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An Overview of the ISTQB Certifications for career path ISTQB Test Manager v/s ISTQB Test Analyst

WHAT IS THE ISTQB®?

- ISTQB®: International Software Testing Qualifications Board
  - Non-profit association
  - Founded 2002
  - Headquartered in Belgium
  - Has its own constitution, rules and regulations
  - Composed of volunteer international Testing Experts
  - Responsible for the "ISTQB® Certified Tester" scheme worldwide
- ISTQB® is the world's leading organization for Certification of Professionals in Software Testing

Advancing
the software testing profession

- **About ISTQB Board**

- **Value of the ISTQB certification recognition**

ISTQB Vision

"To continually improve and advance
the software testing profession by:
Defining and maintaining a Body of Knowledge
which allows testers to be certified based on best practices,
connecting the international software testing community,
and encouraging research."

ISTQB Certifications- Objective

- To Promote the value of software testing as a profession to individuals and organizations.

- To help software testers to be more efficient and effective in their work, through the certification of competencies.

- To enable testers to progress their career through a Professionals' Code of Ethics and a multi- level certification pathway that provides them with the skills and the knowledge.

Benefits for Professionals

- International recognition of acquired competencies and skills

Authorized to use the "Certified Tester" logo (specifying the level of certification)

Whole of career path support, From Foundation to Expert level

Higher appeal in the labor market

Benefits for Professionals - Survey

A survey done on the test professionals – whether to recommend the ISTQB certifications to your colleagues???

➢ **Test Engineers :** **Yes- 91%** **No- 9%**

➢ **Test Managers:** **Yes- 94%** **No- 6%**

* Source from ISTQB board

Both Test Engineers and Test Managers are highly satisfied with the ISTQB CTFL certifications and happy to recommend these to their colleagues.

ISTQB- Syllabi

3.1	General Introduction
3.2	Core

Certified Tester Foundation Level

Test Manager Advanced Level

Test Analyst Advanced Level

Technical Test Analyst Advanced Level

Test Management Export Level

Improving the Test Process Expert Level

3.3	Specialist

Model Based Tester Foundation Level

Security Tester Advanced Level

Test Automation Engineer

3.4	Agile

Agile Tester Foundation Level

ISTQB Syllabi & Glossary

ISTQB has defined 3 Levels:

- ➢ Foundation
- ➢ Advanced
- ➢ Expert

The ISTQB certification scheme is split into streams.

- ➢ Core
- ➢ Agile
- ➢ Specialist

ISTQB Product Portfolio

Syllabi- At a Glance

3.1	General Introduction
3.2	Core

Certified Tester Foundation Level

Test Manager Advanced Level

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Test Management Export Level

