Business Statistics First Course 8th edition Levine Test Bank

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BUSINESS STATISTICS: A FIRST COURSE

EIGHTH EDITION

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First Things First

1. The process of using data collected from a small group to reach conclusions about a large group is called
    a) statistical inference.
    b) DCOVA framework.
    c) operational definition.
    d) descriptive statistics.

ANSWER:
a
TYPE: MC DIFFICULTY: Easy
KEYWORDS: inferential statistics

2. Those methods involving the collection, presentation, and characterization of a set of data in order to properly describe the various features of that set of data are called
    a) statistical inference.
    b) DCOVA framework.
    c) operational definition.
    d) descriptive statistics.

ANSWER:
d
TYPE: MC DIFFICULTY: Easy
KEYWORDS: descriptive statistics

3. The collection and summarization of the socioeconomic and physical characteristics of the employees of a particular firm is an example of
    a) inferential statistics.
    b) descriptive statistics.
    c) operational definition.
    d) DCOVA framework.

ANSWER:
b
TYPE: MC DIFFICULTY: Easy
KEYWORDS: descriptive statistics

4. The estimation of the population average family expenditure on food based on the sample average expenditure of 1,000 families is an example of
    a) inferential statistics.
    b) descriptive statistics.
    c) DCOVA framework.
    d) operational definition.

ANSWER:
a
TYPE: MC DIFFICULTY: Easy
KEYWORDS: inferential statistics

5. Which of the following is **not** an element of descriptive statistical problems?
    a) An inference made about the population based on the sample.

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b) The population or sample of interest.
c) Tables, graphs, or numerical summary tools.
d) Identification of patterns in the data.

ANSWER:
a
TYPE: MC DIFFICULTY: Moderate
KEYWORDS: descriptive statistics

6. A study is under way in Yosemite National Forest to determine the adult height of American pine trees. Specifically, the study is attempting to determine what factors aid a tree in reaching heights greater than 60 feet tall. It is estimated that the forest contains 25,000 adult American pines. The study involves collecting heights from 250 randomly selected adult American pine trees and analyzing the results. Identify the variable of interest in the study.
    a) The age of an American pine tree in Yosemite National Forest.
    b) The height of an adult American pine tree in Yosemite National Forest.
    c) The number of American pine trees in Yosemite National Forest.
    d) The species of trees in Yosemite National Forest.

ANSWER:
b
TYPE: MC DIFFICULTY: Easy
KEYWORDS: variable

7. Most analysts focus on the cost of tuition as the way to measure the cost of a college education. But incidentals, such as textbook costs, are rarely considered. A researcher at Drummand University wishes to estimate the textbook costs of first-year students at Drummand. To do so, she monitored the textbook cost of 250 first-year students and found that their average textbook cost was $600 per semester. Identify the variable of interest to the researcher.
    a) The textbook cost of first-year Drummand University students.
    b) The year in school of Drummand University students.
    c) The age of Drummand University students.
    d) The cost of incidental expenses of Drummand University students.

ANSWER:
a
TYPE: MC DIFFICULTY: Easy
KEYWORDS: variable

8. True or False: Problems may arise when statistically unsophisticated users who do not understand the assumptions behind the statistical procedures or their limitations are misled by results obtained from computer software.

ANSWER:
True
TYPE: TF DIFFICULTY: Easy
KEYWORDS: statistical package

9. True or False: Managers need an understanding of statistics to be able to present and describe information accurately, draw conclusions about large populations based on small samples, improve processes, and make reliable forecasts.

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ANSWER:
True
TYPE: TF DIFFICULTY: Easy
KEYWORDS: reasons for learning statistics

10. True or False: A professor computed the sample average exam score of 20 students and used it to estimate the average exam score of the 1,500 students taking the exam. This is an example of inferential statistics.

ANSWER:
True
TYPE: TF DIFFICULTY: Easy
KEYWORDS: descriptive statistics, inferential statistics

11. True or False: Using the number of registered voters who turned out to vote for the primary in Iowa to predict the number of registered voters who will turn out to vote in Vermont's primary is an example of descriptive statistics.

