#### Auditing and Assurance Services, 15e, Global Edition (Arens)

# **Chapter 15** Audit Sampling for Tests of Controls and Substantive Tests of Transactions

#### Learning Objective 15-1

- 1) A sample in which the characteristics of the sample are the same as those of the population is a(n):
- A) variables sample.
- B) representative sample.
- C) attributes sample.
- D) random sample.

Answer: B

Terms: Sample in which characteristics of sample are same as population

Diff: Easy

Objective: LO 15-1

AACSB: Reflective thinking skills

- 2) When the auditor decides to select less than 100 percent of the population for testing, the auditor is said to use:
- A) audit sampling.
- B) representative sampling.
- C) poor judgment.
- D) estimation sampling.

Answer: A

Terms: Auditor selects less than 100 percent of population for testing

Diff: Easy

Objective: LO 15-1

AACSB: Reflective thinking skills

- 3) To determine if a sample is truly representative of the population, an auditor would be required to:
- A) conduct multiple samples of the same population.
- B) never use sampling because of the expense involved.
- C) audit the entire population.
- D) use systematic sample selection.

Answer: C

Terms: Sample truly representative of population

Diff: Easy

Objective: LO 15-1

4) One of the causes of nonsampling risk is:

- A) improper supervision and instruction of the client's employees.
- B) ineffective audit procedures.
- C) inadequate sample size.
- D) exceptions being found in the sample.

Answer: B

Terms: Nonsampling risk

Diff: Moderate Objective: LO 15-1

AACSB: Reflective thinking skills

- 5) Which one of the choices below is most correct regarding a cause of sampling risk?
- A) Ineffective use of audit procedures
- B) Testing less than the entire population
- C) Use of extensive tests of controls
- D) The use of random sampling

Answer: B

Terms: Correct regarding sampling risk

Diff: Easy

Objective: LO 15-1

AACSB: Reflective thinking skills

6) An auditor can increase the likelihood that a sample is representative by using care in:

#### A)

Designing the sampling process	Designing the sample selection	
Yes	Yes	

B)

Designing the sampling process	Designing the sample selection
No	No

C)

Designing the sampling process	Designing the sample selection
Yes	No

D)

Designing the sampling process	Designing the sample selection
No	Yes

Answer: A

Terms: Increase likelihood that sample is representative

Diff: Easy

Objective: LO 15-1

- 7) Which of the following is the risk that audit tests will not uncover existing exceptions in a sample?
- A) Sampling risk
- B) Nonsampling risk
- C) Audit risk
- D) Detection risk

Answer: B

Terms: Risk that audit tests will not uncover existing exceptions

Diff: Easy

Objective: LO 15-1

AACSB: Reflective thinking skills

- 8) Which of the following is the risk that an auditor will reach an incorrect conclusion because a sample is not representative of the population?
- A) Sampling risk
- B) Nonsampling risk
- C) Audit risk
- D) Detection risk

Answer: A

Terms: Risk auditor will reach an incorrect conclusion

Diff: Easy

Objective: LO 15-1

# 9) Sampling risk may be controlled by:

A)

A direction the complexion	Using an appropriate method of
Adjusting the sample size	selecting sample items
Yes	Yes

B)

Adjusting the sample size	Using an appropriate method of selecting sample items
No	No

C)

Adjusting the sample size	Using an appropriate method of selecting sample items
Yes	No

D)

	Using an appropriate method of
Adjusting the sample size	selecting sample items
No	Yes

Answer: A

Terms: Sampling risk controlled by

Diff: Easy

Objective: LO 15-1

AACSB: Reflective thinking skills

- 10) Which of the following statements is most correct?
- A) A sample of all items of a population will eliminate sampling risk, but increase nonsampling risk.
- B) The use of an appropriate sample selection technique ensures a representative sample.
- C) The auditor's failure to recognize an exception is a significant cause of sampling risk.
- D) The use of inappropriate audit procedures is a significant cause of nonsampling risk.

Answer: D

Terms: Sample selection; Sampling and nonsampling risk

Diff: Easy

Objective: LO 15-1

11) Briefly explain why auditors utilize audit sampling.

Answer: Auditors use sampling techniques primarily because it is generally impractical to audit all transactions or balances. Consequently, auditors must design strategies to select items from the population that are likely to be representative of the remaining unaudited population items. In addition, auditors often use sampling techniques because of economic realities. That is, clients generally do not want to incur the substantial fees associated with auditing every transaction or balance.

Terms: Audit sampling

Diff: Easy

Objective: LO 15-1

AACSB: Reflective thinking skills

12) Discuss what is meant by "sampling risk" and "nonsampling risk."

Answer: Sampling risk is the risk that an auditor reaches an incorrect conclusion because the sample is not representative of the population. Sampling risk is an inherent part of sampling that results from testing less than the entire population.

Nonsampling risk is the risk that the auditor reaches an incorrect conclusion for any reason not related to the sampling risk.

Terms: Sampling and nonsampling risks

Diff: Easy

Objective: LO 15-1

AACSB: Reflective thinking skills

13) List the two ways auditors can control sampling risk.

Answer: Auditors can control sampling risk by:

1. adjusting the sample size

2. using an appropriate method of selecting sample items from the population.

Terms: Sampling risk controlled by

Diff: Easy

Objective: LO 15-1

AACSB: Reflective thinking skills

14) Discuss two causes of nonsampling risk. Also discuss ways the auditor can control nonsampling risk.

Answer: The two causes of nonsampling risk are (1) the auditor's failure to recognize exceptions and (2) inappropriate or ineffective audit procedures. The auditor can control nonsampling risk through careful design of audit procedures and through proper instruction, supervision, and review.

Terms: Nonsampling risk

Diff: Moderate Objective: LO 15-1

15) Sampling risk results from the auditor's failure to recognize exceptions in transaction data.

A) True B) False Answer: B

Terms: Sampling risk

Diff: Easy

Objective: LO 15-1

AACSB: Reflective thinking skills

16) If an auditor does a test in the wrong direction, sampling risk will increase.

A) TrueB) FalseAnswer: B

Terms: Nonsampling risk

Diff: Easy

Objective: LO 15-1

AACSB: Reflective thinking skills

17) If a particular internal control is not followed by the client exactly 6% of the time, and the auditor's tests of that control find three control violations in a sample of 50, the sample is considered to be representative.

