

MULTIPLE CHOICE

1. What is the discipline of diagnosing, preventing, and treating diseases and disorders?
 - a. Statistics
 - b. Health care
 - c. Data analytics
 - d. Abstracting

ANS: B

Health care is the discipline of diagnosing, preventing, and treating diseases and disorders.

REF: Page: 4 OBJ: 1

2. What is the scientific application of mathematical principles to the collection, analysis, interpretation, and presentation of numerical data?
 - a. Statistics
 - b. Health care
 - c. Data analytics
 - d. Abstracting

ANS: A

Statistics is the scientific application of mathematical principles to the collection, analysis, interpretation, and presentation of numerical data.

REF: Page: 4 OBJ: 1

3. What is the manual collection of data from medical charts or the digital collection of data from electronic health records called?
 - a. Data analytics
 - b. Abstracting
 - c. Procedure index
 - d. Interpretation

ANS: B

Collection can also be done manually from medical charts (this is called *abstracting*) or digitally from electronic health records or management information systems.

REF: Page: 10 OBJ: 2

4. A list of patient discharges sorted by the physician who treated them is called what?
 - a. Physician index
 - b. Abstracting
 - c. Procedure index
 - d. ICD-10

ANS: A

A list of patient discharges sorted by the physician who treated them is called a *physician index*.

REF: Page: 5 OBJ: 2

5. A list of procedures performed over a certain period of time is called what?
- Physician index
 - Abstracting
 - Procedure index
 - ICD-10

ANS: C

A list of procedures performed over a certain period of time is called a *procedure index*.

REF: Page: 5 OBJ: 2

6. What process involves an initial question or problem that needs to be answered, and the calculations performed to address the question?
- Interpretation
 - Abstracting
 - Procedure index
 - Analysis

ANS: D

Analysis involves an initial question or problem that needs to be answered, and the calculations performed to address the question.

REF: Page: 6 OBJ: 3

7. What is the explanation of the results of the analysis?
- Interpretation
 - Abstracting
 - Procedure index
 - Analysis

ANS: A

Interpretation is the explanation of the results of the analysis.

REF: Page: 6 OBJ: 3

8. What is the organization of the data into a format that allows for an understanding of the findings?
- Interpretation
 - Presentation
 - Abstracting
 - Analysis

ANS: B

Presentation is the organization of the data into a format that allows for an understanding of the findings.

REF: Page: 6 OBJ: 3

9. Which of the following is a frequency display of data?
- a. Pie chart
 - b. Histogram
 - c. Line graph
 - d. Table

ANS: B

A *histogram* is a frequency display of data.

REF: Page: 7 OBJ: 4

10. Which of the following is a graphical display of data over time?
- a. Pie chart
 - b. Histogram
 - c. Line graph
 - d. Table

ANS: C

A *line graph* is a graphical display of data over time.

REF: Page: 7 OBJ: 4

11. Which of the following is a display of category percentages?
- a. Pie chart
 - b. Histogram
 - c. Line graph
 - d. Table

ANS: A

A *pie chart* is a display of numerical proportions.

REF: Page: 7 OBJ: 4

12. Which of the following is a display of data in rows and columns?
- a. Pie chart
 - b. Histogram
 - c. Line graph
 - d. Table

ANS: D

A *table* is a display of data in rows and columns.

REF: Page: 7 OBJ: 4

13. What are the items, observations, or raw facts used to describe a question under study?
- a. Statistics
 - b. Independent variable
 - c. Dependent variable
 - d. Data

ANS: D

Statistics starts with *data* which are the items, observations, or raw facts used to describe a question under study.

REF: Page: 6 OBJ: 1

14. The inspection and evaluation of groups of data using statistics is called what?
- a. Statistics
 - b. Health care
 - c. Data analytics
 - d. Abstracting

ANS: C

The inspection and evaluation of groups of data using statistics is called *data analytics*.

REF: Page: 6 OBJ: 1

15. Which of the following is NOT an example of data items in health care?
- a. Initial time point
 - b. Patient age
 - c. Gender
 - d. Marital status

ANS: A

The *initial time point* occurs at the beginning of a study and records data items, but it is not a data item in and of itself.

