

# IIBA

## Exam Questions CBDA

Certification in Business Data Analytics (IIBA - CBDA)



### NEW QUESTION 1

- (Topic 1)

Which attributes from the Order entity will need to be normalized to avoid redundancies?

- . OrderId
- . OrderDate
- . ItemId
- . ItemName
- . Quantity
- . ItemPrice

- A. OrderDate ItemPrice
- B. ItemName ItemPrice
- C. OrderDate ItemName
- D. Item Name Quantity

**Answer:** B

#### **Explanation:**

The attributes ItemName and ItemPrice need to be normalized to avoid redundancies because they depend on the attribute ItemId, which is not part of the primary key of the Order entity. This is a case of partial dependency, which violates the second normal form (2NF) of database normalization. To achieve 2NF, the Order entity should be split into two entities: Order and Item, where Item contains the attributes ItemId, ItemName, and ItemPrice, and Order contains the attributes OrderId, OrderDate, ItemId, and Quantity. This way, the ItemName and ItemPrice are stored only once for each ItemId, and the Order entity references them through a foreign key.

12 References: 1: Balancing Data Integrity and Performance: Normalization vs ?? 2: Normalization Process in DBMS - GeeksforGeeks

### NEW QUESTION 2

- (Topic 1)

The analytics team has been asked to assess sales data from their company's website with the hopes of providing insights to help increase online sales. It's the first time the team is looking at this specific data and they are concerned about the quality of data that has been captured. They decide to use the following approach as the next step:

- A. Trend Analysis
- B. Classification analysis
- C. Data Analysis
- D. Exploratory analysis

**Answer:** D

#### **Explanation:**

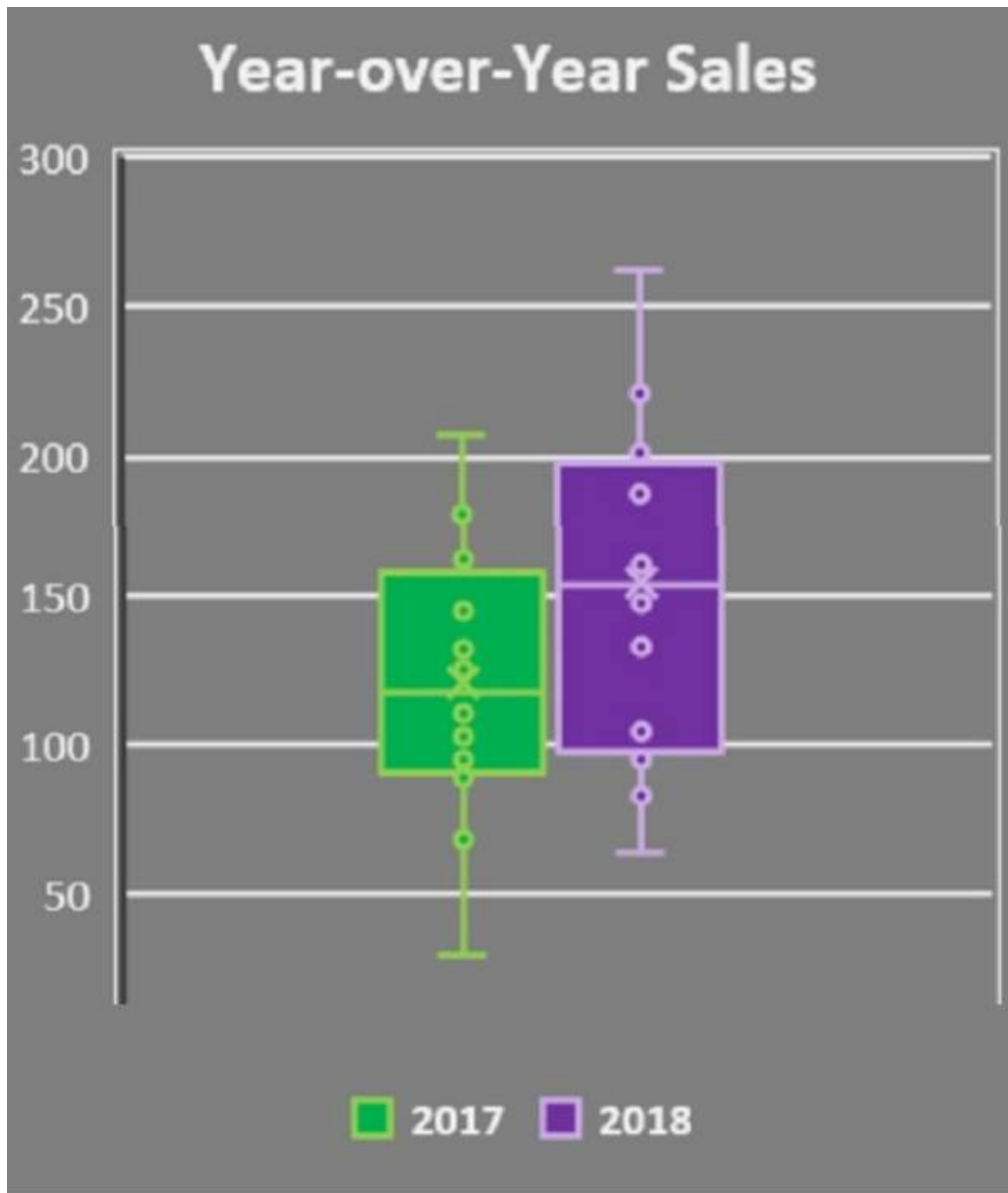
Exploratory analysis is the approach that the analytics team should use as the next step, because it is a technique that allows them to examine the quality, structure, and characteristics of the data, without making any assumptions or hypotheses. Exploratory analysis can help the team identify any issues or anomalies in the data, such as missing values, outliers, or errors, and decide how to handle them. Exploratory analysis can also help the team discover any patterns, trends, or relationships in the data, and generate new research questions or hypotheses for further analysis. References:

- Business Analysis Certification in Data Analytics, CBDA | IIBA®, CBDA Competencies, Domain 3: Analyze Data
- Understanding the Guide to Business Data Analytics, page 16
- CERTIFICATION IN BUSINESS DATA ANALYTICS HANDBOOK - IIBA®, page 8, CBDA Exam Sample Questions and Self-Assessment, Question 8

### NEW QUESTION 3

- (Topic 1)

A software company launched a new product in late 2016. The product manager is reviewing a Box and Whisker plot used to compare year-over-year sales, from 2017 to 2018. What is the conclusion he can make from this chart?



- A. 2017 minimum and maximum sales are higher than 2018, and the 2017 median result is higher than the 2018 median result
- B. 2017 minimum and maximum sales are higher than 2018, but the 2017 median result is lower than 2018 1st quartile result
- C. 2018 minimum and maximum sales are higher than 2017, and the 2018 quartile results are higher than 2017 quartile results
- D. 2018 minimum and maximum sales are higher than 2017, and the 2018 1st quartile is higher than 2017 median result

**Answer: D**

#### NEW QUESTION 4

- (Topic 1)

The analytics team has been asked to determine if the organization should launch their highest revenue generating product into the North American market. To date, this has only been available in Eastern Europe. To answer this, the team formulates several research questions, including:

- A. What product launch related costs can we expect?
- B. How much revenue does the product generate in Eastern Europe?
- C. Why does management need to know this?
- D. Do existing customers really like the product?

**Answer: D**

#### Explanation:

One of the steps in identifying the research questions for business data analytics is to assess the feasibility and desirability of the proposed solution or change<sup>1</sup>. This involves understanding the needs, preferences, and satisfaction of the existing and potential customers. Therefore, asking whether the existing customers really like the product is a relevant research question for the analytics team. References: 1: Guide to Business Data Analytics, IIBA, 2020, p. 22.

#### NEW QUESTION 5

- (Topic 1)

A job satisfaction survey is being developed. Half of the employees will be asked the question "Do you enjoy working in your workplace?" The other half will be asked "Do you like the current work benefits?". The business analyst raises concern over the survey. What is concerning to the business analyst?

- A. Precision
- B. Reproducibility
- C. Reliability
- D. Validity

**Answer: D**

**Explanation:**

The business analyst is concerned about the validity of the survey. Validity is the extent to which a survey measures what it intends to measure. In this case, the survey is supposed to measure job satisfaction, but the two questions asked to different groups of employees are not equivalent or relevant to this construct. The question ??Do you enjoy working in your workplace??? is more directly related to job satisfaction than the question ??Do you like the current work benefits???. The latter question may capture only one aspect of job satisfaction, and may not reflect the overall level of contentment or happiness with the job. Therefore, the survey results may not be valid or accurate in measuring job satisfaction

12 References: 1: Survey and questionnaires in business analysis - The Functional BA 2: Job Satisfaction Survey - Paul Spector

**NEW QUESTION 6**

- (Topic 1)

Operation managers are concerned about the increasing attrition rates in the call center. A series of interviews is being conducted with call center agents to collect information to better understand the problem. Interviewees will ask open and closed ended questions that are both quantitative and qualitative. Which of the following is considered a qualitative open-ended question?

- A. How does call volume contribute to job burnout?
- B. Would morale improve if you could work 2 days per week from home?
- C. How many calls on average do you service in an hour?
- D. Do you receive more calls on Mondays or Fridays?

**Answer:** A

**Explanation:**

A qualitative open-ended question is a question that allows the respondent to express their thoughts, feelings, or opinions in their own words, without being constrained by predefined options or categories. A qualitative open-ended question can help the interviewer explore the underlying reasons, motivations, or perceptions of the respondent. Option A is a qualitative open-ended question, because it asks the respondent to explain how call volume affects their job satisfaction and well-being, which may vary from person to person and require elaboration. Options B, C, and D are not qualitative open-ended questions, because they ask the respondent to choose between two alternatives (B and D) or provide a numerical value ©, which are quantitative and closed-ended responses.

References:

- Business Analysis Certification in Data Analytics, CBDA | IIBA®, CBDA Competencies, Domain 2: Source Data
- Understanding the Guide to Business Data Analytics, page 14
- CERTIFICATION IN BUSINESS DATA ANALYTICS HANDBOOK - IIBA®, page 8, CBDA Exam Sample Questions and Self-Assessment, Question 9

**NEW QUESTION 7**

- (Topic 1)

An analyst is looking at a particular dataset that includes the scores across all 8th grade students, across three schools. The analyst is trying to determine which type of statistics average to use to best represent the results. On looking through the dataset, the analyst has identified a few extreme outliers. As a result, the analyst was led to use the following type of average:

- A. Median
- B. Range
- C. Mean
- D. Mode

**Answer:** A

**Explanation:**

The median is the type of statistics average that the analyst should use to best represent the results, because it is a measure of central tendency that divides the data set into two equal halves. The median is the middle value of the data set when it is arranged in ascending or descending order. The median is not affected by extreme outliers, unlike the mean, which is the arithmetic average of the data set. The median can give a more accurate representation of the typical score of the 8th grade students across the three schools. Options B, C, and D are not types of statistics average, but types of statistics measures that describe other aspects of the data set. The range is a measure of dispersion that shows the difference between the highest and the lowest values of the data set. The mean is a measure of central tendency that shows the sum of the values of the data set divided by the number of values. The mode is a measure of central tendency that shows the most frequent value of the data set. References:

- Business Analysis Certification in Data Analytics, CBDA | IIBA®, CBDA Competencies, Domain 3: Analyze Data
- Understanding the Guide to Business Data Analytics, page 17
- Business Data Analytics (IIBA®-CBDA Exam preparation) | Udemy, Section 3: Analyze Data, Lecture 13: Descriptive Statistics

**NEW QUESTION 8**

- (Topic 1)

A company wants to gauge the thoughts of their employees towards a new company product. On the 25th of March the interviewer makes a list of all employees who were at work on that day and then chooses a subset of those employees to interview. Which term describes the list of all employees present on March 25th?

