

# **CTFL® Automotive Software Tester (CTFL®-AuT)**

## **Exam Structure and Rules**

**For Syllabus Version**

Version 2018 (1.5) 04.07.2018

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**International Software Testing Qualifications Board**

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GTB Working Group Automotive: 2014 - 2018

Foundation Level Automotive Software Working Group: 2014-2018

Exam Working Group: 2014 - 2018

## Revision History

Version	Date	Remarks
1.0	31.03. 2017	Initial Version
1.1	30.06.2017	Inserted the note after review inside EWG that not more than 5% (= K1 questions) are allowed.
1.2	13.08.2017	Minor change in section 2.2
1.3	29.10.2017	Minor formal changes
1.4	28.05.2018	Minor formal changes (watermark, logo, ..., term extension eliminated)
1.5	04.07.2018	Watermark removed and trademark restriction added after GA approval and for ISTQB® publication.

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# 1. The Foundation Level Specialist Examinations

## General Structure and Rules

### 1.1 Introduction and background

The Foundation Level Specialist Overview [ISTQB®-FA-OVIEW] document provides a general overview of the Foundation Level Extensions.

For the rules and recommendations for writing multiple-choice questions see the [QWRR\_2011].

**Rules:**

- ST1: Each Foundation Level Specialist topic (e.g. MBT) constitutes a separate syllabus and each will have an exam structure tailored for that specific syllabus. Individual examination structures may be found in the appendices at the end of this document.
- ST2: Answers to questions may rely on concepts introduced in the ISTQB® Foundation Level Syllabus.

### 1.2 General structure of the exams

For the definitions and rules for writing multiple-choice questions and information on Knowledge Levels (K-Levels), see the ISTQB® Question Writing Rules and Recommendations Document [ISTQB®-QWRR].

**Rules:**

- ST3: The exams shall comprise 40 multiple-choice questions.
- ST4: Each correct answer has a value of one point.
- ST5: The maximum possible score for each examination is 40 points.

### 1.3 Duration

**Rules:**

- ST6: Examination timing information may be found in the appendices at the end of this document.

### 1.4 Passing Score

**Rules:**

- ST7: Candidates must score 65% or above (26 or more points) to pass the exam.

### 1.5 Question types and distribution

**Rules:**

- ST8: The exam multiple-choice question distribution for individual Foundation Specialist exams will be based on the K-levels of LOs and chapter timing for each specific syllabus.
- ST9: All multiple-choice question types, as outlined in the ISTQB® Question Writing Rules and Recommendations document [ISTQB®-QWRR], are allowed.

## 2 References

### 2.1 Documents related to the ISTQB® CTFL®-AuT Certification

The documents related to the ISTQB® CTFL®-AUT Certification are the following:

- CTFL® Specialist Automotive Software Tester, Exam Structure and Rules (this document)
- General overview – It provides the business outcomes of the certification and gives the lists of learning objectives
- Syllabus – It details the overall syllabus for ISTQB® CTFL®-AUT
- Glossary of Terms – It provides the definition of the terms defined in each chapter, to be added in ISTQB® glossary (ongoing process);
- Sample Exam Questions – A document that provides samples of CTFL® Automotive Software Tester exam questions.
- Accreditation rules – It provides the accreditation guidelines

### 2.2 ISTQB® references

<b>Identifier</b>	<b>Reference</b>
[ISTQB®-FA-OVIEW]	ISTQB® Foundation Level Extension Overview, Version 1.0
[ISTQB®-FA-SYL]	ISTQB® Foundation Level Agile Extension Syllabus, Version 2014-09
[ISTQB®-FL-EXAM]	ISTQB® Foundation Level Exam Structure & Rules, Version 2010-1
[ISTQB®-QWRR]	ISTQB® Question Writing Rules and Recommendations
[ISTQB®-PROC]	ISTQB® Syllabus Release Process and Rules Document
[ISTQB®-CTFL®-2011]	ISTQB® Foundation Level Syllabus, Version 2011
[ISTQB®-CTFL®-2018]	ISTQB® Foundation Level Syllabus, Version 2018
[ANDERSON 01]	A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives, Anderson, L. W., & Krathwohl, D. R. (Eds.), 2001, Addison Wesley Longman