ANSWER:
False
TYPE: TF DIFFICULTY: Easy
KEYWORDS: descriptive statistics, inferential statistics

12. True or False: Compiling the number of registered voters who turned out to vote for the primary in Iowa is an example of descriptive statistics.

ANSWER:
True
TYPE: TF DIFFICULTY: Easy
KEYWORDS: descriptive statistics, inferential statistics

13. The Human Resources Director of a large corporation wishes to develop an employee benefits package and decides to select 500 employees from a list of all (N = 40,000) workers in order to study their preferences for the various components of a potential package. In this study, methods involving the collection, presentation, and characterization of the data are called _____.

ANSWER:
descriptive statistics/methods
TYPE: FI DIFFICULTY: Easy
KEYWORDS: descriptive statistics

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14. The Human Resources Director of a large corporation wishes to develop an employee benefits package and decides to select 500 employees from a list of all ($N = 40{,}000$) workers in order to study their preferences for the various components of a potential package. In this study, methods that result in decisions concerning population characteristics based only on the sample results are called _____.

ANSWER:
inferential statistics/methods
TYPE: FI DIFFICULTY: Easy
KEYWORDS: inferential statistics

15. The oranges grown in corporate farms in an agricultural state were damaged by some unknown fungi a few years ago. Suppose the manager of a large farm wanted to study the impact of the fungi on the orange crops on a daily basis over a 6-week period. On each day a random sample of orange trees was selected from within a random sample of acres. The daily average number of damaged oranges per tree and the proportion of trees having damaged oranges were calculated. In this study, drawing conclusions on any one day about the true population characteristics based on information obtained from the sample is called _____.

ANSWER:
inferential statistics/methods
TYPE: FI DIFFICULTY: Moderate
KEYWORDS: inferential statistics

16. The oranges grown in corporate farms in an agricultural state were damaged by some unknown fungi a few years ago. Suppose the manager of a large farm wanted to study the impact of the fungi on the orange crops on a daily basis over a 6-week period. On each day a random sample of orange trees was selected from within a random sample of acres. The daily average number of damaged oranges per tree and the proportion of trees having damaged oranges were calculated. In this study, the presentation and characterization of the two main measures calculated each day (i.e., average number of damaged oranges per tree and proportion of trees having damaged oranges) is called _____ .

ANSWER:
descriptive statistics/methods
TYPE: FI DIFFICULTY: Moderate
KEYWORDS: descriptive statistics

17. The Commissioner of Health in New York State wanted to study malpractice litigation in New York. A sample of 31 thousand medical records was drawn from a population of 2.7 million patients who were discharged during 2010. Using the information obtained from the sample to predict population characteristics with respect to malpractice litigation is an example of _____.

ANSWER:
inferential statistics
TYPE: FI DIFFICULTY: Moderate
KEYWORDS: inferential statistics

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18. The Commissioner of Health in New York State wanted to study malpractice litigation in New York. A sample of 31 thousand medical records was drawn from a population of 2.7 million patients who were discharged during 2010. The collection, presentation, and characterization of the data from patient medical records are examples of _____.

ANSWER:
descriptive statistics/methods
TYPE: FI DIFFICULTY: Easy
KEYWORDS: descriptive statistics

19. True or False: Business analytics combine "traditional" statistical methods with methods and techniques from management science and information systems to form an interdisciplinary tool that supports fact-based management decision making.

ANSWER:
True
TYPE: TF DIFFICULTY: Easy
KEYWORDS: business analytics

20. Which of the following is **not** true about business analytics?
    a) It enables you to use statistical methods to analyze and explore data to uncover unforeseen relationships.
    b) It enables you to use management science methods to develop optimization models that impact an organization's strategy, planning, and operations.
    c) It enables you to use complex mathematics to replace the need for organizational decision making and problem solving.
    d) It enables you to use information systems methods to collect and process data sets of all sizes.