- A. Population of interest
- B. Survey sample
- C. Sampling frame
- D. Sample weights

**Answer:** C

**Explanation:**

The sampling frame is the term that describes the list of all employees present on March 25th, because it is a technique that defines the set of elements from which a sample is drawn. The sampling frame should ideally match the population of interest, which is the group of elements that the researcher wants to study or make inferences about. In this case, the population of interest is the employees of the company, and the sampling frame is the subset of employees who were at work on a specific day. The survey sample is the technique that selects a portion of the sampling frame to participate in the survey. The sample weights are the technique that assigns different values or importance to each element in the sample, based on their representation in the population. References:

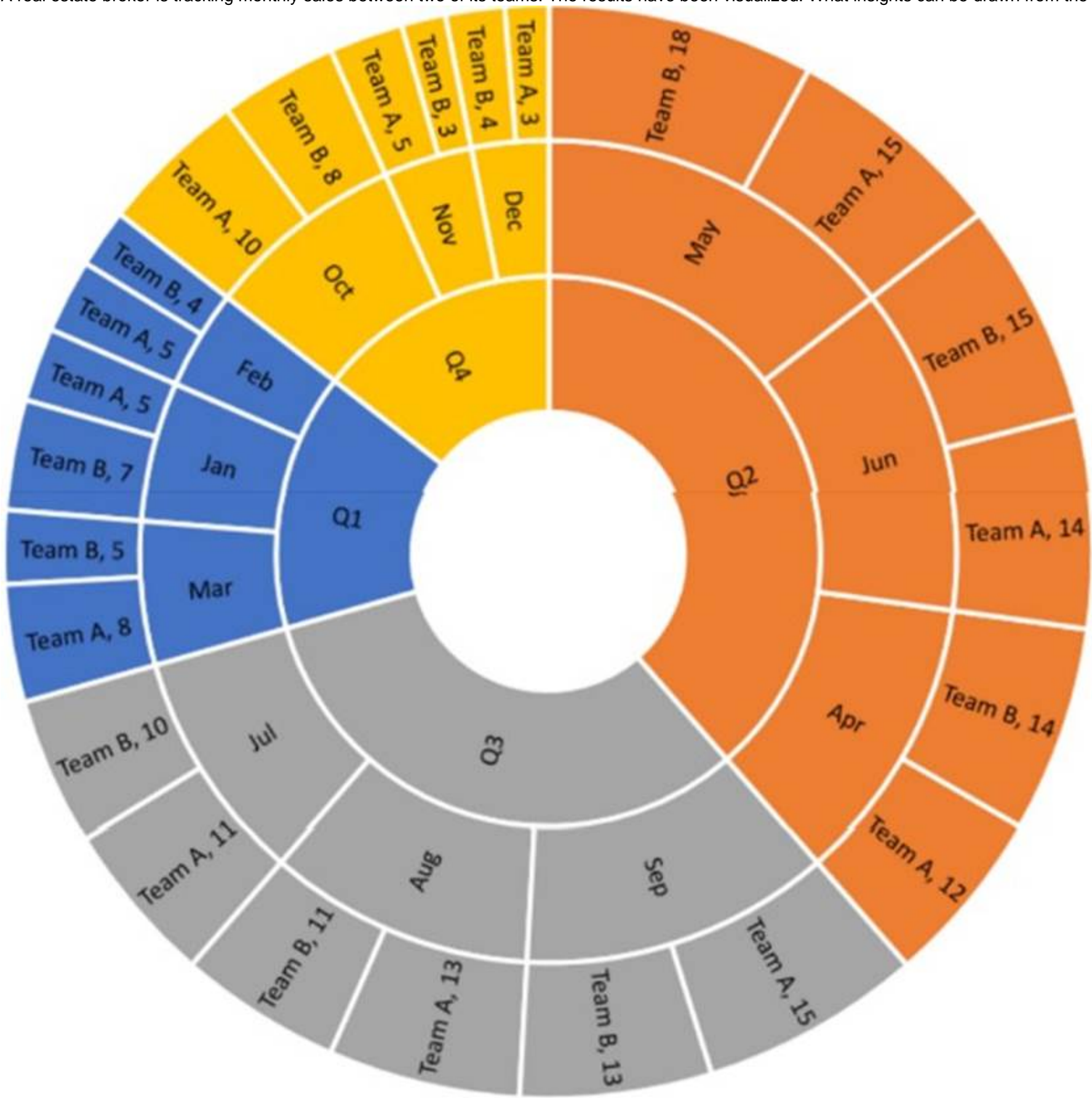
- Business Analysis Certification in Data Analytics, CBDA | IIBA®, CBDA Competencies, Domain 2: Source Data
- Understanding the Guide to Business Data Analytics, page 14
- CERTIFICATION IN BUSINESS DATA ANALYTICS HANDBOOK - IIBA®, page 8, CBDA Exam Sample Questions and Self-Assessment, Question 14



NEW QUESTION 9

- (Topic 1)

A real estate broker is tracking monthly sales between two of its teams. The results have been visualized. What insights can be drawn from the chart?



- A. Q2 was the strongest performing quarter with Team B having the top monthly sales in May
- B. Q3 was the strongest performing quarter with Team A having the top monthly sales in the quarter
- C. Q4 was the lowest performing quarter with November having the lowest monthly sales in the year
- D. Q4 was the lowest performing quarter with Team A having the lowest monthly sales in the Quarter

Answer: C

Explanation:

The chart visualizes monthly sales data for two teams over a year, divided into quarters. By analyzing the data, it is evident that November (part of Q4) had the lowest monthly sales in the year, making option C correct. There isn't enough information to verify the performance of individual teams in each quarter as per Business Data Analytics (IIBA®- CBDA) objectives and resources. References:  
•[Business Analysis Certification in Data Analytics, CBDA | IIBA®], CBDA Competencies, Domain 4: Interpret and Report Results  
•[Understanding the Guide to Business Data Analytics], page 9  
•[CERTIFICATION IN BUSINESS DATA ANALYTICS HANDBOOK - IIBA®], page 8, CBDA Exam Sample Questions and Self-Assessment, Question 7

NEW QUESTION 10

- (Topic 1)

A database analyst is modelling a database for a large toy manufacturer. Which statement describes a logical database model?

- A. The layer of views created to summarize data or provide another perspective of certain data
- B. A model that depicts the actual design of the relational database
- C. An abstraction of the conceptual data model that includes rules of normalization
- D. Modelling that involves objects being defined at the schema level

**Answer:** C

**Explanation:**

A logical database model is a data model of a specific problem domain expressed independently of a particular database management product or storage technology. It describes data using notation that corresponds to a data organization used by a database management system, such as relational tables and columns. It also includes rules of normalization, which are the process of converting complex data structures into simple, stable data structures<sup>12</sup> References: 1: Logical schema - Wikipedia 2: What Is a Data Model? | Coursera

**NEW QUESTION 10**

- (Topic 1)

The analytics team is assessing the results of their analysis. They are surprised to find that their data indicates two events seem to be strongly related even though the general belief in the organization is that they are independent of each other. Knowing that this information will be used for decision making, they are concerned about presenting this data. At an impasse, the business analysis professional reminds them that the data can be presented as long as the team has:

- A. Review the results with management ahead of time and highlight any potential risk of using this data
- B. Confidence that the correlation will reliably occur in the future and the risk of acting on this is low
- C. Followed all rules for data analysis endorsed as organizational standards so the risk of acting on this is low
- D. The ability to rerun the data analysis and the results are the same thereby minimizing the risk of acting on this

**Answer:** D

**Explanation:**

The ability to rerun the data analysis and the results are the same is the condition that the team should have before presenting the data, because it is a technique that ensures the validity, reliability, and reproducibility of the data analysis. By rerunning the data analysis, the team can verify that the results are consistent and not affected by random errors, biases, or anomalies. The team can also confirm that the data analysis process is well- documented, transparent, and traceable, and that the results can be replicated by other analysts or stakeholders. This can minimize the risk of acting on the data, and increase the confidence and trust in the data analysis. References:

- Business Analysis Certification in Data Analytics, CBDA | IIBA®, CBDA Competencies, Domain 4: Interpret and Report Results
- Understanding the Guide to Business Data Analytics, page 9
- Business Data Analytics (IIBA®-CBDA Exam preparation) | Udemy, Section 4: Interpretand Report Results, Lecture 20: Data Validation and Verification

**NEW QUESTION 13**

- (Topic 1)

A business analyst constructs a model they would like to review with key business stakeholders but decides to review the model first with the data scientist who has performed the data analysis. The data scientist provides some suggestions on how to reduce the complexity in the model. One suggestion is to use color to group objects needing to be associated. The data scientist is encouraging using which Gestalt Principle of Perception with regards to data visualization?

- A. Connection
- B. Proximity
- C. Similarity
- D. Enclosure

**Answer:** C

**Explanation:**

The data scientist is encouraging using the Gestalt Principle of Similarity with regards to data visualization. This principle states that the brain groups objects together that are similar in appearance, such as color, shape, size, or orientation. By using color to group objects needing to be associated, the data scientist is suggesting a way to reduce the complexity in the model and make it easier for the viewers to perceive the patterns and relationships among the data<sup>12</sup> References: 1: Gestalt Principles For Data Visualization - Topcoder 2: Introduction to Data Visualization: Gestalt Principles

**NEW QUESTION 16**

- (Topic 1)

There were 7 students enrolled in the Introduction to Artificial Intelligence course. These were the student's scores from the final exam: 64, 70, 80, 80, 90, 98, 100 What is the mean and mode for the outlined scores?

- A. 83.14, 80
- B. 79.84, 81.40
- C. 80,80
- D. 80, 83.14

**Answer:** A

**Explanation:**

The mean is the average of all the scores, which is found by adding them up and dividing by the number of scores. The mode is the most frequent score, which is the one that occurs the most times. To find the mean and mode for the outlined scores, we can use the following steps:

- Arrange the scores in ascending order: 64, 70, 80, 80, 90, 98, 100
- Add up the scores:  $64 + 70 + 80 + 80 + 90 + 98 + 100 = 582$
- Divide the sum by the number of scores:  $582 / 7 = 83.14$
- The mean is 83.14
- Count how many times each score occurs: 64 occurs once, 70 occurs once, 80 occurs twice, 90 occurs once, 98 occurs once, 100 occurs once
- The score that occurs the most times is 80
- The mode is 80

Therefore, the mean and mode for the outlined scores are 83.14 and 80, respectively<sup>12</sup> References: 1: Mean, median, and mode review (article) | Khan Academy 2: Mean, Median, and Mode: Measures of Central Tendency - Statistics By Jim

**NEW QUESTION 20**

- (Topic 1)

An analyst at a supermarket chain has been asked to extract data from multiple data sources to complete a study on customer spending habits. The analyst is going to query data from various databases. Which statement is true about database querying?

- A. Querying can be used to create predictive data models
- B. Irrespective of the querying language used, data results retrieved are always in a tabular format
- C. A querying language is independent of the type of database being used
- D. Querying is a structured way of searching, manipulating and managing data

**Answer:** D

**Explanation:**

Querying is a technique that allows analysts to access, filter, join, aggregate, and transform data from various databases using a specific syntax and logic<sup>1</sup>. Querying can be used for different purposes, such as data exploration, data preparation, data analysis, and data visualization<sup>2</sup>. Querying is not limited to creating predictive data models, nor does it always produce tabular results. Moreover, querying languages may vary depending on the type and structure of the database, such as relational, hierarchical, or document-based<sup>3</sup>. References: 1: Guide to Business Data Analytics, IIBA, 2020, p. 552: Data Analysis Using SQL and Excel, Gordon S. Linoff, 2016, p. 33: Database Systems: Design, Implementation, and Management, Carlos Coronel and Steven Morris, 2019, p. 17.

**NEW QUESTION 25**

- (Topic 1)

The research question prompting the use of analytics is well-defined. The team obtains the results and determines that the source data did not provide reliable results. As a result of this finding, the team modifies the original question to one that can be answered by the data. What is a risk that could impact the value of this analysis?

