

1. What is true about Data Visualization?

- A. Data Visualization is used to communicate information clearly and efficiently to users by the usage of information graphics such as tables and charts.
- B. Data Visualization helps users in analyzing a large amount of data in a simpler way.
- C. Data Visualization makes complex data more accessible, understandable, and usable.
- D. All of the above

Ans : D

Explanation: Data Visualization is used to communicate information clearly and efficiently to users by the usage of information graphics such as tables and charts. It helps users in analyzing a large amount of data in a simpler way. It makes complex data more accessible, understandable, and usable.

2. Which are pros of data visualization?

- A. It can be accessed quickly by a wider audience.
- B. It can misrepresent information
- C. It can be distracting
- D. None Of the above

Ans : A

Explanation: Pros of data visualization : it can be accessed quickly by a wider audience.

3. Data can be visualized using?

- A. graphs
- B. charts
- C. maps
- D. All of the above

Ans : D

Explanation: Data visualization is a graphical representation of quantitative information and data by using visual elements like graphs, charts, and maps.

4. Which are cons of data visualization?

- A. It conveys a lot of information in a small space.
- B. It makes your report more visually appealing.
- C. visual data is distorted or excessively used.
- D. None Of the above

Ans : C

Explanation: It can be distracting : if the visual data is distorted or excessively used.

5. Data visualization is also an element of the broader _____.

- A. deliver presentation architecture
- B. data presentation architecture
- C. dataset presentation architecture
- D. data process architecture

Ans : B

Explanation: Data visualization is also an element of the broader data presentation architecture (DPA) discipline, which aims to identify, locate, manipulate, format and deliver data in the most efficient way possible.

6. Which of the intricate techniques is not used for data visualization?

- A. Bullet Graphs
- B. Bubble Clouds
- C. Fever Maps
- D. Heat Maps

Ans : C

Explanation: Fever Maps is not used for data visualization instead of that Fever charts is used.

7. Which method shows hierarchical data in a nested format?

- A. Treemaps
- B. Scatter plots
- C. Population pyramids
- D. Area charts

Ans : A

Explanation: Treemaps are best used when multiple categories are present, and the goal is to compare different parts of a whole.

8. Which one of the following is most basic and commonly used techniques?

- A. Line charts
- B. Scatter plots
- C. Population pyramids
- D. Area charts

Ans : A

Explanation: Line charts. This is one of the most basic and common techniques used. Line charts display how variables can change over time.

9. Which is used to inference for 1 proportion using normal approx?

- A. fisher.test()
- B. chisq.test()
- C. Lm.test()
- D. prop.test()

Ans : D

Explanation: prop.test() is used to inference for 1 proportion using normal approx.

10. Which is used to query and edit graphical settings?

- A. anova()
- B. par()
- C. plot()
- D. cum()

Ans : B

Explanation: par() is used to query and edit graphical settings.

11. Which is used to find the factor congruence coefficients?

- A. factor.mosaicplot
- B. factor.xyplot
- C. factor.congruence
- D. factor.cumsum

Ans : C

Explanation: factor.congruence is used to find the factor congruence coefficients.

12. Which of the following method make vector of repeated values?

- A. rep()
- B. data()
- C. view()
- D. read()

Ans : B

Explanation: data() load (often into a data.frame) built-in dataset.

13. Which of the following is tool for checking normality?

- A. qqline()
- B. qline()
- C. anova()
- D. lm()

Ans : A

Explanation: qqnorm is another tool for checking normality.

14. Who calls the lower level functions lm.fit?

- A. lm()
- B. col.max
- C. par
- D. histo

Ans : A

Explanation: lm calls the lower level functions lm.fit.

15. Which of the following is false?

- A. data visualization include the ability to absorb information quickly
- B. Data visualization is another form of visual art
- C. Data visualization decrease the insights and take solver decisions
- D. None Of the above

Ans : C

Explanation: Data visualization decrease the insights and take solver decisions is false statement.

16. Which of the following lists names of variables in a data.frame?

- A. par()
- B. names()
- C. barchart()
- D. quantile()

Ans : D

Explanation: names function is used to associate name with the value in the vector.

17. Common use cases for data visualization include?

- A. Politics
- B. Sales and marketing
- C. Healthcare
- D. All of the above

Ans : D

Explanation: All option are Common use cases for data visualization.

18. Which of the following statement is true?

- A. Scientific visualization, sometimes referred to in shorthand as SciVis
- B. Healthcare professionals frequently use choropleth maps to visualize important health data.
- C. Candlestick charts are used as trading tools and help finance professionals analyze price movements over time
- D. All of the above

Ans : D

Explanation: All option are correct.

19. Which of the following plots are often used for checking randomness in time series?

- A. Autocausation
- B. Autorank
- C. Autocorrelation
- D. None of the above

Ans : C

Explanation: If the time series is random, such autocorrelations should be near zero for any and all time-lag separations.

20. _____is used for density plots?

- A. par
- B. lm
- C. kde
- D. C

Ans : C

Explanation: kde is used for density plots.

1. What is data visualization?

- It is the graphical representation of information and data
- It is the numerical representation of information and data
- It is the character representation of information and data
- None of the above

2. What is true about data visualization?

- Data Visualization helps users in analyzing a large amount of data in a simpler way
- Data Visualization makes complex data more accessible, understandable, and usable
- Data Visualization is a graphical representation of data
- All of the above

3. Data visualization is also an element of the broader

- data process architecture
- data presentation architecture
- deliver presentation architecture
- None of the above

4. Data visualization tools provide an accessible way to see and understand in data.

- trends
- outliers
- patterns
- All of the above

5. Which method shows hierarchical data in a nested format?

- Treemaps
- Scatter plots
- Area charts
- Population pyramids

6. What are the common types of data visualization?

- Charts
- Tables
- Infographics
- All of the above

7. What are specific examples of methods to visualize data?

- Area Chart
- Bubble Cloud
- Dot Distribution Map
- All of the above

8. The importance of data visualization are

- Leading the target audience to focus on business insights to discover areas that require attention
- Revealing previously unnoticed key points about the data sources to help decision makers compose data analysis reports
- Helping decision makers understand how the business data is being interpreted to determine business decisions
- All of the above

9. What are the benefits of data visualization?

- Better analysis
 - Identifying patterns
 - Exploring business insights
 - All of the above
-

10. Which of the intricate techniques is not used for data visualization?

- Heat Maps
- Fever Maps
- Bullet Graphs
- Bubble Clouds

11. is used to query and edit graphical settings.

- par()
- plot()
- cum()
- anova()

12. Which of the following lists names of variables in a data.frame?

- par()
- names()
- quantile()
- barchart()

13. groups values of a variable into larger bins.

- cut
- stem
- col.max(x)
- which.max(x)

14. Deleting the grid lines in the table and the horizontal lines in the chart.

- increases the data-ink ratio
- decreases the data-ink ratio
- increases the Non-data-ink ratio
- does not affect the data-ink ratio

15. helps in designing effective tables and charts for data visualization.

- PivotTable
- Data-ink ratio
- Scatter charts
- Crosstabulation

16. A useful chart for displaying multiple variables is the

- scatter chart
- scatter chart matrix
- two-dimensional graph
- stacked column and bar chart

17. The charts that are helpful in making comparisons between

- Bar charts
 - column charts
 - Pie charts
 - Both Bar & Column Charts
-

18. A system that merges maps and statistics to present data collected over different geographies

- The heat map
 - A geographical map
 - Geographic information system
 - None of the above
-

19. A data visualization tool that updates in real time and gives multiple outputs is called

- a data dashboard
- a metrics table
- a data table
- None of the above

20. The data dashboard for a marketing manager may have KPIs related to

.....

- current sales measures and sales by region
- current financial standing of the company.
- vehicle's current speed, fuel level, and engine temperature.
- None of the above

21. A ____ is a line that provides an approximation of the relationship between the variables.

- sparkline
- gridline
- trendline
- none of the above

Data Visualization MCQ Test & Online Quiz

1. Which of these are considered secondary data?

1. Data from a Youtube interview
2. Data from the textbook
3. All of the above
4. None of the above

Answer: All of the above

2. The most popular data visualization library in python is _____

1. matinfolib
2. matplotlib
3. pip
4. matpiplib

Answer: matplotlib

3. BI can catalyze a business's success in terms of _____

1. Ranks customers and locations based on probability
2. Rank customers and locations based on profitability
3. Distinguish the products and services that drive revenues
4. All of the mentioned

Answer: All of the mentioned

4. Which of these are considered primary data?

1. Doing an environment perception survey
2. Counting pedestrians by the street
3. Asking a friend to fill out a survey
4. All Of above

Answer: All of above

5. Which of the following is correct Features of DataFrame?

1. Can Perform Arithmetic operations on rows and columns
2. Potentially columns are of different types
3. Labeled axes (rows and columns)
4. All of the above

Answer: All of the above

6. Which Python Package is used for 2D graphics?

1. matplotlib.pip
2. matplotlib.pyplot
3. matplotlib.numpy
4. matplotlib.plt

Answer: matplotlib.pyplot

7. How many types of BI users are there?

1. Two – The head of the company, The Business Users
2. Four: The Professional Data Analyst, The IT users, The head of the company, The Business Users
3. One- The Business Users
4. Three-The IT users, The head of the company, The Business Users

Answer: Four: The Professional Data Analyst, The IT users, The head of the company, The Business Users

8. _____ in business intelligence allows huge data and reports to be read in a single graphical interface.

