Sample Exam – Answers

Sample Exam set A
Version 1.2

ISTQB® Test Automation Strategy Specialist Syllabus

Compatible with Syllabus version 1.0

International Software Testing Qualifications Board

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Revision History

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1.0	2024/05/03	GA Release
1.1	2024/07/04	Answers to Q1, Q27 corrected in the Answer Key table
1.2	2024/10/15	Correction to answers: #1, #3, #4, #8, #19, #21, #22, #23, #25, #26, #28, #40

Table of Contents

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
1	a, d	CT-TAS-1.1.1	K2	1
2	c	CT-TAS-1.1.2	K2	1
3	c	CT-TAS-1.1.2	K2	1
4	c	CT-TAS-1.1.2	K2	1
5	b	CT-TAS-1.1.3	K2	1
6	a	CT-TAS-2.1.1	K2	1
7	d	CT-TAS-2.1.2	K2	1
8	c	CT-TAS-2.1.3	K2	1
9	a, d	CT-TAS-2.2.1	K2	1
10	b	CT-TAS-3.1.1	K2	1
11	a	CT-TAS-3.1.2	K3	2
12	b, d	CT-TAS-3.1.3	K2	1
13	c, e	CT-TAS-3.2.1	K2	1
14	b	CT-TAS-3.2.2	K2	1
15	d	CT-TAS-3.2.3	K3	2
16	c	CT-TAS-3.3.1	K2	1
17	a	CT-TAS-3.3.2	K2	1
18	b	CT-TAS-3.3.3	K2	1
19	a	CT-TAS-4.1.1	K2	1
20	b	CT-TAS-4.1.2	K2	1

Question Number (#)	Correct Answer	LO	K-Level	Points
21	d	CT-TAS-4.1.3	K2	1
22	d	CT-TAS-4.2.1	K2	1
23	d	CT-TAS-4.2.1	K2	1
24	b	CT-TAS-4.2.2	K2	1
25	c	CT-TAS-4.2.3	K2	1
26	d	CT-TAS-4.3.1	K2	1
27	a	CT-TAS-4.3.2	K2	1
28	b	CT-TAS-4.3.3	K2	1
29	c	CT-TAS-5.1.1	K3	2
30	b, d	CT-TAS-5.1.1	K3	2
31	b	CT-TAS-5.2.1	K2	1
32	d	CT-TAS-5.3.1	K3	2
33	c	CT-TAS-5.3.2	K3	2
34	d	CT-TAS-5.3.2	K3	2
35	a	CT-TAS-5.4.1	K2	1
36	c	CT-TAS-6.1.1	K2	1
37	c	CT-TAS-6.1.1	K2	1
38	b	CT-TAS-6.1.2	K2	1
39	b	CT-TAS-6.2.1	K3	2
40	d	CT-TAS-6.2.1	K3	2

Answers

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
1	a, d	a) Is correct. As with any automation repeatability is a major benefit b) Is not correct. Resources can affect the whole project, not just test automation c) Is not correct. If well implemented there is no continuous maintenance requirement d) Is correct. Automated tests cases are able to execute scripts in a way that would be cumbersome or difficult (like if crucial timing is needed) for a human being to perform 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 for 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

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
3	c	a) It aligns with the TAF success factor of "Defined and implemented test reporting" mentioned in Chapter 1.1.2, which emphasizes the importance of documenting and communicating test results effectively. b) This approach directly corresponds to the "Easy troubleshooting" success factor outlined in Chapter 1.1.2. It is crucial for maintainability, as it allows testers to quickly identify and resolve issues with failing tests. c) Correct - Creating test automation that closely mirrors the UI structure is NOT recommended, as it makes the tests sensitive to UI changes, reducing maintainability. A TAF should use more stable interfaces or abstraction layers to interact with the system under test. d) Incorrect - Regularly updating and maintaining automated test scripts is vital for the long-term success of a TAF, ensuring that tests remain relevant and effective as the system under test evolves.	CT-TAS-1.1.2	K2	1
4	c	a) Is not correct. This facilitates SUT testability, which is a key success factor mentioned in Chapter 1.1.2. b) Is not correct. A well-documented and easily maintainable test automation framework is listed as a success factor in Chapter 1.1.2. c) Is correct. Prioritizing challenges is not mentioned as a success factor. In fact, starting with the most challenging aspects could potentially hinder the project's success. d) Is not correct. Formulating a comprehensive test automation strategy is explicitly mentioned as a success factor in Chapter 1.1.2.	CT-TAS-1.1.2	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
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
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

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
8	c	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 correct. The number of TASs does not influence the test automation implementation strategy and the TAS d) Is not correct. Maintenance is 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
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