- A. The objective of the original research may not be met
- B. Timelines will be pushed out making stakeholders unhappy
- C. Increased costs associated with the source data
- D. The quality of the analysis may be negatively impacted

**Answer:** A

**Explanation:**

The risk that could impact the value of this analysis is that the objective of the original research may not be met, because the team modified the research question to fit the data, rather than finding the data that fits the research question. This could lead to a loss of alignment between the research question and the business problem, stakeholder needs, or analytical methods. The team may end up answering a different or less relevant question than the one they intended to answer, and thus provide less valuable insights or recommendations. References:

- Business Analysis Certification in Data Analytics, CBDA | IIBA®, CBDA Competencies, Domain 1: Identify the Research Questions
- Understanding the Guide to Business Data Analytics, page 10-11
- CERTIFICATION IN BUSINESS DATA ANALYTICS HANDBOOK - IIBA®, page 8, CBDA Exam Sample Questions and Self-Assessment, Question 10

**NEW QUESTION 30**

- (Topic 1)

Based on the financial analysis that's been completed by the analytics team, the business analysis professional reminds the team that the most financially feasible option is the one with the:

- A. Highest ROI, highest present value, lowest NPV and highest payback period
- B. Highest ROI, highest present value, highest NPV, and lowest payback period
- C. Highest ROI, lowest present value, lowest NPV and highest payback period
- D. Highest ROI, lowest present value, highest NPV and lowest payback period

**Answer:** B

**Explanation:**

The most financially feasible option is the one that maximizes the return on investment (ROI), the present value (PV), and the net present value (NPV), and minimizes the payback period. ROI measures the annual percentage return of an investment, PV measures the current value of future cash flows, NPV measures the difference between the PV and the initial cost of an investment, and payback period measures the time it takes to recover the initial cost of an investment. A higher ROI, PV, and NPV indicate a more profitable and valuable investment, while a lower payback period indicates a faster recovery and lower risk of an investment

**NEW QUESTION 31**

- (Topic 1)

A large car manufacturer is interested in comparing the number of sales for a specific model of electric car across all 50 US states.

The data analytics team sourced and acquired the data, and the business analyst created the model to compare sales across states.

In a meeting to review the results, the feedback received included several complaints concerning an inability to distinguish the number of sales per state. What model would result in such confusion?

- A. Bullet chart
- B. Dual axis chart
- C. Bar chart
- D. Pie chart

**Answer:** D

**Explanation:**

A pie chart is a circular chart that shows the proportion of each category in a whole by dividing the circle into slices. A pie chart would result in confusion when comparing the number of sales for a specific model of electric car across all 50 US states, because it is difficult to compare the angles and areas of the slices, especially when there are many categories with similar values. A pie chart also does not show the absolute values of each category, unless they are labeled or annotated<sup>12</sup>. A better alternative would be a bar chart, which can show the number of sales for each state along a common axis, making it easier to compare and rank the values<sup>3</sup>. References: 1: Guide to Business Data Analytics, IIBA, 2020, p. 652: Storytelling with Data, Cole Nussbaumer Knaflic, 2015, p. 673: The Visual Display of Quantitative Information, Edward R. Tufte, 2001, p. 178.

**NEW QUESTION 35**

- (Topic 1)



Insights based on the data collected indicate that a multi-national company could increase its sales of a mature product by reducing its price by 20% which would result in increased revenues of 2% over a 6-month period. The team recommends this as an appropriate goal for its organization. This is considered a good goal because:

- A. It meets all the criteria for a well-defined objective
- B. The organization can derive additional revenue from the product
- C. It indicates that the company does not have to incur costs associated with retiring this product
- D. Management will be pleased that the mature product can still contribute to revenue

**Answer:** A

**Explanation:**

A well-defined objective is one that is specific, measurable, achievable, relevant, and time-bound (SMART)<sup>1</sup>. The goal of increasing sales of a mature product by reducing its price by 20% which would result in increased revenues of 2% over a 6-month period meets all these criteria, as it clearly states what the desired outcome is, how it will be measured, whether it is realistic and attainable, how it aligns with the organization's strategy, and when it will be achieved<sup>2</sup>.

References: 1: Guide to Business Data Analytics, IIBA, 2020, p. 192: SMART Goals: How to Make Your Goals Achievable, MindTools, 2021, 1.

**NEW QUESTION 38**

- (Topic 1)

A Data Dictionary is being developed for an employee database. When reviewing the data dictionary, the analyst recommends adding another primitive data element. Which element would be suggested?

- A. Street address
- B. First name
- C. Customer name
- D. Work phone number

**Answer:** A

**Explanation:**

A street address is a primitive data element, because it is a basic unit of data that cannot be further decomposed into smaller components. A primitive data element has a distinct name, definition, format, and value domain. A street address can be used to identify the location of an employee or a customer, and it can be stored as a string or a combination of numbers and characters. Options B, C, and D are not primitive data elements, because they can be further broken down into smaller components. For example, a first name can be divided into a prefix, a given name, and a suffix. A customer name can be composed of a first name and a last name. A work phone number can be split into a country code, an area code, and a local number. References:

•Business Analysis Certification in Data Analytics, CBDA | IIBA®, CBDA Competencies, Domain 2: Source Data

•Business analysis data dictionary – The Functional BA

•CERTIFICATION IN BUSINESS DATA ANALYTICS HANDBOOK - IIBA®, page 8, CBDA Exam Sample Questions and Self-Assessment, Question 15

**NEW QUESTION 40**

- (Topic 1)

A professional association is funded by membership fees. The membership renewal occurs every 5 years. Although, they have a strong subscription rate each year, their renewal rate is low. They are working with an external firm specializing in Business Analytics to identify the groups of customers that have a high likelihood of cancelling their subscription after their first 5-year term ends. This type of study is called:

- A. Untrained learning
- B. Supervised learning
- C. Trained learning
- D. Unsupervised learning

**Answer:** D

**Explanation:**

Unsupervised learning is a type of study that involves finding patterns or clusters in data without any predefined labels or outcomes. It is useful for exploring data and discovering hidden structures or groups of customers. For example, the professional association can use unsupervised learning to identify the characteristics of customers who are likely to cancel their subscription after their first 5-year term ends, and then design strategies to retain them<sup>12</sup> References: 1: What is Unsupervised Learning? - IBM 2: Unsupervised Learning - IIBA BABOK Guide v3

**NEW QUESTION 41**

- (Topic 1)

Interested in building out the analytics capability based on the positive results obtained by past analytics efforts, the Chief Marketing Officer (CMO) pitches the idea of using analytics to guide future decision making across the enterprise. Before allocating budget to build up an enterprise analytics practice, the decision makers should:

- A. Request that a small team be assembled to brainstorm a list of capabilities to develop with any approved monies
- B. Identify the sponsor and a project manager who can collaborate on the development of the project charter
- C. Oversee the completion of up-front analysis to determine how value can be achieved through an enterprise-wide analytics practice
- D. Determine if the company has the sufficient resources to build up the analytics practice

**Answer:** C

**Explanation:**

Before investing in an enterprise analytics practice, the decision makers should have a clear understanding of the expected value and benefits of such a practice. This requires conducting an up-front analysis that identifies the business problems or opportunities that can be addressed by analytics, the data sources and technologies that are needed, the analytical models and methods that are appropriate, and the metrics and indicators that will measure the impact and outcomes of the analytics solutions<sup>12</sup>. This analysis will help to define the scope, objectives, and requirements of the enterprise analytics practice, as well as the resources, roles, and governance structures that are necessary to support it<sup>34</sup>. An up-front analysis will also help to prioritize the analytics initiatives based on their feasibility, alignment with the business strategy, and potential value creation



**NEW QUESTION 43**

- (Topic 1)

A financial software company has growth and expansion as one of their top strategic priorities for the year. The senior executive team would like to assess their sales performance over the last 3 years to help set sales objectives. In discussion with the business analytics manager, for a comprehensive sales report, the sales lead recommends looking into the number of contracts signed over the past 3 years and the dollar value for the signed contracts. Which other question is important to consider when evaluating sales performance?

- A. What is the time to market the software?
- B. What is the total cost incurred per year?
- C. What is the number of customers retained over the past 3 years?
- D. What is the average time for conversion?

**Answer: D**

**Explanation:**

The average time for conversion is the average number of days it takes to convert a lead into a customer. This is an important question to consider when evaluating sales performance, because it indicates the efficiency and effectiveness of the sales process. A shorter time for conversion means that the sales team can close more deals in less time, and thus increase the revenue and profitability of the company. A longer time for conversion may indicate that there are bottlenecks, challenges, or inefficiencies in the sales process that need to be addressed. References:

- Business Analysis Certification in Data Analytics, CBDA | IIBA®, CBDA Competencies, Domain 5: Use Results to Influence Business Decision Making
- Understanding the Guide to Business Data Analytics, page 9
- Business Data Analytics (IIBA®-CBDA Exam preparation) | Udemy, Section 4: Interpret and Report Results, Lecture 19: Sales Performance Metrics

**NEW QUESTION 46**

- (Topic 1)

Interested in experimenting with analytics, a manufacturing company hires an analyst to see how the capability can be developed within its organization. The analyst is getting started and recognizes the need to show value from the onset of their work to gain upper management's trust and future funding. What action will accomplish these objectives?

- A. Solve the biggest problem the organization has first to quickly grab the support and attention of senior management
- B. Develop a question that can be answered quickly regardless of alignment to strategy, just to get started
- C. Develop a meaningful question that can be answered with data the company already has in its possession
- D. Perform a market analysis to understand how competitors are using analytics and then launch a similar initiative

**Answer: C**

**Explanation:**

The best action for the analyst to show value from the onset of their work is to develop a meaningful question that can be answered with data the company already has in its possession. This way, the analyst can demonstrate the potential of analytics to solve relevant business problems, without spending too much time or resources on data collection or market research. The question should also be aligned with the organization's strategy and goals, and provide actionable insights for decision making<sup>12</sup>. References: 1: Guide to Business Data Analytics, IIBA, 2020, p. 202: Data Science for Business, Foster Provost and Tom Fawcett, 2013, p. 14.

**NEW QUESTION 47**

- (Topic 1)

The team has completed their analysis on a vast amount of collected data and agree on their recommendations for action.

However, they are having difficulty in developing the appropriate messages to support their recommendations. The business analysis professional suggests which technique to assist the team?

- A. T-Testing
- B. Simulation
- C. Visioning
- D. Storyboarding

**Answer: D**

**Explanation:**

Storyboarding is a technique that helps the team to develop the appropriate messages to support their recommendations by creating a visual sequence of the main points, evidence, and actions. Storyboarding helps the team to organize their thoughts, identify gaps, and communicate their findings in a clear and compelling way<sup>12</sup> References: 1: Developing Key Messages for Effective Communication - MSKTC 2: 11 Ways Highly Successful Leaders Support Their Team - Redbooth

**NEW QUESTION 50**

- (Topic 1)

An analyst at a phone manufacturing company is preparing a dashboard for Senior Executives that will cover past year's performance. It will be used in the upcoming senior leadership team meeting to make strategic decisions for the new year. While analyzing the data, the analyst found a lot of interesting revelations related to performance. What should the analyst keep in mind when preparing the Executive dashboard?

- A. Keep some sections high-level, and some sections detailed
- B. Keep it detailed if there is a lot of good information to share
- C. Keep it high-level, summarizing key insights and metrics
- D. Keep it detailed so one dashboard can be shared to all levels of the organization

**Answer: C**

**Explanation:**

When preparing an executive dashboard, the analyst should keep in mind that the purpose of the dashboard is to provide a quick and clear overview of the past year's performance and to support strategic decision making for the new year. Therefore, the analyst should keep the dashboard high-level, summarizing the key insights and metrics that are relevant and meaningful for the senior executives. The analyst should avoid cluttering the dashboard with too much detail or information that is not essential for the executives. The analyst should also use visual features, such as charts, graphs, and colors, to display the data in an organized and appealing way<sup>12</sup> References: 1:Executive Dashboards: 10 Reporting Tips and Examples [2023] • Asana 2: How to Create Executive Dashboard &

Reports - Ubiq BI

### NEW QUESTION 55

- (Topic 1)

An analyst is using a Data Flow Diagram (DFD) to depict the flow of data across a data security company. Which of the following is true about DFDs?

