Sample Exam – Answers

Sample Exam set A
Version 1.0

ISTQB® Test Automation Strategy Specialist Syllabus

Compatible with Syllabus version 1.0

International Software Testing Qualifications Board

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Acknowledgements

Revision History

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Version	Date	Remarks
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Introduction

Purpose of this document

The example questions and answers and associated justifications in this sample exam 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
- Providing training providers and exam candidates with examples of exam questions

These questions cannot be used as-is in any official examination.

Note, that real exams may include a wide variety of questions, and this sample exam ***is not*** intended to include examples of all possible question types, styles, or lengths, also this sample exam may both be more difficult or less difficult than any official exam.

Instructions

In this document you may find:

- Answer Key table, including for each correct answer:
    - K-level, Learning Objective, and Point value
- Answer sets, including for all questions:
    - Correct answer
    - Justification for each response (answer) option
    - K-level, Learning Objective, and Point value
- Additional answer sets, including for all questions [does not apply to all sample exams]:
    - Correct answer
    - Justification for each response (answer) option
    - K-level, Learning Objective, and Point value

- *Questions are contained in a separate document*

Answer Key

Question Number (#)	Correct Answer	LO	K-Level	Points	Question Number (#)	Correct Answer	LO	K-Level	Points
1	a, b	CT-TAS-1.1.1	K2	1	21	d	CT-TAS-4.1.3	K2	1
2	c	CT-TAS-1.1.2	K2	1	22	d	CT-TAS-4.2.1	K2	1
3	c	CT-TAS-1.1.2	K2	1	23	d	CT-TAS-4.2.1	K2	1
4	c	CT-TAS-1.1.2	K2	1	24	b	CT-TAS-4.2.2	K2	1
5	b	CT-TAS-1.1.3	K2	1	25	c	CT-TAS-4.2.3	K2	1
6	a	CT-TAS-2.1.1	K2	1	26	d	CT-TAS-4.3.1	K2	1
7	d	CT-TAS-2.1.2	K2	1	27	a	CT-TAS-4.3.2	K2	1
8	d	CT-TAS-2.1.3	K2	1	28	b	CT-TAS-4.3.3	K2	1
9	a, d	CT-TAS-2.2.1	K2	1	29	c	CT-TAS-5.1.1	K3	2
10	b	CT-TAS-3.1.1	K2	1	30	b, d	CT-TAS-5.1.1	K3	2
11	a	CT-TAS-3.1.2	K3	2	31	b	CT-TAS-5.2.1	K2	1
12	b, d	CT-TAS-3.1.3	K2	1	32	d	CT-TAS-5.3.1	K3	2
13	c, e	CT-TAS-3.2.1	K2	1	33	c	CT-TAS-5.3.2	K3	2
14	b	CT-TAS-3.2.2	K2	1	34	d	CT-TAS-5.3.2	K3	2
15	d	CT-TAS-3.2.3	K3	2	35	a	CT-TAS-5.4.1	K2	1
16	c	CT-TAS-3.3.1	K2	1	36	c	CT-TAS-6.1.1	K2	1
17	a	CT-TAS-3.3.2	K2	1	37	c	CT-TAS-6.1.1	K2	1
18	b	CT-TAS-3.3.3	K2	1	38	b	CT-TAS-6.1.2	K2	1
19	a	CT-TAS-4.1.1	K2	1	39	b	CT-TAS-6.2.1	K3	2
20	b	CT-TAS-4.1.2	K2	1	40	d	CT-TAS-6.2.1	K3	2

Test Automation Strategy (TAS) Specialist
Sample Exam set A
Sample Exam – Answers