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
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
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

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
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

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
19	a	a) Is correct. This option accurately reflects the benefits of test automation as described in Chapter 4.1.1. Parallel test execution reduces overall test execution time, while earlier testing (shift-left approach) helps identify and fix issues sooner in the development process. b) Is not correct. Test automation does not necessarily reduce the effort to develop test cases. In fact, creating automated tests often requires more initial effort than manual test case development. c) Is not correct. While this statement is partially true, it doesn't fully capture the main benefit of test automation in reducing time to market. The decrease in manual testing time is a means to achieve faster market delivery, not the primary mechanism. d) Is not correct. Although test automation can cover more data combinations, this alone does not directly address how it supports getting a product to market faster. The focus should be on time-saving aspects of automation.	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	Is not correct. Failover testing is primarily used to test system recovery when hardware fails, not specifically for software updates Is not correct. While backup and restore testing is important for software updates, it's not the MOST suitable approach for testing the update process itself Is not correct. Security testing is crucial but not the primary focus when testing a software update scenario Is correct. Operational documentation review is the MOST suitable approach for testing a software update scenario. It ensures that the documentation is updated to reflect the new version, which is crucial for maintaining and operating the software after an update	CT-TAS-4.1.3	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
22	d	Is not correct. This option incorrectly includes "people" instead of "tools" Is not correct. This option incorrectly includes "software licenses" and omits "test environment" Is not correct. This option incorrectly includes "requirements" instead of "application access" Is correct. This option correctly lists all items mentioned in Chapter 4.2.1 for a good test automation deployment strategy	CT-TAS-4.2.1	K2	1
23	d	a) Is not correct. Test environment configuration is a crucial consideration for developing and deploying a TAS to ensure automated test scripts can run in multiple environments with minimal changes b) Is not correct. Understanding test tool licensing is important, especially for commercial tools, to ensure proper access in different test environments c) Is not correct. A central location for storing and managing automated test scripts is essential for accessibility from multiple test environments d) Is correct. Manual test case design techniques are not directly related to TAS development and deployment. While test case design is important for overall testing, it's not specific to the deployment of automated testing solutions	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. While having a documented deployment procedure is important, it is not the MOST important factor for mitigating deployment risks. The configuration management of the TAS itself is more crucial for risk mitigation b) Is not correct. Scheduling the deployment during off-peak hours is not explicitly mentioned as a critical factor for mitigating deployment risks. While timing can be important, it's not as fundamental as proper configuration management of the TAS c) Is correct. This is the most important factor for mitigating test automation deployment risks. Configuration management ensures version control, traceable changes, and proper documentation, which are crucial for successful deployments and risk mitigation d) Is not correct. This is not the MOST important factor for mitigating deployment risks. It's a necessary step for running tests, but doesn't address the core issues of version control and change management that configuration management provides	CT-TAS-4.2.3	K2	1
26	d	a) Is not correct. Tools are a crucial component of the test automation environment, used for various purposes including UI test automation, API testing, and monitoring. b) Is not correct. The System Under Test (SUT) is a major component of the test environment, as stated in the syllabus. c) Is not correct. Test suites are executed in the test environment and are defined as a component in the syllabus. d) Is correct. The TAA helps derive requirements for the TAF, which is a component of the test automation environment	CT-TAS-4.3.1	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
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. This is a valid approach. Browser automation can be used for UI testing, while APIs can be used for database interaction testing, aligning with the interface considerations mentioned in Chapter 4.3.3. b) Is correct. This statement is incorrect. The TAA is a high-level design and is not used to define test conditions. Test conditions should be derived from requirements and other test basis documents. c) Is not correct. Contract testing is a valid method for verifying compatibility between two systems, such as the web application and the database in this scenario. d) Is not correct. Testing the user interface on different devices and platforms is a valid consideration for defining interface requirements, as mentioned in Chapter 4.3.3	CT-TAS-4.3.3	K2	1
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

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
30	b, d	Consider: 10. This is a saving 11. This is an investment 12. This is an investment 13. This is a saving 14. This is an investment 15. This is a saving Thus: 16. Is not correct 17. Is correct 18. Is not correct 19. Is correct 20. Is not correct	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 features covered 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	Consider: 21. The documentation should be kept up-to-date based on the recent changes 22. The failing test suites should be checked and fixed and failing test should be fixed according to the changes 23. Additional improvements should be also noted for the future 24. The documentation should be also updated in case of any changes to the TAS 25. Dependency changes should be investigated before the implementation Thus: a) Is not correct b) Is not correct c) Is not correct d) Is correct	CT-TAS-6.2.1	K3	2