



# **CDPSE<sup>®</sup> ITEM DEVELOPMENT GUIDE**

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## **PURPOSE OF THE CDPSE ITEM DEVELOPMENT GUIDE**

The purpose of the CDPSE Item Development Guide is to assist subject matter experts (SMEs) in their efforts to write new items (questions) for the CDPSE exam. This guide is intended to familiarize writers with the item development process and provide tools to help create 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 CDPSE exam.

## **CDPSE EXAM STRUCTURE**

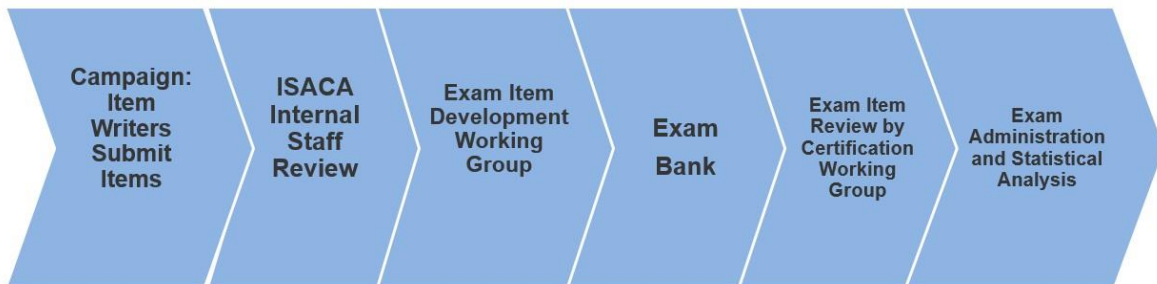
A data privacy practice analysis taskforce was assembled to identify the tasks performed, and knowledge required, by professionals who are charged with implementing data privacy programs from a technical perspective. The CDPSE exam content outline was developed by this task force, which serves as the blueprint for the exam. Questions must be written to test a candidate's knowledge of topics associated with three major content areas/domains: Privacy Governance, Privacy Architecture, and Data Life Cycle, and the related subtopic areas. The CDPSE Content Outline will be provided to all item writers.

## **THE CDPSE EXAM TARGET AUDIENCE**

When writing an exam item, it is important to consider the exam's target audience. Questions must be written at the proper level of experience so those who just qualify for the certification can comprehend the question and in turn, answer the question correctly. To qualify for the CDPSE certification after passing the exam, one must have at least three (3) years of cumulative work experience across a minimum of two (2) CDPSE domains.

When writing items, one must also consider that the CDPSE exam will be administered globally. Items need to reflect terminology and concepts known to the international IT privacy community, and not just a specific region. This exam will focus on the *technical* aspects of "privacy by design and default"; it is not a *legal* exam. Because the test will focus on the *practical application* of topics within the CDPSE content outline, candidates should not expect to pass by only studying review materials--technical experience implementing the related concepts will be necessary.

## THE CDPSE ITEM WRITING AND REVIEW PROCESS: AN OVERVIEW



ISACA conducts item writing campaigns each year to generate new items for related exams. 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, suggestions may be provided 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 members determine that an item is ready to move forward, the item will then be included for review by the CDPSE Working Group, which is a panel of subject matter experts (SMEs) 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 with feedback from the Group. Depending on the Working Group meeting dates(s), this means item writing final results and feedback may not be available for approximately 4-6 weeks after an item writing campaign closes.

## **TRAINING FOR NEW WRITERS**

All new item writers are required to complete an online training program before participating in a regular 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 CDPSE item writing. Upon completion of the training program, writers become eligible to participate in our CDPSE item writing campaigns.

## **WRITING QUALITY ITEMS**

Exam questions must be written to test a candidate’s knowledge of established content areas defined by the CDPSE content outline. Each item must be assigned by the writer to a subtopic and supporting task within the content outline, which is made available to writers at the beginning of each campaign.

A quality item will follow the ISACA item writing guidelines recapped at the end of this document, and will include content that tests the exam candidate’s technical experience and knowledge applying “privacy by design” concepts.