REF: Page: 6 OBJ: 1

16. What is the ultimate goal of health care statistics?
- a. To maintain clean and accurate data
 - b. To organize the data into a format that can be used to make decisions
 - c. To create context and meaning
 - d. To observe repeated patterns in the data

ANS: B

The ultimate goal of health care statistics is *to organize the data into a format that can be used to make decisions*.

REF: Page: 5 OBJ: 1

17. Patterns often emerge after information is created or gathered. What is the next step in this pyramid process?
- a. Forecasting
 - b. Business intelligence
 - c. Recommendations
 - d. Knowledge

ANS: D

The information becomes *knowledge*, the conclusion arrived at by using information to determine a truth.

REF: Page: 8 OBJ: 1

18. What is on the top of the pyramid, and is the final use of the collection, analysis, interpretation, and presentation of data?
- Forecasting
 - Business intelligence
 - Recommendations
 - Knowledge

ANS: B

Finally, *business intelligence* is the top of the pyramid, and is the final use of the collection, analysis, interpretation, and presentation of data.

REF: Page: 8 OBJ: 1

19. What is the primary purpose of recording data?
- Compilation of databases
 - Trend analysis
 - Communication
 - Forecasting

ANS: C

The primary purpose of recording data is *communication*, which is necessary to deliver patient care.

REF: Page: 9 OBJ: 1

20. What is the original, firsthand account of the patient's treatment?
- Primary data
 - Secondary data
 - Tertiary data
 - Historical data

ANS: A

The kind of data collected or generated by clinicians when treating a patient is *primary data*, the original, firsthand account of the patient's treatment.

REF: Page: 9 OBJ: 2

21. What comes from sources other than the original recorder or reporter of the data?
- Primary data
 - Secondary data
 - Tertiary data
 - Historical data

ANS: B

Secondary data comes from sources other than the original recorder or reporter of the data.

REF: Page: 10 OBJ: 2

22. Who are the payers, regulating (licensing and accrediting) bodies, and government agencies?
- Internal users
 - External users

- c. Primary users
- d. Secondary users

ANS: B

External users are the payers, regulating (licensing and accrediting) bodies, and government agencies.

REF: Page: 10 OBJ: 2

23. Who are the individuals within the facilities including the departments, such as services and caregivers?
- a. Internal users
 - b. External users
 - c. Primary users
 - d. Secondary users

ANS: A

Internal users are those within the facilities including the departments, services, and caregivers

REF: Page: 10 OBJ: 2

24. Which of the following is NOT an example of secondary data collection?
- a. An HIM professional abstracts data from patient records into a database.
 - b. A nurse records a patient's blood pressure during an office visit.
 - c. A hospital administrator generates a report of the number of tonsillectomies performed last year.
 - d. A researcher examines reports of gunshot wounds from trauma centers.

ANS: B

A nurse records a patient's blood pressure during an office visit—primary data collection.

REF: Page: 10 OBJ: 2

25. What is the discipline of collecting, describing, interpreting, and presenting data?
- a. Categorical statistics
 - b. Ordinal statistics
 - c. Inferential statistics
 - d. Descriptive statistics

ANS: D

Descriptive statistics is the discipline of collecting, describing, interpreting, and presenting data.

REF: Pages: 10-11 OBJ: 3

26. What is the study of using mathematical models to *predict* future events and to draw conclusions about a sample of a population?
- a. Categorical statistics
 - b. Ordinal statistics
 - c. Inferential statistics
 - d. Descriptive statistics

ANS: C

Inferential statistics is the study of using mathematical models to *predict* future events and to draw conclusions about a sample of a population.

REF: Page: 11 OBJ: 3

27. Descriptive statistics studies data on a broad, _____ level.
- sample
 - population
 - community
 - individual

ANS: B

The data that is studied is called a *population*, because it is *all* of the patients, salaries, doctors, etc., that are being examined for their characteristics.