1. Reports
2. Warehouse
3. OLAP
4. Dashboard

Answer: Dashboard

9. Often, Where do the BI applications gather data from?

1. Data mart
2. Data warehouse
3. Both Data Warehouse and Datamart
4. Database

Answer: Both Data Warehouse and Datamart

10. In regards to separated value files such as .csv and .tsv, what is the delimiter?

1. Any character such as the comma (,) or tab (\t) that is used to separate the row data
2. Anywhere the comma (,) character is used in the file
3. Any character such as the comma (,) or tab (\t) that is used to separate the column data
4. Delimiters are not used in separated value files

Answer: Any character such as the comma (,) or tab (\t) that is used to separate the column data

11. The process of studying data is called _____

1. Data Collection
2. Data Analysis
3. Data Visualization
4. All of the above

Answer: Data Analysis

12. _____ are drawn with respect to the histogram created?

1. Frequency polygon
2. box plot
3. bar plot
4. None of above

Answer: Frequency polygon

13. Which of the following methods should be employed in the code to display a plot?

1. Show()
2. Display()
3. Execute()
4. Plot()

Answer: Show()

14. _____ function is used to create a horizontal bar chart.

1. barh()
2. bar()
3. barchart()
4. None of the above

Answer: barh()

15. _____ plot is also described as five-number summery plot.

1. frequency polygon
2. box plot
3. Histogram
4. scatter plot

Answer: box plot

16. Which of the following statement is true about Business Intelligence?

1. BI has a direct impact on organization's strategic, tactical and operational business decisions
2. BI convert raw data into meaningful information
3. BI tools perform data analysis and create reports, summaries, dashboards, maps, graphs, and charts
4. **All of the above**

Answer: All of above

17. What does a typical BI environment comprise of?

1. Data mart
2. Data warehouse
3. OLAP TOOLS
4. All of these

Answer: All of these

18. KPI stands for?

1. Key Performance Identifier
2. Key Performance Indicators
3. Key Processes Identifier
4. Key Processes Indicator

Answer: Key Performance Indicator

19. We apply the aggregate function to a group of sets of tuples using the _____ clause

1. group
2. group set
3. group by
4. group attribute

Answer: group by

20. What is the output of the following program?
`y = 8z = lambda x: x * y
print z(6)`

1. 14
2. 48
3. 64
4. None

Answer: 48

21. Which of the following creates an object which maps data to a dictionary?

1. tuplereader()
2. reader()
3. DicReader ()
4. listreader()

Answer: DicReader ()

22. Identify the right type of chart using the following hints.

Hint 1: This chart is often used to visualize a trend in data over intervals of time.

Hint 2: The line in this type of chart is often drawn chronologically.

1. Bar chart
2. Pie chart
3. Line chart
4. Scatter plot

Answer: Line chart

23. What does the function re.match do?

1. matches a pattern at any position in the string
2. such a function does not exist
3. matches a pattern at the start of the string
4. None

Answer: matches a pattern at the start of the string

24. Which of the following are direct benefits of Business Intelligence?

1. Delivers data mining functionality
2. Decision making
3. Artificial intelligence
4. All of the above

Answer: Decision making

25. _____ function returns current date and time.

1. SET DATEFIRST
2. Cert_ID
3. SYSDATETIME
4. GETDATE

Answer: GETDATE

26. Which of the following are BI tools?

1. Siebel
2. Qlik
3. Cognos
4. All of the above

Answer: All of the above

27. This function in the library of Pandas allows you to manipulate data and create new variables.

1. Pivot_table function
2. read_csv function
3. apply function
4. merge function

Answer: **apply function**

28. Data Frame in pandas is_____

1. 2 dimensional array
2. 3 dimensional array
3. 1 dimensional array
4. None

Answer: **2 dimensional array**

29. Point out the correct combination with regards to kind keyword for graph plotting.

1. 'box' for boxplot
2. 'area' for area plots
3. 'hist' for histogram
4. All of the above

Answer: **All of above**

30. Which of the following takes a dict of dicts / a dict of array-like sequences and returns a Data Frame?

1. DataFrame.from_records
2. DataFrame.from_items
3. DataFrame.from_dict
4. All of the above

Answer: **DataFrame.from_item**

List of Data Analytics and Visualization MCQs

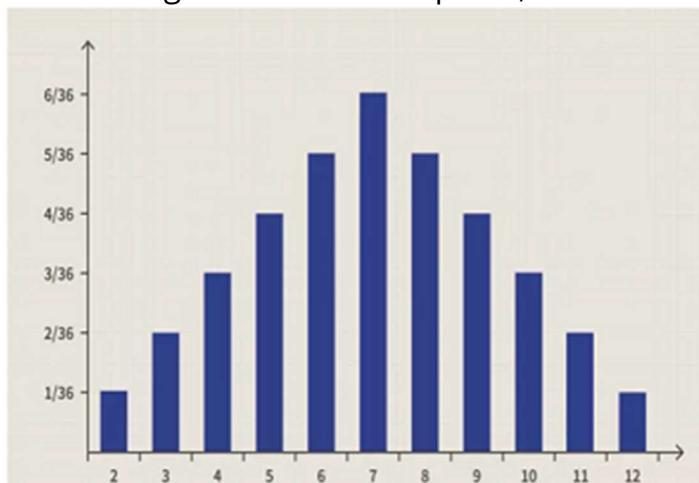
1. A probability distribution is a ____.
 - A. Library function
 - B. Statistical function
 - C. Physical property
 - D. None of the mentioned above

Answer: B) Statistical function

Explanation:

Uncertainty distributions are statistical functions that describe all of the different possible values and likelihoods that a random variable can take within a given range of values. This range will be restricted to the range between the minimum and maximum possible values, but the precise location of the possible value on the probability distribution will depend on a variety of factors, including the probability distribution itself. The mean (average), standard deviation, skewness, and kurtosis of a distribution are among the variables to consider.

2. Following chart is an example of,



- A. Probability Distribution Chart
- B. Line chart
- C. Pie chart
- D. All of the mentioned above

Answer: A) Probability Distribution Chart

Explanation:

A probability distribution is, in essence, a bar chart that depicts the likelihood of an event occurring in the future. It's a quick way to see what's going on and how likely it is that something will happen. In the field of statistics, probability distribution charts can become quite complicated. The normal distribution, also known as the "bell curve," is perhaps the most widely used probability distribution, although there are several other distributions that are also widely used.

3. Amongst which of the following is / are the types of Probability Distribution?

- A. Normal distribution, Binomial distribution
- B. Bernoulli distribution
- C. Uniform distribution, Poisson distribution
- D. All of the mentioned above

Answer: D) All of the mentioned above

Explanation:

The Normal distribution, the Binomial distribution, the Bernoulli distribution, the Uniform distribution, and the Poisson distribution are the most commonly encountered Probability Distribution functions in statistics.

4. Binomial distribution is a discrete distribution?

True

False

Answer: A) True

Explanation:

It is a discrete distribution when it is a binomial distribution. A discrete distribution is a type of probability distribution that describes the probability of occurrence of each value of a discrete random variable occurring. If you have 6 apples in your refrigerator, and only 1 of them has spoiled, you have an example of a discrete probability distribution. In a discrete probability distribution, each possible value of a discrete random variable can be associated with a non-zero probability of occurring in the future. In the case of a given success probability p in each trial, a binomial distribution is used to represent the probability of x success in each trial.

5. Continuous Probability Distribution includes ____.

- A. Normal distribution
- B. Uniform distribution
- C. Both A and B
- D. None of the mentioned above

Answer: C) Both A and B

Explanation:

The Normal distribution and the Uniform distribution are both examples of Continuous Probability Distribution. When it comes to probability distributions, a continuous probability distribution is one in which the random variable X can have any value (is continuous). Because there are an infinite number of possible values for X to take on, the probability of X taking on any specific value is equal to zero.

Normal distribution- A normal distribution is defined as one in which the parameters (also known as the mean) and s² (also known as the variance) have a range of -8 to +8. The following are the characteristics of its continuous probability distribution:

$$f(x;\mu, \sigma^2) = (1/\sqrt{2\pi\sigma^2}) \exp(-\frac{(x-\mu)^2}{2\sigma^2}).$$

Uniform distribution - When it comes to distribution functions, uniform distribution is one in which every possible result is equally likely to occur; that is, the probability of each occurrence is the same.

6. The Bernoulli random variable's expected value is p, it is also known as the _____.

- A. Bernoulli distribution's path
- B. Bernoulli distribution's function
- C. Bernoulli distribution's parameter
- D. None of the mentioned above

Answer: C) Bernoulli distribution's parameter

Explanation: The expected value of a Bernoulli random variable is p, which is also referred to as the Bernoulli distribution's parameter in some circles. In this experiment, the outcome can be either a value of zero or one. Bernoulli random variables can have values of 0 or 1, depending on the situation.

