



## **IIBA**

### **Exam Questions CBDA**

Certification in Business Data Analytics (IIBA - CBDA)

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### NEW QUESTION 1

- (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 2

- (Topic 1)

The analytics team has established two equally strong potential recommendations which will deliver the desired outcomes with similar benefits to be derived from each one. On the surface there is no discernable difference in costs or schedule for either option. To help the analytics team reach a recommendation the business analysis professional recommends the team:

- A. Complete market research
- B. Assess risks for each option
- C. Vote to choose the recommendation
- D. Seek management guidance

**Answer:** B

#### **Explanation:**

Assessing risks for each option is the recommendation that the business analysis professional should make to the analytics team, because it is a technique that involves identifying, analyzing, and evaluating the potential positive or negative impacts of each option on the project, the organization, or the stakeholders. Assessing risks can help the team compare the pros and cons of each option, and determine which one has the highest expected value or the lowest expected loss. Assessing risks can also help the team prepare contingency plans or mitigation strategies for the chosen option, and communicate the rationale and assumptions behind their recommendation. 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
- CERTIFICATION IN BUSINESS DATA ANALYTICS HANDBOOK - IIBA®, page 8, CBDA Exam Sample Questions and Self-Assessment, Question 12

### NEW QUESTION 3

- (Topic 1)

The analytics team is struggling with which recommendation to make. Their challenge is that they have five good options and this indecision is stopping them from moving forward. To help the team finalize their recommendation, the BA professional on the team recommends they complete:

- A. Root cause analysis
- B. Business rules analysis
- C. Data flow diagrams
- D. Acceptance and evaluation criteria

**Answer:** D

#### **Explanation:**

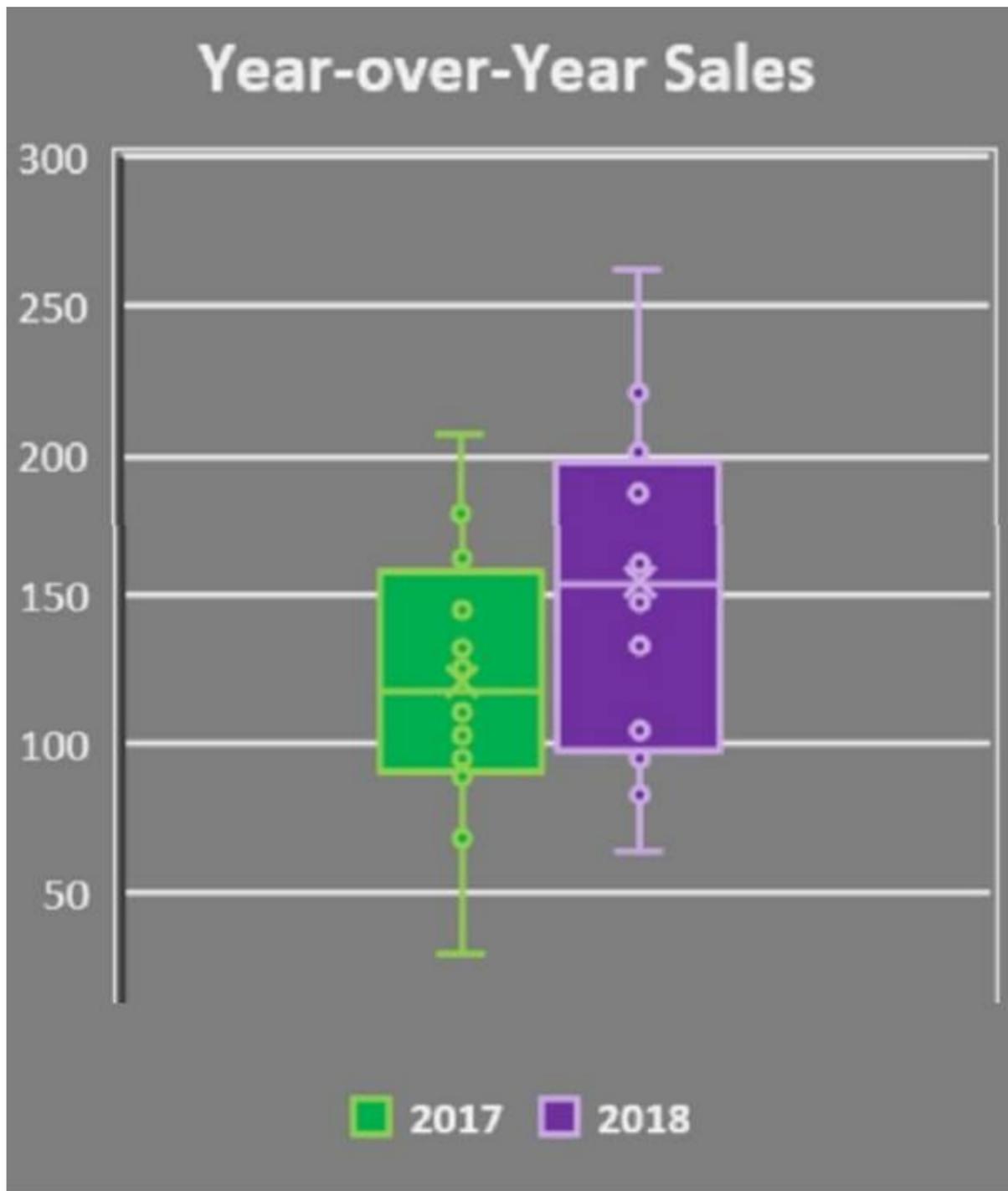
Acceptance and evaluation criteria are the techniques that the BA professional on the team should recommend they complete, because they are the standards or measures that are used to evaluate the suitability and value of each option. Acceptance and evaluation criteria can help the team compare the benefits, costs, risks, and impacts of each option, and determine which one best meets the needs and expectations of the stakeholders. Acceptance and evaluation criteria can also help the team communicate the rationale and evidence behind their recommendation, and ensure that the recommendation is aligned with the business goals and objectives. 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
- Acceptance and Evaluation Criteria | Business Analysis

