Assignment 1 – Chapter 1 Homework

Identify whether the statement describes inferential statistics or descriptive statistics.
1) The chances of winning the California Lottery are one chance in twenty-two million.
A) Inferential statistics
B) Descriptive statistics

ANS: A

Determine whether the data are qualitative or quantitative.
2) The colors of automobiles on a used car lot
A) quantitative
B) qualitative

ANS: B

For questions 3-8, choose from one of the following 4 answers to identify the data set's level of measurement.:

nominal
ordinal
interval
ratio

3) Hair color of women on a high school tennis team

A: Nominal

4) Temperatures of 12 selected refrigerators

A: Interval

5) Number of pages in your statistics book

A: ratio

6) The ratings of a movie ranging from ″poor″ to ″good″ to ″excellent″

A: ordinal

7) The final grades (A, B, C, D, and F) for students in a statistics class

A: ordinal

8) The annual salaries for all teachers in California

A: ratio

For questions 9-13, choose from one of the following 4 answers to decide which method of data collection you would use to collect data for the study.

experiment
simulation
survey
observational study
census

9) A study where a drug was given to 23 patients and a placebo to another group of 23 patients to determine if the drug has an effect on a patient's illness.

A: experiment

10) A study of the salaries of college professors in a particular state

A: survey

11) A study where a political pollster wishes to determine if his candidate is leading in the polls

A: observational study

12) A study where you would like to determine the chance getting three girls in a family of three children

A: simulation

13) A study to evaluate the success of a new experimental procedure performed on 35 patients at one hospital

A: census

For questions 14-20, choose from one of the following 4 answers to identify the sampling technique used.

convenience
random
cluster
systematic
stratified

14) A community college student interviews everyone in a statistics class to determine the percentage of students that own a car.

A: convenience

15) Thirty-five sophomores, 50 juniors and 37 seniors are randomly selected from 538 sophomores, 448 juniors and 394 seniors at a certain high school.

A: stratified

16) In a recent television survey, participants were asked to answer ”yes” or ”no” to the question ”Are you in favor of the death penalty?” Six thousand five hundred responded ”yes” while 4100 responded ”no”. There was a fifty-cent charge for the call.

A: convenience

17) A lobbyist for a major airspace firm assigns a number to each legislator and then uses a computer to randomly generate ten numbers. The lobbyist contacts the legislators corresponding to these numbers.

A: random

18) To ensure customer satisfaction, every 20th phone call received by customer service will be monitored.

A: systematic

19) A market researcher randomly selects 200 drivers under 55 years of age and 200 drivers over 55 years of age.

A: stratified

20) To avoid working late, the quality control manager inspects the last 50 items produced that day.

A: convenience

21) Explain what bias there is in a study done entirely online.

A: It’s a self-limiting pool to Internet users, who tend to be younger, more in touch with technology, etc.

22) A report sponsored by the California Citrus Commission stated that cholesterol levels can be lowered by drinking at least one glass of a citrus product each day. Determine if the report is biased.

A: It’s biased because its sponsor has a vested interest in seeing a particular result.