

# ISTQB CT-GenAI

**ISTQB TESTING WITH GENERATIVE AI CERTIFICATION QUESTIONS & ANSWERS**

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Exam Summary – Syllabus – Questions

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## **CT-GENAI**

**ISTQB Certified Tester - Testing with Generative AI (CT-GenAI)**

**40 Questions Exam – 65% Cut Score – Duration of 60 minutes**

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## Table of Contents

Know Your CT-GenAI Certification Well: .....	3
ISTQB CT-GenAI Testing with Generative AI Certification Details: .....	3
CT-GenAI Syllabus:.....	4
ISTQB CT-GenAI Sample Questions: .....	6
Study Guide to Crack ISTQB Testing with Generative AI CT-GenAI Exam: .....	9

## Know Your CT-GenAI Certification Well:

The CT-GenAI is best suitable for candidates who want to gain knowledge in the ISTQB Specialist. Before you start your CT-GenAI preparation you may struggle to get all the crucial Testing with Generative AI materials like CT-GenAI syllabus, sample questions, study guide.

But don't worry the CT-GenAI PDF is here to help you prepare in a stress free manner.

The PDF is a combination of all your queries like-

- What is in the CT-GenAI syllabus?
- How many questions are there in the CT-GenAI exam?
- Which Practice test would help me to pass the CT-GenAI exam at the first attempt?

Passing the CT-GenAI exam makes you ISTQB Certified Tester - Testing with Generative AI (CT-GenAI). Having the Testing with Generative AI certification opens multiple opportunities for you. You can grab a new job, get a higher salary or simply get recognition within your current organization.

## ISTQB CT-GenAI Testing with Generative AI Certification Details:

Exam Name	ISTQB Certified Tester - Testing with Generative AI
Exam Code	CT-GenAI
Exam Fee	USD \$199
Exam Duration	60 Minutes
Number of Questions	40
Passing Score	65%
Format	Multiple Choice Questions
Schedule Exam	<a href="#">Pearson VUE</a>
Sample Questions	<a href="#">ISTQB CT - Testing with Generative AI Exam Sample Questions and Answers</a>
Practice Exam	<a href="#">ISTQB Certified Tester - Testing with Generative AI (CT-GenAI) Practice Test</a>

## CT-GenAI Syllabus:

Topic	Details
<b>Introduction to Generative AI for Software Testing - 100 minutes</b>	
Generative AI Foundations and Key Concepts	<ul style="list-style-type: none"> <li>- Recall different types of AI: symbolic AI, classical machine learning, deep learning, and generative AI</li> <li>- Explain the basics of generative AI and large language models</li> <li>- Distinguish between foundation, instruction-tuned and reasoning LLMs</li> <li>- Summarize the basic principles of multimodal LLMs and vision-language models</li> </ul>
Leveraging Generative AI in Software Testing: Core Principles	<ul style="list-style-type: none"> <li>- Give examples of key LLM capabilities for test tasks</li> <li>- Compare interaction models when using GenAI for software testing</li> </ul>
<b>Prompt Engineering for Effective Software Testing - 365 minutes</b>	
Effective Prompt Development	<ul style="list-style-type: none"> <li>- Give examples of the structure of prompts used in generative AI for software testing</li> <li>- Differentiate core prompting techniques for software testing</li> <li>- Distinguish between system prompts and user prompts</li> </ul>
Applying Prompt Engineering Techniques to Software Test tasks	<ul style="list-style-type: none"> <li>- Apply generative AI to test analysis tasks</li> <li>- Apply generative AI to test design and test implementation tasks</li> <li>- Apply generative AI to automated regression testing</li> <li>- Apply generative AI to test control and monitoring tasks</li> <li>- Select and apply appropriate prompting techniques for a given context and test task</li> </ul>
Evaluate Generative AI Results and Refine Prompts for Software Test Tasks	<ul style="list-style-type: none"> <li>- Understand the metrics for evaluating the results of generative AI on test tasks</li> <li>- Give examples of techniques for evaluating and iteratively refining prompts</li> </ul>
<b>Managing Risks of Generative AI in Software Testing - 160 minutes</b>	
Hallucinations, Reasoning Errors and Biases	<ul style="list-style-type: none"> <li>- Recall the definitions of hallucinations, reasoning errors and biases in Generative AI systems</li> <li>- Identify hallucinations, reasoning errors and biases in LLM output</li> <li>- Summarize mitigation techniques for GenAI hallucinations, reasoning errors and biases in software test tasks</li> </ul>