7. A Poisson distribution is a probability distribution used in statistics to show how many times an event is likely to happen over a given period of time?

True

False

Answer: A) True

Explanation: When it comes to statistics, a probability distribution known as a Poisson distribution is used to show how many times an event is likely to occur over a given period of time. When a constant rate of independent events occurs at a constant rate over a given time interval, the Poisson distribution is frequently used to comprehend the events.

8. The ___ function applies one or more conditions in the specified range of data and returns only those which fulfil all of the conditions.

- A. COUNTIFS
- B. COUNT
- C. IF
- D. None of the mentioned above

Answer: A) COUNTIFS

Explanation:

The COUNTIFS function applies one or more conditions in the specified range of data and returns only those which fulfil all of the conditions.

9. Amongst which of the following is / are related to Standard Deviation Function?

- A. Standard Deviation is one of the ways to quantify dispersion
- B. It is a measure of how widely values are dispersed from the average value
- C. STDEV.P function which is used to calculate standard deviation based on the entire population given as arguments
- D. All of the mentioned above

Answer: D) All of the mentioned above

Explanation: If you use a sample of the population (STDEV) or a biased sample of the population (STDEVP), then the statistical standard deviation of all values in the set will be returned by the standard deviation function (STDEVP). The standard deviation is useful for measuring variance within a data set and, in the context of statistical results, for assessing confidence in those results. To quantify dispersion, one of the methods used is to calculate the standard deviation. In other words, it is a measure of how widely values are dispersed from the mean value.

10. STDEV.P function which is used to calculate standard deviation based on the entire population?

- A. True
- B. False

Answer: A) True

Explanation: When the entire population is given as arguments, the STDEV.P function is used to calculate the standard deviation. The STDEV.P function makes the assumption that the arguments it receives represent the entire population. In a sample set of data, the standard deviation is calculated using the STDEV.S() function. When a large sample size is used, the standard deviations of the population and the samples will have values that are very close to one another.

11. Amongst which of the following is best fitted to Tableau?

- A. Tableau is a powerful and fastest growing data visualization tool used in the Business Intelligence Industry
- B. Tableau is a people in Business Intelligence Industry
- C. Tableau is suitable for factory industry only
- D. Tableau is a new alternative for data programming

Answer: A) Tableau is a powerful and fastest growing data visualization tool used in the Business Intelligence Industry

Explanation: Tableau is a powerful and fastest growing data visualization tool used in the Business Intelligence Industry. Tableau is a visual analytics platform that is revolutionizing the way we use data to solve problems. It is enabling individuals and organizations to make the most of their information.

12. Tableau displays measures over time as a ____.

- A. Bar
- B. Line
- C. Histogram
- D. Scatter Plots

Answer: B) Line

Explanation:

As a series of Lines, the tableau displays the progression of measurements over time. Tableau categorizes data into two types: dimensions and measures.

Dimensions are the dimensions of the data, while measures are the measures of the data. In most cases, dimensions are fields that cannot be aggregated; measures, on the other hand, are those fields that can be measured, aggregated, or used in mathematical operations, as the name suggests.

13. Amongst which of the following is / are the file extensions in Tableau?

- A. .twb
- B. .twbx
- C. .tds
- D. All of the mentioned above

Answer: D) All of the mentioned above

Explanation:

TWB (Tableau Workbook), TDS(Tableau Data Source), TDE(Tableau Data Extract), TWBX(Tableau Packaged Workbook), TDSX(Tableau Packaged Data Source), TBM(Tableau Bookmark), TDC(Tableau Data source Connection) , TMS(Tableau Map Source), and TPS(Tableau Preferences) are some of the file extensions in Tableau.

14. Amongst which of the following is / are the components of an interactive Dashboard in Tableau?

- A. Vertical
- B. Horizontal
- C. Image Extract
- D. All of the mentioned above

Answer: D) All of the mentioned above

Explanation:

Vertical, Horizontal and Image Extract are the common components of an interactive Dashboard in Tableau

15. Amongst which of the following is not a Pattern Line display?

- A. Binomial Pattern Line
- B. Multiple Pattern Line
- C. Straight directed Pattern Line
- D. None of the mentioned above

Answer: A) Binomial Pattern Line

Explanation:

Binomial Pattern Line is not a Pattern Line display. Generally, trend lines can be displayed in a visualization to draw attention to patterns in our data. In order to edit a view that contains trend lines on the web, we can publish the view with trend lines and then add trend lines to the view as we wish. When we add trend lines to a view, we have the ability to specify how they should appear and behave.

16. Sets can be made on Measures?

- A. Yes
- B. No

Answer: B) No

Explanation:

No, sets can be made on measures. It is possible to compare and ask questions about a subset of data when using sets. The term "set" refers to a custom field that defines a subset of data based on a set of conditions. Set Actions allow us to make sets more dynamic and interactive by incorporating them into our program. When our audience interacts directly with a visualization or dashboard, they can control various aspects of their investigation. When a user selects marks in the view, set actions can be executed, which can change the values in the set.

17. A bullet graph is a variation of a bar graph developed to replace dashboard gauges and meters?

- A. True
- B. False

Answer: A) True

Explanation:

Bullet graphs are a type of bar graph that was created to replace dashboard gauges and meters. When comparing the performance of a major metric to one or more additional measures, a bullet graph is beneficial.

18. Tableau displays data source connections and data fields for the workbook in the __ on the left side of the workspace.

- A. Data pane
- B. Basic Expression
- C. LoD Expression
- D. None of the above

Answer: A) Data pane

Explanation:

In the Data pane on the left side of the workspace, Tableau displays data source connections and data fields for the worksheet. The data source connections and fields display on the left side of the worksheet in the Data pane once we connect to our data and set up the data source using Tableau. The top of the Data pane displays the current data source connections. If there are many connections available, choose one to pick it and begin working with the data.

19. Dimensions can be aggregated?

- A. True
- B. False

Answer: B) False

Explanation:

We may aggregate measurements or dimensions in Tableau; however aggregate measures are more popular. By default, when we add a measure to our view, we apply an aggregation to that measure. Depending on the context of the view, the type of aggregate used differs.

20. Which of the following is NOT a Tableau field data type?

- A. String
- B. Number
- C. Float
- D. Boolean

Answer: C) Float

Explanation:

Float is not a Tableau field data type. The common data types are:

String values

Number/Integer values

Date values

Date & Time values

Boolean values

Geographic values

Cluster or mixed values

21. This data type consists of both integer type and floating type.

- A. Numeric Data type
- B. Date and Time Data type
- C. Boolean Data type
- D. None of the mentioned above

Answer: D) None of the mentioned above

Explanation: Numeric Data type consists of both integer type and floating type. Integer types are preferred over floating types by users because it is difficult to accumulate the decimal point over a certain limit. It also has a method called Round() that may be used to round up float numbers.

22. Can Tableau be installed on MacOS?

- A. Yes
- B. No

Answer: A) Yes

Explanation: Tableau can be installed on MacOS. Tableau Desktop licences may be installed on up to two PCs, so we could use one for Windows at work and another for our Mac at home. Tableau Desktop for Windows files will work on Tableau Desktop for Mac, and vice versa.

23. Default aggregation used for tree map.

- A. Avg
- B. Sum
- C. Count
- D. Countd

Answer: B) Sum

Explanation: Sum is a default aggregation used for tree map. We may aggregate measurements or dimensions in Tableau, however aggregate measures are more popular. By default, when we add a measure to our view, we apply an aggregation to that measure. Depending on the context of the view, the type of aggregate used differs.

24. Which of the following allows tableau publicly accessible?

- A. Tableau Reader
- B. Tableau Desktop
- C. Tableau Public
- D. None of Above

Answer: C) Tableau Public

Explanation: Tableau Public allows it publicly accessible. Tableau Public is a free online platform for exploring, creating, and sharing data visualizations. Tableau Public makes learning data skills simple by providing access to the world's biggest archive of data representations.

25. A sheet cannot be used within a story directly. Either sheets should be used within a dashboard, or a dashboard should be used within a story.

- A. True
- B. False

Answer: B) False

Explanation: Tableau uses a workbook and sheet file structure, much like Microsoft Excel. Tableau follows Microsoft Excel's workbook and sheet file structure. Sheets are included in a workbook. A story is made up of a series of worksheets or dashboards that provide information. In the sidebar, you'll find the story and Layout windows.

26. Which one is not the best fitted for Tableau?

- A. Self Service BI
- B. Mobile enablement
- C. Big Data connectivity
- D. Enterprise Deployment

Answer: D) Enterprise Deployment

Explanation: Tableau is a Business Intelligence solution that allows users to visualize data. Users can construct and share an interactive and shareable dashboard that displays the data's trends, variances, and density in graphs and charts. To acquire and process data, Tableau may connect to files, relational databases, and Big Data sources.

27. Which type of chart is not available in Tableau V8?

- A. Pie Chart
- B. Speed Dial
- C. Bullet Chart
- D. Bubble Chart

Answer: B) Speed Dial

Explanation: Speed Dial chart is not available in Tableau V8.