Improving the Test Process Expert Level

3.3	Specialist

Model Based Tester Foundation Level

Security Tester Advanced Level

Test Automation Engineer

3.4	Agile
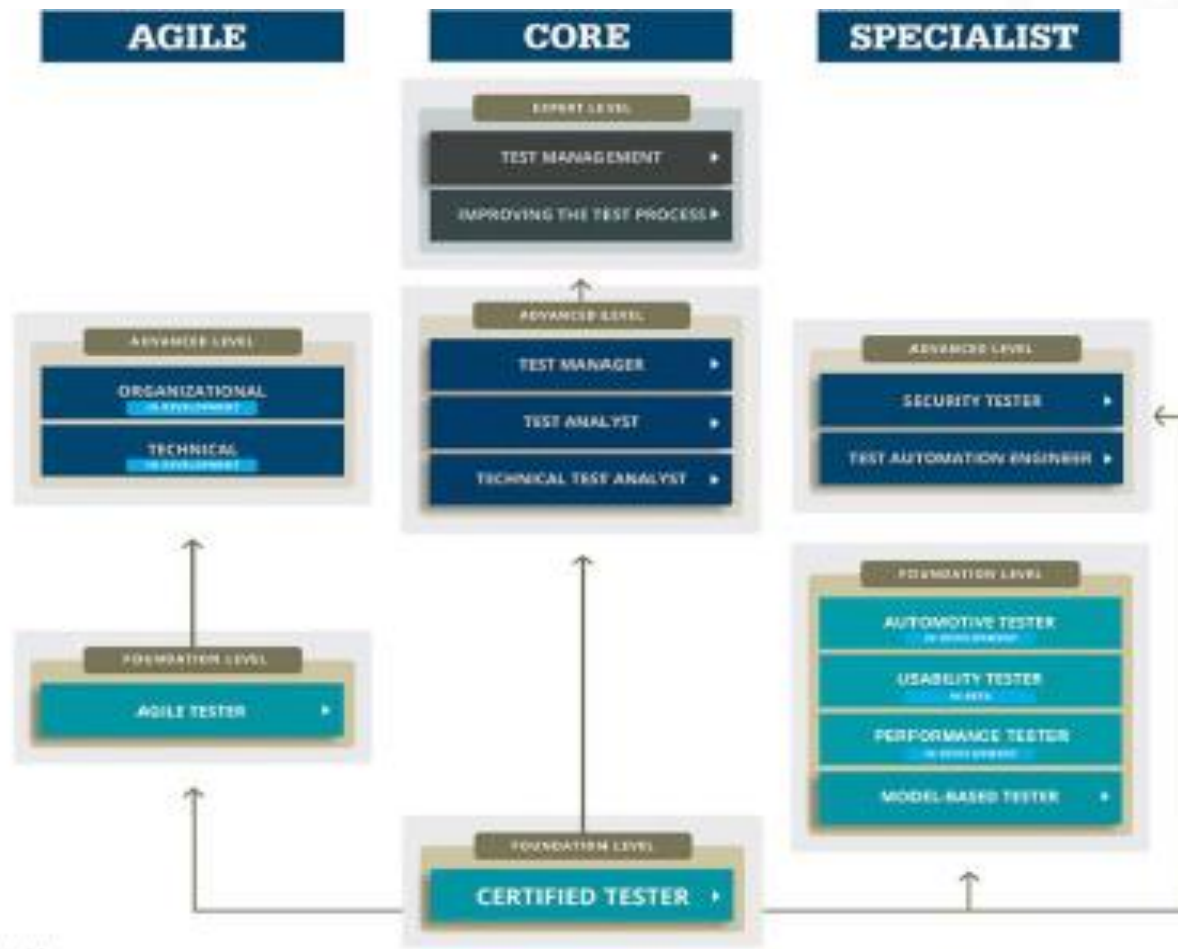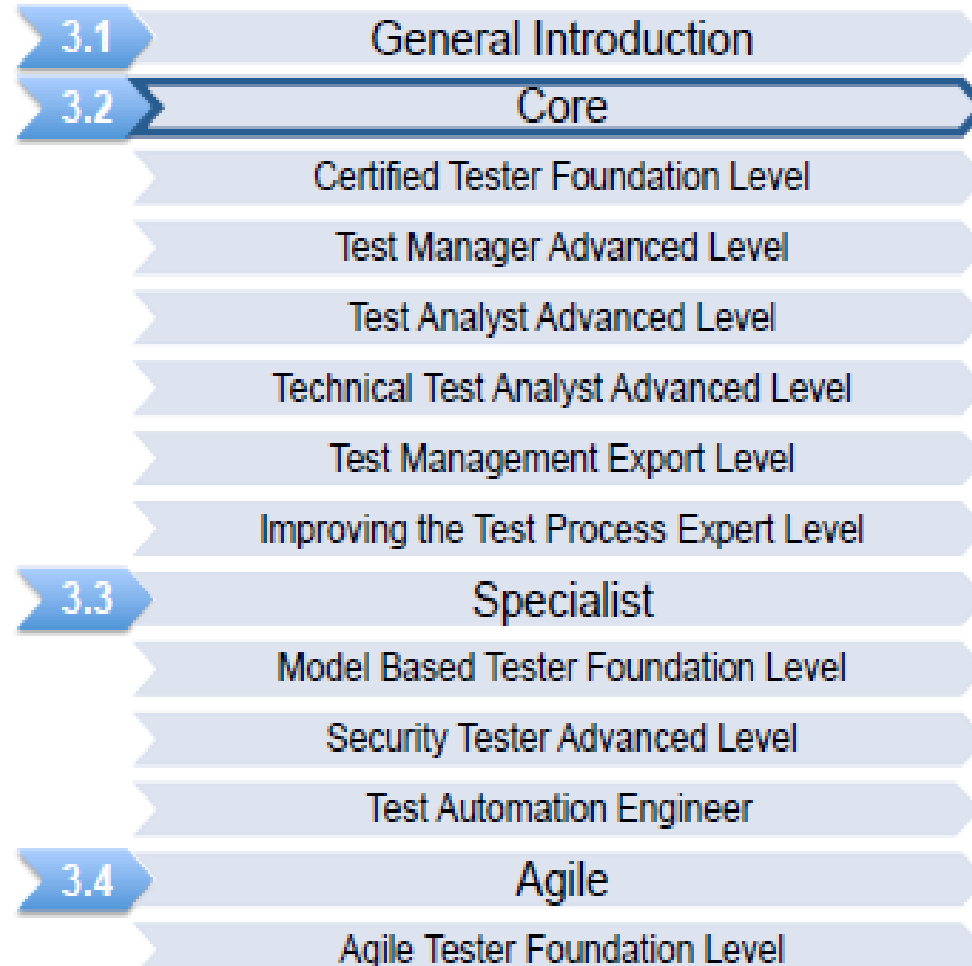
Agile Tester Foundation Level

ISTQB Foundation Level

Fundamentals of Testing	Testing Throughout the Software Life Cycle	Static Techniques	Testing Design Techniques	Test Management	Tool Support for Testing
Why is Testing Necessary?	Software Development Models	Static Techniques and the Test Process	The Test Development Process	Test Organization	Types of Test Tools
What is Testing?	Test Levels	Review Process	Categories of Test Design Techniques	Test Planning and Estimation	Effective use of Tools: Potential Benefits and Risks
Seven Testing Principles	Test Types	Static Analysis by Tools	Specification-based Techniques (black-box)	Test Progress Monitoring and Control	Introducing a Tool into an Organization
Fundamental Test Process	Maintenance Testing		Structure-based Techniques (white-box)	Configuration Management	
The Psychology of Testing			Experience-based Techniques	Risk and Testing	
Code of Ethics			Choosing Test Techniques	Incident Management	

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ISTQB Advanced Level

- ISTQB® Advanced Level is composed of three independent modules:
    - Test Manager (AL-TM)
    - Test Analyst (AL-TA)
    - Technical Test Analyst (AL-TTA)