- A. Can be categorized as Logical or Physical
- B. Can illustrate a sequence of activities
- C. Provide similar information as process flows
- D. Are used to model data attributes

**Answer: A**

#### Explanation:

A Data Flow Diagram (DFD) is a technique that shows the flow of data among processes, data stores, and external entities in a system. DFDs can be categorized as logical or physical, depending on the level of detail and abstraction. A logical DFD focuses on the business functions and data flows, without specifying the implementation details. A physical DFD shows the actual components and mechanisms that are involved in the data flow, such as hardware, software, files, and network connections. References:

- 10.13 Data Flow Diagrams | IIBA® - International Institute of Business ??, menu, 10.13 Data Flow Diagrams
- Business Analysis Certification in Data Analytics, CBDA | IIBA®, CBDA Competencies, Domain 2: Source Data
- Introduction to Business Data Analytics: Organizational View, page 16, Figure 6: Data Flow Diagram

### NEW QUESTION 58

- (Topic 2)

Results of the data analysis have been analyzed and the team was confident with the results but also quite surprised the outcome was not what was expected. In pondering the value of what can be gleaned from the data, the team has no feasible solution to put forth to address the business need. A logical next step would be to:

- A. Repeat the business analytics cycle with the formation of a new research question
- B. Provide the results to a 2nd analytics team to see if similar conclusions are drawn
- C. Analyze the data again, to determine if any insights were overlooked
- D. Check the quality of the data that was used for the analysis

**Answer: A**

#### Explanation:

According to the Guide to Business Data Analytics, the business analytics cycle is an iterative process that consists of four phases: identify the research questions, source data, analyze data, and interpret and report results. The cycle can be repeated as many times as needed until the business problem or opportunity is addressed or resolved. In this situation, the team was confident with the results but also surprised that the outcome was not what was expected. This means that the initial research question may not have been relevant, specific, or testable enough to provide a feasible solution for the business need. Therefore, a logical next step would be to repeat the business analytics cycle with the formation of a new research question that is more aligned with the business goal, scope, and context.

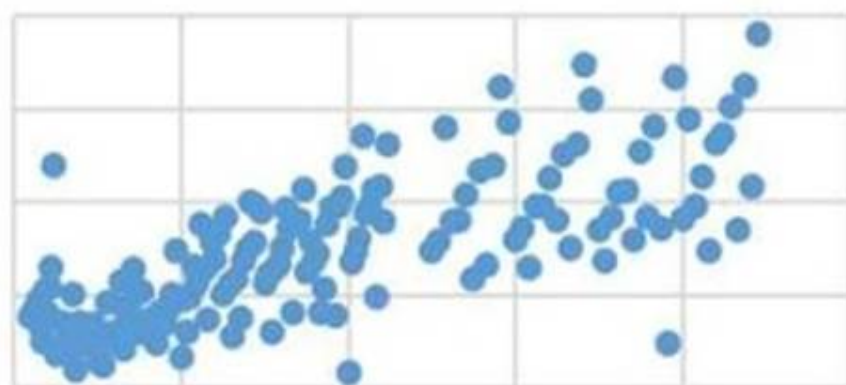
References: Guide to Business Data Analytics, page 47-48; CBDA Exam Blueprint, page 7; [Introduction to Business Data Analytics: A Practitioner View], page 15.

### NEW QUESTION 60

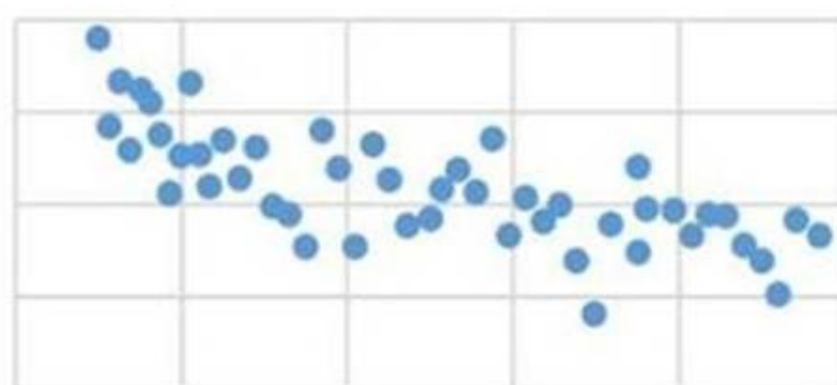
- (Topic 2)

DIAGRAM TAKEN

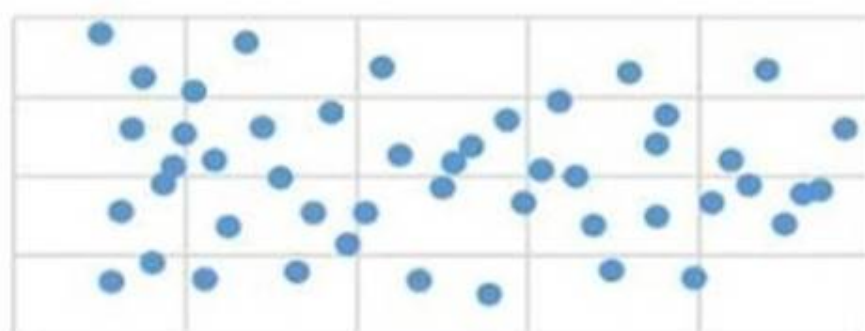
A data scientist is analyzing a dataset to determine if there is a strong relationship between two variables. A measure of covariance is done. Which of the following graphs indicate Zero Covariance between variables?



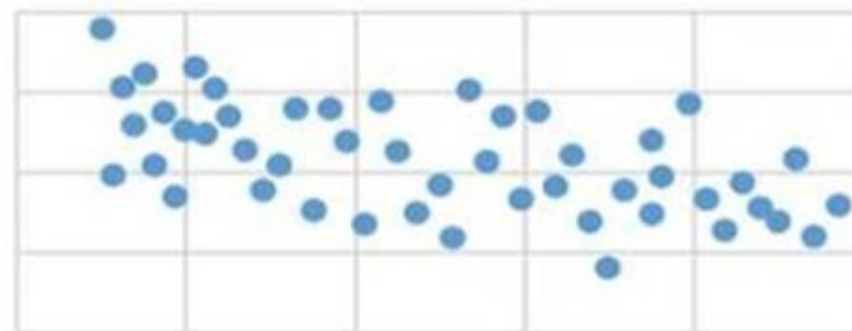
1.



2.



3.



4.

- A. 3
- B. 1
- C. 4

D. 2

**Answer:** C

**Explanation:**

In the context of Business Data Analytics (IIBA®- CBDA), zero covariance between two variables indicates that there is no linear relationship between those variables. When the covariance is zero, it means the variables are independent of each other. In the provided options, graph 4 shows a random scatter of data points without any apparent trend or pattern, indicating zero covariance.

References: The explanation is in alignment with the concepts and principles outlined in IIBA's resources on Business Data Analytics, particularly focusing on statistical analysis and data interpretation.

**NEW QUESTION 62**

- (Topic 2)

A data scientist is working with a team of upper level managers to develop a strategy for creating an enterprise analytics program. What critical success factor would help ensure the organization obtains the most value from its data?

- A. Management is aware of the value of data science and ensures support for all tactical initiatives
- B. A sponsor is identified that helps champion the work
- C. Management thinks analytically and fosters a culture where data science thrives
- D. The data science team supports the functional units and priorities

**Answer:** C

**Explanation:**

According to the Introduction to Business Data Analytics: An Organizational View, one of the critical success factors for creating an enterprise analytics program is to have a management team that thinks analytically and fosters a culture where data science thrives. This means that the management team should understand the potential value and impact of data science, promote a data-driven mindset and decision-making process, encourage innovation and experimentation, and support collaboration and learning among the data science team and other stakeholders. A management team that thinks analytically and fosters a culture where data science thrives can help create a strategic vision, align the goals and objectives, allocate the resources and investments, and overcome the challenges and barriers for the enterprise analytics program.

References: Introduction to Business Data Analytics: An Organizational View, page 8- 9; CBDA Exam Blueprint, page 8; Guide to Business Data Analytics, page 85-86.

**NEW QUESTION 63**

- (Topic 2)

As the organization looks to advance its analytics practices, the topic of provisioning access to executive dashboards and visualizations is under discussion. Establishing standards and implementing role based logins to executive dashboards will address:

- A. Data management
- B. Data security
- C. Data governance
- D. Content management

**Answer:** B

**Explanation:**

According to the Guide to Business Data Analytics, data security is the protection of data from unauthorized access, use, modification, or destruction. Data security includes the policies, procedures, and technologies that ensure the confidentiality, integrity, and availability of data. Data security is an important aspect of data management, which is the planning, execution, and oversight of the data lifecycle. Data security is also related to data governance, which is the establishment and enforcement of rules, roles, and responsibilities for data quality, access, and usage. Data security is not the same as content management, which is the creation, storage, distribution, and maintenance of digital content.

One of the ways to enhance data security is to provision access to executive dashboards and visualizations based on the roles and permissions of the users. This can help prevent unauthorized or inappropriate access to sensitive or confidential data, as well as ensure compliance with data privacy and ethical standards. By establishing standards and implementing role based logins to executive dashboards, the organization can address the data security needs of its analytics practices.

References: Guide to Business Data Analytics, page 52-53; CBDA Exam Blueprint, page 7; Introduction to Business Data Analytics: An Organizational View, page 10.

**NEW QUESTION 65**

- (Topic 2)

The finance manager has reported that customers are taking much longer to remit payments this year than last. They would like help in finding a solution to address the situation. One suggestion was to offer a 10% discount to entice customers to pay their invoices in full within the first 30 days. Before offering the discount, the finance manager would like the analytics team to do some research to determine if there is value in addressing the accounts receivable problem. Which of the following is a valid question to ask in this situation?

- A. Have discounts been offered before?
- B. Are sales decreasing when accounts receivables are increasing?
- C. How does credit score impact the customer's ability to pay?
- D. Should the discount offered be set at 10% or 15%?

**Answer:** A

**Explanation:**

According to the Guide to Business Data Analytics, one of the steps in conducting business data analytics is to identify the research questions that will guide the analysis and help answer the business problem or opportunity. The research questions should be relevant, specific, measurable, achievable, and testable. In this situation, the business problem is the delay in customer payments and the potential solution is to offer a discount. A valid question to ask in this situation is whether discounts have been offered before, and if so, what was the effect on customer behavior and profitability. This question is relevant because it can help assess the feasibility and effectiveness of the proposed solution. It is also specific, measurable, achievable, and testable, as it can be answered by collecting and analyzing historical data on customer payments and discounts.

References: Guide to Business Data Analytics, page 47-48; CBDA Exam Blueprint, page 7; [Introduction to Business Data Analytics: A Practitioner View], page 15.



**NEW QUESTION 70**

- (Topic 2)

A future state data model is created to depict how information will be structured in a proposed solution but the analyst is also interested in modeling how and when data is transformed throughout various processes across the organization. In which model would the analyst find this information?

- A. Process flows
- B. Data flow diagram
- C. Data transformation model
- D. Physical data model

**Answer: B**

**Explanation:**

A data flow diagram (DFD) is a graphical representation of how data flows and transforms through a system or process. A DFD shows the sources and destinations of data, the data inputs and outputs, the data transformations and logic, and the data stores and flows. A DFD can help the analyst model how and when data is transformed throughout various processes across the organization, as well as identify potential data quality issues, bottlenecks, and redundancies. A DFD can also complement a future state data model by showing the relationships and dependencies among the data entities and attributes. References:

? Certification in Business Data Analytics (IIBA® - CBDA), IIBA, accessed on January 20, 2024.

? Business Data Analytics Certification - CBDA Competencies | IIBA®, IIBA, accessed on January 20, 2024.

? Guide to Business Data Analytics, IIBA, 2020, p. 19-20.

? Data Flow Diagram - Everything You Need to Know About DFD, Visual Paradigm, accessed on January 20, 2024.