28. Tableau Desktop is a ___ application and anyone can use it.

- A. Spark based
- B. Business analytics
- C. Traditional based
- D. None of the mentioned above

Answer: B) Business analytics

Explanation:

Anyone may use Tableau Desktop, which is a business analytics solution. Tableau Desktop is a data visualization tool that allows us to quickly explore almost any type of structured data and create highly interactive, stunning graphs, dashboards, and reports.

29. Tableau Server is a ___ that offers ___ anyone can utilize.

- A. Business intelligence application, browser-based analytics
- B. Application development, customer oriented
- C. Runs on browser, server development and control system devices
- D. All of the mentioned above

Answer: A) Business intelligence application, browser-based analytics

Explanation:

Tableau Server is a business intelligence program that provides anyone with browser-based analytics. It's a lightning-fast alternative to typical business intelligence tools. It is a web-based tool for sharing, distributing, and collaborating on Tableau material.

30. What makes Tableau different?

- A. There is no scripting required
- B. Everyone can use it and grow to be an analytics expert
- C. Get quick insights from data with interactive visualization
- D. All of the mentioned above

Answer: D) All of the mentioned above

Explanation:

Tableau is different from other applications because in this; there is no scripting required. Everyone can use it and grow to be an analytics expert; we can get quick insights from data with interactive visualization.

31. Amongst which of the following is / are true about Tableau Online?

- A. Tableau Online is a secure, cloud-based solution
- B. It can be used for sharing, distributing, and collaborating on Tableau views
- C. We can create interactive Tableau dashboards.
- D. All of the mentioned above

Answer: D) All of the mentioned above

Explanation:

Tableau Online is a cloud-based, secure solution. Tableau views can be shared, distributed, and collaborated on using this tool. Tableau dashboards may be made interactive. Tableau Online is a powerful cloud-based data visualization tool that allows us to operate without the need for servers, server software, or IT help. It makes rapid-fire business analytics more accessible than ever before. In minutes, share dashboards with team members, customers, and partners.

32. Tableau Public is a ___ to facilitate users to create interactive data visualizations.

- A. Freeware application
- B. Paid application
- C. Not Secure application
- D. None of the mentioned above

Answer: A) Freeware application

Explanation:

Tableau Public is a free software program that allows users to create interactive data representations. It is provided as a service, allowing the user to be up and running the next day. Users can create great interactive graphics and publish them rapidly using Tableau Public, without the need for programmers or IT. It's made for businesses who want to add interactive data visualizations to their websites.

33. A worksheet contains a single view along with shelves, cards, legends, and the Data?

- A. True
- B. False

Answer: A) True

Explanation:

A worksheet's side bar comprises a single view, as well as shelves, cards, legends, and the Data and Analytics panes. In the Tableau screen, the worksheet is where we develop the data analysis views. When we make a connection to a data source, Tableau creates three blank worksheets by default. We can continue to add worksheets to examine different data views in the same screen, one after the other.

34. Data extraction in Tableau creates a subset of data from the ___.

- A. Data view
- B. Data source
- C. Data pane
- D. None of the mentioned above

Answer: B) Data source

Explanation:

Tableau creates a subset of data from the data source by extracting it. This is useful for enhancing performance through the usage of filters. It also aids in the application of Tableau capabilities to data that may not be present in the data source, such as discovering distinct values in the data. The data extract function, on the other hand, is most commonly used to create an extract that can be saved to the local drive and accessed by Tableau offline.

35. A dashboard is a collection of ____.

- A. Views
- B. Hash function
- C. Both A and B
- D. None of the mentioned above

Answer: A) Views

Explanation:

A dashboard is a visual representation of numerous worksheet views. In the sidebar, we can find the Dashboard and Layout panes.

36. We can aggregate a dimension in the view as Minimum, Maximum, Count, or Count?

- A. True
- B. False

Answer: A) True

Explanation:

In the view, we can aggregate a dimension as Minimum, Maximum, Count, or Count. When we aggregate a dimension, we establish a new temporary measure column, which gives the dimension measure-like features.

37. Dimensions are displayed above the gray line and measures below the gray line?

- A. True
- B. False

Answer: A) True

Explanation:

For each table or folder, the dimensions are presented above the grey line, and the measurements are displayed below the grey line. A table or folder may have only dimensions or measures to begin with in some situations. If all of the input fields for calculated fields come from the same table, they are listed with their originating field.

The table with the originating field is used to list the sets. Parameters are displayed in the Parameters box and are global to the workbook. Fields that do not belong to a certain table are displayed below the tables in the general section. Calculations that use fields from various tables, Measure Names, and Measure Values are examples of these.

38. A bullet chart is a variation of?

- A. Bar chart
- B. Pie Chart
- C. Gantt Chart
- D. None of the mentioned above

Answer: A) Bar chart

Explanation:

A bullet chart is a variation of Bar chart. A bar chart shows data as rectangular bars, with the length of each bar proportional to the variable's value. When you drag a dimension to the Row shelf and a measure to the Column shelf, Tableau automatically creates a bar chart. The bar chart option in the Show Me button can also be used. This option will be automatically greyed out if the data is not suitable for a bar chart.

39. In Tableau, a crosstab chart is also known as ____.

- A. Text table
- B. Field table
- C. Both A and B
- D. None of the mentioned above

Answer: A) Text table

Explanation:

In Tableau, a crosstab chart is also known as a Text table because it displays data in textual format. One or more dimensions and one or more metrics make up the chart. This chart can also display other calculations on the measure field's data, such as a running total, % total, and so on.

40. A ___ represents the frequencies of values of a variable bucketed into ranges.

- A. Histogram
- B. Gantt Chart
- C. Box Plot
- D. None of the mentioned above

Answer: A) Histogram

Explanation:

The frequency of values of a variable bucketed into ranges is represented by a histogram. Similar to a bar chart, a histogram arranges values into continuous ranges. The height of each bar in a histogram represents the number of items present in that range. Tableau generates a histogram from a single metric. It adds a bin field for the measure that was used to make the histogram.

41. Amongst which of the following is / are true about Tableau story?

- A. To tell a data narrative
- B. Demonstrate how decisions relate to outcomes
- C. To make a compelling case
- D. All of the mentioned above

Answer: D) All of the mentioned above

Explanation:

A story in Tableau is a collection of graphics that work together to convey data. We can use stories to communicate a data storey, provide context, show how decisions affect results, or simply make a strong argument. A storey is a sheet, the same techniques that we use to create, identify, and manage worksheets and dashboards apply to tales as well. A story is also a collection of sheets that are placed in a specific order. A storey point is the name given to each individual sheet in a storey.

42. ___, connects several distinct data points, presenting them as one continuous evolution.

- A. Scatter Plot
- B. Pie Chart
- C. The line chart or line graph
- D. All of the mentioned above

Answer: C) The line chart or line graph

Explanation:

The line chart, also known as a line graph, joins multiple data points to portray them as a single continuous progression. Line charts are used to visualise data trends, usually across time. As a result, there's a simple, plain way to see how one value changes in relation to another.

43. Bar charts are one of the most common data visualizations?

- A. True
- B. False

Answer: A) True

Explanation:

One of the most used data visualizations is bar charts. We may use them to easily compare data across categories, highlight discrepancies, disclose historical highs and lows, and identify trends and outliers. When we have data that can be divided into several categories, bar charts are very useful.

44. ___ are a powerful and compact way to visualize hierarchical and part-to-whole relationships.

- A. Histogram
- B. Treemaps
- C. Bar charts
- D. None of the mentioned above

Answer: B) Treemaps

Explanation:

Treemaps are a great technique to represent hierarchical and part-to-whole relationships in a small space. Each tree branch is shown as a rectangle, with the size of each branch proportional to a defined data metric. Many people prefer treemaps because they're visually appealing, so knowing how to use colour is advantageous. In a treemap, colour is frequently used to indicate dimensions; heat maps are useful for displaying a spectrum.

45. ___ plot the number of occurrences of a given variable in a set of data.

- A. Treemaps
- B. Histograms
- C. Pie charts
- D. None of the mentioned above

Answer: B) Histograms

Explanation:

The number of occurrences of a specific variable in a collection of data is plotted in a histogram. They're a terrific way to get a quick overview of a variable's complete distribution, and they look like a bar chart.

46. Amongst which of the following shows in Box plot?

- A. First quartile
- B. Median
- C. Outliers
- D. All of the mentioned above

Answer: D) All of the mentioned above

Explanation:

A box plot or box-and-whisker plot is a diagram of a distribution of data best known to highlight first quartile, median, third quartile, whiskers, and outlier's values. Box plots are excellent for comparing sets of data, particularly data fluctuations. They're a statistician's favorite and are frequently utilized in statistical analytics. Tableau can display hundreds of thousands of rows per second, allowing it to convey far more data than a traditional box plot.

47. ___ is a simple and compelling way to show how location correlates with trends in our data.