A) True B) False Answer: A

Terms: Sample considered to be representative

Diff: Moderate Objective: LO 15-1

AACSB: Reflective thinking skills

18) In practice, auditors do not know whether a sample is representative, even after all testing is complete.

A) True B) False Answer: A

Terms: Representative sample

Diff: Moderate Objective: LO 15-1

AACSB: Reflective thinking skills

19) One way to control sampling risk is to increase sample size.

A) True B) False Answer: A

Terms: Control sampling risk is with sample size

Diff: Moderate Objective: LO 15-1

20) A sample of all items in a population will have a zero sampling risk.

A) True B) False Answer: A

Terms: Sample of all items in a population will have zero sampling risk

Diff: Moderate Objective: LO 15-1

AACSB: Reflective thinking skills

21) It is virtually impossible to reduce sampling risk to zero.

A) True B) False Answer: A

Terms: Sampling risk

Diff: Moderate Objective: LO 15-1

AACSB: Reflective thinking skills

## Learning Objective 15-2

1) There are three phases in both statistical and nonstatistical sampling. The first phase is to:

A) generate random numbers for the sample.

- B) evaluate the results.
- C) plan the sample.
- D) select the sample.

Answer: C

Terms: Statistical and nonstatistical sampling

Diff: Easy

Objective: LO 15-2

AACSB: Reflective thinking skills

- 2) When auditors wish to evaluate a sample statistically, an acceptable selection method is:
- A) systematic sample selection.
- B) judgmental selection.
- C) haphazard selection.
- D) block sample selection.

Answer: A

Terms: Sample statistically

Diff: Easy

Objective: LO 15-2

- 3) Which of the following statements is most correct with concerning the quantification of sampling risk?
- A) Sampling risk cannot be quantified.
- B) Sampling risk can be quantified only when nonprobabilistic selection techniques are used to select the sample.
- C) Sampling risk can be quantified only when probabilistic selection techniques are used to select the sample.
- D) None of the above.

Answer: C

Terms: Quantification of sampling risk

Diff: Easy

Objective: LO 15-2

AACSB: Reflective thinking skills

- 4) Which of the following statements is most correct with respect to the evaluation of nonprobabilistic sample results?
- A) It is acceptable to make nonprobabilistic evaluations only when probabilistic sample selection is used.
- B) It is acceptable to make nonprobabilistic evaluations only if the auditor cannot quantify sampling risk.
- C) It is never acceptable to evaluate a nonprobabilistic sample using statistical methods.
- D) All of the above are correct.

Answer: C

Terms: Evaluation of non-probabilistic sample results

Diff: Moderate Objective: LO 15-2

AACSB: Reflective thinking skills

- 5) Which of the following statements is a valid criticism of nonstatistical sampling?
- A) Many audit tests, such as footing of journals, must be performed outside a statistical sampling context.
- B) The cost of performing random selection or testing often exceeds the benefits.
- C) Nonstatistical sampling does not differ substantially from statistical sampling methods.
- D) Conclusions may be drawn in more precise ways when using statistical sampling methods.

Answer: D

Terms: Criticism of non-statistical sampling

Diff: Moderate Objective: LO 15-2

- 6) Which of the following statements is **not** correct regarding probabilistic and nonprobabilistic sample selection?
- A) In probabilistic selection, every population item has a known chance of being selected.
- B) It is acceptable to evaluate a nonprobabilistic sample using statistical methods.
- C) Probabilistic selection is required for all statistical sampling methods.

D) Both methods are acceptable and commonly used.

Answer: B

Terms: Probabilistic and non-probabilistic sample selection

Diff: Challenging Objective: LO 15-2

AACSB: Reflective thinking skills

- 7) Nonprobabilistic selection methods are not based on mathematical probabilities; therefore:
- A) the extent to which a sample is representative of the population may be difficult to determine.
- B) they are discouraged by the AICPA.
- C) they are not allowed by the Statements on Auditing Standards.
- D) they are not as effective as statistical sampling.

Answer: A

Terms: Non-probabilistic selection methods

Diff: Challenging Objective: LO 15-2

AACSB: Reflective thinking skills

- 8) An advantage of using statistical sampling techniques is that such techniques:
- A) mathematically measure risk.
- B) eliminate the need for judgmental decisions.
- C) define the values of precision and reliability required to provide audit satisfaction.
- D) have been established in the courts to be superior to judgmental sampling.

Answer: A

Terms: Advantage of using statistical sampling techniques

Diff: Challenging Objective: LO 15-2

AACSB: Reflective thinking skills

- 9) Auditors who prefer statistical to nonstatistical sampling believe that the principal advantage of statistical sampling flows from its ability to:
- A) quantify sampling risk.
- B) promote a more legally defensible procedural approach.
- C) define the precision required to provide audit satisfaction.
- D) establish conclusive audit evidence with decreased audit effort.

Answer: A

Terms: Advantage of statistical sampling over nonstatistical sampling

Diff: Challenging Objective: LO 15-2

- 10) Which of the following statements best expresses the impact that the performance of audit procedures has on statistical vs. nonstatistical sampling?
- A) Audit procedures on the sample item will vary as a result of using either statistical or nonstatistical sampling.
- B) The audit procedures will be the same for either statistical or nonstatistical sampling but they must be performed differently for each.
- C) Statistical sampling requires quantitative audit procedures, whereas nonstatistical sampling requires judgmental audit procedures.
- D) Audit procedures on the sample item will not vary as a result of using either statistical or nonstatistical sampling.

Answer: D

Terms: Statistical and nonstatistical sampling

Diff: Challenging Objective: LO 15-2

AACSB: Reflective thinking skills

11) Describe the differences between statistical and nonstatistical sampling in terms of (1) the sample selection methods used, and (2) quantification of sampling risk.

Answer: Nonstatistical sampling differs from statistical sampling in that non-probabilistic sampling can be used for the former but not the latter. In addition, sampling risk can be quantified when using statistical sampling but not when using nonstatistical sampling.

Terms: Differences between statistical and nonstatistical sampling applying sample selection methods and quantification of sampling risk

Diff: Moderate Objective: LO 15-2

AACSB: Reflective thinking skills

12) You are designing the audit plan for Mathews & Company. You are a strong proponent for statistical sampling over nonstatistical sampling. Make your case.