ANSWER:
c
TYPE: MC DIFFICULTY: Moderate
KEYWORDS: business analytics

21. True or False: "Big data" is a concrete concept with a precise operational definition.

ANSWER:
False
TYPE: TF DIFFICULTY: Easy
KEYWORDS: big data

22. True or False: "Big data" are data being collected in huge volumes and at very fast rates, and they typically arrive in a variety of forms, organized and unorganized.

ANSWER:
True
TYPE: TF DIFFICULTY: Easy
KEYWORDS: big data

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23. True or False: In the current data-driven environment of business, the decisions you make will be increasingly based on gut or intuition supported by personal experience.

ANSWER:
False
TYPE: TF DIFFICULTY: Easy
KEYWORDS: business analytics

24. True or False: The D in the DCOVA framework stands for "data".

ANSWER:
False
TYPE: TF DIFFICULTY: Easy
KEYWORDS: DCOVA framework

25. True or False: The D in the DCOVA framework stands for "define".

ANSWER:
True
TYPE: TF DIFFICULTY: Easy
KEYWORDS: DCOVA framework

26. True or False: The C in the DCOVA framework stands for "categorize".

ANSWER:
False
TYPE: TF DIFFICULTY: Easy
KEYWORDS: DCOVA framework

27. True or False: The C in the DCOVA framework stands for "collect".

ANSWER:
True
TYPE: TF DIFFICULTY: Easy
KEYWORDS: DCOVA framework

28. True or False: The O in the DCOVA framework stands for "operationalize".

ANSWER:
False
TYPE: TF DIFFICULTY: Easy
KEYWORDS: DCOVA framework

29. True or False: The O in the DCOVA framework stands for "organize".

ANSWER:
True
TYPE: TF DIFFICULTY: Easy
KEYWORDS: DCOVA framework

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30. True or False: The V in the DCOVA framework stands for "verify".

ANSWER:
False
TYPE: TF DIFFICULTY: Easy
KEYWORDS: DCOVA framework

31. True or False: The V in the DCOVA framework stands for "visualize".

ANSWER:
True
TYPE: TF DIFFICULTY: Easy
KEYWORDS: DCOVA framework

32. True or False: The A in the DCOVA framework stands for "apply".

ANSWER:
False
TYPE: TF DIFFICULTY: Easy
KEYWORDS: DCOVA framework

33. True or False: The V in the DCOVA framework stands for "value".

ANSWER:
False
TYPE: TF DIFFICULTY: Easy
KEYWORDS: DCOVA framework

34. Which of the following is not an attribute of big data?

a. Variegated
b. Velocity
c. Volume
d. Variety

ANSWER:
a
TYPE: TF DIFFICULTY: Easy
KEYWORDS: business analytics

35. True or False: If rising temperatures are followed immediately by an increase in crime in urban areas, we would attribute the two events to be an instance of logical causality.

ANSWER:
False
TYPE: TF DIFFICULTY: Moderate
KEYWORDS: Starting points for learning statistics, page 6 text.

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36. True or False: Because of its irregular pattern and the fact it must be collected by irregular means, unstructured data is not a type of big data.

ANSWER:
False
TYPE: TF DIFFICULTY: Moderate
KEYWORDS: FTF2 Business Analytics: The Changing Face of Statistics, page 4 text.

37. Which of the following types of software can store dashboards?
    a. Minitab
    b. Both Minitab and Tableau
    c. Tableau
    d. Excel and Minitab

ANSWER:
c
TYPE: MC DIFFICULTY: Easy
KEYWORDS: business analytics, software

38. Which of the following is not a good practice for using software properly?
    a. Using preexisting solutions to solve new problems
    b. Using generic names to identify applications such as Assignment01, Assignment02, etc.
    c. Always build solutions from scratch.
    d. b and c

ANSWER:
d
TYPE: MC DIFFICULTY: Moderate
KEYWORDS: business analytics, software

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