Question 1

Which of the following is a nonrandom sampling technique?

Select one:

a. Systematic sampling.

b. Stratified sampling.

c. Quota sampling.

d. Cluster sampling.

Question 2

Suppose a population has a mean of 400 and a standard deviation of 24. If a random sample of size 144 is drawn from the population, the probability of drawing a sample with a mean between 395.5 and 404.5 is \_\_\_\_\_\_\_.

Select one:

a. 0.0244.

b. 0.9756.

c. 0.9722.

d. 0.0278.

Question 3

If every unit of the population has the same probability of being selected to the sample, then the researcher is probably conducting \_\_\_\_\_\_\_.

Select one:

a. equivalent sampling

b. nonrandom sampling

c. random sampling

d. judgment sampling

Question 4

According to the central limit theorem, if a sample of size 64 is drawn from a population with a mean of 56, the mean of all sample means would equal \_\_\_\_\_\_\_.

Select one:

a. 64.00.

b. 7.00

c. 56.00.

d. 0.875.

Question 5

Suppose a population has a mean of 90 and a standard deviation of 28. If a random sample of size

49 is drawn from the population, the probability of drawing a sample with a mean of less than 84 is \_\_\_\_\_\_\_.

Select one:

a. 0.8664.

b. 0.9332.

c. 0.4332.

d. 0.0668.

Question 6

\_\_\_\_\_\_\_\_ error occurs when, by chance, the sample is not representative of the population.

Select one:

a. Sampling

b. Telescoping

c. Detail

d. Nonsampling

Question 7

The standard deviation of the sampling distribution of is commonly called the \_\_\_\_\_\_\_ of the proportion.

Select one:

a. statistical margin.

b. standard error.

c. statistical leverage.

d. uniform spread.

Question 8

A carload of steel rods has arrived at Cybermatic Construction Company. The car contains 50,000 rods. Claude Vider, Quality Assurance Manager, directs his crew to measure the lengths of 100 randomly selected rods. If the population of rods have a mean length of 120 cm and a standard deviation of 0.05 cm, the probability that Claude's sample has a mean greater than 120.0125 cm is \_\_\_\_\_\_\_\_\_\_\_\_\_.

Select one:

a. 0.0124.

b. 0.9752.

c. 0.4938.

d. 0.0062.

Question 9

Increasing the sample size causes the sampling distribution of to:

Select one:

a. have less dispersion.

b. shift to the left.

c. have more dispersion.

d. shift to the right.

Question 10

Andrew Nikolareas, Operations Manager at Sydney's International Bank, is evaluating the service level provided to walk-in customers. Accordingly, he plans a sample of waiting times for walk-in customers. Andrew randomly selects 4 as a starting point and instructs his staff to record the waiting times for the 4th walk-in customer and every 10th customer thereafter (4, 14, 24, etc.). Andrew's sample is a

Select one:

a. convenience sample

b. stratified sample

c. systematic sample

d. simple random sample

Question 11

The directory or map from which a sample is taken is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Select one:

a. population

b. profile

c. census

d. frame

Question 12

Suppose a population has a mean of 450 and a variance of 900. If a random sample is size 100 is drawn from the population, the probability that the sample mean is between 448 and 453 is \_\_\_\_\_\_\_.

Select one:

a. 0.4972.

b. 0.6826.

c. 0.4101.

d. 0.5899.

Question 13

Suppose a population has a mean of 90 and a standard deviation of 28. If a random sample of size

49 is drawn from the population, the probability of drawing a sample with a mean between 85 and 95 is \_\_\_\_\_\_\_.

Select one:

a. 0.2546.

b. 0.3944.

c. 0.7888.

d. 0.9876.

Question 14

The standard deviation of a sampling distribution is commonly called \_\_\_\_\_\_\_.

Select one:

a. the uniform spread.

b. statistical margin.

c. the standard error.

d. statistical leverage.

Question 15

According to the central limit theorem, if a sample of size 64 is drawn from a population with a standard deviation of 80, the standard deviation of sample means would equal \_\_\_\_\_\_\_.

Select one:

a. 0.800.

b. 1.250.

c. 10.000.

d. 0.125.

Question 16

The central limit theorem is applicable only \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_:

Select one:

a. when the sample size is 30 or more.

b. to symmetrical populations.

c. to leptokurtic populations.

d. to unimodal populations.

Question 17

Suppose a population has a mean of 86 and a standard deviation of 30. If a random sample of size 64 is drawn from the population, the probability of drawing a sample with a mean of less than 79 is \_\_\_\_\_\_\_.

Select one:

a. 0.3434.

b. 0.0307.

c. 0.4693.

d. 0.6642.

Question 18

Suppose a population has a mean of 870 and a variance of 8100. If a random sample is size 36 is drawn from the population, the probability that the sample mean is between 840 and 900 is \_\_\_\_\_\_\_.

Select one:

a. 0.8185.

b. 0.9544.

c. 0.6826.

d. 0.5899.

Question 19

According to the central limit theorem, if a sample of size 144 is drawn from a population with a standard deviation of 132, the standard deviation of sample means would equal \_\_\_\_\_\_\_.

Select one:

a. 1.090.

b. 11.000.

c. 0.125.

d. 0.917.

Question 20

Andrew Nikolareas, Operations Manager at Sydney's International Bank, is evaluating the service level provided to walk-in customers. Accordingly, he plans a sample of waiting times for walk-in customers. If the population of waiting times has a mean of 15 minutes and a standard deviation of 4 minutes, the probability that Andrew's sample of 64 will have a mean less than 16 minutes is a \_\_\_\_\_\_\_\_.

Select one:

a. 0.9772.

b. 0.9544.

c. 0.4772.

d. 0.0228.