### NEW QUESTION 4

- (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 5**

- (Topic 1)

A consumer goods manufacturer has recently completed an analytics study to understand how to improve its operational excellence. From the top highlights, online sales outperformed other channels in sales growth and there was a direct relationship between positive customer reviews and increased internet sales. Which strategic business decision may be logically derived from these results?

- A. Improve quality of the products
- B. Create an empowered and collaborative work culture
- C. Encourage customers to complete online reviews
- D. Improve operational efficiencies

**Answer:** C

**Explanation:**

The strategic business decision that may be logically derived from the results is to encourage customers to complete online reviews, because the results show that there is a direct relationship between positive customer reviews and increased internet sales. By increasing the number and quality of online reviews, the consumer goods manufacturer can boost its online sales performance, which outperformed other channels in sales growth. Online reviews can also help the manufacturer gain customer feedback, improve customer loyalty, and enhance its brand reputation. 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
- CERTIFICATION IN BUSINESS DATA ANALYTICS HANDBOOK - IIBA®, page 8, CBDA Exam Sample Questions and Self-Assessment, Question 6

**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)

The analytics team has completed analyzing a dataset and unfortunately the data didn't deliver the kinds of insights that the team was hoping for. After much contemplation, they decide to:

- A. Summarize the results and indicate the outcome was inconclusive
- B. Inform management that analytics could not derive insightful results
- C. Wait a few weeks and rerun the analysis using refreshed data
- D. Restart the work with formation of a new research question

**Answer:** D

**Explanation:**

The analytics team should restart the work with formation of a new research question, because the existing one may not be well-defined, relevant, or feasible. A well-formed research question is the first step of the business data analytics cycle, and it guides the subsequent steps of sourcing, analyzing, interpreting, and reporting data. If the data analysis does not yield meaningful insights, the team should revisit the research question and refine it based on the business problem, stakeholder needs, data availability, and analytical methods. References:

- Understanding the Guide to Business Data Analytics, page 10-11
- Business Analysis Certification in Data Analytics, CBDA | IIBA®, CBDA Competencies, Domain 1: Identify the Research Questions
- CERTIFICATION IN BUSINESS DATA ANALYTICS HANDBOOK - IIBA®, page 8, CBDA Exam Sample Questions and Self-Assessment, Question 5

**NEW QUESTION 9**

- (Topic 1)

To gain traction on online sales, a retailer initiated a marketing campaign using banner ads. The company has requested their analytics team to evaluate the performance of the campaign. During the presentation, the analyst confirmed that the campaign did bring in a large number of net new customers to the website and met the target sales conversion rate. They also noted that there was a high number of repeat visitors not completing a sale. What decision would help the retailer improve sales conversion rates for repeat visitors?

- A. Increase investment in banner ads
- B. Incentivize customers to subscribe to promotional notifications
- C. Add additional new products to attract customers
- D. Ensure the sales checkout process is streamlined

**Answer:** D

**Explanation:**

According to the Business Data Analytics: A Decision-Making Paradigm<sup>1</sup>, one of the key steps in the analytics process is to communicate insights and recommendations to stakeholders. The analyst should present the findings in a clear and concise manner, and provide actionable suggestions to improve the business outcomes. In this case, the analyst has identified that repeat visitors are not completing a sale, which indicates a possible issue with the sales checkout process. Therefore, the analyst should recommend the retailer to streamline the sales checkout process, which could reduce friction, increase customer satisfaction, and boost sales conversion rates for repeat visitors. References: Business Data Analytics: A Decision-Making Paradigm

#### NEW QUESTION 10

- (Topic 1)

The analytics team has been asked to provide an estimate of the number of customers they expect to have in 12 months. They debated how accurate that figure needs to be and determined that based on the availability of good data, they could predict within + or - 10%. This is an example of a:

- A. ROM estimate
- B. Delphi estimate
- C. Parametric estimate
- D. Definitive estimate

**Answer:** A

#### Explanation:

A ROM estimate is a rough order of magnitude estimate that provides a quick and approximate estimate of the cost, time, or effort required for a project or a task. A ROM estimate is based on expert opinion or experience from past projects, and it usually has a large range of variation, such as + or - 10%. A ROM estimate is useful when there is limited information or data available, or when a high-level estimate is needed for planning or budgeting purposes. However, a ROM estimate also has a high degree of uncertainty and variability, and it should be refined as more details become available<sup>12</sup> References: 1: Project Estimation Techniques Business Analysts Should Know About 2: Estimation techniques for business analysts – The Functional BA

#### NEW QUESTION 10

- (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 12

- (Topic 1)

A professor at a university has received a few complaints of the exams being too difficult. The professor is looking at exam performance results over the past 5 years to understand the normal tendency and outliers. Which chart should the professor use?