ISTQB®
Test Automation
Strategy

Answers

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
1	a, b	a) Is correct as explained in Chapter 1.1.1 b) Is correct as explained in Chapter 1.1.1 c) Is not correct. Resources can affect the whole project, not just test automation d) Is not correct. If well implemented there is no continuous maintenance requirement e) Is not correct. Test automation provides feedback more quickly	CT-TAS-1.1.1	K2	1
2	c	a) Is not correct. There is no requirement of test automation to work the same way b) Is not correct. Test data should be independent from controls for flexibility c) Is correct. This is explained in Chapter 1.1.2 d) Is not correct. There may be manual tests that cannot be automated, or where the test automation effort would exceed the derived value	CT-TAS-1.1.2	K2	1
3	c	a) Is not correct. Providing informative test reporting is essential b) Is not correct. Enabling easy troubleshooting of failing tests saves time (maintainability) c) Is correct. A TAF should avoid test automation that is sensitive to the UI making it more maintainable d) Is not correct. Being able to quickly update test scripts to a newer version speaks to its maintainability	CT-TAS-1.1.2	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
4	c	a) Is not correct. It does support SUT testability by also including test automation. b) Is not correct. It does support SUT testability by making the test data definition independent of the interface. c) Is correct. Challenges in test automation should not be the first targeted for automation. d) Is not correct. It does support SUT testability by exposing APIs for external automated testing.	CT-TAS-1.1.2	K2	1
5	b	a) Is not correct. It will likely not provide a high return on investment given its limited nature b) Is correct. A mature standard application will likely have a long life and good test automation return on investment (ROI) c) Is not correct. Test automation can be brittle when applied to unstable software d) Is not correct. Project delays are usually not attributed to the lack of test automation	CT-TAS-1.1.3	K2	1
6	a	a) Is correct. A complex software project is a risk to assign to an outsourced vendor if company resources move to other projects b) Is not correct. There is little risk with company resources having the know-how c) Is not correct. Having the skills within the organization allows the work to be done d) Is not correct. The cost of hardware and software is absorbed by the outsourced vendor	CT-TAS-2.1.1	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
7	d	a) Is not correct. You pay for the license up front whether you use it or not b) Is not correct. Although there may be many users, only one user can use a floating license at one time c) Is not correct. The license cannot be modified d) Is correct. A floating license allows for the flexibility of who runs it and where it is run	CT-TAS-2.1.2	K2	1
8	d	a) Is not correct. Hardware and licensing costs should influence the implementation strategy and the TAS b) Is not correct. Time constraints strongly influence the implementation strategy and the TAS c) Is not correct. The number of TASs strongly influences the test automation implementation strategy and the TAS d) Is correct. Maintenance should not be a cost factor for the implementation strategy. A TAS should be developed with that in mind	CT-TAS-2.1.3	K2	1
9	a, d	a) Is correct. A TAE should have strong technical knowledge about different software development lifecycles. b) Is not correct. People do not need to know everything and be too confident. c) Is not correct. TAEs should be able to work together to make the quality better. d) Is correct. Teamplay and communication skills are important for TAEs. e) Is not correct. The project already has a test leader, and the project needs more TAEs not another lead.	CT-TAS-2.2.1	K2	1
10	b	a) Is not correct. Only 2B has the correct pattern match b) Is correct. c) Is not correct. Only 4A has the correct pattern match d) Is not correct. Only 3D has the correct pattern match	CT-TAS-3.1.1	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
11	a	a) Is correct. Each statement is correct b) Is not correct. Statements 3,5,8 are negations of the true statements c) Is not correct. Statements 3,5,8 are negations of the true statements d) Is not correct. Statements 3,5,8 are negations of the true statements	CT-TAS-3.1.2	K3	2
12	b, d	a) Is not correct. Saving tester resources is not an advantage of shift right b) Is correct. The scope of test automation can be improved by the feedback of the users and the actual performance of the application. c) Is not correct. Moving tests forward is the shift-left approach d) Is correct. With shift right the teams can get feedback earlier from the end users and improve the SUT and coverage based on it e) Is not correct. Canary releases are not specifically for test automation	CT-TAS-3.1.3	K2	1
13	c, e	a) Is not correct. Converting the architecture of the SUT for test automation is not a valid decision to make b) Is not correct. It is not recommended to drop the existing tests and reimplement them c) Is correct. Increasing the integration tests to detect defects earlier is a best practice for test automation d) Is not correct. Component tests can detect defects much earlier, so it is always recommended to write them e) Is correct. Increasing component testing coverage increases confidence in the quality as well. It is a best practice	CT-TAS-3.2.1	K2	1
14	b	a) Is not correct. A sequential development model could also be technical b) Is correct. See Chapter 3.2.2 c) Is not correct. Test automation does not make test effort estimation easier d) Is not correct. Test automation could also be done wrong and then it does not fit this principle	CT-TAS-3.2.2	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
15	d	a), b) and c) are not correct. All three of these considerations follow DevOps best practices regarding test automation d) Is correct. A replacement should only be carried out after a pilot project proves that the benefits are greater than the time invested in replacing the existing tool	CT-TAS-3.2.3	K3	2
16	c	a) Is not correct. A repeatable test case is not easier to implement than any other test case b) Is not correct. This kind of test case is the best to automate due to ROI c) Is correct. A test case that will be executed several times will have a high ROI d) Is not correct. It is not certain that this test case has been executed before	CT-TAS-3.3.1	K2	1
