# Sample Exam – Answers

Sample Exam set A Version 1.3

# ISTQB<sup>®</sup> Agile Technical Tester Syllabus Advanced Level

Compatible with Syllabus version 1.1

International Software Testing Qualifications Board





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## **Acknowledgements**

This document was produced by a core team from the ISTQB®: Exam Working Group (EWG) and the ISTQB® Agile Working Group (AWG)

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## **Revision History**

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| Version | Date              | Remarks                                   |
|---------|-------------------|---|
| 1.3     | August 9, 2022    | Minor correction of Answer: #20           |
| 1.2     | May 20, 2022      | General review of Questions by EWG        |
| 1.1     | October 19, 2021  | Cleanup of K-levels and point values      |
| 1.0.2   | May 12, 2021      | Removed wrong, duplicate copyright notice |
| 1.0.1   | May 7, 2021       | Update of copyright notice                |
|         |                   | Cleanup of layout                         |
| 1.0     | November 14, 2019 | First release                             |



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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:
  - o K-level, Learning Objective, and Point value
- Answer sets, including for all questions:
  - Correct answer
  - Justification for each response (answer) option
  - o K-level, Learning Objective, and Point value
- Additional answer sets, including for all questions [does not apply to all sample exams]:
  - Correct answer
  - o Justification for each response (answer) option
  - o K-level, Learning Objective, and Point value
- Questions are contained in a separate document



## **Answer Key**

| Question<br>Number (#) | Correct Answer | LO          | K-Level | Points |
|------------------------|----------------|-------------|---------|--------|
| 1                      | a, b           | ATT-1.1.1-1 | K4      | 3      |
| 2                      | С              | ATT-1.1.2   | K4      | 3      |
| 3                      | а              | ATT-2.1.1-2 | K2      | 1      |
| 4                      | d              | ATT-2.1.1-1 | K3      | 2      |
| 5                      | b              | ATT-2.2.1-1 | K4      | 3      |
| 6                      | a              | ATT-2.2.2-2 | K2      | 1      |
| 7                      | a              | ATT-2.3.1-2 | K2      | 1      |
| 8                      | а              | ATT-3.1.3-1 | K2      | 1      |
| 9                      | a              | ATT-3.1.3-2 | K2      | 1      |
| 10                     | а              | ATT-3.2.1.2 | K2      | 1      |

| Question<br>Number (#) | Correct Answer | LO          | K-Level | Points |
|------------------------|----------------|-------------|---------|--------|
| 11                     | a              | ATT-4.1.1   | K3      | 2      |
| 12                     | b              | ATT-4.2.1-1 | K2      | 1      |
| 13                     | а              | ATT-1.1.2-2 | K2      | 1      |
| 14                     | С              | ATT-1.1.1-2 | K2      | 1      |
| 15                     | а              | ATT-3.1.3-2 | K2      | 1      |
| 16                     | С              | ATT-3.1.1   | K3      | 2      |
| 17                     | b, e           | ATT-4.1.2   | K2      | 1      |
| 18                     | b              | ATT-4.2.1-2 | K2      | 1      |
| 19                     | а              | ATT-1.1.1-2 | K2      | 1      |
| 20                     | d              | ATT-2.1.2-1 | K3      | 2      |



## **Answers**

| Question<br>Number<br>(#) | Correct<br>Answer | Explanation / Rationale   | Learning<br>Objective<br>(LO) | K-Level | Number of Points |
|---------------------------|-------------------|---|-------------------------------|---------|------------------|
| 1                         | a, b              | <ul> <li>a) Is correct. The Epic could be easily transferred to a storyboard as a visual representation of the system</li> <li>b) Is correct. The Epic could also be easily transferred to a story mapping</li> <li>c) Is not correct. There are not enough different users of the system to use personas to improve quality</li> <li>d) Is not correct. The epic does not provide enough details do define classes and there is nothing mentioned that those are already in use</li> <li>e) Is not correct. Use Cases do not help to prioritize the user stories.</li> </ul> | ATT-1.1.1-1                   | K4      | 3                |
| 2                         | С                 | i) Is testable ii) Is testable. "Is working as expected" is not clear as expectations may vary iv) Is testable v) Is not testable. This would require a definition of what inputs are considered correct vs. incorrect  Thus: a) Is not correct b) Is not correct c) Is correct d) Is not correct   | ATT-1.1.2                     | K4      | 3                |