- A. Sunburst
- B. Scatterplot
- C. Pie chart
- D. Line

**Answer:** B

#### Explanation:

A scatterplot is a type of chart that shows the relationship between two variables by plotting data points on a two-dimensional plane. A scatterplot can help the professor to understand the normal tendency and outliers of exam performance results over the past 5 years by displaying the distribution, trend, and correlation of the data. For example, the professor can use the x-axis to represent the year and the y-axis to represent the exam score, and see how the scores vary over time and across different exams. Outliers can be identified as data points that are far away from the main cluster or the line of best fit<sup>12</sup> References: 1: Scatter Plot - Statistics How To 2: Scatterplots - IIBA BABOK Guide v3

#### NEW QUESTION 17

- (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 21**

- (Topic 1)

The results of the data analytics work led to some clear and strongly supported outcomes and the analytics team is very confident in their recommendations; particularly given that the payback on the required changes are a short 3 months. However, there is concern because the organization operates in a highly regulated environment and some new regulatory changes are being considered with announcements and implementation in the next 6 months. Under these conditions the team decides to:

- A. Recommend no action be taken at this time and revisit in 6 months
- B. Reassess their results to ensure their validity and then decide what to do
- C. Identify and carefully document assumptions for their recommendation
- D. Postpone recommendations for 6 months until the announcements are made

**Answer:** C

**Explanation:**

The best option for the team under these conditions is to identify and carefully document the assumptions for their recommendation, such as the expected impact of the regulatory changes, the risks and benefits of implementing the changes before or after the announcements, and the sensitivity of the results to different scenarios. This way, the team can communicate their findings and recommendations clearly and transparently, while also acknowledging the uncertainty and limitations of their analysis. This can help the decision makers to evaluate the trade-offs and make informed choices<sup>12</sup>. References: 1: Guide to Business Data Analytics, IIBA, 2020, p. 242: Data-Driven Decision Making: A Primer for Beginners, Anand Rao, 2018, 1.

**NEW QUESTION 25**

- (Topic 1)

A research marketer is interested in collecting information about the spending habits of families in North America. Concerned about the volume of data required to conduct the research, they choose to use sampling. The dataset is sourced using all credit card transactions from a leading North American credit card company for Quarter 1 of the prior year. The sample used is:

- A. Statistically representative
- B. Not relevant
- C. Too large to be helpful
- D. Biased

**Answer:** D

**Explanation:**

The sample used in this case is biased, meaning that it is not representative of the population of interest. The population of interest is the families in North America, but the sample is drawn from only one source of data: the credit card transactions from a leading North American credit card company. This sample excludes the families who do not use credit cards, or who use other credit card companies, or who use other payment methods. Therefore, the sample is not random or fair, and it may introduce sampling bias into the research results<sup>12</sup>. References: 1: Sampling Methods | Types, Techniques & Examples 2: Sampling Bias - an overview | ScienceDirect Topics

**NEW QUESTION 29**

- (Topic 1)

With the recent departure of two of its employees, an IT helpdesk team is now understaffed and finding it difficult to keep up with the current workload. The number of tickets being received has increased as well as the number of days to resolve the tickets. The IT manager has set up a meeting with the IT director to request funding for two new helpdesk agents. To prepare for the meeting, the manager is interested in showing the tickets processed against ticket volume over the past year. What type of chart should the manager use to effectively show the change in processing rate over time?

- A. A pie chart to compare the number of tickets coming in versus tickets being processed each month, over the past year
- B. A column chart to compare the number of tickets coming in versus tickets being processed each month, since June
- C. A line chart to show the widening gap between the number of tickets being processed against the number coming over the past year
- D. A waterfall chart to show the number of tickets coming in are a lot higher than those being processed as of year to date

**Answer:** C

**Explanation:**

A line chart is the type of chart that the manager should use to effectively show the change in processing rate over time, because it is a technique that displays data as a series of points connected by straight lines. A line chart can help the manager visualize the trends and patterns in the ticket volume and processing rate over the past year, and highlight the widening gap between them. A line chart can also show the seasonal variations and fluctuations in the data, and compare the performance of different categories or groups. Options A, B, and D are not suitable for showing the change in processing rate over time, because they are techniques that display data as proportions (A), comparisons (B), or accumulations (D) of different categories or groups at a single point in time or over a fixed period. 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 18
- 16 Best Types of Charts and Graphs for Data Visualization [+ Guide]

**NEW QUESTION 34**

- (Topic 1)

A colleague proposes measuring job satisfaction by asking the question "What is your salary?". What is the concerning factor about this question?

