



CISA® ITEM DEVELOPMENT GUIDE

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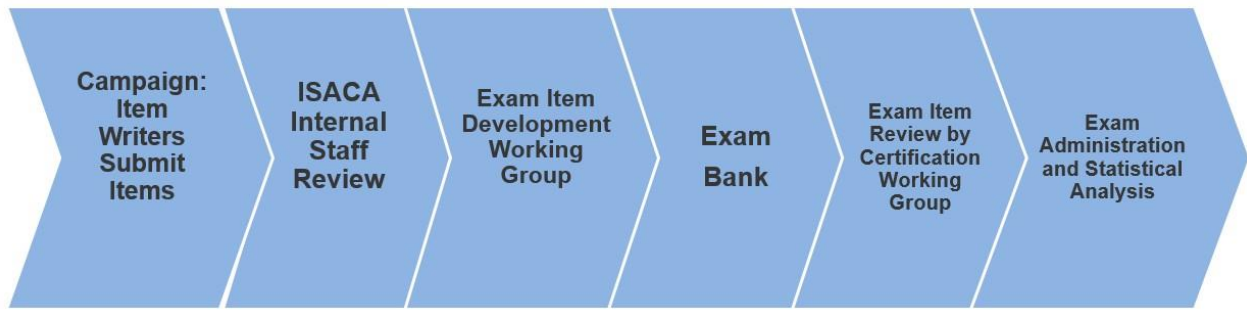
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PURPOSE OF THE CISA ITEM DEVELOPMENT GUIDE

The purpose of the CISA Item Development Guide is to assist item writers in their efforts to write new items for the CISA exam. This guide is intended to familiarize writers with the item development process and provide tools to help create items quality exam questions.

As you read through this Guide, please pay particular attention to the item writing principles. Applying these principles will greatly increase the chances of your items being accepted for the CISA exam.

THE CISA ITEM WRITING AND REVIEW PROCESS: AN OVERVIEW



ISACA conducts item writing campaigns each year to generate new items for the CISA exam. You will receive an invitation to the campaign from our online item writing system, along with instructions for how to use the system to create and submit new items for review. Resources and guidance will also be available throughout each campaign to assist you.

Once you have submitted a new item, a member of the ISACA Item Development Team will review the item for adherence to ISACA’s item writing guidelines. ISACA staff reviewers are not subject matter experts; however, they are exam development experts and understand the types of questions that test well or poorly. While the ISACA staff review typically does not focus on the content of the item, they may provide suggestions for alternate wording to enhance the clarity of the text. Items that need revision to meet ISACA’s guidelines are returned to the writer with feedback and can be resubmitted at any time before the campaign’s final deadline.

Once ISACA staff determines that an item is ready to move forward, the item will then be included for review by the CISA Exam and Item Development Working Group (EIDWG), which is a panel of CISA subject matter experts from a variety of industries and regions. The Working Group meets a few weeks after the conclusion of the campaign to review the items with a focus on the content being tested. Items accepted by the working group go directly into ISACA’s exam banks, and the item writer is paid an honorarium and awarded CPEs for each item accepted.

Items that are not accepted by the Working Group are returned to the writer after the meeting with feedback from the group.

While initial feedback from ISACA staff takes place on an ongoing basis during the campaign, final results from the EIDWG are typically available the week following the Working Group meeting. This means that once a campaign closes, feedback from the Working Group will not be available for approximately 4-6 weeks, depending on the meeting date.

TRAINING FOR NEW WRITERS

All new item writers are required to complete an online training program before participating in a CISA campaign. Writers enrolled in a training program are assigned to a member of the ISACA Item Development Team, who will provide detailed feedback on submissions to help writers become familiar with the process and principles behind effective CISA item writing. Upon completion of the training program, writers become eligible to participate in our regular CISA item writing campaigns.

WRITING QUALITY ITEMS

ISACA and the CISA Certification Working Group periodically perform a CISA job practice analysis study to determine the tasks and knowledge currently required of IS audit professionals. The results of this analysis serve as the blueprint for the CISA exam and the CISA review materials. Exam questions must be written to test a candidate's knowledge of established content areas defined by the CISA exam content outline. Each item must be assigned by the writer to a topic and a supporting task from the exam content outline, which is made available to writers at the beginning of each campaign.

