Chapter 2 Practice Quiz

1. If a statistical study systematically favors certain outcomes, then it is called:

a. A voluntary response sample

b. A convenience sample

c. A simple random sample

d. Biased

2. American Idol asks viewers to call in to vote on their favorite performer. This is an example of:

a. convenience sampling

b. voluntary response sampling

c. simple random sampling

d. an observational study

3. You decide to conduct a sample survey of 10 classmates about the university's new alcohol policy. You decide to survey the first 10 people to walk in the door. This is an example of:

a. convenience sampling

b. voluntary response sampling

c. simple random sampling

d. an observational study

4. *Women's Daily*, a magazine which caters primarily to an over-40 female audience, conducts a survey in their magazine about which sex (male or female) cheats more. This survey is biased because:

a. The opinions may be very different from those of the population as a whole.

b. The survey over represents some parts of the population and underrepresents others.

c. Only those that feel strongly about the position may respond to the poll.

d. All of the choices are correct.

5. A sampling method that best avoids bias is:

a. A voluntary response sample

b. A convenience sample

c. A simple random sample

d. None of the choices are correct.

6. One way to choose a random sample is:

a. Put all the names in a hat and draw out a handful.

b. Arrange all names in alphabetical order and then pick the first ten in the list.

c. Assign each individual a number and use www.randomizer.org

d. Both putting all names in a hat and drawing out a handful and arranging all names in alphabetical order and then picking the first ten in the list.

e. Both putting all names in a hat and drawing out a handful and assigning each individual a number and using www.randomizer.org

7. You want to conduct an SRS of eight people in the class. The following people are in your class: Andrew, Bill, Chris, Dave, Ellen, Frank, Greg, Hank, Iggy, Judy, Ken, Larry, Maureen, Nancy, Otto, Pauline, Ron, Sam, Tom, Uma, Vivian, Warren, Xavier, Yan, and Zander. How would you get your sample?

a. Choose the first eight people who walk in the door

b. Choose the eight people that you know would answer the survey

c. Arrange the items alphabetically and choose the first eight people in the list.

d. Assign them numbers from 01 to 25 and use the table of random digits.

e. All of the choices are valid for an SRS.

8. Suppose you wanted to use the table of random digits to choose four people from the following list of people: Andrew, Bill, Chris, Dave, Ellen, Frank, Greg, Hank, Iggy, Judy, Ken, Larry, Maureen, Nancy, Otto, Pauline, Ron, Sam, Tom, Uma, Vivian, Warren, Xavier, Yan, and Zander. Assigning the list a number in order from 01 to 25 and using Line 116 in the table would get the sample:

a. Nancy, Dave, Warren, Xavier

b. Nancy, Zander, Greg, Ellen

c. Nancy, Chris, Judy, Warren

d. Nancy, Andrew, Chris, Vivian

9. Suppose a packaging inspector decides to inspect a sample from a crate of eggs for freshness. Each crate has 5 trays of 30 eggs each stacked on top of each other. The inspector decides to examine only the top row. Why is this sample biased?

a. Each egg didn't have an equal chance of being chosen in the sample.

b. The top row may not be representative of the entire crate of eggs for freshness.

c. The inspector was convenience sampling which is typically biased.

d. All of the choices are correct.

10. How do you allow impersonal chance to choose the sample for your survey?

a. Choose a selection of individuals that is easiest to reach.

b. Have the subjects/individuals choose themselves based on appeal.

c. Conduct a random sample.

d. Choose the first few items in a list of individuals/subjects.