- A. Validity
- B. Clarity
- C. Reproducibility
- D. Subjectivity

**Answer:** A

**Explanation:**

Validity is the extent to which a measure or a question accurately captures the intended concept or construct<sup>1</sup>. The question ??What is your salary??? is not a valid measure of job satisfaction, as it does not reflect the various aspects of job satisfaction, such as work environment, recognition, autonomy, growth, etc. Salary is only one possible factor that may influence job satisfaction, but it is not a direct or comprehensive indicator of it<sup>23</sup>. Therefore, the question is not valid for measuring job satisfaction. References: 1: Guide to Business Data Analytics, IIBA, 2020, p. 302: Job Satisfaction: Application, Assessment, Causes, and Consequences, Paul E. Spector, 1997, p. 23: Job Satisfaction Survey, 1.

**NEW QUESTION 35**

- (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 36**

- (Topic 1)

An online retailer of men's athletic apparel is seeking to become the market leader in the industry. To deliver on this strategy, the analytics team continuously collects data on the prices of competitor products and uses this information to adjust the retailer's prices. What type of analytics is the retailer using to maintain their pricing structure?

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

**Answer:** D

**Explanation:**

Prescriptive analytics is the type of analytics that the retailer is using to maintain their pricing structure, because it is a technique that uses data and models to recommend the best course of action for a given situation. Prescriptive analytics can help the retailer optimize their prices based on the data collected from the competitors, the market conditions, and the customer preferences, and thus achieve their strategic goal of becoming the market leader. References:

- Business Analysis Certification in Data Analytics, CBDA | IIBA®, CBDA Competencies, Domain 3: Analyze Data
- Understanding the Guide to Business Data Analytics, page 17
- CERTIFICATION IN BUSINESS DATA ANALYTICS HANDBOOK - IIBA®, page 8, CBDA Exam Sample Questions and Self-Assessment, Question 11

**NEW QUESTION 41**

- (Topic 1)

A business analyst manager is planning budgets for the new year, and training opportunities for his team of business analysts. The manager sends out a survey to the team to obtain their top interests within the seven areas of training opportunities. The team results were compared against the manager's personal rating. What can be deduced from the following chart with regards to the survey results?

# Employee Training Opportunity

— Personal Rating — Avg. Team Rating



- A. The team's top interests in training opportunities were aligned with the manager's, which included Negotiation & Conflict Resolution and Facilitation
- B. The team's top interests in training opportunities were aligned with the manager's, which included Teamwork and Adaptability
- C. The manager's rating did not match with the team's rating for any of the training areas
- D. The team had equal interest across all training areas

**Answer:** A

**Explanation:**

The chart shows the personal rating of the manager and the average team rating on different areas of training opportunities. Both the manager and the team rated Negotiation & Conflict Resolution and Facilitation highly, indicating a shared interest in these areas. These areas are also relevant for business analysts, as they involve skills such as communication, collaboration, problem-solving, and stakeholder management

References: 1: 6 Charts You Can Use to Create Effective Reports | SurveyMonkey 2: Business Analysis Core Concept Model™ (BACCM™) - IIBA BABOK Guide v3

**NEW QUESTION 45**

- (Topic 1)

While sourcing data, an analyst runs into a situation where different business units are using different names to refer to the same data element. This lack of standardization is resulting in confusion and additional time required to properly prepare data for analysis. Which practice, if implemented would address this situation and mature the organization's business analytics practice?

- A. Data quality management
- B. Database operations management
- C. Data warehousing
- D. Meta data management

**Answer:** D

**Explanation:**

Meta data management is the practice that, if implemented, would address the situation and mature the organization's business analytics practice, because it is a technique that involves defining, documenting, and maintaining the information about the data elements, such as their names, definitions, formats, sources, and relationships. Meta data management can help the analyst resolve the inconsistencies and ambiguities in the data element names, and ensure that the data is standardized, consistent, and understandable across different business units. Meta data management can also help the analyst improve the data quality, accessibility, and usability for the analysis. References:

- Business Analysis Certification in Data Analytics, CBDA | IIBA®, CBDA Competencies, Domain 2: Source Data
- Guide to Business Data Analytics - IIBA - Google Books, page 14
- Business Data Analytics (IIBA®-CBDA Exam preparation) | Udemy, Section 2: Source Data, Lecture 8: Meta Data Management

**NEW QUESTION 48**

- (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. References: 1: Guide to Business Data Analytics, IIBA, 2020, p. 202; 2: Data Science for Business, Foster Provost and Tom Fawcett, 2013, p. 14.

**NEW QUESTION 51**

- (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. References: 1: Developing Key Messages for Effective Communication - MSKTC 2: 11 Ways Highly Successful Leaders Support Their Team - Redbooth

**NEW QUESTION 52**

- (Topic 1)

The architecture team puts forth a solution architecture that integrates multiple data sources from within and outside the organization. The architecture provides the foundation to source a new analytics program. If one of the objectives of the analytics team was to provide 'one source of the truth', this objective would be referring to which of the following?