Topic	Details
	- Recall mitigation techniques for non-deterministic behavior of LLMs
Data Privacy and Security Risks of Generative AI in Software Testing	<ul style="list-style-type: none"> <li>- Explain key data privacy and security risks associated with using generative AI in software testing</li> <li>- Give examples of data privacy and vulnerabilities in using Generative AI in software testing</li> <li>- Summarize mitigation strategies to protect data privacy and enhance security in Generative AI for software testing</li> </ul>
Energy Consumption and Environmental Impact of Generative AI for Software Testing	- Explain the impact of task characteristics and model usage on the energy consumption of Generative AI in software testing
AI Regulations, Standards and Best Practice Frameworks	- Recall examples of AI regulations, standards and best practice frameworks relevant to Generative AI in software testing
<b>LLM-Powered Test Infrastructure for Software Testing - 110 minutes</b>	
Architectural Approaches for LLM-Powered Test Infrastructure	<ul style="list-style-type: none"> <li>- Explain key architectural components and concepts of LLM-powered test infrastructure</li> <li>- Summarize Retrieval-Augmented Generation</li> <li>- Explain the role and application of LLM-powered agents in automating test processes</li> </ul>
Fine-Tuning and LLMOps: Operationalizing Generative AI for Software Testing	<ul style="list-style-type: none"> <li>- Explain the fine-tuning of language models for specific test tasks</li> <li>- Explain LLMOps and its role in deploying and managing LLMs for test tasks</li> </ul>
<b>Deploying and Integrating Generative AI in Test organizations - 80 minutes</b>	
Roadmap for Adoption of Generative AI in Software Testing	<ul style="list-style-type: none"> <li>- Recall the risks of shadow AI</li> <li>- Explain the key aspects to consider when defining a Generative AI strategy for software testing</li> <li>- Summarize key criteria for selecting LLMs/SLMs for software test tasks in a given context</li> <li>- Recall key phases in the adoption of Generative AI in a test organization</li> </ul>
Manage Change when Adopting Generative AI for Software Testing	<ul style="list-style-type: none"> <li>- Explain the essential skills and knowledge areas required for testers to work effectively with generative AI in test processes</li> <li>- Recall strategies for cultivating AI skills within test teams to support the adoption of Generative AI in test</li> </ul>

Topic	Details
	activities - Recognize how test processes and responsibilities shift within a test organization when adopting Generative AI

## ISTQB CT-GenAI Sample Questions:

### Question: 1

Which TWO of the following standards, or parts of them, are MOST relevant to the use of Generative AI in software testing?

Select TWO options.

- a) ISO/IEC 25010:2023
- b) ISO/IEC 23053:2022
- c) ISO/IEC/IEEE 29119-2:2021
- d) ISO/IEC 42001:2023
- e) ISO/IEC/IEEE 29119-3:2021

**Answer: b, d**

### Question: 2

Which of the following components of an LLM-powered testing application is responsible for combining user input with structured and semantically similar data to prepare a prompt for the LLM?

Select ONE option.

- a) Back-end
- b) Front-end
- c) Authentication component
- d) Post-processing component

**Answer: a**

### Question: 3

Which TWO of the following options represent key capabilities of LLMs in test tasks?

Select TWO options.

- a) Identifying ambiguities and inconsistencies in requirements.
- b) Generating complete application code for deployment.
- c) Automating the execution of all test scripts without human intervention.
- d) Performing exploratory testing on software applications.
- e) Creating diverse test data with various combinations and boundary values.

**Answer: a, e**

**Question: 4**

An attacker injects falsified test results into the training dataset of an LLM intended to recommend optimal test coverage strategies. What type of attack vector does this description BEST refer to?

- a) Malicious code generation
- b) Data exfiltration
- c) Request manipulation
- d) Data poisoning

**Answer: d****Question: 5**

What is the BEST approach for cultivating skills within test teams to specifically support the adoption of Generative AI?

- a) Rely mainly on external expert courses with hands-on practice, aiming to integrate AI into all daily test tasks at once.
- b) Encourage independent experimentation with various LLMs without following a structured process.
- c) Adopt a hands-on, gradual learning process supported by guided exercises, peer learning, and knowledge-sharing communities.
- d) Rely mainly on theoretical courses from external experts, aiming to gradually integrate AI into daily test tasks in line with actual learning.