- The ISTQB® Foundation Level Certification is a pre-requisite for all of them

- When achieving all the three Advanced Core Modules, a "Full Advanced" certificate is issued
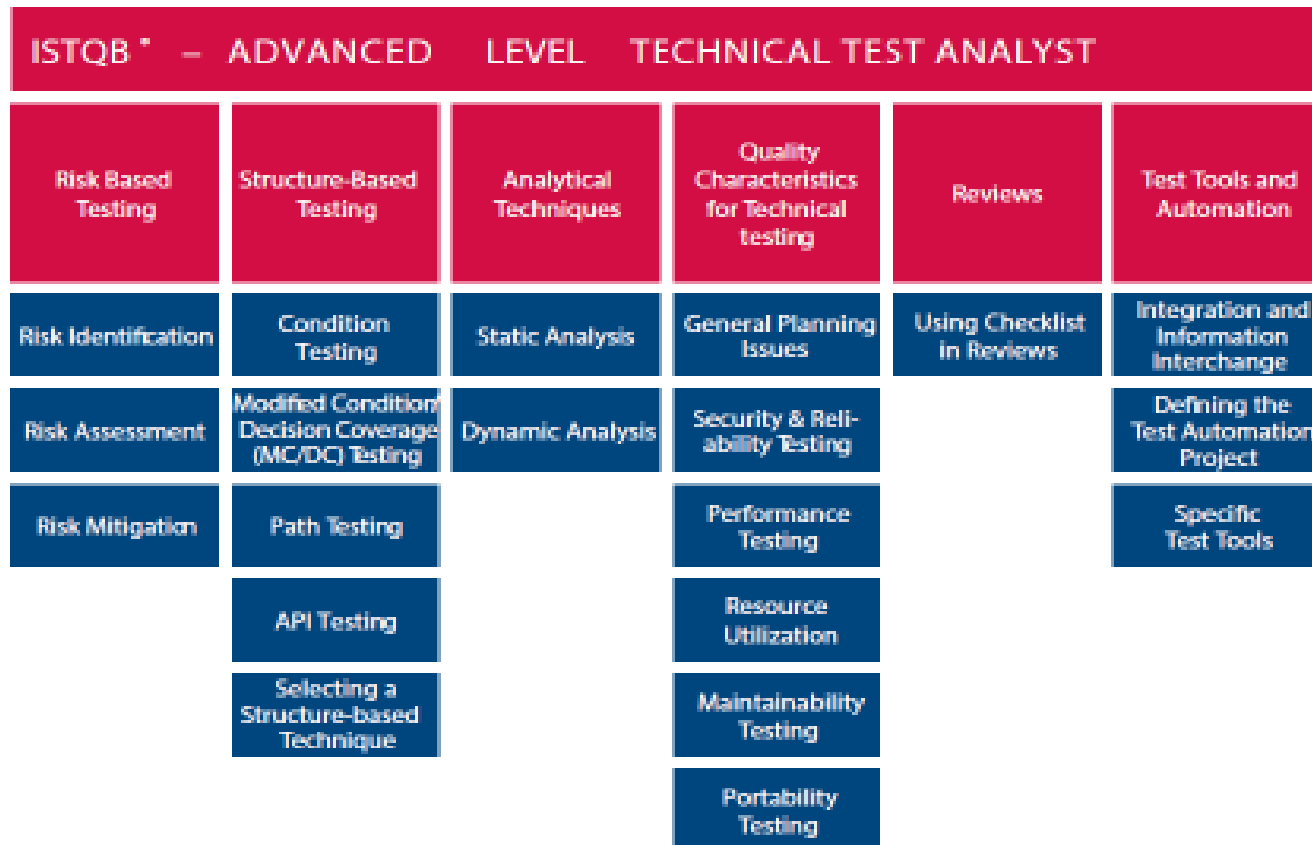
ISTQB Advanced Level Test Manager(AL-TM)

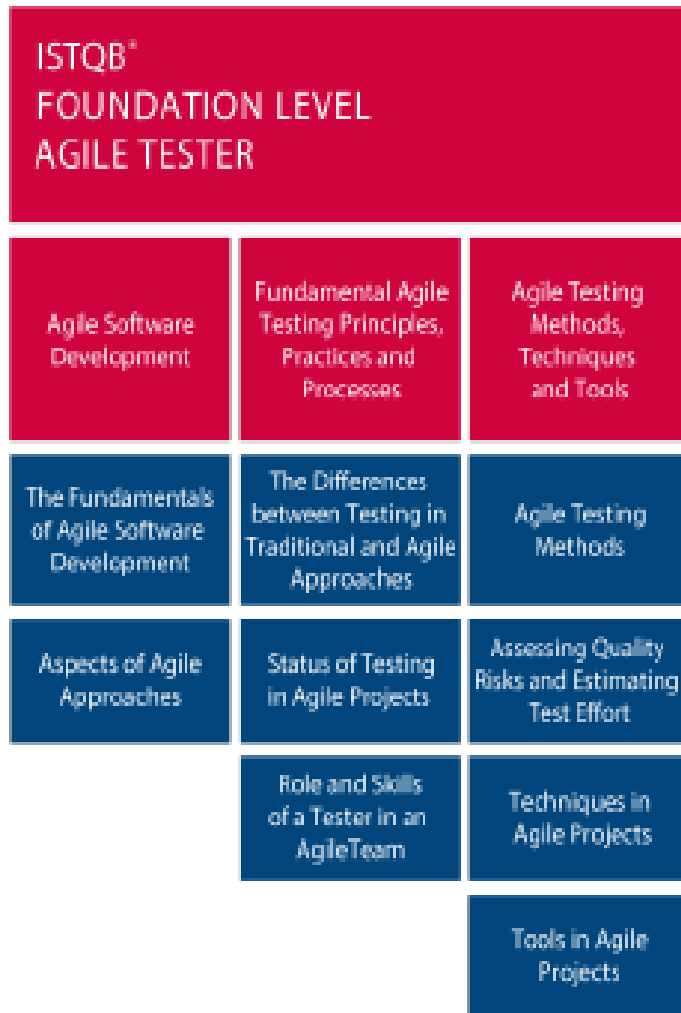| ISTQB* – ADVANCED LEVEL TEST MANAGER						
Testing Process	Test Management	Reviews	Defect Management	Improving the Testing Process	Test Tool and Automation	People Skills
Test Planning, Monitoring and Control	Risk-based Testing	Management Reviews and Audits	Defect Lifecycle	Test Improvement Process	Tool Selection	Individual Skills
Test Analysis and Design	Test Documentation	Managing Reviews	Defect Report Information	Improving the testing process with CMMI,TPI,CTP,STEP	Tool Lifecycle	Test Team Dynamics
Test Implementation and Execution	Test Estimation and Test Metrics	Metrics for reviews	Assessing Process Capability with Defect Report Info		Tool Metrics	Fitting Testing Within an Organization
Evaluating Exit Criteria and Reporting	Business Value of Testing	Managing Formal Reviews				Motivation
Test Closure Activities	Distributed, Outsourced and Insourced Testing					Communication
	Managing the Application of Industry Standards					