- A. Identifying one key stakeholder, who can make final decisions about which sources to relate/merge
- B. Evaluating the completeness, validity, and reliability of the data from source systems
- C. Ensuring stakeholders always have clear insight into the final requirements at all times
- D. Enforcing master data management principles and practices

**Answer: D**

**Explanation:**

Providing 'one source of the truth' means ensuring that there is a single, consistent, and authoritative source of data that can be used for analytics and decision making across the organization. This objective can be achieved by enforcing master data management principles and practices, which involve defining, governing, and maintaining the quality and integrity of the core data entities that are shared by multiple systems and processes. Master data management helps to eliminate data silos, reduce data duplication and inconsistency, and improve data accuracy and reliability. References: 1: What is Master Data Management (MDM)? - Informatica 2: Master Data Management - IIBA BABOK Guide v3

**NEW QUESTION 55**

- (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 59**

- (Topic 2)

To support their recommendation, the analytics team has identified investment and resources required to implement. The team has also identified key activities and events that are required to transition the organization through various stages to the future state. This information is clearly articulated in the:

- A. Risk assessment
- B. Gap analysis
- C. Change strategy
- D. Gantt chart

**Answer: C**

**Explanation:**

According to the Guide to Business Data Analytics, a change strategy is a document that outlines the approach and plan for managing the change resulting from the data analysis and the proposed solution. A change strategy should include the following elements: the vision and objectives of the change, the scope and impact of the change, the stakeholders and their roles and responsibilities, the communication and engagement plan, the training and development plan, the transition and implementation plan, the risk and issue management plan, and the evaluation and measurement plan. A change strategy can help ensure that the change is aligned with the business goals, that the stakeholders are informed and involved, that the risks and issues are identified and mitigated, and that the benefits and outcomes are realized and sustained.

References: Guide to Business Data Analytics, page 84-85; CBDA Exam Blueprint, page 8; [Introduction to Business Data Analytics: A Practitioner View], page 26.

**NEW QUESTION 60**

- (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 64**

- (Topic 2)

A real estate broker is tracking monthly sales between two of its teams. The results have been visualized using a Treemap chart. What is the advantage of using a Treemap chart, over a Sunburst chart to visualize the results?

- A. With its colour scheme, it is easy to compare the variables within a Treemap
- B. With its rectangles and straight lines, a Treemap is optimized to include more
- C. A Treemap is meant to represent a hierarchical result set as opposed to a Sunburst chart
- D. A Treemap shows all the hierarchical levels of data as opposed to a Sunburst chart

**Answer: B**

**Explanation:**

A Treemap chart is a type of chart that displays hierarchical data as a set of nested rectangles, where the size and color of each rectangle represent a quantitative value and a categorical variable, respectively<sup>1</sup>. A Sunburst chart is a type of chart that displays hierarchical data as a set of concentric circles, where the size and color of each slice represent a quantitative value and a categorical variable, respectively<sup>2</sup>. Both charts are useful for visualizing hierarchical data structures, but they have different advantages and disadvantages. One advantage of using a Treemap chart over a Sunburst chart is that a Treemap chart is optimized to include more data points, as it uses a Cartesian coordinate system that fills the entire rectangular space of the chart area, whereas a Sunburst chart uses a polar coordinate system that leaves empty spaces in the corners of the chart area<sup>3</sup>. This means that a Treemap chart can display more levels of hierarchy, more categories, and more details than a Sunburst chart, without compromising readability or clarity. Therefore, the correct answer is B, as a Treemap chart is optimized to include more data than a Sunburst chart.

References: <sup>1</sup>: Treemap Charts in Excel - Easy Excel Tutorial, <sup>2</sup>: Sunburst Chart in Excel - Easy Excel Tutorial, <sup>3</sup>: Breaking down hierarchical data with Treemap and Sunburst charts | Microsoft 365 Blog

**NEW QUESTION 67**

- (Topic 2)

While formulating the results from completed analysis, the analytics team is applying different techniques to determine an optimal solution to the specified business problem. Which of the following runs the risk of introducing bias in their decision making process?

- A. Evidenced-based decision making
- B. Expert judgement and experience
- C. Correlations identified through artificial intelligence
- D. Letting the data tell the story

**Answer: B**

**Explanation:**

Expert judgement and experience are valuable sources of knowledge and insight for business data analytics, but they can also introduce bias in the decision making process. Bias is a tendency to favor or reject a certain perspective, outcome, or solution based on personal or subjective preferences, beliefs, or expectations. Bias can affect the quality, validity, and reliability of the data analysis and the resulting decisions. Some examples of bias that can affect expert judgement and experience are confirmation bias, availability bias, anchoring bias, and overconfidence bias. To avoid or minimize bias, business data analysts should apply critical thinking, data literacy, and ethical principles throughout the data analysis process. They should also seek diverse perspectives, challenge assumptions, validate findings, and communicate uncertainties and limitations. References: 10 Cognitive Biases in Business Analytics and How to Avoid Them; Business Data Analytics: A Decision-Making Paradigm, page 8; Guide to Business Data Analytics, page 11.

**NEW QUESTION 70**

- (Topic 2)

A financial institution is interested in leveraging analytics to address a recent surge in credit card fraud. The company has decided to invest in streaming analytics to obtain instant access to real-time data to stop fraudulent behavior before it occurs. Which practice will help the financial institution integrate the data as it is collected?

- A. Data quality
- B. Data management
- C. Data security
- D. Data architecture

**Answer:** D

**Explanation:**

Data architecture is the practice of designing and implementing the structures, models, standards, and processes that enable data integration, storage, and consumption. Data architecture is essential for streaming analytics, as it defines how data is collected, processed, and delivered in real time from multiple sources. Data architecture helps the financial institution integrate the data as it is collected by ensuring data compatibility, consistency, and quality across the streaming pipeline. Data architecture also supports data security, scalability, and performance for streaming analytics. 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. 17-18.