## **ITEM FORMATS**

The CDPSE exam consists of multiple-choice items. The multiple-choice item is the most common 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 or Options):***

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

### ***Key (Correct answer):***

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 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 are not knowledgeable enough to choose the key.

As mentioned above, the majority of CDPSE exam items use a direct question/response format, as in the following example. (Please note that any items in this Guide will not appear on future exams.)

**Stem:** What type of program should be implemented before an organization allows staff to remotely access its internal network?

**Alternatives:**

- A. **Data loss prevention (DLP) (Key)**
- B. Identity and access management (IAM)
- C. Risk management
- D. Endpoint protection

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

**Stem:** The **MOST** effective method of data destruction for large quantities of storage media containing personal data is:

**Alternatives:**

- A. **shredding. (Key)**
- B. degaussing.
- C. erasure.
- D. overwriting.

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 modes 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 elements contained in one choice should not be repeated in other choices.
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.
5. Items that use a fill-in-the-blank format.
6. Items that test knowledge of vendor-specific products or region-specific regulations. For instance, an item starting “According to GDPR...” would be returned because ISACA will not test a regulation specifically by name.
7. Items that directly test definitions or are copied verbatim from a resource. Remember that the CDPSE 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 memorized a section of a common resource. 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 CDPSE 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 exam candidate. It may help when creating distractors to consider what an inexperienced data privacy professional might think the correct answer would be.
- 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 – [www.isaca.org/resources](http://www.isaca.org/resources).
- STEP 6 Review the item using the Item Writing Checklist at the end of this section.

## **GOOD PRACTICES FOR ITEM WRITING**

1. Ensure the item is testing only one concept and reflects the chosen topic and supporting task from the CDPSE content outline.
2. Ensure the item is appropriate for a CDPSE candidate with three 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.
5. 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 or its circumstances.
6. 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.
7. 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.
8. Ensure that absolute words such as “all”, “always” or “never” are not used – it is often too easy for exam candidates to rule out distractors with this wording.
9. 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”.



10. 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.
11. 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.
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, then all the distractors should also start with a verb. This keeps certain alternatives from standing out unnecessarily.
14. Use a qualifier (such as BEST, MOST, PRIMARY, etc.) to help distinguish between plausible alternatives when applicable. Not every item requires a qualifier, but it may help to avoid subjectivity when developing distractors.

## **ITEM WRITING CHECKLIST**

1. Does the item have any of the issues listed in the Item “Types to Avoid” section above? If so, those issues should be addressed prior to submission.
2. Does the item adhere to the item writing guidelines presented in the “Good Practices for Item Writing” section above?
3. Does the item’s testing concept align with a subtopic area and supporting task from the CDPSE content outline?
4. Have rationales been included for the stem and alternatives?
5. Has at least one reference been provided for the item?

## EXAMPLE ITEMS (GOOD EXAMPLES):

### *Example 1:*

**Stem:** Which of the following **MOST** effectively minimizes privacy risk for an organization that wants to collect personal data for a new project?

**Alternatives:**

- A. **Collecting only the data necessary to meet project objectives (Key)**
- B. Training stakeholders on privacy requirements for processing personal data
- C. Engaging a third-party provider to handle data collection for the project
- D. Implementing role-based access controls for systems storing the data

**Rubric:**

Subtopic 3A4 (Data Use Limitation)

Supporting Task: 1 (Identify the internal and external requirements for the organization's privacy programs and practices)

### *Example 2:*

**Stem:** What is the **BEST** way to ensure personal data can be recovered after a successful ransomware attack when policy dictates attackers will not be paid?

**Alternatives:**

- A. **Create backups offsite and off network. (Key)**
- B. Establish a hot data center site for rapid recovery.
- C. Document and train staff on system restore procedures.
- D. Maintain and secure paper copies of records containing personal data.

**Rubric:**

Subtopic 3B3 (Data Storage)

Supporting Task: 5 (Implement procedures that align with privacy policies.)