**NEW QUESTION 75**

- (Topic 2)

A toy manufacturing company wants to improve operational efficiencies as a means of reducing costs. The Operational Manager wants an analytics study to identify areas of improvement within their operational processes. During a meeting with the analyst, the Operational Manager mentions concerns about old machinery and suggests this be the area of focus for the study. They can have a touchpoint in three weeks to assess progress. Has the Operational Manager limited the potential of this study?

- A. By providing the focus area of the study, the Operational Manager has limited the scope of the study with their biased opinion
- B. The Operational Manager is the expert, so there is no problem in the manager providing guidance to the analyst
- C. The Operational Manager has limited the scope of the budget by providing a timeline of three weeks
- D. Since the study is being funded by the Operational Manager, providing the focus areas helps the analyst stay on track with time and budget

**Answer: A**

**Explanation:**

According to the Guide to Business Data Analytics, one of the key competencies of a business data analyst is to identify the research questions that guide the analytics work<sup>1</sup>. The research questions should be based on the business problem or opportunity, the stakeholder needs, and the data availability and quality<sup>2</sup>. By providing the focus area of the study, the Operational Manager has limited the scope of the study with their biased opinion, as they have not considered other possible factors that might affect the operational efficiencies, such as demand, inventory, quality, labor, or customer satisfaction. The Operational Manager has also not involved other stakeholders who might have different perspectives or interests in the study. This could lead to a narrow or incomplete analysis that might miss some important insights or recommendations. The Operational Manager should instead collaborate with the analyst to define the research questions that are relevant, specific, measurable, achievable, and time-bound<sup>3</sup>.

The other options are not correct, as they do not address the issue of defining the research questions. The Operational Manager is not necessarily the expert on the operational processes, as they might have a limited or biased view of the situation. The Operational Manager has not limited the scope of the budget by providing a timeline of three weeks, as this is a reasonable time frame for an analytics study, depending on the complexity and availability of the data. The Operational Manager has not helped the analyst stay on track with time and budget by providing the focus areas, as this might actually waste time and resources if the focus areas are not aligned with the actual business problem or opportunity.

References: <sup>1</sup> Guide to Business Data Analytics, IIBA, 2020, p. 312; <sup>2</sup> Introduction to Business Data Analytics: A Practitioner View, IIBA, 2019, p. 113; <sup>3</sup> Introduction to Business Data Analytics: An Organizational View, IIBA, 2019, p. 12.

**NEW QUESTION 76**

- (Topic 2)

A consumer product company has recently seen decline in sales in their athletic wear over the last 3 quarters. Along with a customer satisfaction survey on their athletic wear products, a study on the competitive market has been initiated. The analyst working has created a dashboard, integrating the results from the market study with customer feedback. On reviewing with the analytics manager, the feedback received was that the visuals were powerful, but the dashboard lacked narrative. What does the manager mean by this?

- A. Commentary around why each visual was selected to depict the data will provide context
- B. More commentary needs to be added to add value to the audience
- C. Adding a story example will augment the experience for the audience
- D. Insights need to be supported by context and comments to engage the audience

**Answer: D**

**Explanation:**

According to the Guide to Business Data Analytics, a narrative is a way of communicating the results of data analysis in a clear, concise, and compelling manner. A narrative should include the following elements: the purpose of the analysis, the main findings and insights, the implications and recommendations, and the evidence and reasoning. A narrative should also use appropriate language, tone, and style for the intended audience and medium. A narrative can enhance the impact and value of the data analysis by providing context, explanation, and interpretation of the data, as well as by highlighting the key messages and actions. A dashboard that lacks narrative may not be able to convey the full meaning and significance of the data, and may not be able to engage the audience or influence their decision-making.

References: Guide to Business Data Analytics, page 81-83; CBDA Exam Blueprint, page 8; [Introduction to Business Data Analytics: A Practitioner View], page 25-26.

**NEW QUESTION 77**

- (Topic 2)



A food and beverage company would like to administer a survey to obtain customer insights about a new cookie product recently launched. A data team is asked to build the survey paying careful attention to reduce the degree of sampling error. Which criteria would help the team meet this objective?

- A. Large sample size and variation in the target population
- B. Large sample size and random selection of the target population
- C. Small sample size and specific subset of the target population
- D. Small sample size and using customers who agreed to take the survey

**Answer: B**

**Explanation:**

Sampling error is the difference between the results obtained from a sample and the results obtained from the population from which the sample is drawn<sup>1</sup>. Sampling error can affect the validity, reliability, and generalizability of the survey results<sup>2</sup>. To reduce the degree of sampling error, the data team should use a large sample size and a random selection of the target population. A large sample size means that the sample is more likely to represent the diversity and variability of the population, and that the results are more precise and accurate<sup>3</sup>. A random selection of the target population means that every member of the population has an equal chance of being included in the sample, and that the results are less biased and more representative<sup>4</sup>. The other criteria would not help the team meet this objective, as they would increase the degree of sampling error. A large sample size and variation in the target population would not reduce the sampling error, as variation refers to the differences or heterogeneity within the population, not the sample. Variation in the target population can increase the sampling error, as it makes it harder to capture the true characteristics of the population with a sample<sup>5</sup>. A small sample size and specific subset of the target population would not reduce the sampling error, as they would make the sample less representative and more prone to bias. A small sample size means that the sample is less likely to reflect the diversity and variability of the population, and that the results are less precise and accurate. A specific subset of the target population means that the sample is not randomly selected, but based on some criteria or convenience, and that the results are more biased and less representative. A small sample size and using customers who agreed to take the survey would not reduce the sampling error, as they would also make the sample less representative and more prone to bias. A small sample size has the same drawbacks as mentioned above. Using customers who agreed to take the survey means that the sample is not randomly selected, but based on self-selection or voluntary response, and that the results are more biased and less representative.

References:1: Guide to Business Data Analytics, IIBA, 2020, p. 542: Introduction to Business Data Analytics: A Practitioner View, IIBA, 2019, p. 223: Data Analysis: The Definitive Guide, Tableau, 4: Data Analysis: The Definitive Guide, Tableau, 5: Data Analysis: The Definitive Guide, Tableau, . : Data Analysis: The Definitive Guide, Tableau, . : Data Analysis: The Definitive Guide, Tableau, . : Data Analysis: The Definitive Guide, Tableau, . : Guide to Business Data Analytics, IIBA, 2020, p. 54. : Introduction to Business Data Analytics: A Practitioner View, IIBA, 2019, p. 22. : Data Analysis: The Definitive Guide, Tableau, . : Data Analysis: The Definitive Guide, Tableau, . : Data Analysis: The Definitive Guide, Tableau, . : Data Analysis: The Definitive Guide, Tableau, . : Data Analysis: The Definitive Guide, Tableau, . : Data Analysis: The Definitive Guide, Tableau, .

**NEW QUESTION 80**

- (Topic 2)

Allegra Consulting is planning on establishing an analytics system to track career progression of their consultants. Elicitation will be used to identify the required features. How would brainstorming be used to prepare for elicitation?

- A. To identify sources of business information to consider
- B. To identify the key metrics to be collected
- C. Determine the value for establishing the analytics system
- D. To choose the statistical methods required

**Answer: A**

**Explanation:**

According to the Guide to Business Data Analytics, one of the tasks under the domain of ??Identify the Research Questions?? is to identify sources of business information to consider. This task involves reviewing existing business information, such as documents, reports, databases, and systems, to determine what data is available, relevant, and reliable for answering the research questions. This task also involves identifying any gaps or limitations in the existing information and proposing ways to address them. References: Guide to Business Data Analytics, page 18-19; CBDA Exam Blueprint, page 6. Learn more1iiba.org2iiba.org3processexam.com

**NEW QUESTION 81**

- (Topic 2)

A clinical research organization is using predictive analytics to improve patient safety and decrease costs on its clinical trials. To ensure that a standard set of tools/techniques is identified and best practices adhered to, teams are required to create scenarios to generate appropriate data for initial analysis. This practice is required because it is almost certain that data will be difficult to come by for most research. Which concern would lead the team to establish scenario development as a required technique?

- A. Data validity
- B. Data privacy
- C. Data reliability
- D. Data reproducibility

**Answer: A**

**Explanation:**

Data validity refers to the extent to which data accurately represents the phenomenon or concept that it is intended to measure<sup>1</sup>. Data validity is essential for predictive analytics, as it affects the quality and credibility of the analysis results and the subsequent decisions or actions based on them. If data is invalid, the predictions may be inaccurate, misleading, or irrelevant. However, data validity may be challenging to ensure in clinical research, as data may be scarce, incomplete, inconsistent, or subject to errors or biases<sup>2</sup>. Therefore, the team may establish scenario development as a required technique to address this concern. Scenario development is a form of document analysis that involves creating hypothetical situations or stories based on assumptions, evidence, and logic to explore the possible outcomes or implications of a problem or opportunity<sup>3</sup>. Scenario development can help the team generate appropriate data for initial analysis by simulating different conditions, variables, or events that may affect the clinical trials, and by testing the validity of the data against the scenarios<sup>4</sup>. References:1: Validity in data collection methods - OpenLearn - Open University, 2: Data Quality in Clinical Research - NCBI - NIH, 3: Scenario Analysis: How It Works and Examples - Investopedia, 4: Predictive Analytics using simulation models - AnyLogic

**NEW QUESTION 85**

- (Topic 2)

A job satisfaction study is being considered. Half of the employees of the company will be interviewed by senior managers and the other half of the employees will be interviewed by an external market research company, using the same set of questions. Which of the following might be a concern for using this approach to collect study data?

- A. Reliability
- B. Validity
- C. Timeliness
- D. Precision

**Answer:** A

**Explanation:**

Reliability is the degree to which a data collection method produces consistent results under the same conditions<sup>1</sup>. In this case, the reliability of the study data might be compromised by the different interviewers (senior managers vs. external market research company), who might have different biases, expectations, or rapport with the employees. This could affect how the employees respond to the same set of questions, and thus introduce variability in the data. Validity, timeliness, and precision are not directly affected by the choice of interviewers, as they depend more on the quality, relevance, and accuracy of the questions and the data analysis. References: 1: Guide to Business Data Analytics, IIBA, 2020, p. 26.

**NEW QUESTION 90**

- (Topic 2)

The analytics team has completed their analytics work and have agreed on a set of five key recommendations. They are now discussing how best to communicate these recommendations to the finance, customer service, and marketing teams. Recognizing that this is a diverse set of stakeholders, the business analysis professional reminds the team:

- A. All stakeholders should receive information about the recommendation in the same way
- B. Stakeholders only have the ability to understand summarized recommendations
- C. Recommendations are important and must be communicated with as much detail as possible
- D. The recommendation should be communicated in different ways for different stakeholders

**Answer:** D

**Explanation:**

According to the Guide to Business Data Analytics, the recommendation is the output of the data analysis that provides suggestions or guidance for actions or decisions based on the data insights. The recommendation should be communicated in different ways for different stakeholders, depending on their needs, preferences, and expectations. The communication should consider the following factors:

? The level of detail and complexity: Some stakeholders may require more or less detail and complexity in the recommendation, depending on their role, responsibility, and involvement in the data analysis project. For example, the finance team may need more detail and complexity than the customer service team, as they are more concerned with the financial implications and feasibility of the recommendation.

? The format and medium: Some stakeholders may prefer different formats and mediums for receiving the recommendation, depending on their availability, accessibility, and learning style. For example, the marketing team may prefer a visual and interactive format, such as a dashboard or a presentation, than a textual and static format, such as a report or a document.

? The tone and language: Some stakeholders may respond better to different tones and languages for the recommendation, depending on their culture, background, and personality. For example, some stakeholders may appreciate a formal and professional tone and language, while others may prefer a casual and friendly tone and language.

The communication should also follow the principles of clarity, accuracy, relevance, and timeliness, as well as adhere to the ethical and legal standards for data privacy and security.

References: Guide to Business Data Analytics, page 50-51; CBDA Exam Blueprint, page 7; [Introduction to Business Data Analytics: A Practitioner View], page 16.

**NEW QUESTION 91**

- (Topic 2)

A small business has recently launched their website and wants to understand how the website is being used. In particular, there is interest in identifying which areas of each page receive the most attention. The analyst has decided to communicate this information by displaying the top pages overlaid with colours denoting the volume of clicks. What type of visualization technique is being used here?