Answer:

- More efficient samples
- Quantifies sampling risk
- Improved correlation between the sample and the population

Terms: Statistical sampling vs. nonstatistical sampling

Diff: Moderate Objective: LO 15-2

AACSB: Reflective thinking skills

13) It is equally acceptable under professional auditing standards for auditors to use either statistical or nonstatistical sampling methods.

A) True B) False Answer: A

Terms: Equally acceptable to use statistical or nonstatistical sampling methods

Diff: Moderate Objective: LO 15-2

14) When using nonstatistical sampling, the sample must be a probabilistic one.

A) True B) False Answer: B

Terms: Nonstatistical sampling; sample must be probabilistic

Diff: Moderate Objective: LO 15-2

AACSB: Reflective thinking skills

- 15) The use of haphazard sample selection is encouraged under professional auditing standards.
- A) True B) False Answer: B

Terms: Haphazard sample selection

Diff: Moderate Objective: LO 15-2

AACSB: Reflective thinking skills

- 16) Directed sample selection, block sample selection, and haphazard sample selection are three types of probabilistic sample selection methods.
- A) True

B) False Answer: B

Terms: Probabilistic sample selections; Directed sample selection, block sample selection and

haphazard selections Diff: Moderate Objective: LO 15-2

AACSB: Reflective thinking skills

Learning Objective 15-3

- 1) A sample in which every possible combination of items in the population has an equal chance of constituting the sample is a:
- A) random sample.
- B) statistical sample.
- C) judgment sample.
- D) representative sample.

Answer: A

Terms: Sample in which every possible combination has equal chance of constituting sample

Diff: Easy

Objective: LO 15-3

- 2) The process which requires the calculation of an interval and then selects the items based on the size of the interval is:
- A) statistical sampling.
- B) random sample selection.
- C) systematic sample selection.
- D) computerized sample selection.

Answer: C

Terms: Process which requires calculation of an interval

Diff: Easy

Objective: LO 15-3

AACSB: Reflective thinking skills

- 3) In systematic sample selection, the population size is divided by the number of sample items desired in order to determine the:
- A) sampling interval.
- B) tolerable exception rate.
- C) computed upper exceptions rate.
- D) mean. Answer: A

Terms: Systematic sample selection

Diff: Easy

Objective: LO 15-3

4) Which of the following methods of sample selection is appropriately used when selecting a random sample?

A)

Auditor's judgmental	Use of random number	
selection of items	generators	Generalized audit software
Yes	No	Yes

B)

Auditor's judgmental	Use of random number	
selection of items	generators	Generalized audit software
No	Yes	Yes

C)

Auditor's judgmental	Use of random number	
selection of items	generators	Generalized audit software
Yes	No	No

D)

Auditor's judgmental	Use of random number	
selection of items	generators	Generalized audit software
No	Yes	No

Answer: B

Terms: Methods of sample selection in selecting a random sample

Diff: Moderate Objective: LO 15-3

AACSB: Reflective thinking skills

- 5) Simple random sampling:
- A) is used when there is a need to emphasize one or more types of population items.
- B) requires both input and output parameters to be set when using a random number generator.
- C) is generally used with replacement sampling.
- D) is a probabilistic sampling method.

Answer: D

Terms: Random sampling

Diff: Moderate Objective: LO 15-3

- 6) When a population is divided into subpopulations, usually by dollar size, and larger samples are taken from the subpopulation with the larger sizes, \_\_\_\_\_\_ is being used.
- A) sampling with probability proportional to size
- B) stratified sampling
- C) block sampling
- D) haphazard sampling

Answer: B

Terms: Random number tables

Diff: Moderate Objective: LO 15-3

AACSB: Reflective thinking skills

- 7) The advantage of systematic sample selection is that:
- A) it is easy to use.
- B) there is limited possibility of it being biased.
- C) it is unnecessary to determine if the population is arranged randomly.
- D) it automatically selects items material to the financial statements.

Answer: A

Terms: Advantage of systematic sample selection

Diff: Moderate Objective: LO 15-3

AACSB: Reflective thinking skills

- 8) In performing a review of a client's cash disbursements, an auditor uses systematic sample selection with a random start. The primary disadvantage of this technique is population items:
- A) may occur twice in the sample.
- B) must be reordered in a systematic pattern before the sample can be drawn.
- C) may occur in a systematic pattern, thus negating the randomness of the sample.
- D) must be replaced in the population after sampling to permit valid statistical inference.

Answer: C

Terms: Disadvantage of systematic sample selection with random start

Diff: Moderate Objective: LO 15-3

AACSB: Reflective thinking skills

- 9) Which of the following is a correct statement regarding block sampling?
- A) It is acceptable to use block sampling only if a reasonable number of blocks are used.
- B) Block sampling uses sampling with replacement.
- C) Block sampling is a probabilistic sampling method.
- D) There is considerable cost and time involved when block sampling is used.

Answer: A

Terms: Block sampling

Diff: Moderate Objective: LO 15-3

- 10) The most serious shortcoming of the haphazard sample selection method is:
- A) it is not subject to statistical sampling methods.
- B) it is time consuming to use.
- C) it is costly to use.
- D) it is difficult to remain completely unbiased in the selection.

Answer: D

Terms: Haphazard sample selection

Diff: Easy

Objective: LO 15-3

AACSB: Reflective thinking skills

- 11) Which of the following statements regarding block sampling is least likely to be true?
- A) Block sampling is the selection of several items in sequence.
- B) It is acceptable to use block sampling for tests of transactions only if a reasonable number of blocks is used.
- C) Only one block should be selected to increase the probability of a representative sample.
- D) Once the first item in the block is selected, the remainder of the block is chosen automatically.

Answer: C

Terms: Block sampling Diff: Challenging Objective: LO 15-3

AACSB: Reflective thinking skills

- 12) When the auditor goes through a population and selects items using nonprobabilistic selection methods, without regard to their size, source, or other distinguishing characteristics, it is called:
- A) block sample selection.
- B) haphazard selection.
- C) systematic sample selection.
- D) statistical selection.

Answer: B

Terms: Nonprobabilistic selection methods

Diff: Easy

Objective: LO 15-3

AACSB: Reflective thinking skills

13) What is the key advantage and disadvantage associated with systematic sample selection? How must auditors address this disadvantage?

Answer: The key advantage is its ease of use. Generally, systematic samples are easily drawn from the population and supporting documentation is easily developed. The key disadvantage is the potential for bias. Once the first item in the sample is selected, all other items are chosen automatically. Auditors should be careful to consider any potential pattern in the data prior to selecting their sample to ensure that their selection considers the possible bias.