17	a	a) Is correct. See Chapter 3.3.2, bullet point three b) Is not correct. This is not a real challenge that only test automation can address c) Is not correct. This is not a challenge for test automation. This is a limitation of test automation d) Is not correct. It would not be a good idea to automate things that are not clearly defined	CT-TAS-3.3.2	K2	1
18	b	a), c) and d) are not correct. These situations would not be difficult to automate b) Is correct. See Chapter 3.3.3 bullet point 1	CT-TAS-3.3.3	K2	1
19	a	a) Is correct. See Chapter 4.1.1 b) Is not correct. The effort to develop test cases with test automation will not be reduced c) Is not correct. The syllabus states that "Test automation helps decrease manual testing time, while still covering the same scope of testing" d) Is not correct. This will not reduce time to market	CT-TAS-4.1.1	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
20	b	a) Is not correct. While there may be gaps in the test automation this is not the primary reason to automate confirmation testing b) Is correct. You are trying to ensure that the fix to a defect works and ensure that the fix does not break later or get lost because of a configuration management problem c) Is not correct. The time spent finding a defect should have been justified by the severity of the defect d) Is not correct. This is a side effect and, while it does not test the entire configuration management process, it does ensure that the fix is not lost for some reason	CT-TAS-4.1.2	K2	1
21	d	a), b) and c) are not correct. They are not related to updating software d) Is correct. See Chapter 4.1.3	CT-TAS-4.1.3	K2	1
22	d	a), b) and c) are not correct. They do not fit the list in Chapter 4.2.1 d) Is correct. See Chapter 4.2.1	CT-TAS-4.2.1	K2	1
23	d	a) Is not correct. The test environment should be considered when developing and deploying a TAS so that automated test scripts can run in multiple test environments with minimal changes b) Is not correct. If a TAE is using a commercial test automation tool, they need to understand how it is licensed and whether their test environment needs access to the tool's licensed server c) Is not correct. A central location to store and manage automated test scripts is important for access from multiple test environments d) Is correct. How test cases are designed is not a concern of TAS development and deployment activities.	CT-TAS-4.2.1	K2	1
24	b	a), c) and d) are not correct. They are typical deployment project risks, not technical ones b) Is correct. Incorrectly defined keywords may lead to missing or incorrectly verified use cases	CT-TAS-4.2.2	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
25	c	a) Is not correct. The deployment could be done automatically without people being available b) Is not correct. There must be a plan and a procedure that must be followed c) Is correct. A TAS needs to be controlled under configuration management just like any other software product d) Is not correct. The deployment of the TAS is independent of the SUT	CT-TAS-4.2.3	K2	1
26	d	a) Is not correct. Many tools are used in the test environment b) Is not correct. The SUT is a major component of the test environment c) Is not correct. Test suites are executed in the test environment d) Is correct. The TAA helps derive requirements for the TAF, which is a component of the test environment	CT-TAS-4.3.1	K2	1
27	a	a) Is correct. Network, interface with the SUT (e.g., browser), and host machines are major infrastructure components b) Is not correct. Code is not a major infrastructure component c) Is not correct. A proxy is not a major infrastructure component for test automation, though that does not exclude it from being used d) Is not correct. Code is not a major infrastructure component	CT-TAS-4.3.2	K2	1
28	b	a) Is not correct. Browsers can access web applications and APIs can access databases b) Is correct. The TAA is a high-level design, not a source for test conditions c) Is not correct. Contract testing can be used to test separate systems for compatibility d) Is not correct. User interface testing may require testing on different devices/platforms	CT-TAS-4.3.3	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
29	c	a), b) and d) are not correct. a) and b) are below 1.00 while d) is past the turning point, which was already reached in c) c) Is correct. The turning point is the sprint in which the cumulative ROI reaches 1.00	CT-TAS-5.1.1	K3	2
30	b & d	a) is not correct. Savings and investments mixed. b) is correct. These are investments. c) is not correct. Savings and investments mixed. d) is correct. These are savings.	CT-TAS-5.1.1	K3	2
31	b	a) Is not correct. The number of automated test cases indicates the progress of test case automation, but it is not bound together with the requirements b) Is correct. This is the only metric related to requirements coverage c) Is not correct. The test execution pass-fail ratio is not related to requirements d) Is not correct. Code coverage does not indicate the requirements coverage, rather it indicates how much of the production code is covered by component tests	CT-TAS-5.2.1	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
32	d	a) Is not correct. Policies and practices focus on the development guidelines and processes followed along with the documentation storing those recommendations b) Is not correct. Existing active test automation projects focus on the TAS components that can be leveraged c) Is not correct. Existing tools and licenses do not focus on project specific test data d) Is correct. Using the same test data on a given test environment can cause trouble for testers, and it is advised to either create a dedicated set of data or a dedicated test environment specific to test automation use	CT-TAS-5.3.1	K3	2
33	c	a) Is not correct. Management support addresses the buy-in from management, not from the TAEs b) Is not correct. The maturity of the project focus is on the overall team structure and their practices c) Is correct. Team knowledge and relevant experience addresses individual challenges such as learning new technologies through training d) Is not correct. Creating a new architecture is not a project characteristic. It's an engineering activity.	CT-TAS-5.3.2	K3	2
34	d	a), b) and c) are not correct. These quality characteristics are not discussed in the assignment d) Is correct. Functional completeness addresses the functionality that covers all the specified tasks and user objectives	CT-TAS-5.3.2	K3	2

