Unit 07-01 - Sample Quiz: Statistical Studies & Definitions

Multiple Choice
Identify the choice that best completes the statement or answers the question.

___ 1. The average salary of all workers in a auto manufacturing plant is $37,000 in a study about the plant. Does this value describe a population parameter or a sample statistic?

a. Population Parameter  b. Sample Statistic

___ 2. Identify whether the following data set is a population or a sample.

A study about the age of runners is being conducted on the contestants in a marathon of over 200 runners. The researcher collects data only from the first 15 runners and last 15 runners to finish the marathon.

a. Population  b. Sample

___ 3. Identify the following data set:
…….a quality study is being conducted on every 20th battery made at a manufacturing plant.

a. Population  b. Sample

___ 4. Which of the following is most likely to be a random sample?

a. Bill uses a computer to randomly generate numbers to choose which senators to whom he will send a letter
b. Every fifth patron at a movie theater is searched for weapons
c. Every student at a high school is surveyed
d. Five statistics classes at Generic College are selected and each person in those classes is surveyed
5. A traffic cop was stopping every 5th car to check for insurance and license. What type of sampling method is the cop using?

   a. Simple Random Sampling  
   b. Stratified Sampling  
   c. Systematic Sampling  
   d. Convenience Sampling  

6. Which type of sampling method is being employed in the following example:

   "A newspaper reporter wants to know what the people of Georgia think about the latest trades the Braves baseball team have made for an article but is running late. So, the reporter decides to just ask people at the news office what they think to provide a sample of the public's opinion in the article."

   a. Simple Random Sampling  
   b. Stratified Sampling  
   c. Cluster Sampling  
   d. Sampling of Convenience  
   e. Systematic Sampling

7. Which type of sampling method is being employed in the following example:

   "A post office manager was in charge of 11 postal delivery people. He wanted to do a study on the customer's level of satisfaction for the customers he works with. So, he asked 3 of his delivery people to ask every person on their delivery route to rate their satisfaction of mail service on a scale of 1 to 10."

   a. Simple Random Sampling  
   b. Stratified Sampling  
   c. Cluster Sampling  
   d. Sampling of Convenience  
   e. Systematic Sampling

8. Which would be considered **Qualitative** data?

   a. A list of the tire pressure for each tire of every car in a garage  
   b. A list of the name brands for each tire of every car in a garage  
   c. A list of tread depth measures for each tire of every car in a garage  
   d. A list of the measure of the diameters for each tire of every car in a garage
___ 9. Which method of data collection is used if you collect data for a study about the effects of a certain drug given to 10 patients and a placebo given to another group of 10 patients to determine if the drug is effective?

a. Perform an experiment    c. Take a census
b. Use a simulation       d. Use sampling

___ 10. Which method of data collection would you use to gather data for a study to determine the effect of forest fires on wildlife habitats?

a. Perform an Experiment    b. Observational study  c. Take a Census

___ 11. You want to know the effect of a poisonous gas on human brain function. Which method of data collection should you use?

a. Perform an Experiment    c. Take a Census
b. Use a Simulation       d. Use a Sampling

___ 12. Which survey question has the least amount of bias?

a. Why are vegetables good for you?
b. How many hours of sleep do you get?
c. Do you think the media has a negative role in politics?
d. Why are teen drivers dangerous?
13. In a study about adult health in Gwinnett County, which method of data collection would have the least amount of bias?

a. Surveying all the residents at 2 senior citizens’ facilities in Gwinnett one day.
b. Surveying everyone who just graduated from Phoenix High School this year.
c. Surveying every 3rd person leaving the gym in Lawrenceville one day.
d. Surveying every resident in Lawrenceville, Duluth, and Suwanee.