REF: Page: 11 OBJ: 5

28. A _____ is a subset of the population that has been selected using a particular sampling method.
- sample
 - population
 - community
 - individual

ANS: A

A *sample* is a subset of the population that has been selected using a particular sampling method.

REF: Page: 11 OBJ: 5

29. Measles is very rare in the United States. A group of researchers was able to collect demographic and clinical data from 25 reported cases in the Southeast states. These researchers used a:
- population.
 - sample.
 - community
 - individual

ANS: B

Because only a subset of the population, the Southeast states, was studied, the researchers used a *sample*.

REF: Page: 11 OBJ: 5

30. The data set collected for hospital inpatients is:
- MDS.
 - UHDDS.
 - UACDS.
 - OASIS.

ANS: B

UHDDS is the data set used to collect information on inpatient hospital stays.

REF: Page: 16 OBJ: 6

31. Which of the following is an example of descriptive statistics?
- How many patients can we expect in the emergency room next year
 - Which physician practice can be expected to bring in the highest revenue next year
 - How many patients visited the emergency room last year
 - What will be the probable survival of a patient with stage IV inflammatory breast cancer

ANS: C

Descriptive statistics describes the data that is either in the past or present of a population. The number of patients that visited the emergency room last year is in the past.

REF: Pages: 10-11 OBJ: 3

32. Which of the following is NOT an example of descriptive statistics?
- How many patients visited the emergency room last year
 - How long patients stayed in the hospital with a particular diagnosis for the month of August
 - What was the average total cholesterol level of patients with type II diabetes this year to date
 - The likelihood that patients with surgical complications will require readmission within 7 days of discharge

ANS: D

Descriptive statistics describes the data that is either in the past or present of a population. The likelihood that patients with surgical complications will require readmission within 7 days of discharge is in the future; therefore, it is an example of inferential statistics not of descriptive statistics.

REF: Pages: 10-11 OBJ: 3

33. Which of the following is an example of inferential statistics?
- How many patients can we expect in the emergency room next year
 - How many patients visited the emergency room last year
 - How long patients stayed in the hospital with a particular diagnosis for the month of August
 - What was the average total cholesterol level of patients with type II diabetes this year to date

ANS: A

Inferential statistics helps make an intelligent guess about what the data would be in the future from a sample. The number of patients expected in the emergency room next year occurs in the future.

REF: Pages: 10-11 OBJ: 3

34. Which of the following is NOT an example of inferential statistics?
- What will be the probable survival of a patient with stage IV inflammatory breast cancer

- b. What was the average total cholesterol level of patients with type II diabetes this year to date
- c. How many patients can we expect in the emergency room next year
- d. The likelihood that patients with surgical complications will require readmission within 7 days of discharge

ANS: B

Inferential statistics helps make an intelligent guess about what the data would be in the future from a sample. The average total cholesterol level of patients with type II diabetes this year to date occurs in the present, so this is an example of descriptive statistics, not inferential statistics.

REF: Pages: 10-11 OBJ: 3

35. The count or measurement of an observation is called what?
- a. Variable
 - b. Independent variable
 - c. Dependent variable
 - d. Value

ANS: D

A *value* is the count or measurement of an observation.

REF: Page: 12 OBJ: 3

36. An item or characteristic that is measured or counted is called what?
- a. Variable
 - b. Independent variable
 - c. Dependent variable
 - d. Value

ANS: A

A *variable* is an item or characteristic that is measured or counted.

REF: Page: 12 OBJ: 4

37. Items or characteristics that are chosen and varied by the researchers and are often described as the cause of whatever response is measured are referred to as:
- a. variable.
 - b. independent variable.
 - c. dependent variable.
 - d. value.

ANS: B

An *independent variable* is described as the cause of whatever response is measured

REF: Page: 12 OBJ: 4

38. The response, or effect, is measured by the:
- a. variable.
 - b. independent variable.
 - c. dependent variable.

d. value.

ANS: C

The *dependent variable* is the response or effect of the cause.