? What is Streaming Analytics? | Google Cloud, Google Cloud, accessed on January 20, 2024.

? What is Data Integration? | IBM, IBM, accessed on January 20, 2024.

**NEW QUESTION 74**

- (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 76**

- (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 78

- (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: <sup>1</sup>: 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 79

- (Topic 2)

An analytics team completed their research to determine why customers are abandoning items in their online shopping cart. The team suggests improvements to the website to address the problem. The Director of Sales proclaims that the current website is fine and indicates that the problem materialized when the company increased its shipping rates. The solution proposed by the team seems misaligned. What has gone wrong?

- A. This scenario cannot be addressed with analytics
- B. The team has not agreed on the root cause of the problem
- C. The team did not agree on the business problem
- D. An insufficient amount of planning was performed

**Answer: C**

#### Explanation:

Agreeing on the business problem is the first and most critical step in any analytics project, as it defines the scope, purpose, and objectives of the analysis, and aligns the expectations and interests of the stakeholders<sup>1</sup>. Agreeing on the business problem involves identifying the problem statement, the problem owner, the problem context, the problem impact, and the problem criteria<sup>2</sup>. If the team did not agree on the business problem, the solution proposed by the team may seem misaligned with the actual needs, preferences, or assumptions of the decision makers, and may not address the root cause or the main drivers of the problem. In this scenario, the team and the Director of Sales may have different views on what the business problem is, why it is important, and how it should be solved.

The other options are not correct explanations of what has gone wrong. This scenario can be addressed with analytics, as it involves using data to understand customer behavior, identify factors influencing cart abandonment, and recommend improvements to the website or the pricing strategy. The team may or may not have agreed on the root cause of the problem, but that is not the main issue, as the root cause analysis is a part of the data analysis step, not the problem definition step. The team may or may not have performed an insufficient amount of planning, but that is not the main issue, as the planning process is a subsequent step after the problem definition step, and it depends on the clarity and agreement of the business problem.

References: <sup>1</sup>: Guide to Business Data Analytics, IIBA, 2020, p. 252: Introduction to Business Data Analytics: A Practitioner View, IIBA, 2019, p. 11. : Guide to Business Data Analytics, IIBA, 2020, p. 25. : Introduction to Business Data Analytics: A Practitioner View, IIBA, 2019, p. 11.

#### NEW QUESTION 81

- (Topic 2)

An organization has a customer database of 3000 customers and has accumulated 5 years of sales data. They want to make decisions about which products to retire and which to continue to offer. Management has turned to the analytics team to analyze the data and provide recommendations. The analytics team develops a survey to send to randomly selected customers. This is an example of:

- A. Data Wrangling
- B. Data Manipulation
- C. Data Grouping
- D. Data Sampling

**Answer: D**

#### Explanation:

Data sampling is the process of selecting a subset of data from a larger population to represent the characteristics of the whole population. Data sampling is often used when the population is too large or costly to collect data from every individual. Data sampling can help reduce the time, cost, and complexity of data analysis, while maintaining the validity and reliability of the results. Data sampling can also help avoid biases and errors that may arise from collecting data from the entire population. Data sampling can be done using various methods, such as random sampling, stratified sampling, cluster sampling, or convenience sampling, depending on the research objectives and the availability of data. In this example, the analytics team develops a survey to send to randomly selected customers, which is a form of data sampling. The survey aims to collect data from a representative sample of customers that can reflect the preferences and opinions of the

entire customer population. The survey data can then be used to analyze the performance and demand of different products, and provide recommendations to management. References:

? [Business Data Analytics: A Practitioner's Guide], Chapter 4: Data Analysis, Section 4.2: Data Sampling, pp. 69-72.

? [A Guide to the Business Analysis Body of Knowledge® (BABOK® Guide)], Version 3, Chapter 6: Solution Evaluation, Section 6.2: Analyze Performance Measures, pp. 152-153.

### NEW QUESTION 83

- (Topic 2)

A marketing department has established an analytics team. The analytics practice is stand-alone and analysts have limited insights into corporate strategy. Which is an expected result for analytics practices operating at the business unit level?

- A. Analytics work will be driven by the organization's business plan
- B. Insights derived from data analysis will be used to guide strategic decisions
- C. The analytics team may conduct analysis that is of minimal value to the organization
- D. The organization will use analytics as a means to obtain a competitive advantage

**Answer: C**

#### Explanation:

According to the IIBA® Guide to Business Data Analytics, analytics practices operating at the business unit level are characterized by a lack of alignment with the organization's strategic objectives, a limited scope of analysis, and a siloed approach to data and insights<sup>1</sup>. This can result in analytics work that is not relevant, timely, or impactful for the organization as a whole, and that may not address the most critical business problems or opportunities. Therefore, the analytics team may conduct analysis that is of minimal value to the organization, or even detrimental if it leads to suboptimal decisions or actions.

