Sample Exam – Answers

Sample Exam set C Version 1.2

ISTQB® Certified Tester Syllabus Foundation Level

Compatible with Syllabus version 2018 v3.1

International Software Testing Qualifications Board



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Exam Working Group 2020

Document Responsibility

The ISTQB® Examination Working Group is responsible for this document.

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This document is maintained by a core team from ISTQB® Exam Working Group.



Revision History

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Version	Date	Remarks
1.0	May 3, 2019	Release at Yerevan GA
1.1	May 29, 2019	Cosmetic and wording fixes
1.2	May 17, 2020	Improved readability of Rationale



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Introduction

Purpose of this document

The sample questions and answers and associated justifications in this sample exam set have been created by a team of Subject Matter Experts and experienced question writers with the aim of assisting ISTQB® Member Boards and Exam Boards in their question writing activities.

These questions cannot be used as-is in any official examination, but they should serve as guidance for question writers. Given the wide variety of formats and subjects, these sample questions should offer many ideas for the individual Member Boards on how to create good questions and appropriate answer sets for their examinations.

Instructions

The answer set is organized in the following way:

- Correct answer including justification of the answers
- Learning Objective and K-level of Questions
- Answer Key with Learning Objective and K-level for each question
- Questions are contained in a separate document



Answer Key

Question Number (#)	Correct Answer	LO	K-Level	Points
1	b	Keywords	K1	1
2	а	FL-1.1.1	K1	1
3	d	FL-1.2.4	K2	1
4	b	FL-1.3.1	K2	1
5	d	FL-1.5.2	K2	1
6	d	FL-1.4.4	K2	1
7	С	FL-1.2.1	K2	1
8	b	FL-1.4.2	K2	1
9	b	FL-2.3.2	K1	1
10	С	FL-2.4.2	K2	1
11	С	FL-2.2.1	K2	1
12	d	FL-2.3.1	K2	1
13	d	FL-2.3.3	K2	1
14	а	FL-3.2.2	K1	1
15	d	FL-3.1.3	K2	1
16	b	FL-3.2.5	K2	1
17	С	FL-3.1.2	K2	1
18	b	FL-3.2.4	K3	1
19	d	Keywords	K1	1
20	b	FL-4.1.1	K2	1

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Question	Correct Answer	LO	K-Level	Points
Number (#)				
21	a	FL-4.4.2	K2	1
22	С	FL-4.4.3	K2	1
23	d	FL-4.3.2	K2	1
24	а	FL-4.3.3	K2	1
25	а	FL-4.2.1	K3	1
26	С	FL-4.2.2	K33	1
27	С	FL-4.2.3	K3	1
28	а	FL-4.2.4	K3	1
29	С	FL-4.2.1	K3	1
30	d	FL-5.6.1	K3	1
31	b	FL-5.2.4	K3	1
32	а	FL-5.3.1	K1	1
33	d	FL-5.5.1	K1	1
34	С	FL-5.4.1	K2	1
35	b	FL-5.2.6	K2	1
36	d	FL-5.1.1	K2	1
37	b	FL-5.2.1	K2	1
38	b	FL-5.5.2	K2	1
39	d	FL-6.2.2	K1	1
40	а	FL-6.1.1	K2	1



Answers

Question Number (#)	Correct Answer		Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
1	b	b)	Is not correct. This is the Glossary definition of quality assurance Is correct. This is the Glossary definition of quality	Keywords	K1	1
			Is not correct. This is the Glossary definition of security Is not correct. This is the Glossary definition of cost of quality			
2	а	b) c)	Is correct. This is an objective listed Is not correct. This is debugging Is not correct. This is an activity within the test execution group of activities within the test process Is not correct. This is part of debugging	FL-1.1.1	K1	1
3	d	a) b) c)	Is not correct. The root cause is the distraction that the programmer experienced while programming Is not correct. The accepting of invalid inputs is the failure Is not correct. The error is the mistaken thinking that resulted in putting the defect in the code Is correct. The problem in the code is a defect	FL-1.2.4	K2	1
4	b	a) b) c)	Is not correct. Defect clustering has to do with where defects are most likely to be found, not whether all of them can be found Is correct. Testing can show the presence of defects but cannot prove their absence, which makes it impossible to know if you have caught all the bugs. Further, the impossibility of exhaustive testing makes it impossible for you to catch all the bugs Is not correct. This principle says that you can find and remove many bugs but still release an unsuccessful software product, which is not what the product owner is asking you to ensure Is not correct. Root cause analysis is not a testing principle	FL-1.3.1	K2	1



Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
5	d	 a) Is not correct. The programmer appears to be performing unit testing on their own code b) Is not correct. Code coverage is useful for unit testing, but it is not a tester mindset c) Is not correct. The programmer's mindset included contemplating what might be wrong with the code, but that is not a tester's mindset d) Is correct. This tester mindset, attention to detail, will help programmers find defects during unit testing 	FL-1.5.2	K2	1
6	d	Traceability assists with: Selecting regression tests in terms of analyzing the impact of changes (1D) Evaluating completeness of test execution which makes testing auditable (2B) Identifying which user stories have open defect reports which improves understandability of test status reports to include status of test basis items (3A) Evaluating whether the number of tests for each requirement is consistent with the level of product risk which provides information to assess test process quality (i.e., alignment of test effort with risk) (4C)	FL-1.4.4	K2	1
		Thus, option d) is correct.			



Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
7	С	 a) Is not correct. While enabling required tests to be identified in an early stage is a testing contribution to success, there is no indication in the question that the tester did so b) Is not correct. Ensuring processes are carried out properly is part of quality assurance, not a testing contribution to success c) Is correct. Reducing the risk of fundamental design defects is a testing contribution to success. Database structure is related to design, and performance problems can be a significant product risk d) Is not correct. While reducing the risk of untestable functionality is a testing contribution to success, the tester here has not identified something untestable, but rather something that would result in performance tests failing 	FL-1.2.1	K2	1
8	b	 a) Is not correct. Analyzing a defect is part of debugging, not testing b) Is correct. Creating test data is a test implementation task c) Is not correct. While a tester may need to identify a test item's version for results reporting purposes, assigning a test item's version is part of configuration management d) Is not correct. Writing a user story is not a testing activity and should be done by the product owner 	FL-1.4.2	K2	1
9	b	 a) Is not correct. While this test does match the description of an integration test, it is a non-functional test b) Is correct. This test matches the description of an integration test and it is a non-functional test c) Is not correct. This test does not match the description of a component test and it is not a functional test d) Is not correct. While this test is a non-functional test, it does not match the description of a component test 	FL-2.3.2	K1	1



Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
10	С	 a) Is not correct. While impact analysis is useful during maintenance testing it is not necessary for confirmation testing since confirmation testing is on the intended effects of a bug fix or other change b) Is not correct. Confirmation and regression testing are two separate activities, and confirmation testing is not part of system design c) Is correct. Impact analysis can be used to select regression tests for maintenance testing d) Is not correct. Confirmation testing is not part of impact analysis, though confirmation testing will typically happen during maintenance testing 	FL-2.4.2	K2	1
11	С	Performance testing is a test type, not a test level. Component testing focuses on defects in separately testable modules or objects, integration testing on defects in interfaces and interactions, system testing on defects in the whole test object, and acceptance testing is not typically focused on identifying defects. Therefore, c is the correct answer.	FL-2.2.1	K2	1
12	d	 a) Is not correct. The test described is a non-functional test, it is a portability test, not a performance test b) Is not correct. Processor test is not a defined test type c) Is not correct. The test described is a non-functional test, specifically a portability test d) Is correct. Testing supported devices is a non-functional test, specifically a portability test 	FL-2.3.1	K2	1
13	d	The change in behavior may be either functional or non-functional you need to run change-related tests, some of which are confirmation tests and others are regression tests. Therefore, d is the correct answer.	FL-2.3.3	K2	1



Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
14	а	 a) Is correct. The facilitator or moderator runs the review meetings b) Is not correct. This is not a role name for a formal review participant c) Is not correct. The facilitator or moderator runs the review meetings d) Is not correct. The facilitator or moderator runs the review meetings 	FL-3.2.2	K1	1
15	d	 a) Is not correct. Static testing does not involve execution of the test object b) Is not correct. Some static tests involve the use of a tool, especially static analysis, but reviews (such as the activity described here) do not necessarily involve the use of a tool c) Is not correct. The review activity described here is part of a static test, but defects found in static tests are usually cheaper than those found in dynamic testing d) Is correct. Static testing does not involve execution of the test object 	FL-3.1.3	K2	1
16	b	 a) Is not correct. Technical reviews are appropriate for technical documents such as a system architecture b) Is correct. Adequate time for preparation is important, but people are working overtime and no adjustments are made for this new set of tasks c) Is not correct. Gathering metrics from a review to evaluate participants is a factor that leads to failure, not success, because it destroys trust d) Is not correct. A well-managed review meeting is important, but there is no reason to think the review meeting will not be well managed based on the information provided 	FL-3.2.5	K2	1
17	С	 a) Is not correct. Reviews reduce, not increase, the total cost of quality b) Is not correct. Increasing velocity is a sign of increasing development productivity overall, not just testing, so B only partially applies c) Is correct. Velocity is a way of measuring productivity in Agile development d) Is not correct. The benefit mentioned here has to do with increasing overall development team productivity 	FL-3.1.2	K2	1



Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
18	b	 a) Is not correct. While deviation from standards is a typical we are not given any standard with which the user stories should comply b) Is correct. Contradiction is a typical requirements defect. AC3 and AC5 conflict if the Rod is touched to an object that extends more than 1 meter in any direction from the point at which touched, since AC1 does not limit the size of the objects to be touched c) Is not correct. While security vulnerabilities are typical defects, there is nothing here related to security d) Is not correct. While test coverage gaps are typical defects, including missing tests for acceptance criteria, we are not provided with any information about which tests do and do not exist 	FL-3.2.4	К3	1
19	d	 a) Is not correct. This is the Glossary definition of condition coverage b) Is not correct. Decision coverage is a higher level of coverage and the two terms are not defined as synonyms in the Glossary c) Is not correct. This is the Glossary definition of statement coverage d) Is correct. This is the Glossary definition of coverage as applied to decisions 	Keywords	K1	1
20	b	 a) Is not correct. Structure-based, or white-box techniques are based on an analysis of the architecture, detailed design, internal structure, or the code of the test object b) Is correct. Behavior-based, or black-box techniques are based on an analysis of the appropriate test basis (e.g., formal requirements documents, specifications, use cases, user stories, or business processes), which describe functional and non-functional behavior c) Is not correct. Experience-based techniques leverage the experience of developers, testers, and users to determine what should be tested d) Is not correct. Error guessing is a type of experience-based testing, which is not black-box 	FL-4.1.1	K2	1



Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
21	а	 a) Is correct. Exploratory testing is a form of experience-based testing, which benefits from the skills and experience of the tester b) Is not correct. Exploratory testing is useful to complement formal testing techniques c) Is not correct. In session-based test management, exploratory testing is conducted within a defined time-box, and the tester uses a test charter containing test objectives to guide the testing d) Is not correct. Exploratory testing can incorporate the use of other black-box, white-box, and experience-based techniques referenced in this syllabus 	FL-4.4.2	K2	1
22	С	 a) Is not correct. The book provides general guidance, and is not a formal requirements document, a specification, or a set of use cases, user stories, or business processes b) Is not correct. While you could consider the list as a set of test charters, it more closely resembles the list of test conditions c) Is correct. The list of user interface best practices is the list of test conditions d) Is not correct. The tests are not focused on failures that could occur, but rather on knowledge about what is important for the user, in terms of usability 	FL-4.4.3	K2	1



Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
23	d	 a) Is not correct. Statement testing exercises the executable statements in the code, which might result in the absence of certain greetings not being tested b) Is not correct. Unless the test charter specifically mentioned testing both the presence and the absence of each type of greeting, coverage can be difficult to assess for an exploratory test c) Is not correct. State transition testing is useful for situations where the test object responds differently to an input depending on current conditions or previous history, but in this case the test object has to decide whether the current date matches a particular milestone and thus whether to display the relevant greeting d) Is correct. Decision testing involves test cases that follow the control flows that occur from a decision point, which in this case would be 	FL-4.3.2	K2	1
24	а	 deciding whether a greeting should or should not be given a) Is correct. For a loop construct, statement coverage only requires that all statements within the loop are executed, but decision coverage requires testing of both the conditions where the loop is executed and when it is bypassed b) Is not correct. For a loop construct, statement coverage only requires that all statements within the loop are executed, but decision coverage requires testing of both the conditions where the loop is executed and when it is bypassed c) Is not correct. Checklists are based on experience, defect and failure data, knowledge about what is important for the user, and an understanding of why and how software fails, none of which is likely to have led to the inclusion of such a test condition d) Is not correct. While it's possible that someone might anticipate a developer making the mistaken assumption that there would always be at least one transaction in a month for every account, only decision testing guarantees testing of that condition 	FL-4.3.3	K2	1



Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
25	а	There are three equivalence partitions: - No sale completed (0.0 gallons) - A valid sale occurs (0.1 to 50.0 gallons) - An invalid amount is selected (50.1 or more gallons) Therefor:	FL-4.2.1	K3	1
		 a) Is correct. This set of input values has exactly one test per equivalence partition b) Is not correct. This set of input values has does not cover the invalid amount partition c) Is not correct. This set of input values has two tests for the valid sale equivalence partition, which is not the minimum d) Is not correct. This set of input values covers the three-point boundary values for the two boundaries, not the minimum number required to cover the equivalence partitions 			



Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
26	С	There are three equivalence partitions, with the boundaries as shown: - Invalid too low (0.4 and below) - Valid (0.5 to 25.0) - Invalid too high (25.1 and above)	FL-4.2.2	K33	1
		 a) Is not correct. None of those four boundary values are included in this set of tests. These tests do cover the equivalence partitions b) Is not correct. All of these four boundary values are included in this set of tests, but two additional values are included, one for each boundary. These are the values associated with three-point boundary value analysis c) Is correct. Each of those four two-point boundary values are included in this set of tests d) Is not correct. These four values are all included in the valid partition 			
27	С	There is at least one test for each column in the decision table. However, column one requires two tests, one where the account is invalid and another where the account is valid, but the password is invalid, so the minimum number of tests is four. Thus, option c) is correct.	FL-4.2.3	K3	1



Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
28	а	Each transition must be traversed at least once. To do so, the first test can cover the happy path, a successful purchase, the next test cancel or timeout from waiting for pumping, the next test cancel or timeout from waiting for fuel type, and the last test the insertion of an invalid credit card. While the order is immaterial, fewer than four tests fails to cover one of the transitions inbound to waiting for customer or violates the rules about where a test starts or ends. More than four tests include tests that re-traverse already-covered transitions. Thus, option a) is correct.	FL-4.2.4	К3	1
29	С	There are three equivalence partitions, with the boundaries as shown: - Invalid too low (0.4 and below) - Valid (0.5 to 25.0) - Invalid too high (25.1 and above)	FL-4.2.1	K3	1
		 a) Is not correct. Only two of the equivalence partitions are covered in this set of tests b) Is not correct. Each of those four boundary values are included in this set of tests, but the question asked for equivalence partition coverage with minimal tests, so either 0.5 or 25.0 should be dropped c) Is correct. Each of these three equivalence partitions are covered in this set of tests d) Is not correct. Only one of those equivalence partitions is covered by this test 			



Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
30	d	 a) Is not correct. While this information is useful for developers, it does not provide managers with a sense of the impact on product quality b) Is not correct. This summary does not provide developers or managers with the necessary information and attacks the developers c) Is not correct. This summary does not provide developers or managers with the necessary information and attacks the developers d) Is correct. This summary gives a good sense of the failure and its impact 	FL-5.6.1	K3	1
31	b	Test 01.001 must come first, followed by 01.002, to satisfy dependencies. Afterwards, 01.004 and 01.003 should be run in either order, followed by 01.005, to satisfy priority. Thus, option b) is correct.	FL-5.2.4	K3	1
32	а	 a) Is correct. Percentage of test cases prepared is a common metric during test preparation while percentage of test cases passed, failed, not run, etc., are common during test execution b) Is not correct. Defect reports are typically filed during test execution, based on failures found c) Is not correct. Test environment preparation is part implementation and would generally be complete before test execution d) Is not correct. Defects are typically reported during test execution, based on failures found, so the cost to find the next defect is available during test execution only 	FL-5.3.1	K1	1
33	d	The level of risk will be determined by the likelihood of an adverse event happening and the impact (the harm) from that event. Thus, option d) is correct.	FL-5.5.1	K1	1



Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
34	С	 a) Is not correct. If inadequate developer testing were the problem, the confirmation test would not pass in step 3 b) Is not correct. The same tester who successfully performed the confirmation test in step 3 is repeating it in step 5 c) Is correct. Configuration management maintains the integrity of the software. If a test that passes in step 3 fails in step 5, then something is different between those two steps. One possible difference is the test object, the option listed here. Another possible difference is the between the development environment and the test environment, but that is not an option listed here d) Is not correct. If the developers were not fixing the defect, the confirmation test would not pass in step 3 	FL-5.4.1	K2	1
35	b	 a) Is not correct. The two methods are used sequentially, not simultaneously b) Is correct. The primary sources of information come from the experienced testers, who are the experts. The consultant's industry averages augment the original estimate from published metrics c) Is not correct. The expert-based approach is the primary approach, augmented by a metrics-based approach d) Is not correct. We do not know if this project is following Agile methods, and burndown charts do not come from external consultants 	FL-5.2.6	K2	1



Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
36	d	 a) Is not correct. While recognizing different kinds of failures is a benefit of tester independence, in the scenario here no code yet exists that can fail, and the problem is that the developer and product owner are both assuming different things about the acceptance criteria b) Is not correct. Developers losing a sense of responsibility for quality is a drawback, not a benefit c) Is not correct. While the effect of the discovery of this disagreement is the earlier removal of the defect, prior to coding, defects can be discovered early by various people, not just independent testers d) Is correct. Challenging stakeholder assumptions is a benefit of tester independence, and here the developer and product owner are both assuming different things about the acceptance criteria 	FL-5.1.1	K2	1
37	b	 a) Is not correct. While scope is a topic addressed in a test plan, the implementation of a risk-based testing strategy on this project is the approach, so this topic should be addressed in that section b) Is correct. Approach is a topic addressed in a test plan and the implementation of a risk-based testing strategy on this project is the approach c) Is not correct. While metrics for test monitoring and control is a topic addressed in a test plan, the implementation of a risk-based testing strategy on this project is the approach, so this topic should be addressed in that section d) Is not correct. Configuration management is not a topic addressed in a test plan 	FL-5.2.1	K2	1



Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
38	b	Product risks exist when a work product may fail to satisfy legitimate needs, while project risks are situations that could have a negative impact on the project's ability to achieve its objectives. So: A. Incorrect totals on reports = product risk B. Change to acceptance criteria during acceptance testing = project risk C. Users find the soft keyboard too hard to use with your app = product risk D. System responds too slowly to user input during search string entry = product risk E. Testers not allowed to report test results in daily standup meetings = project risk Therefore:	FL-5.5.2	K2	1
		 a) Is not correct. This list is entirely backwards b) Is correct c) Is not correct. While e is about product quality and product risks, the failure to communicate test results is a project risk per the syllabus d) Is not correct. Product risks can be functional and non-functional, so d is also a product risk 			
39	d	 a) Is not correct. This is an objective for a pilot, but you have achieved it because you understand the tool much better due to the pilot b) Is not correct. This is an objective for a pilot, but you have achieved it because you have tailoring your testing processes c) Is not correct. This is an objective for a pilot, but you have achieved it because you have standardized an approach to using the tool and its associated work products d) Is correct. Assessing the benefits and configuring the metrics collection are the two objectives missing from this list 	FL-6.2.2	K1	1



Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
40	а	 a) Is correct. Test management tools support the activities associated with test manager including metrics b) Is not correct. Static code analysis metrics would have to do with the code only, not testing as a whole c) Is not correct. These tools report on test basis coverage and code coverage only, not testing as a whole d) Is not correct. Model-Based testing tools focus on one specific area, not testing as a whole 	FL-6.1.1	K2	1