**Answer: c****Question: 6**

In the context of software testing, which of the following statements (i-v) about foundation, instruction-tuned, and reasoning LLMs are CORRECT?

- i. Foundation LLMs excel at generating test cases from high-level requirements without structured input.
- ii. Reasoning LLMs excel at creating test scripts that strictly follow predefined organizational templates.
- iii. Instruction-tuned LLMs excel at autonomously prioritizing test execution based on realtime user feedback.
- iv. Reasoning LLMs excel at synthesizing data from defect reports to detect trends and prioritize test efforts.
- v. Instruction-tuned LLMs excel at generating test cases that adhere to Gherkin language syntax.

- a) i, ii, and iii
- b) ii, iii, and iv
- c) i, ii, and v
- d) iv, and v

**Answer: d**

**Question: 7**

You are leveraging Generative AI to assist in testing an entertainment software application. The Generative AI model generates test cases for user interaction scenarios, test scripts for API interactions, and synthetic test data to address edge cases. To effectively evaluate the Generative AI model's performance and to refine prompts, which combination of metrics and actions BEST ensures comprehensive assessment and improvement?

- a) Evaluate the diversity of test cases to ensure varied input scenarios and use test execution success rate to validate the functionality of generated API test scripts.
- b) Apply accuracy and completeness metrics to validate test cases against entertainment software requirements and rely on time efficiency to compare AI-generated test scripts with manual test efforts.
- c) Focus on precision to ensure generated test data meets entertainment software compliance standards, while contextual fit and test execution success rate assesses the alignment and usability of test scripts.
- d) Prioritize relevance and contextual fit for all outputs to maintain consistency with entertainment software requirements and include diversity metrics to expand edge case coverage.

**Answer: a**

**Question: 8**

Consider the realm of Large Language Models (LLMs). Which of the following options BEST explains why context window limitations affect LLM's text processing capabilities? Select ONE option.

- a) Because context windows restrict temporal processing sequences, preventing LLMs from maintaining chronological consistency across extended text analysis.
- b) Because context windows prevent cross-referencing capabilities, limiting LLMs' ability to connect information across different document sources simultaneously.
- c) Because context windows force LLMs to discard earlier information, which may contain relevant details needed for understanding later content.
- d) Because context windows constrain parsing granularity levels, restricting LLMs from adjusting between character-level and document-level analysis approaches.

**Answer: c**

**Question: 9**

A tester is examining a structured prompt used to obtain LLM assistance for performance test analysis. One of the components of this prompt reads: "Test reports from performance testing tools, system monitoring logs during peak usage periods, and application performance benchmarks from previous releases". In which component of the six-part prompt structure would this description MOST LIKELY appear?

- a) Context
- b) Input data
- c) Constraints
- d) Output format

**Answer: b**

**Question: 10**

You are using Generative AI to create test cases for an e-commerce (e-shop) application. The following features have been explicitly mentioned in the project briefing:

- cart management
- discount code application
- order confirmation email generation

Based on these details, which of the following AI-generated test cases MOST LIKELY represents a hallucination?

- a) Verify that a user can add multiple items to their cart and proceed to checkout.
- b) Verify that a user cannot apply an expired discount code during checkout.
- c) Verify that a user receives a confirmation email after successfully placing an order.
- d) Verify that a user can create a wishlist to save favorite items for later.

**Answer: d**

## Study Guide to Crack ISTQB Testing with Generative AI CT-GenAI Exam:

- Getting details of the CT-GenAI syllabus, is the first step of a study plan. This pdf is going to be of ultimate help. Completion of the syllabus is must to pass the CT-GenAI exam.
- Making a schedule is vital. A structured method of preparation leads to success. A candidate must plan his schedule and follow it rigorously to attain success.
- Joining the ISTQB provided training for CT-GenAI exam could be of much help. If there is specific training for the exam, you can discover it from the link above.
- Read from the CT-GenAI sample questions to gain your idea about the actual exam questions. In this PDF useful sample questions are provided to make your exam preparation easy.
- Practicing on CT-GenAI practice tests is must. Continuous practice will make you an expert in all syllabus areas.

## Reliable Online Practice Test for CT-GenAI Certification

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