



ISTQB® CTAL Security Tester

The Advanced Level Security Tester qualification is aimed at people who have already achieved an advanced point in their careers in software testing and wish to develop further their expertise in security testing. The modules offered at the Advanced Level cover a wide range of testing topics.

To receive Advanced Level certification in the module “Security Tester”, candidates must hold a valid Certified Tester Foundation Level certificate and have sufficient practical experience to be certified at Advanced Level, which should be not less than 3 (three) years of relevant academic, practical, or consulting experience. Refer to the relevant Exam Board to determine the specific practical experience criteria.

CONTENTS

Test Basis of Security Testing	Testing Security Mechanisms
Security Risks	System Hardening
Information Security Policies and Procedures	Authentication and Authorization
Security Auditing and Its Role in Security Testing	Encryption
Security Testing Purposes, Goals and Strategies	Firewalls and Network Zones
Introduction	Intrusion Detection
The Purpose of Security Testing	Malware Scanning
The Organizational Context	Data Obfuscation
Security Testing Objectives	Training
The Scope and Coverage of Security Testing Objectives	Human Factors in Security Testing
Security Testing Approaches	Understanding the Attackers
Improving the Security Testing Practices	Social Engineering
Security Testing Processes	Security Awareness
Security Test Process Definition	Security Test Evaluation and Reporting
Security Test Planning	Security Test Evaluation
Security Test Design	Security Test Reporting
Security Test Execution	Security Testing Tools
Security Test Evaluation	Types and Purposes of Security Testing Tools
Security Test Maintenance	Tool Selection
Security Testing Throughout the Software Lifecycle	Standards and Industry Trends
Role of Security Testing in a Software Lifecycle	Understanding Security Testing Standards
The Role of Security Testing in Requirements	Applying Security Standards
The Role of Security Testing in Design	Industry Trends
The Role of Security Testing in Implementation Activities	
The Role of Security Testing in System and Acceptance Test Activities	
The Role of Security Testing in Maintenance	

EXAM STRUCTURE

* 52 points or more;

** Only for participants taking the exam in a language other than their mothertongue;

*** Each correct answer can have a value of 1 to 3 points.



BUSINESS OUTCOMES

- Plan, perform and evaluate security tests from a variety of perspectives – policy-based, risk-based, standards-based, requirements-based and vulnerability-based;
- Align security test activities with project lifecycle activities;
- Analyze the effective use of risk assessment techniques in a given situation to identify current and future security threats and assess their severity levels;
- Evaluate the existing security test suite and identify any additional security tests;
- Analyze a given set of security policies and procedures, along with security test results, to determine effectiveness;
- For a given project scenario, identify security test objectives based on functionality, technology attributes and known vulnerabilities;
- Analyze a given situation and determine which security testing approaches are most likely to succeed in that situation;
- Identify areas where additional or enhanced security testing may be needed;
- Evaluate effectiveness of security mechanisms;
- Help the organization build information security awareness;
- Demonstrate the attacker mentality by discovering key information about a target, performing actions on a test application in a protected environment that a malicious person would perform, and understand how evidence of the attack could be deleted;
- Analyze a given interim security test status report to determine the level of accuracy, understandability, and stakeholder appropriateness;
- Analyze and document security test needs to be addressed by one or more tools;
- Analyze and select candidate security test tools for a given tool search based on specified needs;
- Understand the benefits of using security testing standards and where to find them;

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