*Example 3:*

**Stem:** Which of the following methodologies can be used to ensure the integrity of a file in transit?

**Alternatives:**

- A. **Hashing (Key)**
- B. Encryption
- C. Virtual private network (VPN)
- D. IPSEC

**Rubric:**

Subtopic 2C2 (Encryption, Hashing and De-Identification)

Supporting Task: 12 (Identify, validate, and/or implement appropriate privacy and security controls according to data classification procedures.)

*Example 4:*

**Stem:** Which of the following constitutes a data privacy breach?

**Alternatives:**

- A. **An incident that results in confirmed disclosure of personal data (Key)**
- B. An event that compromises the integrity and confidentiality of an information asset
- C. An event that jeopardizes the availability of a system that processes personal data
- D. A suspected incident that could result in a private corporation's loss of data

**Rubric:**

Subtopic 1B5 (Privacy Incident Management)

Supporting Task: 7 (Participate in the privacy incident management process.)

## EXAMPLE ITEMS (ITEMS WITH CHALLENGES):

Here are some examples of potential issues you may encounter when constructing items and common reasons items are not accepted.

### *Example 1:*

Which role is **BEST** suited to provide senior leadership with an unbiased view of the security of personal data at rest stored within the organization?

- A. **Independent security assessor (Key)**
- B. Data owner
- C. Data custodian
- D. Internal IS auditor

The main issue with this item is that even an exam candidate without the applicable privacy experience would most likely associate “unbiased view” in the stem with “independent assessor” in the key. As such, this item would test as “too easy” and would not distinguish a qualified candidate.

This item could be reworked to replace some of the options with other roles containing key words from the stem, so that “cluing” is not as obvious. For instance:

- A. **Third-party security assessor (Key)**
- B. Data owner
- C. Information security manager
- D. Independent IS auditor

In the above re-write of the alternatives, 2 new options were created using terms that a candidate might associate with the word “unbiased” in the stem. “Third-party” was substituted in the answer, and “independent” was added to option D. In addition, option C was revised to include the word “security” so that the key is not the only option with this term (since “security” also appears in the stem).

### *Example 2:*

Which of the following is the **MOST** important consideration when implementing a privacy and data protection framework?

- A. **Understanding obligations and risks (Key)**
- B. Documenting policies and procedures
- C. Assigning roles and responsibilities
- D. Providing training for management and staff

The question above has the potential to be a good item. The issue is that all the answers are very important considerations, and each plays an essential role to a successful implementation of a privacy and data protection framework. It would be difficult for a candidate to choose one option as “MORE” important than another.

This item can be reworked to change the qualifier from **MOST** to **FIRST**. By making this item more of a sequential process for implementing a framework, it could be argued that an organization needs to understand its obligations and risks before moving on to other steps or processes associated with framework implementation.

The reworked stem:

Which of the following should be done **FIRST** when planning to implement a privacy and data protection framework?

- A. Understand obligations and risks. (Key)**
- B. Document policies and procedures.
- C. Assign roles and responsibilities.
- D. Develop training for management and staff.

*Example 3:*

Technical controls that enable data privacy protection include:

- A. data masking, firewalls, identity access management. (Key)**
- B. data masking, firewalls, electronic media shredders.
- C. identity access management, encryption, security policies.
- D. encryption, data backups, electronic media shredders.

The question above poses several challenges to an exam candidate. The options are written in a “multiple, multiple” format, which means one or more components listed in one option are used in other options. In this case, “data masking” is used in 2 options, “firewalls” appears in 2 options, identity access management appears in 2 options etc. Options written in lists using repeated choices tend to confuse or trick candidates, which is not the intent of the exam.

The best way to re-write this item would be to focus on the candidate’s ability to select the BEST control for a specific data protection purpose and use one control for each choice.

**Thank you for taking the time to review this Guide. If you need assistance or have questions related to the item writing process, please contact us at [itemwriting@isaca.org](mailto:itemwriting@isaca.org).**