ISTQB Advanced Level Test Analyst (AL-TA)

ISTQB * – ADVANCED LEVEL TEST ANALYST

Testing Process	Test Management	Test Techniques	Testing Software Quality Characteristics	Reviews	Defect Management	Test Tools
Testing in the Software Development Lifecycle	Test Progress Monitoring and Control	Specification-Based Techniques	Accuracy Testing	Using Checklist in Reviews	Defect Report Fields	Test Design Tools
Test Planning, Monitoring and Control	Distributed, Outsourced and Insourced Testing	Defect-Based Techniques	Suitability Testing		Defect Classification	Test Data Preparation Tools
Test Analysis and Design	Risk Based Testing	Experience-Based Techniques	Interoperability Testing		Root Cause Analysis	Automated Test Execution Tools
Test Implementation and Execution			Usability Testing			
Evaluating Exit Criteria and Reporting			Accessibility Testing			
Test Closure Activities						

ISTQB Advanced Level Technical Test Analyst (AL-TTA)

ISTQB" – ADVANCED LEVEL TECHNICAL TEST ANALYST

Risk Based Testing	Structure-Based Testing	Analytical Techniques	Quality Characteristics for Technical testing	Reviews	Test Tools and Automation
Risk Identification	Condition Testing	Static Analysis	General Planning Issues	Using Checklist in Reviews	Integration and Information Interchange
Risk Assessment	Modified Condition/ Decision Coverage (MC/DC) Testing	Dynamic Analysis	Security & Reli-ability Testing		Defining the Test Automation Project
Risk Mitigation	Path Testing		Performance Testing		Specific Test Tools
	API Testing		Resource Utilization		
	Selecting a Structure-based Technique		Maintainability Testing		
			Portability Testing		

ISTQB Foundation Level Agile Tester

ISTQB®
FOUNDATION LEVEL
AGILE TESTER

Agile Software Development	Fundamental Agile Testing Principles, Practices and Processes	Agile Testing Methods, Techniques and Tools
The Fundamentals of Agile Software Development	The Differences between Testing in Traditional and Agile Approaches	Agile Testing Methods
Aspects of Agile Approaches	Status of Testing in Agile Projects	Assessing Quality Risks and Estimating Test Effort
	Role and Skills of a Tester in an AgileTeam	Techniques in Agile Projects
		Tools in Agile Projects

Foundation Level Agile Tester – Survey

<u>Test Engineers</u>:
No- 15%
Unsure21%
Yes- 64%

<u>Test Managers</u>:
No-16%
Unsure-21%
Yes- 83%

Advanced Level - Survey

How Important to obtain Advanced Level (CTAL) certification?