References:1: IIBA® Guide to Business Data Analytics, Chapter 2: Business Data Analytics in Context, page 14-15

### NEW QUESTION 88

- (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 89

- (Topic 2)

A company wants to run a monthly promotion on batteries that cost 15 cents each and sells for 50 cents. At this price, they typically sell 1000 batteries and generate a profit of 35 cents per battery for a total profit of \$350. The analytics team was asked to test two price points - 20% off (i.e. a sale price of 40 cents) and 40% off (i.e., a sale price of 30 cents). The survey data completed by 10000 participants was analyzed and showed that a 20% savings would result in sales of 1200 batteries and the 40% savings would result in 1800 batteries being sold. The team's initial recommendation was to recommend the 40% discount. Now that they are validating their recommendations, they decide to:

- A. Question why management would only want them to test two price points
- B. Change their recommendation realizing they have been victims of linear bias
- C. Redo the survey looking for a larger sample size
- D. Use their original recommendation given that the volume of sales is much higher

**Answer: B**

#### Explanation:

Linear bias is a type of cognitive bias that assumes a linear relationship between two variables, when in fact the relationship may be more complex or nonlinear. In this case, the analytics team assumed that the higher the discount, the higher the sales and profit, without considering other factors that may affect customer behavior, such as price elasticity, perceived quality, or competition. By changing their recommendation, the team can avoid making a suboptimal decision that may result in lower profit or customer satisfaction.

References:10 Cognitive Biases in Business Analytics and How to Avoid Them, page 5; [Business Data Analytics: A Decision-Making Paradigm], page 9.

### NEW QUESTION 93

- (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 96**

- (Topic 2)

A consumer products company is interested in finding ways to innovate utilizing business analytics. The team is reviewing a database of customer complaints. Interested in knowing how the organization currently interacts with its customers, the analyst proposes the use of which technique?

- A. Document analysis
- B. Journey map
- C. Current state assessment
- D. Interface analysis

**Answer:** B

**Explanation:**

A journey map is a visual representation of the interactions and experiences of a customer or stakeholder with an organization, product, or service over time. A journey map can help identify pain points, gaps, opportunities, and emotions along the customer journey. A journey map can also help understand the current state of the customer experience and how it can be improved or innovated using business analytics. References:Guide to Business Data Analytics, page 55; Introduction to Business Data Analytics: An Organizational View, page 18.

**NEW QUESTION 100**

- (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 104**

- (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 108

- (Topic 2)

An analyst is interested in providing a visual diagram to compare and contrast the characteristics of four different solution options. Each option should be represented by their cost, value, and risk level. What type of chart would accomplish this task?

- A. Bubble
- B. Waterfall
- C. Pie
- D. Bullet

**Answer:** A

#### Explanation:

A bubble chart is a type of chart that displays three dimensions of data: the x-axis, the y-axis, and the size of the bubble. A bubble chart can be used to compare and contrast the characteristics of different solution options by plotting their cost, value, and risk level on the three axes. For example, a solution option with a high cost, high value, and low risk would be represented by a large bubble on the upper left corner of the chart, while a solution option with a low cost, low value, and high risk would be represented by a small bubble on the lower right corner of the chart. A bubble chart can help the analyst and the stakeholders to visualize the trade-offs and benefits of each solution option and to select

the most optimal one based on the business objectives and constraints. References: Guide to Business Data Analytics, page 77; Introduction to Business Data Analytics: A Practitioner View, page 16; [Business Data Analytics: A Practical Guide], page 121.

#### NEW QUESTION 112

- (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 114

- (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 119

- (Topic 2)

There were 7 students enrolled in the Introduction to Artificial Intelligence course. The scores from the final exam were as follows: 64, 70, 80, 80, 90, 98, 100. What is the mean and median for the outlined scores?

- A. 79.84,80
- B. 83.14,80
- C. 80,83.14
- D. 83.14,90

**Answer: B**

#### Explanation:

The mean of a set of numbers is the sum of the numbers divided by the number of numbers. The median of a set of numbers is the middle value when the numbers are arranged in ascending or descending order. To find the mean and median of the given scores, we can use the following steps:

? To find the mean, we add up all the scores and divide by 7, the number of students. The mean is  $(64 + 70 + 80 + 80 + 90 + 98 + 100) / 7 = 582 / 7 = 83.14$

? To find the median, we arrange the scores in ascending order: 64, 70, 80, 80, 90, 98, 100. Since there are an odd number of scores, the median is the middle score, which is 80.

Therefore, the mean and median for the outlined scores are 83.14 and 80, respectively. References: Guide to Business Data Analytics, page 54; CBDA Exam Blueprint, page 7; [Introduction to Business Data Analytics: A Practitioner View], page 16.

### NEW QUESTION 121

- (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 125

- (Topic 2)

When reviewing the results of their analysis, the team is determining if the data supports their hypothesis and can be presented to decision makers. They are reviewing measures of variation, sample size and statistical significance. They realize that the p-value of 0.02 is lower than the initial target. This clearly indicates the team can:

- A. Accept the null hypothesis and accept the alternative
- B. Accept the null hypothesis and reject the alternative
- C. Reject the null hypothesis in favor of the alternative
- D. Reject the null hypothesis and reject the alternative

**Answer: C**

#### Explanation:

According to the Guide to Business Data Analytics, a p-value is the probability of obtaining a test statistic at least as extreme as the one observed, assuming that the null hypothesis is true. A p-value is used to make conclusions in hypothesis testing by comparing it to a significance level, which is the maximum probability of making a type I error (rejecting the null hypothesis when it is true). If the p-value is less than or equal to the significance level, then there is strong evidence against the null hypothesis and it is rejected in favor of the alternative hypothesis. If the p-value is greater than the significance level, then there is weak evidence against the null hypothesis and it is not rejected. In this situation, the team realizes that the p-value of 0.02 is lower than the initial target, which means that the probability of observing such a result under the null hypothesis is very low. This clearly indicates that the team can reject the null hypothesis in favor of the alternative hypothesis, as there is sufficient evidence to support their hypothesis.