Terms: Systematic sample selection

Diff: Moderate Objective: LO 15-3

14) Describe each of the four types of sample selection methods commonly associated with statistical audit sampling.

Answer: Four types of sample selection methods commonly associated with statistical audit sampling are:

- Simple random sample selection. Every possible combination of elements in the population has an equal chance of constituting the sample.
- Systematic sample selection. A probabilistic method of sampling in which the auditor calculates an interval (the population size divided by the number of sample items desired) and selects the items for the sample based on the size of the interval and a randomly selected number between zero and the interval size.
- *Probability proportional to size sample selection*. The probability of selecting any individual population item is proportional to its recorded amount.
- *Stratified sample selection*. A probabilistic method of sampling in which the population is divided into subpopulations, and samples are taken from each of the subpopulations.

Terms: Types of sample selection methods associated with statistical audit sampling

Diff: Challenging Objective: LO 15-3

AACSB: Reflective thinking skills

15) When selecting a sample, random numbers may be obtained either with replacement or without replacement. Although both selection methods are theoretically sound, auditors rarely use replacement sampling.

A) True B) False Answer: A

Terms: Selecting same with random numbers

Diff: Moderate Objective: LO 15-3

AACSB: Reflective thinking skills

16) Although systematic sample selection is easy to use, its primary disadvantage is that it is not a probabilistic sampling method.

A) True B) False Answer: B

Terms: Systematic sample selection; probabilistic sampling method

Diff: Moderate Objective: LO 15-3

- 17) Nonprobabilistic sampling methods are not based on mathematical probabilities and therefore the representativeness of the sample may be difficult to determine.
- A) True B) False Answer: A

Terms: Nonprobabilistic selection methods

Diff: Moderate Objective: LO 15-3

AACSB: Reflective thinking skills

Learning Objective 15-4

- 1) Which of the following occurrences would be least likely to warrant further audit attention for the auditor?
- A) Deviations from client's established control procedures
- B) Deviations from client's budgeted values
- C) Monetary misstatements in populations of transaction data
- D) Monetary misstatements in populations of account balance details

Answer: B

Terms: Warrant further audit attention for auditor

Diff: Easy

Objective: LO 15-4

AACSB: Reflective thinking skills

- 2) Which of the following statements is correct when dealing with sampling for exception rates?
- A) The term *exception* refers to both deviations from the client's control procedures and amounts that are not monetarily correct.
- B) When used with sampling, the term *deviation* is synonymous with the term *exception*.
- C) The actual population exception rate is the same as the sample exception rate.
- D) In using audit sampling for exception rates, the auditor is most concerned with the confidence interval.

Answer: A

Terms: Sample exception rate

Diff: Moderate Objective: LO 15-4

AACSB: Reflective thinking skills

- 3) In using audit sampling for exception rates:
- A) the auditor wants to know the most the exception rate is likely to be.
- B) sampling error is the likelihood that the auditor will miss a monetary misstatement.
- C) the upper limit of the interval estimate is known as the sampling risk.
- D) CUER cannot be considered in the context of specific audit objectives.

Answer: A

Terms: Sample exception rate

Diff: Moderate Objective: LO 15-4

- 4) Which of the following is most correct when using audit sampling for exception rates?
- A) Auditor is concerned with the lowest rate.
- B) Auditor is concerned with the highest rate.
- C) Auditor is concerned with the average on previous audits.
- D) This doesn't impact the auditor's decision.

Answer: B

Terms: Auditing sampling for exception rates

Diff: Moderate Objective: LO 15-4

AACSB: Reflective thinking skills

- 5) The highest estimated exception rate in the population at a particular acceptable risk of assessing control risk too low is:
- A) the upper exception rate.
- B) estimated population exception rate.
- C) the computed upper exception rate.
- D) the tolerable exception rate.

Answer: C

Terms: Highest estimated exception rate in population; Acceptable risk of assessing control risk

too low

Diff: Moderate Objective: LO 15-4

AACSB: Reflective thinking skills

- 6) You are determining the significance of the following: you set a 5% risk of assessing control risk to low and your computation of the upper deviation risk is 7%. What could you conclude?
- A) There is a 95% chance the deviation rate is the population is less than 5%.
- B) There is a 5% chance the deviation rate in the population is less than 7%.
- C) There is a 95% chance the deviation rate in the population exceeds 95%.
- D) There is a 5% chance the deviation rate in the population exceeds 7%.

Answer: D

Terms: Risk of assessing control risk low and computation of upper deviation risk

Diff: Moderate Objective: LO 15-4

AACSB: Reflective thinking skills

7) What types of exceptions are auditors most concerned with when evaluating populations of accounting data?

Answer: There are three types of exceptions that auditors are generally concerned with when evaluating populations of accounting data. They are:

- 1. Deviations from client's established controls.
- 2. Monetary misstatements in populations of transaction data.
- 3. Monetary misstatements in populations of account balance details.

Terms: Types of exceptions and concern when evaluating populations of accounting data

Diff: Moderate Objective: LO 15-4

- 8) If the auditor concludes that the CUER is 5% at a 8% sampling risk, this means that the exception rate in the population is no greater than 5% with an 8% risk of the exception rate exceeding 5%.
- A) True B) False Answer: A

Terms: Estimated population exception rate

Diff: Moderate Objective: LO 15-4

AACSB: Reflective thinking skills

- 9) The upper limit of the interval estimate is also known as the confidence interval.
- A) True B) False Answer: B

Terms: Computed upper exception rate (CUER)

Diff: Moderate Objective: LO 15-4

AACSB: Reflective thinking skills

Learning Objective 15-5

- 1) The risk which the auditor is willing to take in accepting a control as being effective when the true population exception rate is greater than a tolerable rate is the:
- A) finite correction factor.
- B) tolerable exception rate.
- C) acceptable risk of overreliance.
- D) estimated population exception rate.

Answer: C

Terms: Risk auditor is willing to take in accepting a control as being effective

Diff: Easy

oni. Easy

Objective: LO 15-5

AACSB: Reflective thinking skills

- 2) The exception rate the auditor will permit in the population and still be willing to reduce the assessed level of control risk is called the:
- A) tolerable exception rate.
- B) estimated population exception rate.
- C) acceptable risk of overreliance.
- D) sample exception rate.