- A. Map
- B. Treemaps
- C. Histograms
- D. None of the mentioned above

Answer: A) Map

Explanation: Maps are a simple and engaging approach to display how location connects with patterns in our data if we have geographic information connected with our data. Whether it's postal codes, state abbreviations, country names, or our own unique geocoding, maps are a no-brainer for showing any kind of location information.

48. Gantt charts display a project schedule or show changes in activity over time?

- A. True
- B. False

Answer: A) True

Explanation: Gantt charts are used to indicate variations in activity over time or to display a project timeline. A Gantt chart depicts the actions that must be accomplished before others can begin, as well as the distribution of resources.

49. Word clouds are like bubble charts in that words are sized according to some numerical measure?

- A. True
- B. False

Answer: A) True

Explanation: Word clouds are similar to bubble charts in that words are sized using a numerical scale and crammed into a certain area. They're great for presenting information on, you guessed it, words. While word clouds aren't ideal for correct interpretation, they can help a dashboard stand out and inspire more people to interact with the data.

50. Density maps reveal ___.

- Data storage
- Patterns
- Data demonstration
- None of the mentioned above

Answer: B) Patterns

Explanation: Density maps let us discover locations with more or fewer data points by revealing patterns or relative concentrations that could otherwise be buried owing to an overlapping mark on a map. When working with a data set comprising many data points in a small geographic area, density maps are most useful.

Data Visualization MCQ Class XII IP

Q1. _____ means graphical or pictorial representation of the data using graph, chart, etc.

a. Data visualization

b. Visual Data

c. Matplot

d. None of the above

[Hide Answer](#)

Ans. a. Data visualization

Q2. Which of the following library to be imported for creating chart in python?

a. Matplotlib

b. Pandas

c. Math

d. Random

[Hide Answer](#)

Ans. a. Matplotlib

Q3. Which module of matplotlib library is required for plotting of graph?

a. plot

b. matplot

c. pyplot

d. None of the above

[Hide Answer](#)

Ans. c. pyplot

Q4. Which of the following command is correct to install matplotlib?

a. pip install matplot

b. pipe install matplotlib

c. pip install matplotlib

d. None of the above

[Hide Answer](#)

Ans. c. pip install matplotlib

Q5. _____ function of the pyplot module is used to create a figure/chart/plot.

a. show()

b. plotting()

c. plot()

d. plots()

[Hide Answer](#)

Ans. c. plot()

Q6. A figure/chart contains _____

- a. Plotting area
- b. Legend
- c. Axis labels
- d. All of the above

[Hide Answer](#)

Ans. d. All of the above

Q7. _____ function is used to display figure/chart.

- a. showing()
- b. show()
- c. display()
- d. screen()

[Hide Answer](#)

Ans. b. show()

Q8. To plot x versus y, we can write _____ #plt is an alias for matplotlib.pyplot

- a. plt.plot(y, x)
- b. plt.plot(x)
- c. plt.plot(x,y)
- d. None of the above

[Hide Answer](#)

Ans. c. plt.plot(x,y)

Q9. Values which are displayed on x-axis is called _____

- a. y ticks
- b. x ticks
- c. xy ticks
- d. None of the above

[Hide Answer](#)

Ans. b. x ticks

Q10. Values which are displayed on y-axis is called _____

- a. y ticks
- b. x ticks
- c. xy ticks
- d. None of the above

[Hide Answer](#)

Ans. a. y ticks

Q11. plot(a, b) is provided with two parameters, which indicates values for _____

- a. x-axis and y-axis, respectively
- b. y-axis and x-axis, respectively
- c. x-axis only
- d. None of the above

[Hide Answer](#)

Ans. a. x-axis and y-axis, respectively

Q12. By default plot() function plots a _____

- a. Histogram
- b. Bar graph
- c. Line chart
- d. Pie chart

[Hide Answer](#)

Ans. c. Line chart

Q13. Which of the following function is used to save the figure/chart?

- a. save()
- b. savefigure()
- c. savefig()
- d. None of the above

[Hide Answer](#)

Ans. c. savefig()

Q14. Name of the figure is passed to the _____ function as parameter.

- a. plot()
- b. show()
- c. savefig()
- d. None of the above

[Hide Answer](#)

Ans. c. savefig()

Q15. Which of the following pyplot function is used to plot histogram.

- a. `histogram()`
- b. `histo()`
- c. `histochart()`
- d. `hist()`

[Hide Answer](#)

Ans. d. `hist()`

Q16. Which of the following pyplot function is used to plot pie chart.

- a. `pie()`
- b. `piechart()`
- c. `circle()`
- d. `oval()`

[Hide Answer](#)

Ans. a. `pie()`

Q17. Which of the following pyplot function is used to plot bar graph.

- a. `bargraph()`
- b. `bar()`
- c. `barchart()`
- d. `oval()`

[Hide Answer](#)

Ans. b. `bar()`

Q18. Which of the following pyplot function is used to set the label for the x-axis.

- a. `xlabeled()`
- b. `xlabel()`
- c. `x_axis_label()`
- d. **None of the above**

[Hide Answer](#)

Ans. b. `xlabel()`

Q19. Which of the following pyplot function is used to set the values on the x-axis.

- a. `xticks()`
- b. `xlabel()`
- c. `xvalues()`
- d. **None of the above**

[Hide Answer](#)

Ans. a. `xticks()`

Q20. Which of the following pyplot function is used to set a title for the chart.

- a. `Title()`
- b. `c_title()`
- c. `title()`
- d. None of the above

[Hide Answer](#)

Ans. c. `title()`

Q21. To show the grid lines in plot, we can write _____
#plt is an alias of matplotlib.pyplot

- a. `plt.grid()`
- b. `plt.grid(True)`
- c. Both of the above
- d. None of the above

[Hide Answer](#)

Ans. c. Both of the above

Q22. A _____ is any symbol that represents a data value in a line chart.

- a. marker
- b. mark
- c. marks
- d. None of the above

[Hide Answer](#)

Ans. a. marker

Q23. 'marker' is an attribute of _____ function.

- a. `show()`
- b. `plot()`
- c. `display()`
- d. None of the above

[Hide Answer](#)

Ans. b. `plot()`

Q24. Write a statement to display "Amount" as x-axis label.
(consider plt as an alias name of matplotlib.pyplot)

- a. `plt.label("Amount")`
- b. `plt.xlabel("Amount")`
- c. `plt.xlabel(Amount)`
- d. None of the above

[Hide Answer](#)

Ans. b. `plt.xlabel("Amount")`

Q25. Write a statement to "use * as marker". (consider plt as an alias name of matplotlib.pyplot)

- a. `plt.plot(h, w, marker = "*")` #h and w are data representing x axis and y axis
- b. `plt.plot(h, w, mark = "*")` #h and w are data representing x axis and y axis
- c. `plt.marker("*")`
- d. None of the above

[Hide Answer](#)

Ans. a. `plt.plot(h, w, marker = "*")` #h and w are data representing x axis and y axis

Q26. Series and DataFrame have their own _____ function.

- a. `show()`
- b. `plot()`
- c. both of the above
- d. none of the above

[Hide Answer](#)

Ans. b. `plot()`

Q27. If we have a Series type object (let's say 's1') we can call the plot method by writing _____

- a. `s1.plot()`
- b. `plot(s1)`
- c. `s1.plot(s1)`
- d. None of the above

[Hide Answer](#)

Ans. a. `s1.plot()`

Q28. Which attribute of plot() function help to specify the type of chart?

- a. `type`
- b. `kind`
- c. `kinds`
- d. `types`

[Hide Answer](#)

Ans. b. `kind`

Q29. Statement to plot a line chart for data stored in a DataFrame 'df' is _____

- a. `df.plot(line)`
- b. `plot(df, line)`
- c. `df.plot(kind = "line")`
- d. None of the above

[Hide Answer](#)

Ans. c. `df.plot(kind = "line")`

Q30. Attribute/parameter to set marker size is _____

- a. **marker size**
- b. **sizeofmarker**
- c. **markersize**
- d. **None of the above**

[Hide Answer](#)

Ans. c. markersize

Q31. A _____ plot is a graph that shows the frequency of data along a number line.

- a. **line**
- b. **box**
- c. **histogram**
- d. **bargraph**

[Hide Answer](#)

Ans. a. line

Q32. Which attribute of plot() function is used to set the width of line in line plot?

- a. **widthline**
- b. **linewidth**
- c. **widthofline**
- d. **none of the above**

[Hide Answer](#)

Ans. b. linewidth

Q33. Which attribute of plot() function is used to set the style of line in line plot?

- a. **linestyle**
- b. **styleline**
- c. **styleofline**
- d. **none of the above**

[Hide Answer](#)

Ans. a. linestyle

Q34. Which attribute of plot() function is used to set the edge color of bar in bar chart?

- a. **bordercolor**
- b. **colorofedge**
- c. **edgecolor**
- d. **none of the above**

[Hide Answer](#)

Ans. c. edgecolor

Q35. Which attribute of plot() function is used to set the different color of bars in bar chart?

- a. **color**
- b. **barcolor**
- c. **colorbar**
- d. **none of the above**

[Hide Answer](#)

Ans. a. color

Q36. _____ are column-charts, where each column represents a range of values, and the height of a column corresponds to how many values are in that range.

