a. accounting
- b. finance
- c. human resources
- d. sports

ANSWER: a

20. Like accounting, _____ is numerical and data-driven. Data visualization is useful for recognizing trends, assessing risk, and tracking actual versus forecasted values of metrics of concern.

- a. engineering
- b. finance
- c. human resources
- d. sports

ANSWER: b

21. With the increased use of analytics in business, human resources management (HRM) has become much more data-driven. Indeed, HRM is sometimes now referred to as _____.

- a. hiring analytics
- b. people analytics
- c. human resources analytics
- d. data hiring

ANSWER: b

22. A key interest of human resources management professionals is employee churn, which refers to the _____.

- a. productivity of employees
- b. turnover in an organization's workforce
- c. daily email count in the organization
- d. hiring standards of a company

ANSWER: b

23. Analytics is used in the _____ industry for optimal pricing, markdown pricing for seasonal goods, and optimal allocation of budget?

- a. human resources management
- b. marketing
- c. sports
- d. engineering

ANSWER: b

24. Sentiment analysis using text data such as tweets is an example of how data visualization can be used to support more effective _____.

- a. auditing
- b. marketing
- c. stock pricing
- d. scientific research

ANSWER: b

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25. Website analytics for understanding website traffic and sales is an example of how data visualization can be used to support more effective _____.

- a. auditing
- b. marketing
- c. stock pricing
- d. scientific research

ANSWER: b

26. Data visualization can help which industry for planning and scheduling, inventory planning, and demand forecasting?

- a. Accounting
- b. Operations management
- c. Sports
- d. Scientific research

ANSWER: b

27. The use of analytics for player evaluation and on-field strategy is now common throughout _____.

- a. accounting
- b. operations management
- c. professional sports
- d. scientific research

ANSWER: c

28. Engineering relies heavily on mathematics and data. Hence, _____ is an important technique in every engineer's tool kit.

- a. data visualization
- b. writing skill
- c. artistic ability
- d. scientific research

ANSWER: a

29. In the natural sciences, data are often _____, so maps are used frequently.

- a. geographic
- b. quantitative
- c. ordinal
- d. weather-related

ANSWER: a

30. In the natural sciences, data are often geographic, so maps are used frequently in data visualization. A detected outlier could be an indication of a data error or _____.

- a. fraud
- b. high stock prices
- c. employee turnover
- d. an unusual weather pattern

ANSWER: d

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31. In accounting, data visualization is used to detect outliers that could be an indication of a data error or _____.

- a. fraud
- b. high stock prices
- c. employee turnover
- d. an unusual weather pattern

ANSWER: a

32. _____ refers to any set of data that is too large or too complex to be handled by standard data-processing techniques using a typical desktop computer.

- a. Big data
- b. Audio data
- c. Video data
- d. Text data

ANSWER: a

33. A type of big data is _____.

- a. text data
- b. video data
- c. audio data
- d. All of these choices are correct.

ANSWER: d

34. A _____ shows the progression of a numerical variable for various categories from larger to smaller values.

- a. time series plot
- b. bar chart
- c. control chart
- d. funnel chart

ANSWER: d

35. A _____ depicts possible flows through a system using a line for each possible path.

- a. time series plot
- b. spaghetti chart
- c. control chart
- d. funnel chart

ANSWER: b

36. A _____ displays the location of shots attempted by a player during a basketball game with different symbols or colors indicating successful and unsuccessful shots.

- a. player plot
- b. basketball chart
- c. control chart
- d. shot chart

ANSWER: d

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37. A high-low-close stock chart is particularly useful for analysts in the _____ industry.

- a. finance
- b. human resources
- c. professional sports
- d. marketing

ANSWER: a

38. A _____ shows three numerical values: high value, low value, and closing value for the price of a share of stock over time.