Answer: A

Terms: Exception rate auditor will permit and still be willing to reduce assessed level of control

risk

Diff: Easy

Objective: LO 15-5

- 3) If the auditor decides to assess control risk at the moderate level in a private company audit, when in previous years the auditor set control risk at the maximum level, then tests of controls for the current year would be:
- A) increased in number.
- B) reduced in number.
- C) not performed.
- D) unchanged from prior planned settings.

Terms: Assess control risk

Diff: Easy

Objective: LO 15-5 AACSB: Analytic skills

- 4) When the computed upper exception rate is greater than the tolerable exception rate, it is necessary for the auditor to take specific action. Which of the following courses of action would be most difficult to justify?
- A) Reduce the tolerable exception rate so as to accept the sample results.
- B) Expand the sample size and perform more tests.
- C) Revise the assessed control risk.
- D) Write a letter to management which outlines the control deficiencies.

Answer: A

Terms: Computed upper exception rate is greater than tolerable exception rate

Diff: Easy

Objective: LO 15-5

AACSB: Reflective thinking skills

- 5) Which of the following would have the least impact in determining sample size?
- A) Acceptable risk of overreliance
- B) Risk of assessing control risk too low
- C) Tolerable exception rate
- D) Population size

Answer: D

Terms: Least impact on determining sample size

Diff: Easy

Objective: LO 15-5

AACSB: Reflective thinking skills

- 6) Which of the following represents the best description of the tolerable exception?
- A) The highest exception rate the auditor will permit in the control being tested and still conclude it is operating effectively
- B) The highest exception rate the auditor expects to find in the population
- C) The number of exceptions found in the sample divided by the sample size
- D) The highest estimated exception rate in a population at a given EPER

Answer: A

Terms: Tolerable exception rate

Diff: Moderate Objective: LO 15-5

- 7) When analyzing exceptions, the auditor should keep in mind that:
- A) all exceptions must be reported to management.
- B) they should determine the breakdown in the internal controls that allowed the exceptions to occur.
- C) the nature of an exception and its causes have no effect on the qualitative evaluation of the system.
- D) exceptions do not need to be analyzed if it is too costly.

Answer: B

Terms: Sample size and analyzing exceptions

Diff: Moderate Objective: LO 15-5 AACSB: Analytic skills

- 8) The exception rate that the auditor will permit in the population and still be willing to use the preliminary control risk assessment is called the:
- A) acceptable exception rate.
- B) estimated population exception rate.
- C) sample exception rate.
- D) tolerable exception rate.

Answer: D

Terms: Exception rate; Preliminary control risk assessment

Diff: Moderate Objective: LO 15-5

AACSB: Reflective thinking skills

- 9) Auditors often use the \_\_\_\_\_ to determine the estimated population exception rate.
- A) current year's audit results
- B) tolerable exception rate
- C) preceeding year's audit results
- D) estimated computed by management

Answer: A

Terms: Estimate of population exception rate

Diff: Moderate Objective: LO 15-5

- 10) Place the following steps in their proper order:
- 1. Analyze exceptions
- 2. Select the sample
- 3. Define attributes and exception conditions
- 4. State the objectives of the audit test
- 5. Specify the tolerable exception rate
- A) 1, 3, 2, 4, 5.
- B) 4, 3, 1, 2, 5.
- C) 4, 3, 5, 2, 1.
- D) 1, 2, 3, 4, 5.

Answer: C

Terms: Auditing sampling steps

Diff: Moderate Objective: LO 15-5

AACSB: Reflective thinking skills

- 11) If an auditor judgmentally selects a sample of one hundred items from a population and finds two exceptions, the auditor:
- A) can conclude that the sample exception rate is 2%.
- B) can conclude that the population exception rate is 2%.
- C) can calculate the highest exception rate expected in the population.
- D) cannot make any conclusions about either the sample or the population.

Answer: A

Terms: Sample selected from population and found exceptions

Diff: Moderate Objective: LO 15-5

AACSB: Reflective thinking skills

- 12) In testing controls, an overreliance on internal controls that reduces substantive tests and increases the likelihood of not detecting a material misstatement occurs because:
- A) true deviation in the population was less than the sample.
- B) true deviation in the population was greater than the sample.
- C) auditor judgment was flawed.
- D) it is inherent in the audit risk model.

Answer: B

Terms: Testing controls; Overreliance on internal controls

Diff: Challenging Objective: LO 15-5

- 13) Which of the following is the exception rate that the auditor expects to find before testing?
- A) Sample exception rate
- B) Estimated population exception rate
- C) Computed exception rate
- D) Tolerable exception rate

Answer: B

Terms: Exception rate auditor expects to find before testing

Diff: Moderate Objective: LO 15-5

AACSB: Reflective thinking skills

- 14) Which of the following is **not** a term related to evaluating results in audit sampling until after a sample is tested and evaluated?
- A) Sample exception rate
- B) Estimated population exception rate
- C) Computed upper exception rate
- D) Exception Answer: B

Terms: Term not related to evaluating results in audit sampling

Diff: Moderate Objective: LO 15-5

AACSB: Reflective thinking skills

- 15) The relationship of tolerable exception rate (TER) to sample size is:
- A) direct (larger TER = larger sample).
- B) inverse (larger TER = smaller sample).
- C) variable (sometimes larger, sometimes smaller).
- D) not determinable.

Answer: B

Terms: Relationship of tolerable exception rate (TER) to sample size

Diff: Moderate Objective: LO 15-5

AACSB: Reflective thinking skills

- 16) Which of the following must be set prior to testing a sample?
- A) Sample exception rate
- B) Achieved upper precision limit
- C) Computed exception rate
- D) Tolerable exception rate

Answer: D

Terms: Set prior to testing sample

Diff: Moderate Objective: LO 15-5

- 17) The acceptable risk of overreliance:
- A) is the risk that the auditor will erroneously conclude that the controls are less effective than they actually are.
- B) is less of a concern to the auditors than the risk of underreliance.
- C) represents the auditor's measure of sampling risk.
- D) is determined by a statistical formula, and not by professional judgment.

Answer: C

Terms: Acceptable risk of overreliance

Diff: Moderate Objective: LO 15-5

AACSB: Reflective thinking skills

- 18) The sample exception rate equals:
- A) the number of exceptions in the population divided by the sample size.
- B) the number of items in the population multiplied by the number of exceptions in the sample.
- C) the number of exceptions in the sample divided by the sample size.
- D) the number of exceptions in the population divided by the population size.