- a. **Bar graph**
- b. **Histograms**
- c. **Line chart**
- d. **pie chart**

[Hide Answer](#)

Ans. b. Histograms

Q37. Which parameter of plot() function help to set the values of bins in Histogram?

- a. **bin**
- b. **bins**
- c. **binvalue**
- d. **none of the above**

[Hide Answer](#)

Ans. b. bins

Q38. Which attribute is used to change the border color of each hist in histogram?

- a. **border color**
- b. **colorofborder**
- c. **edgecolor**
- d. **none of the above**

[Show Answer](#)

Q39. Which attribute is used to fill each hist with pattern in histogram?

- a. **pattern**
- b. **fill**
- c. **hatch**
- d. **color**

[Hide Answer](#)

Ans. c. hatch

Q40. What is the default value of fill property in plot() function of creating histogram?

a. True

b. False

c. Green

d. Black

[Hide Answer](#)

Ans. a. True

Q41. Fill in the blank in the given code, if we want to plot a line chart for values of list 'a' vs values of list 'b'.

```
a = [1, 2, 3, 4, 5]
b = [10, 20, 30, 40, 50]
import matplotlib.pyplot as plt
plt.plot _____
```

a. (a, b)

b. (b, a)

c. [a, b]

d. None of the above

[Hide Answer](#)

Ans. a. (a, b)

Q42. Which of the following is used to design 2D charts/graphs/figures?

a. matplotlib.pyplot

b. matplotlib.pyplot

c. matplot.pyplot

d. none of the above

[Hide Answer](#)

Ans. b. matplotlib.pyplot

Q43. The following code will create _____ .

```
import matplotlib.pyplot as pl
a = [1,2,3,4,5]
b = [10, 20, 30, 40, 50]
c = [5, 10, 15, 20, 25]
pl.plot(a,b)
pl.plot(a,c)
pl.show()
```

a. line chart

b. bargraph

c. histogram

d. None of the above

[Hide Answer](#)

Ans. a. line chart

Q44. The following code will show _____ lines in the figure/chart.

```
import matplotlib.pyplot as pl
a = [1,2,3,4,5]
b = [10, 20, 30, 40, 50]
c = [5, 10, 15, 20, 25]
pl.plot(a,b)
pl.plot(a,c)
pl.show()
```

- a. 1
- b. 2
- c. 3
- d. 4

[Hide Answer](#)

Ans. b. 2

Q45. The following statement will create line plot of _____ color.

```
pl.plot(a, b, 'g') #a and b are list
```

- a. black
- b. yellow
- c. green
- d. magenta

[Hide Answer](#)

Ans. c. green

Q50. The following code will create _____

```
pl.plot(a) #a is a list and pl is an alias of matplotlib.pyplot
```

- a. line chart with no values on x axis
- b. line chart with no values on y axis
- c. line chart with values on both the axis
- d. None of the above

[Hide Answer](#)

Ans. c. line chart with values on both the axis

Q46. Which of the following chart can not be created by using matplotlib.pyplot ?

- a. Box
- b. Stats
- c. Pie
- d. Line

[Hide Answer](#)
Ans. b. Stats

Q47. Which of the following function is used to plot a line chart?

- a. line()
- b. linechart()
- c. plot()
- d. plotter()

[Hide Answer](#)
Ans. c. plot()

Q48. Which function is used to display the legend in plot?

- a. legend
- b. Legend
- c. legends
- d. All of the above

[Hide Answer](#)
Ans. a. legend

Q49. Which of the following function will create bar chart?

- a. bar()
- b. barh()
- c. Both of the above
- d. None of the above

[Hide Answer](#)
Ans. c. Both of the above

Q51. df.plot(kind='hist') function automatically selects the size of the bins.(T/F)

- a. True
- b. False

[Hide Answer](#)
Ans. a. True

1. Which of the following does not visualize data?

- a. Charts
- b. Maps
- c. Shapes
- d. Graphs

[Show Answer](#)

c. Shapes

2. Which of the following type of chart is not supported by pyplot?

- a. Histogram
- b. Boxplot
- c. Pie
- d. All are correct

[Show Answer](#)

D. All are correct

3. In the given chart, box surrounded with red border is called



- a. Data series
- b. Chart Title
- c. Markers
- d. Legend

[Show Answer](#)

d. Legend

4. To display histogram with well-defined edge we can write

- a. df.plot(type = 'hist', edge = 'red')
- b. df.plot(type = 'hist', edgecolor = 'red')
- c. df.plot(type = 'hist', line = 'red')
- d. df.plot(type = 'hist', linecolor = 'red')

[Show Answer](#)

b. df.plot(type = 'hist', edgecolor = 'red')

5. plot which is used to given statistical summary is

- a. Bar
- b. Line
- c. Histogram
- d. Box plot

Show Answer

d. Box plot

6. Which of the following is not the parameter of pyplot's plot() method?

- a. Marker
- b. Lineheight
- c. Linestyle
- d. Color

Show Answer

b. Lineheight

7. To compare data we can use ___ chart

- a. Line
- b. Bar
- c. Pie
- d. Scatter

Show Answer

b. Bar

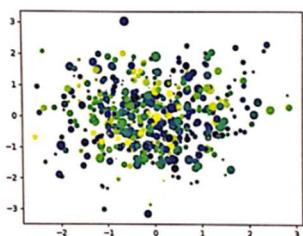
8. Which of the following chart element is used to identify data series by its color patterns?

- a. Chart title
- b. Legend
- c. Marker
- d. Data labels

Show Answer

b. Legend

9. Identify the following chart's type

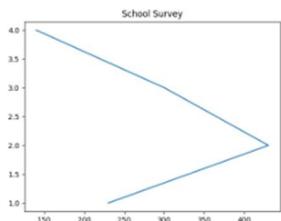


- a. Scatter Chart
- b. Bubble Chart
- c. Pie Chart
- d. Frequency Polygon

Show Answer

a. Scatter Chart

10. Look at the following graph and select appropriate code to obtain this output. (Please assume that pandas and matplotlib is already imported)



- a. zone=[1,2,3,4]
schools = [230,430,300,140]
plt.plot(zone, school, 'School Survey')
plt.show()
- b. zone=[1,2,3,4]
schools = [230,430,300,140]
plt.plot(schools,zone, 'School Survey')
plt.show()
- c. zone=[1,2,3,4]
schools = [230,430,300,140]
plt.plot(zone, school)
plt.title("School Survey")
plt.show()
- d. zone=[1,2,3,4]
schools = [230,430,300,140]
plt.plot(schools,zone)
plt.title("School Survey")
plt.show()

Show Answer

```
d. zone=[1,2,3,4]
schools = [230,430,300,140]
plt.plot(schools,zone)
plt.title("School Survey")
plt.show()
```

11. Which of the following is incorrect regarding Data Visualization?

- a. Data visualization can be done using Matplotlib library in python.
- b. Visualizing large and complex data does not produce effective results.
- c. Data visualization is immensely useful in data analysis.
- d. Decision makers use data visualization to understand business problems easily and build strategies.

[Show Answer](#)

b. Visualizing large and complex data does not produce effective results.

12. Matplotlib is ____ plotting library

- a. 1D
- b. 2D
- c. 3D
- d. All of above

[Show Answer](#)

b. 2D

13. Data _____ refers to graphical representation of data.

- a. Visualization
- b. Analysis
- c. Plotting
- d. Handling

[Show Answer](#)

a. Visualization

14. consider the code given below:

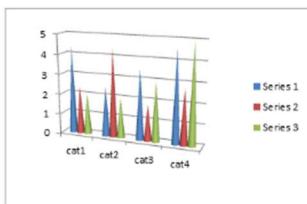
```
plt.bar(cities, population, color = ['r','g','b','m'])  
what will be color of last bar?
```

- a. Magenta
- b. Green
- c. Blue
- d. Black

[Show Answer](#)

a. Magenta

15. Following chart is type of



- a. Line Chart
- b. Bar chart
- c. Histogram
- d. Scatter chart

Show Answer

b, Bar Chart

16. Raj has written following code to create a bar chart-

```
Import matplotlib.pyplot as plt  
weekdays = ['sun','mon','tue']  
sale = [1234,3312,2541]  
plt.bar(weekdays, sale)
```

But when executing this code he is not able to display any chart. What would you suggest him to execute code and display chart successfully?