- A. Surface chart
- B. Heatmap
- C. Treemap
- D. Scatter chart

**Answer:** B

**Explanation:**

According to the Guide to Business Data Analytics, a heatmap is a type of visualization technique that uses colours to represent the values of a variable across a two-dimensional space. A heatmap can help reveal patterns, trends, and outliers in the data, as well as show the relative importance or intensity of different areas.

In this situation, the analyst has decided to communicate the information about the website usage by displaying the top pages overlaid with colours denoting the volume of clicks. This is a heatmap, as it uses colours to show the distribution and magnitude of clicks across the web pages. References: Guide to Business Data Analytics, page 61; CBDA Exam Blueprint, page 7; Heat Maps | Trendz Analytics

**NEW QUESTION 95**

- (Topic 2)

The data analysis completed by the analytics team points to three potential options that could be recommended by the team each of which will help their organization meet their desired goal. Given that there is no significant difference in the results that each option would provide, the team will reach a final recommendation by determining value to be delivered to specific parts of the organization and:

- A. Within the functional unit with the most staff
- B. By which manager wants the change the most
- C. Assessing the impact of change for each one
- D. By obtaining a decision by senior management

**Answer:** C

**Explanation:**

According to the IIBA's Guide to Business Data Analytics, one of the steps in the data analysis process is to use the results to influence business decision making. This involves evaluating the feasibility, viability, and desirability of the potential options or solutions that are derived from the data analysis, and recommending the best option or solution that aligns with the business goals and objectives<sup>1</sup>. To evaluate the feasibility, viability, and desirability of the options or solutions, the data analysis team should consider the value to be delivered to specific parts of the organization and the impact of change for each one. The value to be delivered refers to the benefits, outcomes, or improvements that the option or solution will provide to the stakeholders, customers, or processes of the organization. The impact of change refers to the costs, risks, or challenges that the option or solution will entail for the implementation, adoption, or maintenance of the organization. By assessing the value and the impact of each option or solution, the data analysis team can compare and contrast the trade-offs, pros and cons, and strengths and weaknesses of each option or solution, and select the one that maximizes the value and minimizes the impact for the organization<sup>2</sup>. The other options are not correct criteria for reaching a final recommendation. The functional unit with the most staff, the manager who wants the change the most, and the senior management are not relevant factors for evaluating the options or solutions, as they do not reflect the value or the impact of the options or solutions. The functional unit with the most staff may not be the most affected or the most important part of the organization for the data analysis project. The manager who wants the change the most may not have the authority, influence, or expertise to make the best decision for the organization. The senior management may not be the only or the final decision makers for the data analysis project, as they may delegate, consult, or collaborate with other stakeholders or experts. References:1: Guide to Business Data Analytics, IIBA, 2020, p. 572: Guide to Business Data Analytics, IIBA, 2020, p. 58. : Guide to Business Data Analytics, IIBA, 2020, p. 57. : Guide to Business Data Analytics, IIBA, 2020, p. 58.

**NEW QUESTION 100**

- (Topic 2)

An analyst is tasked with helping the sales team make better use of its data to support informed business decision making. The analyst creates the following research question 'How can shipping costs be lowered in the northeast to remain competitive?'. This question:

- A. Is sufficient to begin analytics work and can be revised after analysis
- B. Is adequately stated and scopes the analytics initiative
- C. Needs to be further defined before mathematical modeling can begin
- D. Needs to be more broadly focused to frame the research

**Answer: C**

**Explanation:**

According to the Guide to Business Data Analytics, a research question is a clear, concise, and specific question that guides the analytics work<sup>1</sup>. The research question should be SMART: Specific, Measurable, Achievable, Relevant, and Time-bound<sup>2</sup>. The question 'How can shipping costs be lowered in the northeast to remain competitive?' is not SMART, as it lacks some important details, such as:

- ? What is the current shipping cost and the target cost reduction?
- ? What are the criteria for measuring competitiveness?
- ? What is the time frame for achieving the cost reduction and competitiveness?
- ? What are the factors that influence the shipping cost and competitiveness?
- ? What are the assumptions and constraints of the analysis?

Therefore, the question needs to be further defined before mathematical modeling can begin, as the modeling requires clear and precise inputs and outputs. The other options are not correct, as they imply that the question is either too vague or too narrow, which is not the case.

References:1: Guide to Business Data Analytics, IIBA, 2020, p. 312: Introduction to Business Data Analytics: A Practitioner View, IIBA, 2019, p. 11.

**NEW QUESTION 102**

- (Topic 2)

What is the relationship between a Customer entity and an Order entity, where a customer entry will be present in the Customer entity regardless of whether an order was made?

- A. zero-to-one
- B. many-to-many
- C. zero-to-many
- D. one-to-one

**Answer: C**

**Explanation:**

A zero-to-many relationship between two entities means that one instance of the first entity can be associated with zero or more instances of the second entity, and one instance of the second entity can be associated with only one instance of the first entity<sup>1</sup>. In this case, a customer entry will be present in the Customer entity regardless of whether an order was made, which means that a customer can have zero or more orders, but an order can only belong to one customer. Therefore, the relationship between Customer and Order is zero-to-many.

References:1: Entity Relationship Diagram (ERD) Tutorial - Part 1

**NEW QUESTION 104**

- (Topic 2)

A supermarket chain wants to improve supplier relations. One of the targets to track and help achieve this goal is to improve the average transaction time per order by 10%. From a SMART target perspective, what is missing?

- A. is not attainable as weather conditions can slow down order times
- B. S • should provide a target for each supplier
- C. R - is not relevant to the goal as supplier relations is only dependent on quality of deliveries
- D. T - There is no mention of the time-frame by which this target must be met

**Answer: D**

**Explanation:**

SMART is an acronym that stands for Specific, Measurable, Achievable, Relevant, and Time-bound, which are criteria for setting effective and realistic goals<sup>1</sup>. From a SMART target perspective, what is missing in this scenario is the time-frame by which the target must be met. A time-bound target specifies the deadline or the duration for achieving the target, which helps to create a sense of urgency, motivation, and accountability<sup>2</sup>. Without a time-frame, the target is vague and indefinite, and it is difficult to monitor and evaluate the progress and the results. For example, a time-bound target could be to improve the average transaction time per order by 10% within the next six months.

The other options are not correct explanations of what is missing. The target is attainable, as it is realistic and feasible, and it does not depend on factors that are



beyond the control of the organization, such as weather conditions. The target is specific, as it provides a clear and precise description of what needs to be achieved, and it does not need to provide a target for each supplier, as that would make the target too complex and cumbersome. The target is relevant, as it is aligned with the goal of improving supplier relations, and it does not assume that supplier relations is only dependent on quality of deliveries, as transaction time is also an important factor that affects the efficiency, satisfaction, and trust of the suppliers.

References:1: Introduction to Business Data Analytics: An Organizational View, IIBA, 2019, p. 122: Introduction to Business Data Analytics: A Practitioner View, IIBA, 2019, p. 12. : Introduction to Business Data Analytics: An Organizational View, IIBA, 2019, p. 12. : Introduction to Business Data Analytics: A Practitioner View, IIBA, 2019, p. 12.

#### NEW QUESTION 106

- (Topic 2)

Interested in ensuring that analytics continues to contribute value to the overall organization, the lead analyst suggests developing a long term plan to define how the enterprise will identify, store, manage, share, and use its data long-term.The analyst is proposing the development of a:

- A. Data roadmap
- B. Business strategy
- C. Data strategy
- D. Data management plan

**Answer: C**

#### Explanation:

A data strategy is a long-term plan that defines how the enterprise will identify, store, manage, share, and use its data to achieve its business goals and objectives1. A data strategy aligns the data vision, mission, principles, and policies with the business strategy, and guides the data governance, data quality, data architecture, data security, data integration, data analytics, and data culture of the organization2. A data strategy helps the organization to leverage its data as a strategic asset, to create value, to improve performance, and to gain competitive advantage3.

A data roadmap is a document that outlines the specific actions, milestones, deliverables, and timelines for implementing the data strategy. A data roadmap is a tactical tool that helps the organization to prioritize, coordinate, and communicate its data initiatives, and to track its progress and outcomes. A data roadmap is not a long-term plan, but a dynamic and flexible plan that can be updated and revised as the data strategy evolves.

A business strategy is a high-level plan that defines how the enterprise will achieve its vision, mission, and goals in a competitive market. A business strategy sets the direction, scope, and value proposition of the organization, and guides its decisions on resource allocation, product development, customer segmentation, pricing, marketing, and differentiation. A business strategy is not a plan that defines how the enterprise will identify, store, manage, share, and use its data, but a plan that defines how the enterprise will create and sustain value for its stakeholders.

A data management plan is a document that describes the data that will be collected, generated, or used in a specific project, and how the data will be handled, stored, preserved, shared, and reused during and after the project. A data management plan is a operational tool that helps the project team to comply with the data policies, standards, and best practices of the organization, and to ensure the quality, integrity, security, and accessibility of the data. A data management plan is not a long-term plan, but a project- specific plan that can be modified and updated as the project progresses.

References:1: Guide to Business Data Analytics, IIBA, 2020, p. 392: Introduction to Business Data Analytics: An Organizational View, IIBA, 2019, p. 143: Data Strategy: The Definitive Guide, Tableau, . : Data Strategy: The Definitive Guide, Tableau, . : Data Roadmap: The Definitive Guide, Tableau, . : Business Strategy: The Definitive Guide, Tableau, . : Business Strategy: The Definitive Guide, Tableau, . : Data Management Plan: The Definitive Guide, Tableau, . : Data

Management Plan: The Definitive Guide, Tableau, . : Data Strategy: The Definitive Guide, Tableau, . : Guide to Business Data Analytics, IIBA, 2020, p. 39. : Introduction to Business Data Analytics: An Organizational View, IIBA, 2019, p. 14. : Data Strategy: The Definitive Guide, Tableau, . : Data Roadmap: The Definitive Guide, Tableau, . : Business Strategy: The Definitive Guide, Tableau, . : Data Management Plan: The Definitive Guide, Tableau, .

#### NEW QUESTION 107

- (Topic 2)

From a prior analytics study, a telecommunications company has concluded that due to the maturity of the market the cost of obtaining new customers is on the rise. As a result, the company wants to increase their efforts on retaining customers. One of the key performance indicators that will help them track their progress in this area is the rate at

which customers leave/unsubscribe from their services over a given time period.Which performance indicator is this referring to?

- A. Subscription rate
- B. Acquisition rate
- C. Churn rate
- D. Retention rate

**Answer: C**

#### Explanation:

According to the Introduction to Business Data Analytics: A Practitioner View, churn rate is a measure of customer attrition, or the percentage of customers who stop using a product or service over a given time period. Churn rate is an important indicator of customer satisfaction, loyalty, and retention. A high churn rate implies that customers are dissatisfied or have found better alternatives, which can negatively affect the revenue and growth of a business. A low churn rate implies that customers are satisfied and loyal, which can positively affect the revenue and growth of a business. In this situation, the telecommunications company wants to increase their efforts on retaining customers, so they need to track their churn rate and try to reduce it.

References: Introduction to Business Data Analytics: A Practitioner View, page 17; CBDA Exam Blueprint, page 7; [Churn Rate Definition - Investopedia]

#### NEW QUESTION 110

- (Topic 2)

The sales department is interested in using business analytics to better understand their customer's purchasing habits. During the process of sourcing data, the analyst discovers geographic differences in how sales data is being recorded. The analyst would like to influence how the organization strategically plans for business analytics. Which practice, would move the organization closer to meeting this objective?

- A. Data governance
- B. Data integration
- C. Data management
- D. Data warehousing

**Answer: A**

#### Explanation:



Data governance is the practice of establishing and enforcing policies, standards, roles, and responsibilities for the quality, security, and usage of data across an organization<sup>1</sup>. Data governance helps ensure that data is consistent, reliable, and trustworthy, and that it aligns with the organization's strategic goals and objectives. Data governance also facilitates collaboration and communication among different stakeholders, such as business analysts, data owners, data stewards, and data consumers<sup>2</sup>. By implementing data governance, the analyst can influence how the organization strategically plans for business analytics, as data governance can help address the issues of data quality, data integration, data access, data ethics, and data value<sup>3</sup>.