- a. high-low-close stock chart
- b. box and whiskers plot
- c. clustered bar chart
- d. control chart

ANSWER: a

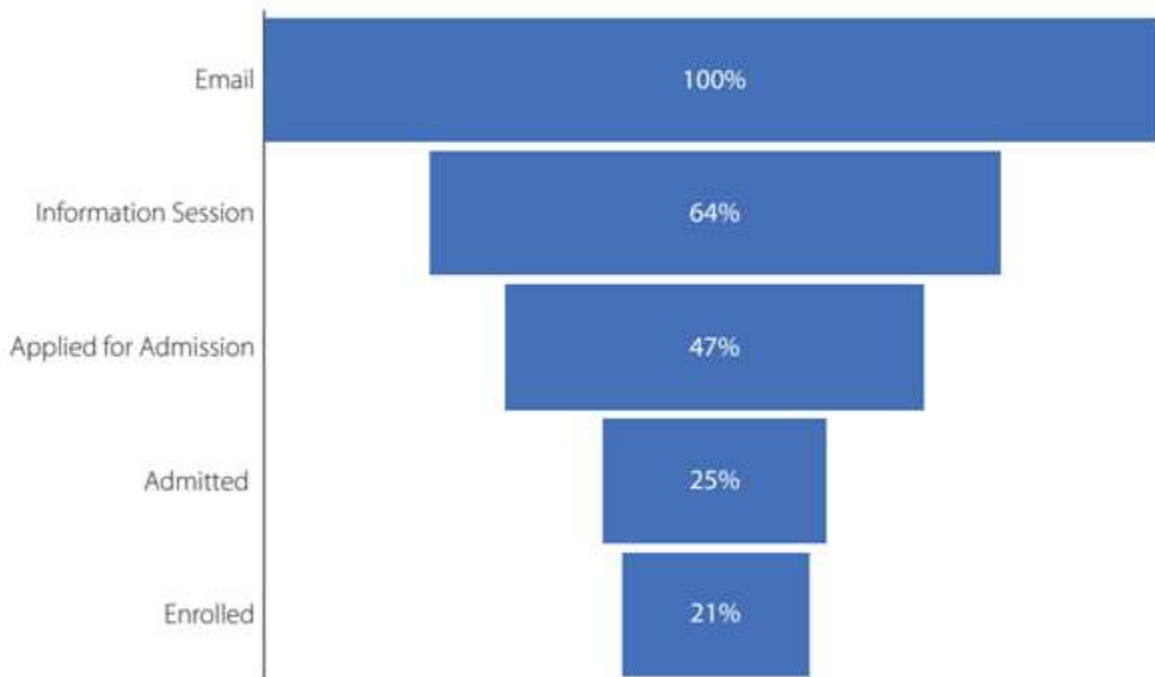
39. A _____ displays a variable of interest plotted over time relative to lower and upper control limits.

- a. high-low-close stock chart
- b. funnel chart
- c. clustered bar chart
- d. control chart

ANSWER: d

40. The following chart is an example of a _____.

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- a. time series plot

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- b. bar chart
- c. control chart
- d. funnel chart

ANSWER: d

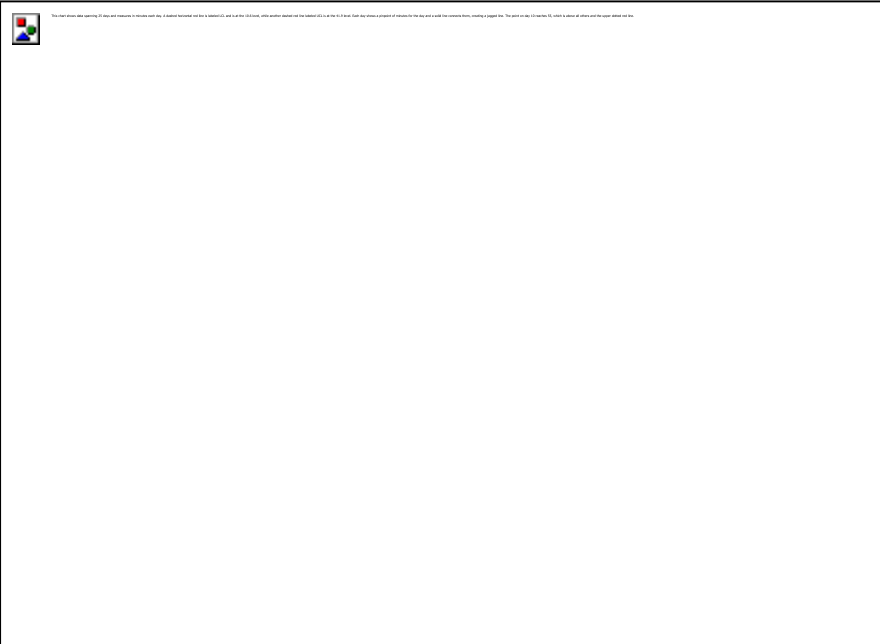
41. The image shown below is an example of a _____.