Answer: C

Terms: Sample exception rate

Diff: Moderate Objective: LO 15-5

AACSB: Reflective thinking skills

- 19) When defining the population:
- A) it may be necessary to define separate populations for different audit procedures.
- B) the auditor may generalize only about the population that has been sampled.
- C) auditors can define the population to include any items they want.
- D) all of the above.

Answer: D

Terms: Population considered acceptable based on acceptable risk of assessing control risk too

low; Upper exception rate

Diff: Moderate Objective: LO 15-5

AACSB: Reflective thinking skills

- 20) One way to evaluate sampling risk when nonstatistical sampling is used is to:
- A) subtract the sample exception rate from the tolerable exception rate.
- B) add the sample exception rate and the tolerable exception rate.
- C) subtract the sample exception rate from the acceptable risk of overreliance.
- D) add the sample exception rate and the acceptable risk of overreliance.

Answer: A

Terms: Sampling risk

Diff: Moderate Objective: LO 15-5

# 21) A danger in setting the acceptable risk of overreliance too low is:

A)

The risk that the auditor is willing to	The risk that the auditor is willing to
take of accepting a control as	take of accepting a control as
ineffective when it is effective	effective when it is ineffective
Yes	Yes

B)

<u>-,                                    </u>	
The risk that the auditor is willing to	The risk that the auditor is willing to
take of accepting a control as	take of accepting a control as
ineffective when it is effective	effective when it is ineffective
No	No

C)

- <u>'</u>	
The risk that the auditor is willing to	The risk that the auditor is willing to
take of accepting a control as	take of accepting a control as
ineffective when it is effective	effective when it is ineffective
Yes	No

D)

The risk that the auditor is willing to	The risk that the auditor is willing to
take of accepting a control as	take of accepting a control as
ineffective when it is effective	effective when it is ineffective
No	Yes

Answer: D

Terms: Acceptable risk of overreliance

Diff: Moderate Objective: LO 15-5

AACSB: Reflective thinking skills

- 22) When using statistical sampling, the auditor would most likely require a smaller sample if the:
- A) population increases.
- B) desired reliability decreases.
- C) desired precision interval narrows.
- D) expected exception rate increases.

Answer: B

Terms: Statistical sampling; Auditor requires smaller sample

Diff: Moderate Objective: LO 15-5

- 23) Whenever auditors use sampling, they risk making incorrect conclusions about the population. The risk that the auditor concludes that controls are nore effective than they actually are is known as the:
- A) risk of overreliance.
- B) risk of underreliance.
- C) risk that the sample is not representative of the population.
- D) risk that the sample conclusions cannot be useful because of nonprobability sampling.

Terms: Sampling and the risk of making incorrect conclusions about the population

Diff: Challenging Objective: LO 15-5

AACSB: Reflective thinking skills

- 24) When choosing the appropriate acceptable risk of overreliance, the auditor needs to:
- A) rely on his/her professional judgment.
- B) err on the side of conservatism.
- C) consult the professional standards.
- D) follow SEC guidelines.

Answer: A

Terms: Acceptable risk of overreliance

Diff: Challenging Objective: LO 15-5

AACSB: Reflective thinking skills

- 25) The difference between the tolerable exception rate and the estimated population exception rate is called:
- A) accuracy of the initial sample estimate.
- B) inflation factor of the initial sample estimate.
- C) precision of the initial sample estimate.
- D) reliability of the initial sample estimate.

Answer: C

Terms: Difference between tolerable exception and estimated population exception rate

Diff: Challenging Objective: LO 15-5

- 26) If the result obtained from a particular sample for control and substantive tests of transactions is critical to the formation of an audit opinion, which of the following is the most important to the auditor in concluding of the appropriateness and sufficiency of evidence gathered?
- A) Acceptable risk of overreliance
- B) Estimated population exception rate
- C) Tolerable exception rate
- D) Size of the population

Terms: Control and substantive tests of transactions; Important in concluding appropriateness

and sufficiency of evidence

Diff: Challenging Objective: LO 15-5

AACSB: Reflective thinking skills

- 27) There is a(n) \_\_\_\_\_ relationship between acceptable risk of overreliance and planned sample size.
- A) direct.
- B) inverse.
- C) proportional.
- D) exponential.

Answer: B

Terms: Acceptable risk of overreliance

Diff: Challenging Objective: LO 15-5

AACSB: Reflective thinking skills

- 28) Which of the following results in a larger sample size?
- A) Decrease the estimated population exception rate and decrease the tolerable exception rate.
- B) Increase the estimated population exception rate and decrease the tolerable exception rate.
- C) Decrease the estimated population exception rate and increase the tolerable exception rate.
- D) Increase the estimated population exception rate and increase the tolerable exception rate.

Answer: B

Terms: Results in larger sample size

Diff: Moderate

Objective: LO 15-1 and LO 15-5 AACSB: Reflective thinking skills

- 29) An auditor plans to examine a sample of 40 canceled checks for a countersignature which is prescribed in the client's control procedures manual. Two of the checks in sample cannot be located by the company or the auditor. The auditor would most likely:
- A) treat the missing checks as a deviation when evaluating the results of the sample.
- B) draw a conclusion on a sample size of 38.
- C) substitute two more checks to get to a sample size of 40.
- D) recalculate the sample excluding the original 40 checks.

Terms: Missing canceled checks in population

Diff: Challenging

Objective: LO 15-4 and LO 15-5

AACSB: Analytic skills

Topic: Public

30) You are determining the appropriate sample size to test accounts receivable. What three factors are the most important to consider?

#### Answer:

- 1. Tolerable exception rate (TER)
- 2. Acceptable risk of overreliance (ARO)
- 3. Estimated population exception rate (EPER)

Terms: Factors to determine appropriate sample size

Diff: Easy

Objective: LO 15-5

AACSB: Reflective thinking skills

31) Explain the effect on sample size of increasing each of the following: (1) tolerable exception rate, (2) estimated population exception rate, (3) acceptable risk of overreliance, and (4) population size.

Answer: The tolerable exception rate and acceptable risk of overreliance are inversely related to sample size; that is, as TER or ARO increase, sample size will decrease. The estimated population exception rate and the population size are directly related to sample size; that is, as EPER increases, sample size will also increase, and as population size increases, sample size may slightly increase.