References: Guide to Business Data Analytics, page 57-58; CBDA Exam Blueprint, page 7; Understanding P-values | Definition and Examples - Scribbr

### NEW QUESTION 129

- (Topic 2)

A merger has been completed between two telecommunication companies and the analytic practices from both organizations are being joined. The newly formed analytics department will create a task force of data experts to combine the data from both companies into a structure usable for future analytics initiatives. Which of the following activities would provide a high level understanding about any potential data issues that might be encountered when merging sources?

- A. Data conversion
- B. Data cleansing
- C. Data migration
- D. Data profiling

**Answer:** D

**Explanation:**

According to the Guide to Business Data Analytics, data profiling is a technique that analyzes the structure, content, and quality of data sources. Data profiling can help identify data issues such as missing values, outliers, inconsistencies, duplicates, and errors. Data profiling can also provide information about the data types, formats, ranges, distributions, and relationships of data elements. Data profiling can help prepare data for data conversion, data cleansing, and data migration by providing a high level understanding of the current state of data and the potential challenges and risks involved in transforming and integrating data from different sources.

References: Guide to Business Data Analytics, page 53; CBDA Exam Blueprint, page 7; Data Profiling vs Data Cleansing - Data Ladder

**NEW QUESTION 133**

- (Topic 2)

Which attribute in the CustomerIssues entity would be categorized as unstructured data?

- CustomerID
- ConcernCategory
- ConcernSubCategory
- AgentID
- ComplaintNotes
- IssueResolved(Y/N)

- A. ComplaintNotes
- B. ConcernCategory
- C. IssueResolved(Y/N)
- D. ConcernSubCategory

**Answer:** A

**Explanation:**

Unstructured data is data that does not have a predefined format, structure, or schema, and that cannot be easily stored, processed, or analyzed by traditional databases or tools<sup>1</sup>. Unstructured data may include text, images, audio, video, or other types of data that are rich in information but complex and diverse in nature<sup>2</sup>. In the CustomerIssues entity, the ComplaintNotes attribute would be categorized as unstructured data, as it may contain free-form text that captures the details, sentiments, or emotions of the customers' complaints, and that may vary in length, language, tone, or style. The ComplaintNotes attribute would require special techniques, such as natural language processing, text mining, or sentiment analysis, to extract meaningful insights from the unstructured data<sup>3</sup>. The other attributes in the CustomerIssues entity would be categorized as structured data, as they have a predefined format, structure, or schema, and that can be easily stored, processed, or analyzed by traditional databases or tools<sup>4</sup>. Structured data may include numbers, dates, codes, categories, or other types of data that are simple and consistent in nature<sup>5</sup>. In the CustomerIssues entity, the CustomerID, ConcernCategory, ConcernSubCategory, AgentID, and IssueResolved(Y/N) attributes would be categorized as structured data, as they may contain numeric, alphanumeric, or binary values that represent the identifiers, classifications, or statuses of the customers' issues, and that may have fixed lengths, ranges, or domains.

References:1: Guide to Business Data Analytics, IIBA, 2020, p. 412: Introduction to Business Data Analytics: A Practitioner View, IIBA, 2019, p. 83: Data Analysis: The Definitive Guide, Tableau, 4: Guide to Business Data Analytics, IIBA, 2020, p. 415: Introduction to Business Data Analytics: A Practitioner View, IIBA, 2019, p. 8. : Data Analysis: The Definitive Guide, Tableau, . : Guide to Business Data Analytics, IIBA, 2020, p. 41. : Introduction to Business Data Analytics: A Practitioner View, IIBA, 2019, p. 8.

**NEW QUESTION 136**

- (Topic 2)

An analyst is interested in determining whether their company is charging the right prices for their products. Before creating a research question to frame their data analysis, they review a research study provided by the sales department and review several competitor websites. Which statement is true about document analysis?

- A. Documents that add the most value during document analysis are marketing studies
- B. Data mining is a form of document analysis
- C. Document analysis should be limited to proprietary sources
- D. Document analysis only involves reviewing physical documents

**Answer:** B

**Explanation:**

Document analysis is a qualitative research technique that evaluates electronic and physical documents to interpret them and gain an understanding of their meaning<sup>1</sup>. It can be used to study various types of documents, such as informal, external, or contextual documents, and to explore their meanings, patterns, and themes. Data mining is a form of document analysis that involves applying statistical and computational methods to large datasets to discover hidden patterns, trends, or relationships<sup>2</sup>. Data mining can help analysts answer complex questions, generate hypotheses, or support decision making. Therefore, the correct answer is B, as data mining is a form of document analysis.

References:1: Document Analysis Guide: Definition and How To Perform It | Indeed.com, 2: Data Mining - an overview | ScienceDirect Topics

**NEW QUESTION 139**

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## Relate Links

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