### 2.3 Trademarks

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- ISTQB® is a registered trademark of the International Software Testing Qualifications Board
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- GTB® is a registered trademark of the German Testing Board (GTB) e.V. in EU only.
- Automotive SPICE® is a registered trademark of the German Association of the Automotive Industry (VDA)

### 2.4 Web Sites

<b>Identifier</b>	<b>Reference</b>
[ISTQB®-Web]	Web site of the International Software Testing Qualifications Board. Refer to this website for the latest ISTQB® Glossary and Syllabi. ( <a href="http://www.istqb.org">www.istqb.org</a> )
[GTB-Web]	Web site of the German Testing Board. ( <a href="http://www.german-testing-board.info">www.german-testing-board.info</a> ) Refer to the latest ISTQB® Glossary and Syllabi. ( <a href="http://www.istqb.org">www.istqb.org</a> )

### **3 Appendix: Foundation Level Specialist Automotive Software Tester Exam Structure**

#### **Acknowledgements**

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At the time the Foundation Level Automotive Software Tester (CTFL®-AuT) Syllabus was completed, the Certified Automotive Software Tester Specialist Working Group following active membership:

André Baumann, Arne Becher, Ralf Bongard (Syllabus Chair and Co-Chair), Kai Borgeest, Tim Burdach, Mirko Conrad, Klaudia Dussa-Zieger, Matthias Friedrich, Dirk Gebrath, Thorsten Geiselhart, Uwe Hehn, Olaf Janßen, Jacques Kamga, Horst Pohlmann (Chair and Exam Chair) Ralf Reißing, Karsten Richter, Alexander Schulz, Stefan Stefan, Jork Warnecke, Stephan Weißleder.

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## 3.1 General Structure

### 3.1.1 Structure and question distribution

Chapter			Exam Questions			
	Subject	Minutes (duration)	K1	K2	K3	K4
1	Introduction	30	2	1	-	-
2	Standards for the testing of E/E systems	300	8	8	2	-
3	Testing in a virtual environment	160	7	4	1	
4	Automotive-specific static and dynamic test techniques	230	2	2	3	

**NOTE: No more than 5% (= 2 K1 questions ) acc. to Key Terms.**

### 3.1.2 Overview

	Exam Duration	Additional Time for qualifying candidates	K1	K2	K3	K4
Foundation Level Specialist Automotive Software Tester Exam	60 minutes	15 minutes	19	15	6	-



### 3.1.3 CTFL® Automotive Software Tester question distribution

<b>Chapter 1 Question Distribution</b>	<b>K-Level</b>	<b>Max. Number of Questions per LO</b>	<b>Introduction</b>
AuTFL-1.2.1 AuTFL-1.3.1 AuTFL-1.4.1 Automotive Software Tester Specialist Terms	K1	1	<b>There are a total of 3 questions required for this section.</b>  <b>K1 = 2 questions</b> <b>K2 = 1 question</b>
AuTFL-1.1.1	K2	1	
<b>Chapter 2.1 Question Distribution</b>	<b>K-Level</b>	<b>Max. Number of Questions per LO</b>	<b>ASPICE</b>
AuTFL-2.1.1.1 AuTFL-2.1.2.1 AuTFL-2.1.2.4 Automotive Software Tester Specialist Terms	K1	1	<b>There are a total of 7 questions required for this section.</b>  <b>K1 = 2 questions</b> <b>K2 = 4 questions</b> <b>K3 = 1 question</b>
AuTFL-2.1.1.3	K2	1	
AuTFL-2.1.2.2	K2	1	
AuTFL-2.1.2.3	K2	1	
AuTFL-2.1.2.6	K2	1	
AuTFL-2.1.2.5	K3	1	
<b>Chapter 2.2 Question Distribution</b>	<b>K-Level</b>	<b>Max. Number of Questions per LO</b>	<b>ISO 26262</b>
AuTFL-2.2.1.2 AuTFL-2.2.3.2 AuTFL-2.2.4.1	K1	1	<b>There are a total of 7 questions required for this section.</b>  <b>K1 = 3 questions</b>