| Question<br>Number<br>(#) | Correct<br>Answer | Explanation / Rationale   | Learning<br>Objective<br>(LO) | K-Level | Number of Points |
|---------------------------|-------------------|---|-------------------------------|---------|------------------|
| 3                         | а                 | <ul> <li>a) Is correct. According to Syllabus 2.1.1</li> <li>b) Is not correct. Unit test cannot be derived from epics as epics are too high-level to derive unit tests from</li> <li>c) Is not correct. During refactoring unit test must not change to ensure same system behavior</li> <li>d) Is not correct. Unit test should be written in an "atomic" manner</li> </ul>   | ATT-2.1.1-2                   | K2      | 1                |
| 4                         | d                 | Write additional test classes to test also other relevant aspects of the leap year calculation.  Start to write code that covers other relevant aspects of the leap year calculation.  Start to write code that makes fail this test case.  Start to write code that makes pass this test case.  In TDD you should write first test code for one special area, then write code that makes pass this test case. Then you should continue with the next small part.  Thus:  a) Is not correct b) Is not correct c) Is not correct d) Is correct | ATT-2.1.1-1                   | K3      | 2                |



| Question      | Correct | Explanation / Rationale   | Learning          | K-Level | Number       |
|---------------|---------|---|-------------------|---------|--------------|
| Number<br>(#) | Answer  |   | Objective<br>(LO) |         | of<br>Points |
| 5             | b       | <ul> <li>a) Is not correct. There is not enough stress on necessity of automated testing for safety critical system as well as low level risk is not covered by any tests</li> <li>b) Is correct. 'Automated Test Suites' are used to maximum degree with addition of other test approaches which is valid for safety critical system</li> <li>c) Is not correct. Specification based testing should not be omitted in high risk level of safety critical system</li> <li>d) Is not correct. Automated tests are definitely recommended for safety critical systems regardless of the risk level</li> </ul>   | ATT-2.2.1-1       | K4      | 3            |
| 6             | а       | <ul> <li>a) Is correct. According to Syllabus 2.2.2: Findings from exploratory testing should be documented in form of defects, ideas, questions, improvement suggestions, etc.</li> <li>b) Is not correct. Using test charters in exploratory testing is used when a heuristic approach for writing and performing test sessions is needed</li> <li>c) Is not correct. Exploratory testing shall also create insight into better test design, ideas for testing the product, ideas for improvement and so on</li> <li>d) Is not correct. In exploratory testing a test basis to measure the coverage does not exist in a quality good enough and a linkage between specification and test is hard to define</li> </ul> | ATT-2.2.2-2       | K2      | 1            |