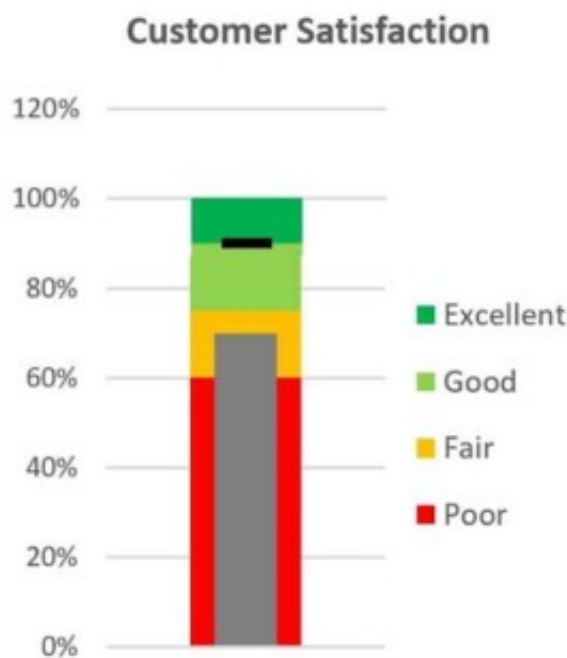
Data integration, data management, and data warehousing are related but distinct concepts from data governance. Data integration is the process of combining data from different sources into a unified view<sup>4</sup>. Data management is the process of collecting, storing, organizing, and maintaining data throughout its lifecycle<sup>5</sup>. Data warehousing is the process of creating and maintaining a centralized repository of data for analytical purposes. While these practices can support business analytics, they do not necessarily influence how the organization strategically plans for business analytics, as they are more focused on the technical aspects of data rather than the organizational aspects of data. References:1: Guide to Business Data Analytics, IIBA, 2020, p. 392: Introduction to Business Data Analytics: An Organizational View, IIBA, 2019, p. 143: Data Governance: The Definitive Guide, Tableau, 4: Data Integration: The Definitive Guide, Tableau, 5: Data Management: The Definitive Guide, Tableau, . : Data Warehousing: The Definitive Guide, Tableau, .

#### NEW QUESTION 112

- (Topic 2)

DIAGRAM TAKEN

An analyst at an organization has just learnt about bullet charts. For the latest dashboard, the analyst has decided to display the customer satisfaction rate from the latest 2018 customer survey results through a bullet chart while comparing it to the 2017 customer satisfaction rate. What can be gleaned from this chart?



Customer Satisfaction

120%  
100%  
80%

- A. The 2018 customer satisfaction rate is at 90%. between good and excellent, and exceeded its target of 70%
- B. The 2018 customer satisfaction rate is at 90%. between good and excellent
- C. The 2018 customer satisfaction rate was fair, at 70%, and did not reach its target of 90%
- D. The 2018 customer satisfaction rate is at 90%. between good and excellent, while the 2017 customer satisfaction rate was at 70%

**Answer: D**

#### Explanation:

A bullet chart is a type of bar chart that shows progress towards a goal or performance against a reference line<sup>1</sup>. It consists of a bar representing the featured measure, a reference line denoting a target or threshold, and a background with qualitative ranges (such as poor, fair, good, excellent)<sup>2</sup>. In this case, the featured measure is the customer satisfaction rate for 2018, the reference line is the target of 70%, and the background ranges are 0-50% (poor), 50-70% (fair), 70-90% (good), and 90-120% (excellent). The chart also shows a thin black bar representing the customer satisfaction rate for 2017, which can be used for comparison. From the chart, we can see that the 2018 customer satisfaction rate is at 90%, which falls in the excellent range and exceeds the target of 70%. We can also see that the 2017 customer satisfaction rate was at 70%, which falls in the good range and meets the target. Therefore, the correct answer is D, as it summarizes both the 2018 and 2017 customer satisfaction rates and their relation to the target and the ranges.

References:1: Understanding and Using Bullet Graphs | Tableau, 2: Bullet Charts - What Is It And How To Use It - JSCharting

#### NEW QUESTION 117

- (Topic 2)

The analytics team discovers there is an abundance of data available to them from various sources. They are excited about the potential of turning this data into usable information for their organization. They decide to focus the analytics work on:

- A. Using the data that is easiest to collect in order to turn out reports quickly
- B. Harnessing all the data and presenting various results to senior management
- C. Harnessing all the data as long as the analysis meets key cost criteria
- D. Using the data to answer a limited number of key questions

**Answer: D**

#### Explanation:

According to the IIBA® Guide to Business Data Analytics, analytics work should be driven by well-defined business problems or opportunities that are aligned with the organization's strategic objectives<sup>1</sup>. Having an abundance of data does not necessarily mean that all of it is relevant, reliable, or useful for the analytics purpose. Therefore, the analytics team should focus on using the data to answer a limited number of key questions that are derived from the business context and that can generate actionable insights and outcomes. This approach can help the analytics team prioritize the most important data sources, methods, and tools, as well as avoid wasting time and resources on analysis that is not impactful or meaningful for the organization.

References:1: IIBA® Guide to Business Data Analytics, Chapter 3: Business Data Analytics Process, page 24-25

**NEW QUESTION 121**

- (Topic 2)

A brainstorming session is conducted to identify the research questions to be explored within an analytics project. During the brainstorming activity which of the following should happen?

- A. The number of questions generated should be limited to contain scope
- B. Participants should make sure the questions are unique and realistic
- C. Participants should add questions as they come to mind without restriction on time limit
- D. Participants should avoid critiquing suggested questions raised by the group

**Answer: D**

**Explanation:**

According to the Guide to Business Data Analytics, brainstorming is a technique used to generate a large number of ideas or questions in a short period of time<sup>1</sup>. The purpose of brainstorming is to encourage creativity and divergent thinking, not to evaluate or judge the ideas or questions. Therefore, participants should avoid critiquing suggested questions raised by the group, as this could inhibit the flow of ideas and discourage participation. The other options are not consistent with the principles of brainstorming, as they could limit the quantity or quality of the questions generated. References:1: Guide to Business Data Analytics, IIBA, 2020, p. 32.

**NEW QUESTION 123**

- (Topic 2)

A grocery store chain has requested help in determining how customer preferences are changing with regards to home delivery. An analytics team has completed researching the number of online orders received requesting home delivery versus in-store pickup. The business analyst has selected a model to enable a quick comparison between curbside pick-up, in-store pickup, and home delivery for the last 3 years. Which model has the business analyst chosen?

- A. Pie chart
- B. Funnel chart
- C. Scatter plot
- D. Bar chart

**Answer: D**

**Explanation:**

A bar chart is a graphical representation of data that uses rectangular bars of different heights or lengths to show the values of one or more variables<sup>1</sup>. A bar chart is suitable for comparing the number of online orders received requesting different types of delivery options for the last 3 years, as it can show the frequency or proportion of each category across time. A bar chart can also help identify trends, patterns, or outliers in the data<sup>2</sup>.

A pie chart is a circular chart that shows the relative sizes of data points in a whole by using different-sized and colored slices<sup>3</sup>. A pie chart is not suitable for comparing the number of online orders received requesting different types of delivery options for the last 3 years, as it can only show the distribution of one variable at a time, and it does not show the changes over time. A pie chart can also be misleading or confusing if there are too many categories or if the slices are too similar in size<sup>4</sup>.

A funnel chart is a type of chart that shows the stages of a process and the amount of data that passes through each stage<sup>5</sup>. A funnel chart is not suitable for comparing the number of online orders received requesting different types of delivery options for the last 3 years, as it does not show the categories of delivery options, but rather the progression of customers through a sales or marketing funnel. A funnel chart can help visualize the conversion rates, drop-off rates, or bottlenecks in a process<sup>6</sup>.

A scatter plot is a type of chart that shows the relationship between two numerical variables by using dots to represent the values of each pair of data points. A scatter plot is not suitable for comparing the number of online orders received requesting different types of delivery options for the last 3 years, as it does not show the categories of delivery options, but rather the correlation or association between two continuous variables. A scatter plot can help identify the direction, strength, and shape of the relationship, as well as any outliers or clusters in the data.

References:1: Guide to Business Data Analytics, IIBA, 2020, p. 672: Data Visualization: The Definitive Guide, Tableau, 3: Guide to Business Data Analytics, IIBA, 2020, p. 674: Data Visualization: The Definitive Guide, Tableau, 5: Guide to Business Data Analytics, IIBA, 2020, p. 686: Data Visualization: The Definitive Guide, Tableau, . : Guide to Business Data Analytics, IIBA, 2020, p. 68. : Data Visualization: The Definitive Guide, Tableau, .

**NEW QUESTION 128**

- (Topic 2)

An insurance company would like to develop a range of insurance products for different types of customers. The analytics team is asked to conduct some research and share their insights with senior management. Which technique would be useful to divide the customer base into groups?

- A. Linear regression
- B. Survey sampling
- C. Factor analysis
- D. K-means clustering

**Answer: D**

**Explanation:**

K-means clustering is a technique that partitions a set of data points into a predefined number of clusters, based on their similarity or distance. This technique can be useful to divide the customer base into groups that have similar characteristics, preferences, or behaviors, and then design insurance products that cater to each group's needs and expectations. K-means clustering can also help identify outliers or anomalies in the customer data that may require further investigation or attention.

References: Guide to Business Data Analytics, page 58-59; CBDA Exam Blueprint, page 7; [Introduction to Business Data Analytics: A Practitioner View], page 17.

**NEW QUESTION 132**

- (Topic 2)

A private school has decided to include bullet charts in students' end of year performance report. It will depict the student's score against the highest score achieved in that grade, and the qualitative category that the student's score falls under. Should a column chart be used instead?

- A. Both charts are insufficient in meeting the requirements of a student score card
- B. Both charts can be used as a column chart is a comparable alternative to a bullet chart
- C. Yes, a column chart would be a better option to depict all three criteria in one chart

D. No, a bullet chart is a good option as it will depict all three criteria in one chart

**Answer:** D

**Explanation:**

A bullet chart is a type of bar chart that shows progress towards a goal or performance against a reference line<sup>1</sup>. It consists of a bar representing the featured measure, a reference line denoting a target or threshold, and a background with qualitative ranges (such as poor, fair, good, excellent)<sup>2</sup>. In this case, the featured measure is the student's score, the reference line is the highest score achieved in that grade, and the background ranges are the qualitative categories that the student's score falls under. A bullet chart is a good option for this use case because it can display all three criteria in one chart, using minimal space and avoiding clutter. A column chart, on the other hand, would require either multiple columns for each student to show the score, the highest score, and the category, or a separate legend to map the colors of the columns to the categories. This would make the chart less effective in communicating the information and more difficult to compare across students.

References:1: Understanding and Using Bullet Graphs | Tableau, 2: Bullet Charts - What Is It And How To Use It - JSCharting

**NEW QUESTION 135**

- (Topic 2)

A large number of text messages are received by Twitter each year making Twitter one example of Big Data. What data characteristic represents this large number of text messages?

- A. Veracity
- B. Velocity
- C. Value
- D. Variety

**Answer:** B

**Explanation:**

Velocity is one of the four V's of Big Data, along with Volume, Variety, and Veracity. Velocity refers to the speed at which data is generated, collected, and processed. A large number of text messages received by Twitter each year is an example of high-velocity data, as it requires real-time or near-real-time processing and analysis to extract insights and value from it. High-velocity data poses challenges and opportunities for business data analytics, as it requires efficient and scalable data infrastructure, streaming analytics, and timely decision-making.

References:1, page 9; 2, page 6.