Terms: Effects on sample size when increasing tolerable exception, estimated population exception rate, acceptable risk of assessing control risk too low, and population size

Diff: Moderate Objective: LO 15-5

AACSB: Reflective thinking skills

32) The auditor must use the same TER and ARO levels for all attributes of an audit test.

A) True B) False Answer: B

Terms: Acceptable risk of overreliance

Diff: Moderate Objective: LO 15-5

- 33) The tolerable exception rate is the rate that the auditor will permit in the population and still be willing to conclude a control is effective.
- A) True B) False Answer: A

Terms: Tolerable exception rate

Diff: Easy

Objective: LO 15-5

AACSB: Reflective thinking skills

- 34) The only way to know with certainty whether a sample is representative is to subsequently audit the entire population.
- A) True B) False Answer: A

Terms: Know with certainty whether sample is representative is to audit entire population

Diff: Moderate

Objective: LO 15-1 and LO 15-5 AACSB: Reflective thinking skills

- 35) Acceptable risk of overreliance is the risk that the auditor is willing to take in accepting a control as effective when the true population exception rate is greater than the estimated population exception rate.
- A) TrueB) FalseAnswer: B

Terms: Acceptable risk of overreliance

Diff: Moderate Objective: LO 15-5

AACSB: Reflective thinking skills

- 36) Acceptable risk of overreliance is normally lower for a public company audit than a private company audit.
- A) TrueB) False

Answer: A

Terms: Acceptable risk of overreliance

Diff: Moderate Objective: LO 15-5

AACSB: Reflective thinking skills

Topic: Public

- 37) The conjoined sample exception rate is the auditor's "best estimate" of the actual exception rate in the entire population.
- A) TrueB) FalseAnswer: B

Terms: Sample exception rate

Diff: Moderate Objective: LO 15-5

AACSB: Reflective thinking skills

- 38) When the sample exception rate is greater than the tolerable exception rate in attributes sampling, one possible appropriate course of action is to increase sample size.
- A) True B) False Answer: A

Terms: Sample exception rate and tolerable exception rate

Diff: Moderate Objective: LO 15-5

AACSB: Reflective thinking skills

- 39) Tolerable exception rate (TER) is inversely related to sample size.
- A) True B) False Answer: A

Terms: Tolerable exception rate and sample size relationship

Diff: Moderate Objective: LO 15-5

AACSB: Reflective thinking skills

- 40) When the SER exceeds the TER, the auditor should decide whether to increase sample size or to revise assessed control risk on the basis of cost versus benefit.
- A) True B) False Answer: B

Terms: Control risk assessment

Diff: Moderate Objective: LO 15-5

- 41) In nonstatistical sampling, the calculated sampling error is the difference between the tolerable exception rate and the sample exception rate.
- A) True B) False Answer: A

Terms: Nonstatistical sampling; Calculated sampling error; Difference between tolerable exception rate and sample exception rate

Diff: Challenging Objective: LO 15-5

AACSB: Reflective thinking skills

### Learning Objective 15-6

- 1) Rodgers CPA believes that the rate of client billing errors is 4% and has established a tolerable deviation rate of 6%. In auditing client invoices Rodgers should use:
- A) stratified sampling.
- B) classical sampling.
- C) proportional sampling.
- D) attributes sampling.

Answer: D

Terms: Auditing client invoices

Diff: Easy

Objective: LO 15-6 AACSB: Analytic skills

- 2) Attributes sampling would be an appropriate method to use on which one of the following procedures in an audit program?
- A) Review sales transactions for large and unreasonable amounts.
- B) Observe whether the duties of the accounts receivable clerk are separate from handling cash.
- C) Examine a sample of duplicate sales invoices for credit approval by the credit manager.
- D) Review the aged schedule of accounts receivable to determine if receivables from officers are included.

Answer: C

Terms: Attributes sampling

Diff: Easy

Objective: LO 15-6

- 3) Attributes sampling is based on the \_\_\_\_\_ distribution, in which each possible sample in the population has one of two possible values, such as yes or no.
- A) random
- B) binomial
- C) statistical
- D) nonstatistical

Answer: B

Terms: Attribute sampling and binomial distribution

Diff: Easy

Objective: LO 15-6

AACSB: Reflective thinking skills

- 4) For which of the following audit procedures would audit sampling **not** be appropriate?
- A) Review sales transactions for large and unusual amounts.
- B) Examine a sample of duplicate sales invoices for credit approval.
- C) Compare the quantity on duplicate sales invoices with the quantity on related shipping documents.
- D) Audit sampling is appropriate for each of the above procedures.

Answer: A

Terms: Audit sampling not appropriate for which audit procedure

Diff: Moderate

Objective: LO 15-5 and LO 15-7 AACSB: Reflective thinking skills

5) Match eight of the terms (a-k) with the definitions provided below (1-8):
a. Haphazard selection b. Attributes sampling c. Block sample selection d. Judgmental sampling e. Non-probabilistic sample selection f. Probabilistic sample selection g. Random sample h. Representative sample i. Statistical sampling j. Systematic sample selection k. Sampling distribution
1. The use of mathematical measurement techniques to calculate formal statistical results and quantify sampling risk.
2. A non-probabilistic method of sample selection in which items are selected in measured sequences.
3. A sample whose characteristics are the same as those of the population.
4. A statistical, probabilistic method of sample evaluation that results in an estimate of the proportion of items in a population containing a characteristic of interest.
5. A non-probabilistic method of sample selection in which items are chosen without regard to their size, source, or other distinguishing characteristics.
6. An auditor selects items such that each population item has a known probability of being included in the sample.
7. A frequency distribution of the results of all possible samples of a specified size that could be obtained from a population containing some specific parameters.
8. A sample in which every possible combination of elements in the population has an equal chance of constituting the sample.

#### Answer:

- 1. i
- 2. c
- 3. h
- 4. h
- 5. a
- 6. f
- 7. k
- 8. g

Terms: Haphazard selection; Attributes sampling; Block sample selection; Probabilistic sample selection; Random sample; Representative sample; Statistical sampling; Sampling distribution

Diff: Moderate

Objective: LO 15-1, LO 15-2, LO 15-3, LO 15-5, and LO 15-6

AACSB: Reflective thinking skills

## Learning Objective 15-7

- 1) A principal advantage of statistical methods of attributes sampling over nonstatistical methods is that they provide a scientific basis for establishing the:
- A) risk of assessing control risk too low.
- B) tolerable exception rate.
- C) expected population exception rate.
- D) sample size.