When writing CISA items, it is necessary to consider the exam's target audience, which is the minimally competent CISA candidate. Items must be developed at the proper level of experience expected of the individual just passing the CISA exam, with three (3) to five (5) years of experience in auditing, controlling, monitoring and assessing information technology and business systems.

Item writers must also keep in mind that because the CISA exam is administered globally, the content and wording of items must be universally applicable to the international IS audit and control community.

ITEM FORMATS

The CISA exam consists of multiple-choice items. The multiple-choice item is the most commonly used type of test question in certification exams.

Multiple-choice items consist of a stem and four possible alternatives.

Item Stem:

The item stem contains the introductory statement to be completed or question to be answered. The stem often includes context describing a situation or circumstance related to the knowledge being assessed. Stems are usually written as direct questions, though sometimes stems are written as incomplete sentences to improve readability.

Item Choices (Alternatives):

The alternatives complete the introductory statement or answer the question and consist of one correct answer (key) and three incorrect answers (distractors).

Key:

The key must reflect current practice. In some cases, the key will be the only correct alternative, while in other cases the key will be deemed to be the BEST alternative when considered against the others provided.

Distractors:

Distractors are the incorrect alternatives, and writing effective distractors is one of the most challenging aspects of item writing. Distractors must be wrong answers, but they must appear to be plausible or possible answers to candidates who lack the knowledge or applicable experience needed to choose the key.

As mentioned above, the majority of CISA exam items use a direct question format, as in the following example. (Please note that items in this Guide are not actual exam items.)

Stem: Which of the following concerns is **BEST** addressed by comparing production application systems source code with an archive copy?

Alternatives:

- A. File maintenance errors (Key)
- B. Unauthorized modifications
- C. Software version currency
- D. Documentation discrepancies

Sometimes an incomplete statement is used in the stem, which looks like this:

Stem: The comparison of production application systems source code with an archive copy would **BEST** address:

Alternatives:

- A. file maintenance errors. (Key)
- B. unauthorized modifications.
- C. software version currency.
- D. documentation discrepancies.

Note that the responses for this item are followed by a period, as the response serves to complete the sentence started in the stem.

ITEM TYPES TO AVOID

Items with the following issues will be returned to the item writer for revision by ISACA staff:

1. Items that ask a negatively phrased question – that is, asking which alternative does NOT apply, or which alternative is LEAST preferred. Negative questions require candidates to reverse their traditional mode of thinking and tend to test poorly based on statistical analysis.
2. Items that ask a true/false question or ask which of the alternatives is a true statement.
3. Items with alternatives in a “multiple-multiple” format – that is, components of some alternatives are contained within others. It is permissible to use lists in answer choices, but no element contained in one choice should be repeated in any other choice.
4. Items with alternatives such as “all of the above”, “none of the above” or “Both B and C.” Each alternative must be able to stand alone. (Along these lines, alternatives such as “take no action” or “ignore this issue” are usually too close to “none of the above.” Such alternatives make poor distractors and should also be avoided.)
5. Items that use a fill-in-the-blank format.
6. Items that test knowledge of vendor-specific products or region-specific regulations.
7. Items that directly test knowledge of the meanings of terminology. Remember that the CISA exam is an experience-based exam. A definitional question can be answered by an otherwise inexperienced candidate who happens to have studied a review manual or other reference; such questions do not require candidates to rely on their professional experience to answer correctly.

STEPS TO WRITING ITEMS

- STEP 1 Select a topic from the CISA exam content outline for your new item. Items should be written to test knowledge necessary to perform a specific task, and they should focus on a single topic area rather than trying to test multiple concepts at once.
- STEP 2 Write the item stem and key (correct answer). **When submitting items, you should always make choice A the correct answer.**
- STEP 3 Develop plausible distractors. Distractors should not include made-up words or phrases, and they should appear to be correct alternatives to an inexperienced professional. It may help when creating distractors to consider what an inexperienced IS audit professional might think the correct answer would be, or to ask colleagues what sorts of mistakes they can imagine an inexperienced professional making.
- STEP 4 In the space provided for rationales, include an explanation of why the key is correct, as well as why each distractor is not a correct alternative. This helps ISACA reviewers and the Working Group understand your intended testing concept.
- STEP 5 Include any reference sources that support your item. Submitted items must include at least one reference, and the ISACA web site may be consulted for applicable references – <http://www.isaca.org/knowledge-center>.
- STEP 6 Review the item using the Item Writing Checklist.
- STEP 7 Have a peer or colleague review and critique the item.