| Question<br>Number<br>(#) | Correct<br>Answer | Explanation / Rationale   | Learning<br>Objective<br>(LO) | K-Level | Number<br>of<br>Points |
|---------------------------|-------------------|---|-------------------------------|---------|------------------------|
| 7                         | a                 | <ul> <li>a) Is correct. According the syllabus 2.3.1: Updating and refactoring of the tests can compensate for the changes of features, and ensure that tests remain aligned with the product's functionality</li> <li>b) Is not correct. Writing and maintaining tests is the part of the iteration work in parallel with code changes</li> <li>c) Is not correct. Refactoring in general, is a way to clean up code, not tests in an efficient and controlled manner. It is not specifically designed for test cases or testing but is used by testers on their test cases for similar reasons</li> <li>d) Is not correct. The process identified in the question is not correct. The correct process steps are: Identification, Analysis of impact, Refactor (Mutate), Re-Run, Evaluate</li> </ul> | ATT-2.3.1-2                   | K2      | 1                      |
| 8                         | а                 | <ul> <li>a) Is correct. According to Syllabus 3.1.3</li> <li>b) Is not correct. The opposite is true</li> <li>c) Is not correct. According to Syllabus 3.1.3</li> <li>d) Is not correct. It can be done in an external team</li> </ul>  | ATT-3.1.3-1                   | K2      | 1                      |
| 9                         | а                 | <ul> <li>a) Is correct. Because Syllabus says: 'an increased proportion of automated test coverage often leads to a greater degree of manual testing that follows reactive strategies since many of the tests that can be prepared upfront will be automated'</li> <li>b) Is not correct. See correct answer</li> <li>c) Is not correct. See correct answer</li> <li>d) Is not correct. See correct answer</li> </ul>   | ATT-3.1.3-2                   | K2      | 1                      |



| Question<br>Number<br>(#) | Correct<br>Answer | Explanation / Rationale   | Learning<br>Objective<br>(LO) | K-Level | Number<br>of<br>Points |
|---------------------------|-------------------|---|-------------------------------|---------|------------------------|
| 10                        | а                 | <ul> <li>a) Is correct</li> <li>b) Is not correct. UT automation is indeed critical but does not cover most of the code quality in agile projects. One must also include integration level test automation, and system level one and some manual tests has added value as well (done mainly as exploratory tests)</li> <li>c) Is not correct. Test Development time is the correct answer, and not Deployment time</li> <li>d) Is not correct. Test Execution Time is a challenge of course, as increasing the test suite volume every sprint, creates a load of tests needed to be run and tested</li> </ul> | ATT-3.2.1.2                   | K2      | 1                      |
| 11                        | а                 | <ul> <li>a) Is correct. The successful POC was done on one configuration, so it makes a lot of sense to adopt it to all HW configs</li> <li>b) Is not correct. Such a change would call for additional POC, to ensure the test reduction does not make the CI ineffective</li> <li>c) Is not correct. Such a change would call for additional POC, to ensure the test reduction does not reduce the benefit of the CI</li> <li>d) Is not correct. CI should not only test changes, but the whole system. Therefore it should also include regression tests</li> </ul>   | ATT-4.1.1                     | К3      | 2                      |
| 12                        | b                 | <ul> <li>a) Is not correct. Because interface to third party software component is a good candidate for service virtualization</li> <li>b) Is correct. The service virtualization code can simulate time related aspects of the third party service, and allows precise control over (simulated) network delays</li> <li>c) Is not correct. We are not testing the third part. We are simulating it with a service virtualization</li> <li>d) Is not correct. See correct answer</li> </ul>   | ATT-4.2.1-1                   | K2      | 1                      |



| Question<br>Number<br>(#) | Correct<br>Answer | Explanation / Rationale   | Learning<br>Objective<br>(LO) | K-Level | Number<br>of<br>Points |
|---------------------------|-------------------|---|-------------------------------|---------|------------------------|
| 13                        | а                 | <ul> <li>a) Is correct. This is pretty much as the explanation in the syllabus</li> <li>b) Is not correct. This is a correct description of Quantitative Questionnaire</li> <li>c) Is not correct. Qualitative Questionnaire use open-ended questions – not a Yes/No ones</li> <li>d) Is not correct. This is a correct description of Qualitative Interview</li> </ul>   | ATT-1.1.2-2                   | K2      | 1                      |
| 14                        | С                 | <ul> <li>a) Is not correct. Story mapping includes both Priority and Complexity visualization. While the prioritization may influence the test priorities, it does not directly influence the effort to develop the test cases</li> <li>b) Is not correct. Story mapping is not directly useful for deciding the needed test levels</li> <li>c) Is correct. Story mapping is a way to "visualize the scope of the system" – which helps in deciding a test strategy</li> <li>d) Is not correct. Story mapping includes both Priority and Complexity visualization. While the complexity may influence the effort to develop the test cases, it does not directly influence the prioritization the test cases</li> </ul> | ATT-1.1.1-2                   | K2      | 1                      |
| 15                        | а                 | <ul> <li>a) Is correct. In a regression-averse strategy, tests are never removed from the test list, as there is a concern that removing them will miss a regression</li> <li>b) Is not correct. This is a general good practice for any test automation, regardless of the implemented strategy</li> <li>c) Is not correct. This is a general good practice for any test automation, regardless of the implemented strategy</li> <li>d) Is not correct. Limiting the number of tests mean the test list must be pruned as new features are added. Which goes against the Regression Averse strategy</li> </ul>   | ATT-3.1.3-2                   | K2      | 1                      |



