MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

1.1 Introduction to the Practice of Statistics

Provide an appropriate response.
1) A study published in 1990 attempted to estimate the proportion of Florida residents who were willing to spend more tax dollars on protecting the Florida beaches from environmental disasters. Thirty-three hundred Florida residents were surveyed. Which of the following is the population used in the study?
   A) the Florida residents who were willing to spend more tax dollars on protecting the beaches from environmental disasters
   B) the 3300 Florida residents surveyed
   C) all Florida residents who lived along the beaches
   D) all Florida residents

Provide an appropriate response.
2) Parking at a large university has become a very big problem. University administrators are interested in determining the average parking time (e.g. the time it takes a student to find a parking spot) of its students. An administrator inconspicuously followed 130 students and carefully recorded their parking times. Identify the sample of interest to the university administration.
   A) type of car (import or domestic)
   B) location of the parking spot
   C) parking times of the 130 students
   D) parking time of a student

Provide an appropriate response.
3) The legal profession conducted a study to determine the percentage of cardiologists who had been sued for malpractice in the last ten years. The sample was randomly chosen from a national directory of doctors. Identify the individuals in the study.
   A) the responses: have been sued/have not been sued for malpractice in the last ten years
   B) all cardiologists in the directory
   C) each cardiologist selected from the directory
   D) the doctor’s area of expertise (i.e., cardiology, pediatrics, etc.)

Determine whether the underlined value is a parameter or a statistic.
4) In a survey conducted in the town of Atherton, 22\% of adult respondents reported that they had been involved in at least one car accident in the past ten years.
   A) statistic
   B) parameter

5) 26.2\% of the mayors of cities in a certain state are from minority groups.
   A) parameter
   B) statistic
Classify the variable as qualitative or quantitative.

6) the colors of book covers on a bookshelf
   A) qualitative        B) quantitative

7) the number of calls received at a company’s help desk
   A) qualitative        B) quantitative

Determine whether the quantitative variable is discrete or continuous.

8) the number of bottles of juice sold in a cafeteria during lunch
   A) discrete        B) continuous

9) the weight of a player on the wrestling team
   A) continuous        B) discrete

Determine the level of measurement of the variable.

10) the musical instrument played by a music student
    A) interval        B) ordinal        C) ratio        D) nominal

11) the medal received (gold, silver, bronze) by an Olympic gymnast
    A) ordinal        B) interval        C) nominal        D) ratio

12) height of a tree
    A) ordinal        B) ratio        C) interval        D) nominal

13) the day of the month
    A) interval        B) ordinal        C) ratio        D) nominal

1.3 Simple Random Sampling

Provide an appropriate response.

14) The city council of a small town needs to determine if the town's residents will support the building of a new library. The council decides to conduct a survey of a sample of the town's residents. Which one of the following procedures would be most appropriate for obtaining a sample of the town's residents?
    A) Survey a random sample of librarians who live in the town.
    B) Survey 500 individuals who are randomly selected from a list of all people living in the state in which the town is located.
    C) Survey a random sample of persons within each neighborhood of the town.
    D) Survey every 13th person who enters the old library on a given day.
SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Provide an appropriate response.

15) The policy committee at State University has 6 members: Prof. Rise, Dr. Hernandez, LaToyna, Ming, Jose, and John. A subcommittee of two members must be formed to investigate the visitation policy in the dormitories. List all possible simple random samples of size 2.

16) The top 38 cities in Wisconsin as determined by population are given below. Select a random sample of four cities from the list below using the two digit list of random numbers provided. Begin with the uppermost left random number and proceed down each column. When a column is complete, use the numbers at the top of the next right column and proceed down that column. Information was obtained from the web site http://www.citypopulation.de/USA-Wisconsin.html.

<table>
<thead>
<tr>
<th>Wisconsin Cities by Population</th>
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<tbody>
<tr>
<td>1</td>
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</tbody>
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Random Numbers

| 21 | 49 | 6 | 6 | 19 | 15 | 11 | 17 |
| 12 | 43 | 4 | 31 | 7 | 18 | 1 | 43 |
| 23 | 30 | 2 | 24 | 21 | 18 | 6 | 48 |
| 44 | 12 | 20 | 32 | 2 | 28 | 12 | 38 |
| 8 | 30 | 38 | 43 | 41 | 29 | 3 | 13 |
Answer Key
Testname: 1530CH1REVIEWB

1) D
2) C
3) C
4) A
5) A
6) A
7) B
8) A
9) A
10) D
11) A
12) B
13) A
14) C
15) Prof. Rise and Dr. Hernandez, Prof. Rise and LaToyna, Prof. Rise and Ming, Prof. Rise and Jose,
    Prof. Rise and John, Dr. Hernandez and LaToyna, Dr. Hernandez and Ming, Dr. Hernandez and Jose,
    Dr. Hernandez and John, LaToyna and Ming, LaToyna and Jose, LaToyna and John, Ming and Jose,
    Ming and John, Jose and John
16) Manitowoc, La Crosse, Franklin, Oshkosh.