- a. Instead of using bar() he should use plot() method
- b. He should add show() function at the end of code
- c. He should use numpy array to store weekdays and sale data
- d. No suggestion required

Show Answer

b. He should add show() function at the end of code

17. The interface of Matplotlib used for data visualization is

- a. Seaborn
- b. Anaconda
- c. matlab
- d. pyplot

Show Answer

d. pyplot

18. the best suitable real life example of data visualization is

- a. Percent of population by age group in India
- b. Google Analytics
- c. Solar system drawing
- d. Both a and b
- e. All of the above

Show Answer

d. both a and b

19. Which of the following is correct code to plot line chart with dotted linestyle?

- a. Plt.plot(x,y)
Plt.linestyle = "dotted"
Plt.show()
- b. Plt.plot(x,y)
Plt.linestyle("dotted")
Plt.show()
- c. Plt.plot(x,y, linestyle = "dotted")
Plt.show()
- d. All are correct

Show Answer

```
c. Plt.plot(x,y, linestyle = "dotted")
    Plt.show()
```

20. in the given chart, box surrounded with red border is called



- a. Label
- b. X label
- c. Y label
- d. Legend

Show Answer

b. X label

21. Which of the following is correct syntax to create histogram with bins specified?

- a. Plt.hist(x, bins=10)
- b. Plt.hist(x,bins = [10,11,12,13,14])
- c. Plt.hist(x, bins = range(10,15))
- d. All are correct

Show Answer

All are correct

22. If you install python IDLE, matplotlib is installed automatically.

- a. True
- b. False

Show Answer

b. False

23. The command to install Matplotlib library in python is

- a. Install pip matplotlib
- b. Install matplotlib
- c. Pip matplotlib
- d. Pip install matplotlib

Show Answer

d. Pip install matplotlib

24. in the given chart, box surrounded with red border is called



- a. Label
- b. X label
- c. Y label
- d. Legend

Show Answer

c. Y label

25. Select the correct statement to display horizontal box plot

- a. Plt.box(data, vert=False)
- b. Plt.box(data, horiz=True)
- c. Plt.boxplot(data, vert = False)
- d. Plt.boxplot(data, horiz = True)

Show Answer

c. Plt.boxplot(data, vert = False)

26. **box plot is visual representation of statistical _____ summary of given dataset**

- a. Three number
- b. Five number
- c. Seven number
- d. Nine number

Show Answer

b. Five Number

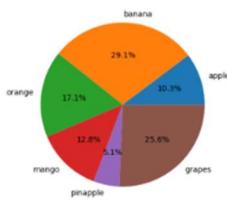
27. **To import pyplot module we can write**

- a. Import pyplot as plt
- b. Import matplotlib.pyplot
- c. Import matplotlib.pyplot as plt
- d. Both a and c
- e. Both b and c

Show Answer

e. Both b and c

28. **Chart given below is type of**



- a. Area Chart
- b. Pie Chart
- c. Surface Chart
- d. Bubble Chart

Show Answer

b. Pie Chart

29. **To create a chart, pyplot provides**

- a. figure()
- b. chart()
- c. plot()
- d. print()

Show Answer

c. plot()

30. Which of the following type of chart is not valid?

- a. Line
- b. Pie
- c. Curve
- D. Bar

Show Answer

- c. Curve

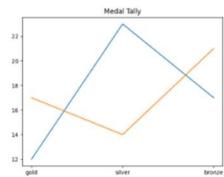
31. to create histogram pyplot provides

- a. hist()
- b. histo()
- c. histogram()
- d. histg()

Show Answer

- a. hist()

32. Look at the following graph and select appropriate code to obtain this output. (Please assume that pandas and matplotlib is already imported)



- a. medal = ['gold','silver','bronze']
delhi = [12,23,17]
mumbai = [17,14,21]
plt.plot(medal,delhi)
plt.plot(medal,mumbai)
plt.title("Medal Tally")
plt.show()
- b. df = d.DataFrame({'Delhi':[12,23,17],'Mumbai':[17,14,21]},index=['gold','silver','bronze'])
df.plot(kind = 'line')
plt.title("Medal Tally")
plt.show()
- c. df = d.DataFrame({'Delhi':[12,23,17],'Mumbai':[17,14,21]},index=['gold','silver','bronze'])
df.plot(kind = 'line', "Medal Tally")
plt.show()
- d. a and b
- e. a and c

Show Answer

- d. a and b

33. Which of the following option describes a pie chart?

- a. Comparison in different categories of data
- b. Relationship between two sets of numeric data
- c. Contribution of individual values to a total value
- d. Data trend over a period of time

Show Answer

- c. Contribution of individual values to a total value

34. We can display more than one data series together in

- a. Line
- b. Bar
- c. Pie
- d. Both a and b
- e. All of the above

[Show Answer](#)

d. Both a and b

35. Which of the following is best suitable chart to represent continuous data?

- a. Bar
- b. Line
- c. Scatter
- d. Histogram

[Show Answer](#)

d. Histogram

36. Consider the following code written to display a bar chart

```
X=range(0,40,8)  
Y=range(10,100,10)  
Plt.bar(X,Y)
```

While executing it, is producing error. Why?

- a. Both the sequences X and Y do not start with 0
- b. Both the sequence X and Y are not of same shape
- c. Values produced by range is not considered for chart
- d. Both the sequences X and Y have values with different intervals

[Show Answer](#)

b. Both the sequence X and Y are not of same shape

37. to create column chart we can use

- a. bar()
- b. barh()
- c. box()
- d. plot()

[Show Answer](#)

a. bar()

38. To view changes in data over a period of time we can use _____ chart.

- a. Line
- b. Bar
- c. Histogram
- d. Pie

Show Answer

- a. Line

39. Which shape of marker will be printed in the scatter chart made using following code

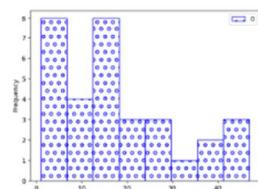
`plt.scatter(x,y,marker = 'D')`

- a. Down triangle
- b. Diamond
- c. Double circle
- d. Donut

Show Answer

- b. Diamond

40 .Identify the following chart type.



- a. Bar Chart
- b. Histogram
- c. Frequency Polygon
- d. Box Plot

Show Answer

- b. Histogram

41. which of the following is not a type of bar chart?

- a. Column chart
- b. Bar chart
- c. Histogram
- d. Scatter chart

Show Answer

- d. Scatter chart

42. Which of the following is correct syntax for displaying title on chart?

- a. plt.title = "My Title"
- b. plt.title()="My Title"
- c. plt.title["My Title"]
- d. plt.title("My Title")

Show Answer

- d. plt.title("My Title")**

43. In histogram, it describes the no of data points that falls within a range of given values

- a. bin
- b. bins
- c. range
- d. range()

Show Answer

- b. bins**

44. in the given chart, box surrounded with red color is called



- a. Data series
- b. Chart title
- c. Markers
- d. Legend

Show Answer

- b. Chart title**

45. The best suitable chart to display data trend is

- a. Line
- b. Bar
- c. Pie
- d. Histogram

Show Answer

- a. Line**

46. The difference between histogram and bar chart is

- (i). Bar chart is used to represent continuous values and histogram represent discrete values
- (ii). There is no gap between bars in histogram however in bar chart gap exists.

- a. (i) True, (ii) False
- b. (i) False, (ii) True
- c. Both are True
- d. Both are False

[Show Answer](#)

- b. (i) False, (ii) True

47. Which statement is not true about scatter chart?

- a. Also known as correlation chart
- b. It is primarily used to represent relation between two sets of data
- c. The closer the dots to line, the weaker the relation will be
- d. It uses dots to represent data points

[Show Answer](#)

- c. The closer the dots to line, the weaker the relation will be

48. A chart represent the _____ between different elements of data categories

- a. Relationship
- b. Difference
- c. Variance
- d. Similarity

[Show Answer](#)

- a. Relationship

49. Graph which can be plotted vertically or horizontally is

- a. Bar
- b. Scatter
- c. Line
- d. Pie

[Show Answer](#)

- a. Bar

50. in the given chart, points surrounded with circle is called



- a. Label
- b. Ticks
- c. Markers
- d. Series

[Show Answer](#)

- c. Markers

51. The value of _____ chart is calculated in terms of percentage.

- a. Histogram
- b. Boxplot
- c. Bar
- d. Pie

Show Answer

d. Pie

52. By default, Plot() function plots a

- a. Bar chart
- b. Pie chart
- c. Line chart
- d. Horizontal bar chart

Show Answer

c. Line chart

53. Which of the following option describes a column chart?

- a. Comparison in different categories of data
- b. Relationship between two sets of numeric data
- c. Contribution of individual values to a total value
- d. Data trend over a period of time

Show Answer

a. Comparison in different categories of data

54. Which of the following is not a method to create a chart using pyplot?

- a. pie()
- b. barh()
- c. plot()
- d. histg()

Show Answer

d. histg()

55. To represent proportionate contribution of individual data we can use _____ chart

- a. Line
- b. Bar
- c. Pie
- d. Scatter

Show Answer

c. Pie

56. Symbol which represent single data value(point) in a chart is called

- a. Ticks
- b. Marker
- c. Title
- d. Data labels

Show Answer

b. Marker

57. Which of the following is best suitable chart to show data correlation?

- a. Bar
- b. Histogram
- c. Pie
- d. Scatter

Show Answer

d. Scatter

58. Raju want to create scatter chart for the given data

X=[1,2,3,4]

Y= [12,23,16,28]

Help him to write correct code (important libraries are imported)

- a. Plt.plot(x,y,'o')
- b. Plt.scatter(x,y)
- c. Df=pd.DataFrame({'c1':x,'c2':y})
Df.plot(kind='scatter',x='c1',y='c2')
- d. a and b both
- e. All of the above

Show Answer

e. All of the above

59. Pyplot is a

- a. Module
- b. Library
- c. Function
- d. Collection

Show Answer

a. Module

60. The default type of histogram is

- a. Line
- b. Line with bar
- c. Bar
- d. bar with dots

[Show Answer](#)

c. Bar

61. Which of the following argument cannot be used with hist()?

- a. Bin
- b. Width
- c. Histtype
- d. Cumulative

[Show Answer](#)

a. Bin

62. By default hist() uses bin value of _____

- a. 5
- b. 10
- c. 15
- d. 20

[Show Answer](#)

b. 10

63. Which of the following website provides data freely to download and to do data analysis for educational purpose?

- a. data.gov.in
- b. digitalindia.gov.in
- c. data.mygov.in
- d. csc.gov.in

[Show Answer](#)

a. data.gov.in

64. _____ chart display only one data series at a time.