Test Engineers: Not Significant: 4%
                  Not Very significant: 7%
                  Neutral: 26%
                  Significant: 42%
                  Very Significant: 21%

Test Managers: Not Significant at all: 2%
                  Not Very Significant: 6%
                  Neutral: 22%
                  Significant: 46%
                  Very Significant: 24%

* source from ISTQB board

Comparison between AL-TM & AL-TA

AL-TA

- Testing Process
- Test Management: Responsibility for the Test Analyst
- Test Techniques
- Testing Software Quality Characteristics
- Reviews
- Defect management
- Test Tools

AL-TM

- Testing Process
- Test Management
- Reviews
- Defect management
- Improving the Testing Process
- Test tools and Automation
- People skills- Team composition

# Comparison between TM & TA
Business Outcome

AL-TM

- Manage a testing Project
- Organize and lead risk identification Risk analysis
- Create & implement test plans
- Continuously monitor and control test activities
- Identify skills & resources gaps in the team
- Identify & plan necessary skills development
- Ensure proper communication

AL-TA

- Perform the appropriate testing activities based on SDLC
- Determine the proper prioritization of testing activities based on risk analysis information
- Select & apply appropriate testing techniques
- Provide the appropriate level of documentation relevant
- Determine the appropriate functional testing types
- Responsibility for usability testing
- Effectively participate in reviews
- Design & implement a defect classification scheme
- Apply tools to support process

Exams & Exam Reliability Survey

- The Exam is based on MCQ for the Foundation & Advanced Levels.
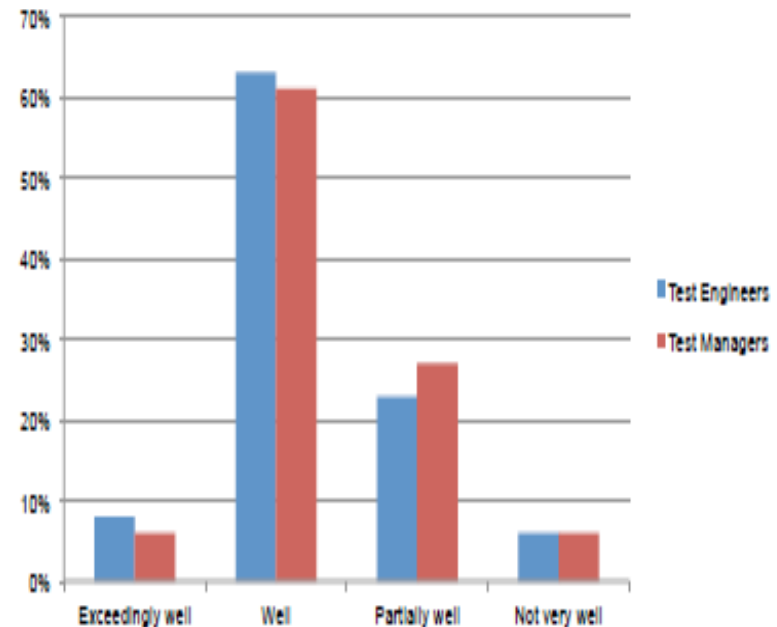
More than 70% of respondents regard the ISTQB® Foundation Level certification exam as fully or exceedingly reliable and these results are consistent throughout the world; only 6% found the exam not very reliable

Exam Questions & Length

MODULE	NUMBER OF QUESTIONS	EXAM LENGTH (IN MINUTES)	EXAM LENGTH FOR NON NATIVE LANGUAGE
FOUNDATION CERTIFIED TESTER	40	60	75
AGILE TESTER	40	60	75
ADVANCED TEST MANAGER	65	180	225
ADVANCED TEST ANALYST	60	180	225
ADVANCED TECHNICAL TEST ANALYST	45	120	150
MODEL-BASED TESTER	40	60	75
SECURITY TESTER	45	120	150
TEST AUTOMATION ENGINEER	40	90	113

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Thank You

FOR MORE DETAILS, CONTACT UNDERSIGNED

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