**NEW QUESTION 136**

- (Topic 2)

A data scientist at a consumer goods company, has been asked to do a detailed analysis on customer profiles. The Data Scientist has identified an external data source that carries valuable additional information on their customers. The data scientist also identifies the address column as the most reliable column to join the internal data source with the external data source. Addresses may appear in different formats for example:

File A = "13 Smith St"

File B = "Unit 7, 13 Smith Street"

Which of the following techniques would be useful in this situation?

- A. Deterministic linkage
- B. Probabilistic linkage
- C. Genetic linkage
- D. Cuff linkage

**Answer:** B

**Explanation:**

Probabilistic linkage is a technique that uses statistical methods to match records from different data sources based on the similarity of key variables, such as name, address, date of birth, etc<sup>1</sup>. Probabilistic linkage can handle variations, errors, or missing values in the data, and assign a score or probability to each potential match<sup>2</sup>. Probabilistic linkage would be useful in this situation, as the address column may have different formats, spellings, or abbreviations in the internal and external data sources, and a deterministic linkage (which requires exact matches) might miss some valid matches or create false matches.

Deterministic linkage is a technique that uses predefined rules or criteria to match records from different data sources based on the exact agreement of key variables, such as identifiers, codes, or hashes<sup>3</sup>. Deterministic linkage would not be useful in this situation, as the address column may not have consistent or unique values in the internal and external data sources, and a probabilistic linkage (which allows for some variation or uncertainty) might find more accurate matches or avoid false matches.

Genetic linkage is a term used in genetics to describe the tendency of genes or DNA sequences that are located close together on a chromosome to be inherited together<sup>4</sup>. Genetic linkage is not relevant to this situation, as it has nothing to do with matching records from different data sources based on the address column.

Cuff linkage is a term used in sewing to describe the process of attaching a cuff to a sleeve by stitching or fastening. Cuff linkage is not relevant to this situation, as it has nothing to do with matching records from different data sources based on the address column. References:1: Guide to Business Data Analytics, IIBA, 2020, p. 452: Data Linkage: The Definitive Guide, Tableau, 3: Guide to Business Data Analytics, IIBA, 2020, p. 454: Genetic Linkage, National Human Genome Research Institute, . : Cuff Linkage, Sewing Dictionary, .

: Data Linkage: The Definitive Guide, Tableau, . : Genetic Linkage, National Human Genome Research Institute, . : Cuff Linkage, Sewing Dictionary, .

**NEW QUESTION 140**

- (Topic 2)

A large bank has recently revamped their website, adding additional features such as financial investment opportunities, spending activity, and supporting reports. Which question will add value when evaluating how the website is being used?

- A. What is the customer satisfaction rating across the branches?
- B. What are the top keywords used in searches made within the website?
- C. What is the customer retention rate since the website launch?
- D. How many articles were published since the website launch?

**Answer:** C

**Explanation:**

Customer retention rate is a measure of how many customers continue to use a product or service over a given period of time. It is an important indicator of



customer loyalty, satisfaction, and value. Customer retention rate can help the bank evaluate how the website is being used by comparing the number of customers who visited the website before and after the launch of the new features. A high customer retention rate would suggest that the new features are attractive, useful, and engaging for the customers, while a low customer retention rate would indicate that the new features are not meeting the customers' needs or expectations. Customer retention rate can also help the bank identify the segments of customers who are more or less likely to use the website, and tailor their marketing and communication strategies accordingly. References:

? Certification in Business Data Analytics (IIBA® - CBDA), IIBA, accessed on January 20, 2024.

? Business Data Analytics Certification - CBDA Competencies | IIBA®, IIBA, accessed on January 20, 2024.

? Guide to Business Data Analytics, IIBA, 2020, p. 23-24.

? What is Customer Retention Rate? | HubSpot, HubSpot, accessed on January 20, 2024.

#### NEW QUESTION 143

- (Topic 2)

An analyst calculates the average, median, and mode values for a dataset. What type of analytics is the analyst performing?

- A. Predictive
- B. Diagnostic
- C. Prescriptive
- D. Descriptive

**Answer: D**

#### Explanation:

Descriptive analytics is the type of analytics that summarizes and visualizes data to provide an overview of what has happened or is happening. Descriptive analytics uses techniques such as statistics, charts, graphs, and dashboards to display data in an understandable and meaningful way. Descriptive analytics can help analysts explore data, identify patterns, and communicate insights. Calculating the average, median, and mode values for a dataset is an example of descriptive analytics, as it provides a measure of central tendency for the data distribution. References:

? Certification in Business Data Analytics (IIBA® - CBDA), IIBA, accessed on January 20, 2024.

? Business Data Analytics Certification - CBDA Competencies | IIBA®, IIBA, accessed on January 20, 2024.

? Guide to Business Data Analytics, IIBA, 2020, p. 15.

? The 4 Types Of Analytics Explained (With Examples), Analytics for Decisions, accessed on January 20, 2024.

#### NEW QUESTION 148

- (Topic 2)

An analyst is working through data on comparing performance scores in different schools across the state, for ranking purposes. Since there is a lot of data and some extreme outliers, the analyst is trying to determine which type of statistical average would best represent the results. Which of the following is a concern when relying too heavily on summary statistics during data analysis?

- A. Contextualization
- B. Data variation
- C. Data properties
- D. Frequency

**Answer: A**

#### Explanation:

Summary statistics are numerical measures that describe certain characteristics of a data set, such as the mean, median, mode, standard deviation, range, or quartiles. Summary statistics can help simplify and communicate complex data, but they can also obscure or distort important information, such as the distribution, shape, outliers, or trends of the data. Contextualization is the process of providing relevant background information, assumptions, limitations, or explanations for the data analysis and its results. Contextualization can help avoid misinterpretation, confusion, or bias when using summary statistics. Contextualization can also help connect the data analysis to the business problem, objectives, and stakeholders.

References: Guide to Business Data Analytics, page 43; Introduction to Business Data Analytics: A Practitioner View, page 13.

#### NEW QUESTION 151

- (Topic 2)

The research study is complete, the data has been analyzed and the team has created the necessary high impact visuals. The business analysis professional urges the team to:

- A. Present the results to stakeholders
- B. Validate regression analysis
- C. Curate the data
- D. Develop the narrative

**Answer: D**

#### Explanation:

Developing the narrative is the process of creating a clear, concise, and compelling story that communicates the key insights, findings, and recommendations from the data analysis to the stakeholders<sup>1</sup>. Developing the narrative is an important step after completing the research study, the data analysis, and the high impact visuals, as it helps to bridge the gap between the data and the decision-making, to engage and persuade the audience, and to drive action and change<sup>2</sup>.

Developing the narrative involves defining the purpose, audience, and message of the story, choosing the best format and medium to deliver the story, and using effective storytelling techniques, such as structure, context, emotion, and call to action<sup>3</sup>.

Presenting the results to stakeholders is the process of delivering the data story to the intended audience, using the appropriate communication channels, methods, and tools<sup>4</sup>. Presenting the results to stakeholders is a subsequent step after developing the narrative, as it requires a well-crafted and well-prepared data story to be effective and impactful. Presenting the results to stakeholders involves planning and rehearsing the presentation, adapting to the feedback and questions, and evaluating the outcomes and impacts of the presentation<sup>5</sup>.

Validating regression analysis is the process of checking the assumptions, accuracy, and suitability of a statistical model that estimates the relationship between one or more independent variables and a dependent variable. Validating regression analysis is a part of the data analysis step, not a step after completing the data analysis. Validating regression analysis involves testing the significance, fit, and residuals of the model, and comparing the model with alternative models or methods.

Curating the data is the process of organizing, annotating, and preserving the data for future use, reuse, or sharing. Curating the data is a part of the data management step, not a step after completing the data analysis. Curating the data involves applying the data policies, standards, and best practices of the



organization, and ensuring the quality, integrity, security, and accessibility of the data.

References:1: Guide to Business Data Analytics, IIBA, 2020, p. 572: Introduction to Business Data Analytics: An Organizational View, IIBA, 2019, p. 153: Data Storytelling: The Definitive Guide, Tableau, 4: Guide to Business Data Analytics, IIBA, 2020, p. 585: Introduction to Business Data Analytics: A Practitioner View, IIBA, 2019, p. 27. : Guide to Business Data Analytics, IIBA, 2020, p. 55. : Data Analysis: The Definitive Guide, Tableau,. : Guide to Business Data Analytics, IIBA, 2020, p. 45. : Data Management: The Definitive Guide, Tableau, . : Data Storytelling: The Definitive Guide, Tableau, . : Guide to Business Data Analytics, IIBA, 2020, p. 57. : Introduction to Business Data Analytics: An Organizational View, IIBA, 2019, p. 15. : Data Storytelling: The Definitive Guide, Tableau, . : Guide to Business Data Analytics, IIBA, 2020, p. 58. : Introduction to Business Data Analytics: A Practitioner View, IIBA, 2019, p. 27. : Guide to Business Data Analytics, IIBA, 2020, p. 55. : Data Analysis: The Definitive Guide, Tableau, . : Guide to Business Data Analytics, IIBA, 2020, p. 45. : Data Management: The Definitive Guide, Tableau, .

#### NEW QUESTION 153

- (Topic 2)

A data dictionary is being developed for a dataset describing a company's customer base. Within the data dictionary, which of the following represents a composite data element?

- A. Street address
- B. First name
- C. Total sale
- D. Birthdate

**Answer:** A

#### Explanation:

A composite data element is a data element that is made up of smaller units called sub-elements, which are separated by a sub-element separator character, such as a colon (:). For example, ITEMNO is a composite data element that consists of three sub- elements: part number, aisle number, and bin number. A street address is also a composite data element that can consist of sub-elements such as street number, street name, city, state, and zip code. First name, total sale, and birthdate are simple data elements that do not have sub-elements.

References:Data Elements - IBM, UN/EDIFACT Syntax Rules

#### NEW QUESTION 155

- (Topic 2)

A fashion retailer is developing a new line of luxury handbags and would like to evaluate their target market and pricing. After an extensive evaluation based on product features, their target market, and pricing of competitor products, the analytics team has come up with a pricing proposal. On presenting the results, the management team is of the opinion that additional analysis was required before making a decision. What type of additional analysis will help the management team make a decision on pricing?

- A. How diverse are the competitors- product portfolios?
- B. How can we broaden the target market?
- C. How can costs be reduced to improve the profit margin?
- D. What is the breakeven point before profits are generated?

**Answer:** D

#### Explanation:

According to the Introduction to Business Data Analytics: A Practitioner View, the breakeven point is the point at which the total revenue equals the total cost of a product or service. The breakeven point indicates the minimum sales volume or price required to cover the fixed and variable costs and to start making a profit. The breakeven point can help the management team make a decision on pricing by showing them how sensitive the profitability is to the price changes and how much margin of safety they have. The breakeven point can also help the management team evaluate the feasibility and risk of the pricing proposal and compare it with alternative scenarios.

References: Introduction to Business Data Analytics: A Practitioner View, page 18; CBDA Exam Blueprint, page 7; [Break-Even Point (BEP) Definition - Investopedia]

#### NEW QUESTION 158

- (Topic 2)

An analyst supporting the Marketing department for a specialty retailer has been asked to look through past sales data to help guide product decisions. The business sponsor for this initiative would first like to know 'What is the most profitable product line?'. What type of analytics is the analyst going to perform to address this question?

- A. Predictive
- B. Diagnostic
- C. Descriptive
- D. Prescriptive

**Answer:** C

#### Explanation:

According to the Guide to Business Data Analytics, descriptive analytics is a type of analytics that summarizes and presents data in a meaningful way. Descriptive analytics uses techniques such as statistics, charts, tables, and dashboards to provide an overview of what has happened or is happening in the data. Descriptive analytics can help answer questions such as who, what, when, where, and how. In this situation, the analyst has been asked to look through past sales data to help guide product decisions. The business sponsor for this initiative would first like to know ??What is the most profitable product line???. This is a descriptive analytics question, as it involves summarizing and presenting the past sales data by product line and calculating the profit margin for each product line.

References: Guide to Business Data Analytics, page 49; CBDA Exam Blueprint, page 7; [Introduction to Business Data Analytics: A Practitioner View], page 14.

#### NEW QUESTION 161

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