GOOD PRACTICES FOR ITEM WRITING

1. Ensure the item is testing only one concept and reflects the chosen topic and supporting task statements. Items that attempt to test multiple concepts at once are typically returned for being unclear or potentially confusing.
2. Ensure the item is appropriate for a CISA candidate with three to five years of experience – not too fundamental or easy, not too advanced or difficult.
3. Ensure the stem and alternatives are concise and do not contain unnecessary detail or explanation. Keep in mind that a candidate has only a short time to read, understand, and answer each question on the exam.
4. Ensure the item is not “teaching” the candidate – that is, explaining a concept explicitly within the stem or alternatives. Ensure the key would always be the correct or best available answer for the situation presented in the stem. Items are often returned because they do not provide enough context for a candidate to arrive at the correct answer without making assumptions, or because the correct answer could vary depending on the organization.

5. If the item is testing roles and responsibilities, ensure the correct answer is not dependent on the organization's size, structure or other organization-specific factors.
6. Ensure the wording of the item does not introduce subjectivity – words such as “commonly”, “frequently” or “rarely” are dependent on interpretation and should be avoided.
7. Ensure that absolute words such as “all”, “always” or “never” are not used – it is often too easy for candidates to rule out distractors with this wording.
8. Ensure that personal or gender pronouns (you, your, she, he, her, his, etc.) are avoided, as well as ad hoc organization names such as “Company XYZ”.
9. If an important word appears in both the stem and the key, that same word should appear in at least one distractor as well, so the candidate is not inadvertently given a clue to the correct answer.
10. Ensure the alternatives are compatible with the stem. For example, if the question begins with “Which of the following controls...,” all the alternatives should be controls.
11. Ensure any terminology or practice referred to in the item is globally familiar and in current use.
12. Ensure the alternatives do not introduce new information that is not apparent from the stem. Candidates should be able to begin formulating an answer even before viewing the alternatives.
13. Ensure all alternatives are roughly the same length and are constructed similarly. For example, if the key starts with a verb ending in “ing”, the distractors should also start that way. This keeps certain alternatives from standing out unnecessarily.

ITEM WRITING CHECKLIST

1. Does the item have any issues listed in the Item Types to Avoid section? If so, those issues must be addressed prior to submission.
2. Does the item adhere to the item writing guidelines presented in the Good Practices for Item Writing section?
3. Has the item been checked for grammar and spelling, and is it easily understood on first reading? Remember that the candidate does not get to see the rationales for the stem and alternatives during the exam, so if one has to read the rationales to understand the item, it probably needs clarification.
4. Have a topic and supporting task from the exam content outline been selected for the item, and does the item's testing concept align with them?
5. Have rationales been included for the stem and alternatives?
6. Has at least one reference been provided for the item?

ITEM EXAMPLES

Here are some examples of **potential issues** you may encounter when constructing items.

Example 1:

Stem: Which of the following should be reviewed by an IS auditor during a disaster recovery plan (DRP) audit?

Alternatives:

- A. IT asset inventory
- B. DRP testing schedule
- C. Data center backup strategy
- D. Data center access controls

Key: A

There is not enough information in the stem to be able to choose only one correct answer. An IS auditor might have good reason to look at any or all these things when reviewing a disaster recovery plan. It is sometimes possible to fix this type of issue by adding a qualifier such “BEST” or “MOST important” to the question, but in this case, without more context, it would be difficult to say for sure which of the alternatives is most important for the auditor to review – it depends on the organization and situation. This item would be returned, because as written it is too subjective.

Example 2:

Stem: An IS auditor learns that a loan department manager of a financial institution changes the interest rates of several loans in the financial system. Which of the following is the auditor’s **BEST** recommendation to address this situation?

Alternatives:

- A. Functional access controls should be strengthened.
- B. Changes to loan information should be logged.
- C. Senior management should supervise changes to loan information.
- D. Change management controls should be implemented.

Key: A

In this item, the issue is that the stem assumes functional responsibility. It is not clear from the stem that the manager is doing anything wrong by making these changes – it is possible that in some organizations, a manager would have this type of access. Practices related to roles and responsibilities can vary in different geographic regions as well. While it is possible to write effective items that test roles and responsibilities, great care must be taken to ensure the test taker has enough context to choose one best answer that would apply to any organization.

If you need assistance or have questions related to the item writing process, please contact us at itemwriting@isaca.org