| Question<br>Number<br>(#) | Correct<br>Answer | Explanation / Rationale   | Learning<br>Objective<br>(LO) | K-Level | Number<br>of<br>Points |
|---------------------------|-------------------|---|-------------------------------|---------|------------------------|
| 16                        | С                 | <ul> <li>a) Is not correct. Creation TCs for all the features, running all the data is the whole project – it is not a POC</li> <li>b) Is not correct. Adapting existing TC is not the good solution, as it does not take advantage of the fact a single test case – in DDT format – can replace many existing test cases</li> <li>c) Is correct. This is a reasonable POC – check on one feature, with sample data. If successful – move to do the same on all features and all data</li> <li>d) Is not correct. Since there are a few features, it is unlikely that one,</li> </ul> | ATT-3.1.1                     | К3      | 2                      |
| 17                        | b, e              | <ul> <li>general TC will be able to cover all of them</li> <li>a) Is not correct. continuous testing happens when there is a new code – not at pre-set times</li> <li>b) Is correct. This is what continuous testing is set to do</li> <li>c) Is not correct. Code is being submitted when it is good and ready – not on fixed times</li> <li>d) Is not correct. Deployment happens only when there is something new to deploy – not at set times</li> <li>e) Is correct. Deployment happens only after CI tests passed</li> </ul>  | ATT-4.1.2                     | K2      | 1                      |
| 18                        | b                 | <ul> <li>a) Is not correct. A virtual service simulates a single service</li> <li>b) Is correct. See syllabus 4.2</li> <li>c) Is not correct. A virtual service is not a physical system</li> <li>d) Is not correct. There is not a need for multiple virtual services; one virtual service can deal with multiple users. No need to duplicate the virtual service</li> </ul>   | ATT-4.2.1-2                   | K2      | 1                      |



| Question<br>Number<br>(#) | Correct<br>Answer | Explanation / Rationale   | Learning<br>Objective<br>(LO) | K-Level | Number<br>of<br>Points |
|---------------------------|-------------------|---|-------------------------------|---------|------------------------|
| 19                        | а                 | <ul> <li>a) Is correct. "Elicitate user story acceptance criteria" is a typical benefit of using Personas</li> <li>b) Is not correct. Visualizing groups of user stories is typically done using storyboards</li> <li>c) Is not correct. The right test approach should not be based on visual aspects on the system. The right test approach should be used based on risk</li> <li>d) Is not correct. The sequence of system operations is best described</li> </ul>                       | ATT-1.1.1-2                   | K2      | 1                      |
| 20                        | d                 | <ul> <li>using story mapping or diagrams</li> <li>a) Is not correct. In this scenario the inventory will correctly consist of 14 T-shirts</li> <li>b) Is not correct. In this scenario the inventory will correctly consist of 3 hats and 6 skirts</li> <li>c) Is not correct. In this scenario the inventory will correctly consist of 12 sweaters and 1 hat</li> <li>d) Is correct. The BDD scenario is incorrect. In this scenario there should be 10 skirts in the inventory</li> </ul> | ATT-2.1.2-1                   | К3      | 2                      |