- a. time series plot
- b. spaghetti chart
- c. control chart
- d. funnel chart

ANSWER: b

42. The following chart displays _____.



- a. high and low stock prices
- b. production timelines

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- c. actual sales
- d. control limits

ANSWER: d

43. The following chart is an example of a _____.



A chart is shown with a title at the top and a legend at the bottom. The chart area is empty, and the legend is also empty. The chart is a high-low-close stock chart.

- a. high-low-close stock chart
- b. box and whiskers plot
- c. clustered bar chart
- d. control chart

ANSWER: a

44. The following chart is an example of a _____.



A chart is shown with a title at the top and a legend at the bottom. The chart area is empty, and the legend is also empty. The chart is a player plot.

- a. player plot
- b. basketball chart
- c. control chart

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d. shot chart.

ANSWER: d

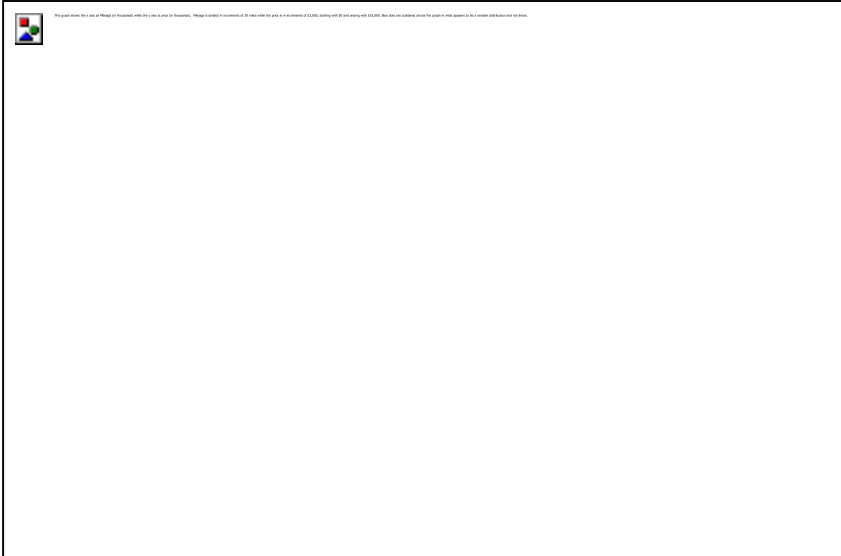
45. The following chart is an example of a _____.