REF: Page: 12 OBJ: 4

39. Which of the following is an independent variable in measuring birth weight?

- a. Mortality rate
- b. Weeks of gestation
- c. Number of siblings
- d. Number of lives saved

ANS: B

Weeks of gestation is an independent variable because it causes or results in an outcome, like birth.

REF: Page: 12 OBJ: 4

40. Which of the following is a dependent variable?

- a. Weeks of gestation
- b. Country of birth
- c. Number of hours in labor
- d. Mortality rate

ANS: D

The *mortality rate* is a dependent variable because it is the outcome or result of a cause, such as the flu.

REF: Page: 12 OBJ: 4

41. A patient's personal identifier, gender, race, and ethnicity are all examples of what type of data?

- a. Quantitative data
- b. Ordinal level data
- c. Discrete data
- d. Nominal level data

ANS: D

Nominal level data is descriptive and has no logical order.

REF: Page: 13 OBJ: 4

42. A pain scale ranging from least to most painful would be considered what type of data?

- a. Quantitative data
- b. Ordinal level data
- c. Discrete data
- d. Nominal level data

ANS: B

Ordinal level data is descriptive, but it also has an inherent natural order.

REF: Page: 13 OBJ: 4

43. What type of data is represented by whole numbers for categories?
- a. Quantitative data
 - b. Continuous data
 - c. Discrete data
 - d. Business intelligence data

ANS: C

Discrete data are represented by totals for the categories and are represented by whole numbers.

REF: Page: 14 OBJ: 4

44. What type of data is measured numerically and may be used for calculations to further describe their group?
- a. Quantitative data
 - b. Ordinal level data
 - c. Discrete data
 - d. Nominal level data

ANS: A

Quantitative data can be measured numerically (by age, weight, height, time, dollars, etc.) and these data may be used for calculations to further describe their group (patients, hours per week, or salaries).

REF: Page: 14 OBJ: 4

45. Observations without a numerical value that can be sorted or counted into categories are called:
- a. interval level data.
 - b. ratio level data.
 - c. continuous data.
 - d. qualitative data.

ANS: D

Qualitative data can be sorted into categories, but cannot be measured.

REF: Page: 13 OBJ: 4

46. What data type has a logical order or ranking, meaningful, consistent intervals, and includes a zero in its order?
- a. Interval level data
 - b. Ratio level data
 - c. Continuous data
 - d. Qualitative data

ANS: B

Ratio level data is type of quantitative data with a meaningful, natural zero in its order.

REF: Page: 14 OBJ: 4

47. A temperature scale (if it is 0° C outside, it doesn't mean that there is no temperature at all) is an example of what type of data?
- Interval level data
 - Ratio level data
 - Continuous data
 - Qualitative data

ANS: A

Interval level data have a logical order or ranking, and the intervals are meaningful, but the concept of a natural zero is missing.

REF: Page: 14 OBJ: 4

48. Patient ages, weights, lengths of stay, salaries, and billing charges are examples of what type of data?
- Interval level data
 - Nominal level data
 - Continuous data
 - Qualitative data

ANS: C

Continuous data are represented by numbers that have values in between the whole numbers (temperatures: 37.4, 98.6; weights, time, and salaries: \$32,450.81, \$49,341.28).

REF: Page: 14 OBJ: 4

49. The amount of \$42.81 is an example of what type of data?
- Qualitative data
 - Interval level data
 - Continuous data
 - Nominal data

ANS: C

Continuous data are represented by numbers that have values in between the whole numbers (temperatures: 37.4, 98.6; weights, time, and salaries: \$32,450.81, \$49,341.28).

REF: Page: 14 OBJ: 4

50. What is the name of the data set collected by outpatient settings?
- Healthcare Effectiveness Data and Information Set (HEDIS)
 - Minimum Data Set (MDS)
 - Outcome and Assessment Information Set (OASIS)
 - Uniform Ambulatory Care Data Set (UACDS)

ANS: D

Uniform Ambulatory Care Data Set (UACDS) are collected by outpatient settings.

REF: Page: 16 OBJ: 6