Answer: D

Terms: Advantage of statistical methods of attributes sampling

Diff: Moderate Objective: LO 15-7

AACSB: Reflective thinking skills

- 2) In using sampling distribution for attributes, which one of the following must be known to evaluate the sample results?
- A) Estimated dollar value of the population
- B) Standard exception of the values in the population
- C) Actual exception rate of the attribute in the population
- D) Sample size

Answer: D

Terms: Estimation sampling for attributes

Diff: Moderate Objective: LO 15-7

- 3) When audit procedures have been completed for an attributes sampling application, the auditor must generalize from the sample to the population. Which of the following statements would be incorrect regarding this process?
- A) The auditor would use an attributes sampling table to determine the computed upper exception rate.
- B) If the sample size is not equal to those provided for in the attributes sampling evaluation tables, the auditor cannot use attribute sampling.
- C) It would be wrong for the auditor to conclude that the population exception rate is exactly the same as the sample exception rate.
- D) In selecting the table corresponding to the ARO, it should be the same as the ARO used for determining the initial sample size.

Answer: B

Terms: Attributes sampling application

Diff: Challenging Objective: LO 15-7

AACSB: Reflective thinking skills

- 4) When deciding the acceptability of the population:
- A) the methodology for deciding the acceptability of the population for attributes differs from determining the acceptability for nonstatistical sampling.
- B) before the population can be considered acceptable, the CUER determined on the basis of the actual sample results must be less than or equal to TER when both are based on the same ARO.
- C) when the CUER is greater than the TER, the auditor must increase the sample size.
- D) the CUER is compared with the TER in total, not for each attribute.

Answer: B

Terms: Acceptability of the population and attribute sampling

Diff: Challenging Objective: LO 15-7

AACSB: Reflective thinking skills

- 5) In the evaluation of the results of an attributes sample, the fact that the exception rate in the sample was 2% rather than the estimated population exception rate of 4% would cause the computed upper exception rate to:
- A) be less than the tolerable exception rate.
- B) equal the tolerable exception rate.
- C) exceed the tolerable exception rate.
- D) cannot be determined from the information given.

Answer: A

Terms: Attributes sample; Exception rate in sample, estimated population exception rate, and computed upper exception rate

Diff: Challenging Objective: LO 15-7

- 6) As the auditor you are assessing the proper sample size to use in testing controls. When using attributes sampling which of the following is most correct?
- A) A 10% change in population size will have the least effect on sample size.
- B) A 10% change in the tolerable deviation rate will have the least effect on sample size.
- C) A 10% change in the expected deviation rate will have the least effect on sample size.
- D) A 10% change in the tolerable will have the least effect on sample size.

Terms: Attributes sampling

Diff: Moderate Objective: LO 15-7

AACSB: Reflective thinking skills

- 7) In attributes sampling, an estimate of the expected population exception rate is necessary to plan the sample size. The relationship of expected population exception rate (EPER) to sample size is:
- A) direct (small EPER = small sample).
- B) inverse (small EPER = large sample).
- C) a variable (sometimes small, sometimes large) dependent on other factors present.
- D) indeterminate.

Answer: A

Terms: Attributes sampling; Expected population exception rate and sample size

Diff: Moderate

Objective: LO 15-5 and LO 15-7 AACSB: Reflective thinking skills

8) There are 14 steps to attributes sampling, divided into three sections: plan the sample, select the sample and perform the audit procedures, and evaluate the results. Discuss the three steps that comprise the "evaluate the results" section.

Answer: The steps that comprise the "evaluate the results" section in attributes sampling are:

- 1. *Generalize from the sample to the population*. Tables can be used to determine the upper precision limit (computed upper exception rate) at a specified acceptable risk of overreliance.
- 2. *Analyze exceptions*. In this step, the auditor should analyze individual exceptions to determine the breakdown in the internal controls that caused them.
- 3. *Decide the acceptability of the population*. In the final step, the auditor compares the computed upper exception rate with the tolerable exception rate. If the computed upper exception rate is less than or equal to the tolerable exception rate, then the population is considered acceptable.

Terms: Steps that comprise evaluate the results section of 14 steps to attributes sampling

Diff: Challenging Objective: LO 15-7

9) There are 14 steps to attributes sampling, divided into three sections: plan the sample, select the sample and perform the audit procedures, and evaluate the results. In the planning section there are 9 steps, beginning with "state the audit objective" and ending with "determine the initial sample size." Name and discuss at least 3 steps between the ones listed above.

Answer: The steps that comprise the "plan the sample" section in attributes sampling are:

- 1. State the objectives of the audit test. Typically, in attributes sampling, the overall objective is to test the application of controls and determine whether transactions contain monetary misstatements.
- 2. Decide whether audit sampling applies. Audit procedures involving documentation normally can be performed using sampling, whereas procedures involving observation, inquiry of the client, and analytical procedures are not suited to audit sampling.
- 3. *Define attributes and exception conditions*. In this step, the auditor carefully defines the attributes of interest and the conditions that constitute exceptions or errors.
- 4. *Define the population*. The population is the body of data about which the auditor wished to generalize, from which the sample must be drawn.
- 5. *Define the sampling unit*. In attributes sampling, the sampling unit is normally a document, identified by document numbers, or a transaction recorded in a journal.
- 6. *Specify tolerable exception rate*. This is the exception rate that the auditor will permit in the population and still be willing to rely on internal controls.
- 7. *Specify acceptable risk of overreliance*. This is the risk that the auditor is willing to take in accepting a control as effective when the true population exception rate is greater than the tolerable exception rate.
- 8. *Estimate the population exception rate*. This is the exception rate the auditor expects to find in the population before testing begins.
- 9. *Determine the initial sample size*. The initial sample size is determined from tables, based on values for the tolerable exception rate, acceptable risk of assessing control risk too low, and the estimated exception rate.

Terms: Steps in Plan the sample in attributes sampling

Diff: Challenging Objective: LO 15-7

AACSB: Reflective thinking skills

10) Statistical sampling eliminates any professional judgment for the auditor.

A) True B) False Answer: B

Terms: Statistical sampling and professional judgment

Diff: Moderate Objective: LO 15-7