- a. scatter chart
- b. bubble chart
- c. clustered bar chart
- d. control chart

ANSWER: a

46. Based on the following chart, the type of data being graphed is _____.



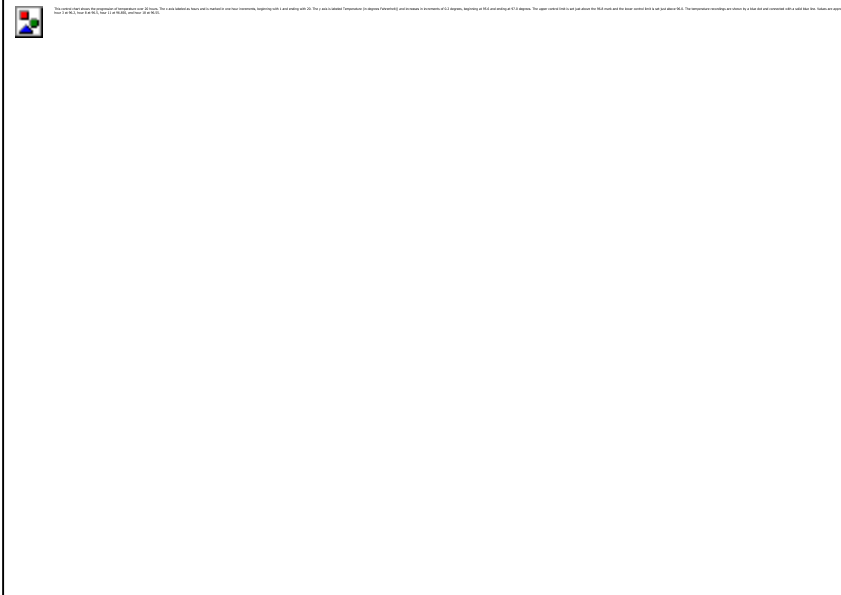
- a. quantitative
- b. categorical
- c. qualitative
- d. Cannot be determined

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ANSWER: a

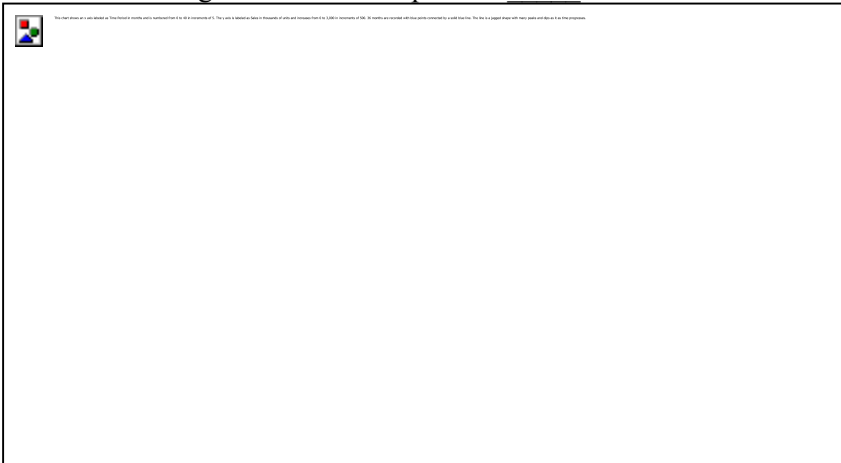
47. Based on the following control chart, an engineer might be concerned with data point _____.



- a. 11
- b. 8
- c. 3
- d. 18

ANSWER: a

48. The following chart is an example of a _____.



- a. time series plot
- b. bar chart
- c. control chart
- d. funnel chart

ANSWER: a

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49. The following chart is an example of a _____.



This chart shows data as a series of bars. The bars are colored in shades of blue, green, and red. The chart is titled 'Bar Chart' and the x-axis is labeled 'Category' and the y-axis is labeled 'Value'.

- a. stacked column chart
- b. scatter plot
- c. control chart
- d. funnel chart

ANSWER: a

50. Which of these is an example of a categorical variable?

- a. Brand of jeans
- b. Price paid for pair of jeans
- c. Distance to store to purchase jeans
- d. Pairs of jeans owned

ANSWER: a

51. Which of the following is an example of time series data?

- a. VISA balances of 30 students on December 31 of this year
- b. Net earnings reported by Xena Corp. for the last 10 quarters
- c. Dollar exchange rates yesterday against 10 other world currencies
- d. Titles of the top 10 movies in total revenue last week

ANSWER: b

52. Which of the following is NOT an example of time series data?

- a. Closing checkbook balances of 30 students on December 31 of this year
- b. Net earnings reported by Xena Corp. for the last 10 quarters
- c. Dollar/euro exchange rates at 12 noon GMT for the last 30 days
- d. Movie attendance at a certain theater for each Saturday last year

ANSWER: a