- a. Line
- b. Bar
- c. Pie
- d. Scatter

Show Answer

c. Pie

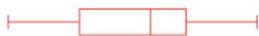
65. Which of the following data summary is not included in box plot?

- a. Median
- b. Quartile
- c. Count
- d. Maximum

Show Answer

c. Count

66. _____ represents a



- a. Frequency polygon
- b. Histogram
- c. Box plot
- d. Scatter plot

Show Answer

c. Box Plot

67. Box plot can be created by writing command

- a. Plt.box()
- b. Plt.boxplot()
- c. Plt.plot(kind='box')
- d. All of the above

Show Answer

b. Plt.boxplot()

68. which of the following is correct statement to save a chart using savefig()

- a. plt.savefig("graph.png")
- b. plt.savefig("graph.jpg")
- c. plt.savefig("graph.pdf")
- d. plt.savefig("graph.ppt")

Show Answer

d. plt.savefig("graph.ppt")

69. if the extention of file name is not given in savefig(), than file is saved with _____ extention

- a. png
- b. jpg
- c. pdf
- d. eps

Show Answer

a. png

70. From the following dataset

63,65,67,69,69,70,71,71,73,74,74,75,77,77,83,85,87

Create a horizontal boxplot (important libraries are included)

a. L=[63,65,67,69,69,70,71,71,73,74,74,75,77,77,83,85,87]

plt.boxplot(L, horiz = True)

plt.show()

b. L=[63,65,67,69,69,70,71,71,73,74,74,75,77,77,83,85,87]

plt.boxplot(L, orientation = False)

plt.show()

c. L=[63,65,67,69,69,70,71,71,73,74,74,75,77,77,83,85,87]

plt.boxplot(L, vert = False)

plt.show()

d. All are correct

Show Answer

```
c. L=[63,65,67,69,69,70,71,71,73,74,74,75,77,77,83,85,87]
     plt.boxplot(L, vert = False)
     plt.show()
```

71. Select the correct statement:

(i) We can specify width argument containing sequence to specify different width of the bars in bar chart

(ii) If x and y limits for a plot are not set , pyplot automatically sets the limits as per values of dataset

a. Both are true

b. Both are false

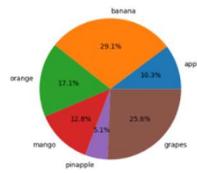
c. (i) true (ii) false

d. (i) false (ii) true

Show Answer

a. Both are true

72. Write appropriate code for given chart (important libraries are already included)



a. a=['apple','banana','orange','mango','pinapple','grapes']
b=[120,340,200,150,60,300]
plt.pie(a,b, autopct = '%1.1f%%')
plt.show()

b. a=['apple','banana','orange','mango','pinapple','grapes']
b=[120,340,200,150,60,300]
plt.pie(b,a, autopct = '%1.1f%%')
plt.show()

c. a=['apple','banana','orange','mango','pinapple','grapes']
b=[120,340,200,150,60,300]
plt.pie(b.labels = a, autopct = '%1.1f%%')
plt.show()

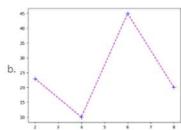
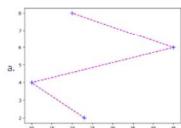
d. a=['apple','banana','orange','mango','pinapple','grapes']
b=[120,340,200,150,60,300]
plt.pie(a.labels = b, autopct = '%1.1f%%')
plt.show()

Show Answer

```
c. a=['apple','banana','orange','mango','pinapple','grapes']  
b=[120,340,200,150,60,300]  
plt.pie(b,labels = a, autopct = '%1.1f%%')  
plt.show()
```

73. predict the output of given code

```
import pandas as pd  
import matplotlib.pyplot as plt  
x=[2,4,6,8]  
y=[23,10,45,20]  
plt.plot(y,x,color='m',linestyle = 'dashed',marker = '+', markersize = 10,  
markeredgecolor = 'b')  
plt.show()
```



c. No Output
d. Error

Show Answer

a.

74. Which of the following is used to set the limit of x-axis of the plot?

a. Limit()
b. Limits()
c. Xlimit()
d. Xlimits()

Show Answer
d. Xlimits()

75. Argument used in pie() to create wedges out from the pie chart is

- a. Wedge
- b. Explode
- c. Slice
- d. fillet

[Show Answer](#)

b. Explode

1. Which of the following method make vector of repeated values?

- a) rep()
- b) data()
- c) view()
- d) read()

Answer: b

Explanation: data() load (often into a data.frame) built-in dataset.

2. Which of the following finds the position of a quantile in a dataset?

- a) quantile()
- b) barplot()
- c) barchart()
- d) rep()

Answer: a

Explanation: barplot() produces a bar graph.

3. Which of the following function cross-tabulate tables using formulas?

- a) table
- b) stem
- c) xtabs
- d) read

Answer: d

Explanation: table() list all values of a variable with frequencies.

4. Which of the following groups find the correlation matrix?

- a) factor.model
- b) col.max(x)
- c) stem
- d) which.max(x)

Answer: a

Explanation: factor.congruence is used to find the factor congruence coefficients.

5. which of the following statement make a mosaic plot?

- a) histogram()
- b) mosaicplot()
- c) bar()
- d) which.max(x)

Answer: b

Explanation: histogram() is lattice command for producing a histogram.

6. Which of the following compute proportions from a contingency table?

- a) par()
- b) prop.table()
- c) anova()
- d) mosaicplot()

Answer: b

Explanation: par() is used to query and edit graphical settings.

7. Which of the following is lattice command for producing a scatterplot?

- a) plot()
- b) lm()
- c) xyplot()
- d) anova()

Answer: c

Explanation: plot() produces a scatterplot.

8. Which of the following builds empirical cumulative distribution function?

- a) ecdf()
- b) cum
- c) cumsum
- d) lm()

Answer: a

Explanation: cumsum() is used to produce running total of values for input vector.

9. Which of the following is used to view dataset in a spreadsheet-type format ?

- a) Disp()
- b) View()
- c) Seq()
- d) lm()

Answer: b

Explanation: seq() make arithmetic progression vector.

10. _____ function carries out a chi-square test.

- a) chisq.test()
- b) t.test()
- c) prop.test()
- d) fisher.test()

Answer: a

Explanation: prop.test() is used to inference for 1 proportion using normal approx.

1. Which of the following adds marginal sums to an existing table?

- a) par()
- b) prop.table()
- c) addmargins()
- d) quantile()

Answer: b

Explanation: prop.table() computes proportions from a contingency table.

2. Which of the following lists names of variables in a data.frame?

- a) quantile()
- b) names()
- c) barchart()
- d) par()

Answer: a

Explanation: names function is used to associate name with the value in the vector.

3. Which of the following is tool for chi-square distributions?

- a) pchisq()
- b) chisq()
- c) pnorm
- d) barchart()

Answer: c

Explanation: pnorm() is tool for normal distributions.

4. Which of the following groups values of a variable into larger bins?

- a) cut
- b) col.max(x)
- c) stem
- d) which.max(x)

Answer: a

Explanation: stem() is used to make a stemplot.

5. Which of the following determine the least-squares regression line?

- a) histo()
- b) lm
- c) barlm()
- d) col.max(x)

Answer: b

Explanation: lm calls the lower level functions lm.fit.

6. Which of the following is tool for checking normality?

- a) qqline()
- b) qline()
- c) anova()
- d) lm()

Answer: a

Explanation: qqnorm is another tool for checking normality.

7. Which of the following is lattice command for producing boxplots?

- a) plot()
- b) bwplot()
- c) xyplot()
- d) barlm()

Answer: b

Explanation: The function bwplot() makes box-and-whisker plots for numerical variables.

8. Which of the following compute analysis of variance table for fitted model?

- a) ecdf()
- b) cum()
- c) anova()
- d) bwplot()

Answer: c

Explanation: ecdf() builds empirical cumulative distribution function.

9. Which of the following is used to find variance of all values?

- a) var()
- b) sd()
- c) mean()
- d) anova()

Answer: a

Explanation: sd() is used to calculate standard deviation.

10. The purpose of fisher.test() is _____ test for contingency table.

- a) Chisq
- b) Fisher
- c) Prop
- d) Stem

Answer: b

Explanation: prop.test() is used to inference for 1 proportion using normal approx.