<i>Automotive Software Tester Specialist Terms</i>			<b>K2 = 3 questions</b> <b>K3 = 1 question</b>
<i>AuTFL-2.2.1.1</i>	<i>K2</i>	<i>1</i>	
<i>AuTFL-2.2.2.1</i>	<i>K2</i>	<i>1</i>	
<i>AuTFL-2.2.4.2</i>	<i>K2</i>	<i>1</i>	
<i>AuTFL-2.2.5</i>	<i>K3</i>	<i>1</i>	
<b>Chapter 2.3 Question Distribution</b>	<b><i>K-Level</i></b>	<b><i>Max. Number of Questions per LO</i></b>	<b>AUTOSAR</b>
<i>AuTFL-2.3.1</i> <i>AuTFL-2.3.3</i> <i>Automotive Software Tester Specialist Terms</i>	<i>K1</i>	<i>1</i>	<b>There are a total of 2 questions required for this section.</b>  <b>K1 = 2 questions</b>
<b>Chapter 2.4 Question Distribution</b>	<b><i>K-Level</i></b>	<b><i>Max. Number of Questions per LO</i></b>	<b>Comparison</b>
<i>AuTFL-2.4.1</i> <i>Automotive Software Tester Specialist Terms</i>	<i>K1</i>	<i>1</i>	<b>There are a total of 2 questions required for this section.</b>  <b>K1 = 1 question</b> <b>K2 = 1 question</b>
<i>AuTFL-2.4.2</i>	<i>K2</i>	<i>1</i>	

<b>Chapter 3.1 Question Distribution</b>	<b>K-Level</b>	<b>Max. Number of Questions per LO</b>	<b>Test environment in general</b>
AuTFL-3.1.1 AuTFL-3.1.2 AuTFL-3.1.4 Automotive Software Tester Specialist Terms	K1	1	<b>There are a total of 3 questions                      required for this section.</b>  <b>K1 = 2 questions</b>  <b>K2 = 1 question</b>
AUTFL-3.1.3	K2	1	
<b>Chapter 3.2 Question Distribution</b>	<b>K-Level</b>	<b>Max. Number of Questions per LO</b>	<b>Testing in XIL test environments</b>
AuTFL-3.2.1.1 AuTFL-3.2.2.1 AuTFL-3.2.2.2 AuTFL-3.2.3.1 AuTFL-3.2.4.3 Automotive Software Tester Specialist Terms	K1	1	<b>There are a total of 9 questions                      required for this section.</b>  <b>K1 = 5 questions</b>  <b>K2 = 3 questions</b>  <b>K3 = 1 question</b>
AuTFL-3.2.1.2	K2	1	
AuTFL-3.2.3.2	K2	1	
AuTFL-3.2.4.1	K2	1	
AuTFL-3.2.4.2	K3	1	

<b>Chapter 4.1 Question Distribution</b>	<b>K-Level</b>	<b>Max. Number of Questions per LO</b>	<b>Automotive-specific Static test techniques</b>
Automotive Software Tester Specialist Terms	K1	1	<b>There are a total of 3 questions required for this section.</b>  <b>K1 = 1 questions</b> <b>K2 = 1 questions</b> <b>K3 = 1 questions</b>
AuTFL-4.1.1	K2	1	
AuTFL-4.1.2	K3	1	
<b>Chapter 4.2 Question Distribution</b>	<b>K-Level</b>	<b>Max. Number of Questions per LO</b>	<b>Automotive-specific Dynamic test techniques</b>
Automotive Software Tester Specialist Terms AuTFL_4.2.4	K1	1	<b>There are a total of 4 questions required for this section.</b>  <b>K1 = 1 questions</b> <b>K2 = 1 questions</b> <b>K3 = 2 questions</b>
AuTFL-4.2.2	K2	1	
AuTFL-4.2.3	K2		
AuTFL-4.2.5	K3	1	
AuTFL-4.2.1	K3	1	
<b>Foundation Specialist Automotive Software Tester TOTALS</b>			<b>60 minutes</b>
			<b>40 questions total</b>