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
35	a	a) Is correct. The purpose of test automation does not revolve around the scope of product development b), c) and d) are not correct. All three can be considered by a strategic test automation person upon analysis of a test automation report	CT-TAS-5.4.1	K2	1
36	c	a) Is not correct. Transitioning costs describe the cost associated with moving from manual to automated test cases b) Is not correct. Data sharing occurs when test cases leverage the same data and data sources c) Is correct. Functional overlap occurs when test script developers repeat code within multiple test cases d) Is not correct. Test interdependency describes how some tests rely on execution order. Some tests can only be executed after other tests have executed	CT-TAS-6.1.1	K2	1
37	c	a) Is not correct. Test tool licenses may not be required if using open-source tools b) Is not correct. Component testing coverage does not relate to the transition from manual to automated tests c) Is correct. Coverage can be used to see where the organization stands in terms of the covered features by tests and where they can enhance this with test automation d) Is not correct. CI/CD systems are not essentially connected to the transition of test cases from manual to automated	CT-TAS-6.1.1	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
38	b	a) Is not correct. Build orchestration tools are used for scheduling and executing pipelines b) Is correct. Pipelines are a set of procedures that control the build process. A step can be added to the pipeline sequence for UI testing c) Is not correct. A test harness covers the TAF but is not within the CI/CD d) Is not correct. The code repository within CI/CD is typically responsible for storing the application code	CT-TAS-6.1.2	K2	1
39	b	a) Is not correct. One user account is not sufficient for proper testing. Avoiding pages is not an option. Adding hardware implies increased cost. This should be a last resort b) Is correct. These changes would automate the user account steps, make the home page more manageable when the home page changes, and provide the most velocity for builds by only including automated test cases that are necessary c) Is not correct. Virtualized data does not guarantee it will sync with every version of the application. Developers need to be able to change code as needed. One automated test case in the CI/CD pipeline is not sufficient d) Is not correct. The test team should look to be self-sufficient and leveraging other teams as a last resort. Adding TAEs before adjusting test script modularization does not scale. UI tests should be leveraged in CI/CD pipelines	CT-TAS-6.2.1	K3	2

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
40	d	a) Is incorrect. The documentation should be also updated in case of any changes to the TAS and failing test should be fixed according to the changes b) Is incorrect. The failing test suites should be checked and fixed c) Is incorrect. Dependency changes should be investigated before the implementation d) Is correct. The documentation should be kept up-to-date based on the recent changes and additional improvements should be also noted for the future	CT-TAS-6.2.1	K3	2