Sample Exam – Answers

Sample Exam set A
Version 1.7

ISTQB® Certified Tester Syllabus Foundation Level

Compatible with Syllabus version 2018 v3.1

International Software Testing Qualifications Board

Version 1.7 Released February 2, 2022

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Document Responsibility

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

This document is maintained by a core team from ISTQB® consisting of the Syllabus Working Group and Exam Working Group.

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Revision History

Sample Exam – Answers Layout Template used:	Version 2.4	Date: May 12, 2021

Version	Date	Remarks
1.7	February 2, 2022	Minor changes to Answers: 3, 9, 40
1.6.1	May 12, 2021	Update of Copyright Notice
1.6	June 9, 2020	Minor changes to Answers: 32, 35, 37, 40
1.5	March 17, 2020	Transfer to new Sample Exam Template layout Minor changes to Answers: 1, 5, 33
1.4	December 15, 2019	Minor changes to Answers: 9, 10, 17 Major changes to Answers: 8, 34, 35, 37 Replacement of Answer: 40
1.3	May 31, 2019	Minor changes to Answers: 1, 30 Major changes to Answers: 3, 5, 8
1.2	February 16, 2019	Transfer to Sample Exam Template layout Minor changes to multiple Answers Major changes to Answers: 5, 15, 18, 23, 24, 27, 30, 31, 33, 35, 37
1.1	May 11, 2018	Some text in LO updated Spelling is corrected
1.0	May 11, 2018	First Issue

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Introduction

Purpose of this document

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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	b	FL-1.x	K1	1
2	b	FL-1.1.1	K1	1
3	b	FL-1.1.2	K2	1
4	a	FL-1.2.3	K2	1
5	c	FL-1.3.1	K2	1
6	b	FL-1.2.2	K2	1
7	d	FL-1.4.2	K2	1
8	a	FL-1.4.3	K2	1
9	c	FL-2.3.2	K1	1
10	b	FL-2.2.1	K2	1
11	c	FL-2.3.3	K2	1
12	a	FL-2.1.1	K2	1
13	a	FL-2.4.1	K2	1
14	d	FL-3.2.2	K1	1
15	c	FL-3.2.1	K2	1
16	c	FL-3.2.3	K2	1
17	a	FL-3.1.2	K2	1
18	d	FL-3.2.4	K3	1
19	c	FL-4.x	K1	1
20	d	FL-4.1.1	K2	1

Question Number (#)	Correct Answer	LO	K-Level	Points
21	b	FL-4.3.2	K2	1
22	b	FL-4.3.1	K2	1
23	a	FL-4.3.3	K2	1
24	c	FL-4.4.2	K2	1
25	d	FL-4.2.1	K3	1
26	d	FL-4.2.2	K3	1
27	d	FL-4.2.3	K3	1
28	b	FL-4.2.4	K3	1
29	c	FL-4.2.1	K3	1
30	b	FL-5.1.2	K1	1
31	a	FL-5.3.1	K1	1
32	a	FL-5.2.1	K2	1
33	a	FL-5.2.3	K2	1
34	a	FL-5.3.2	K2	1
35	b	FL-5.2.2	K2	1
36	a	FL-5.2.6	K2	1
37	c	FL-5.2.4	K3	1
38	b	FL-5.6.1	K3	1
39	d	FL-6.1.2	K1	1
40	c	FL-6.1.1	K2	1

Answers

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
1	b	a) Is not correct. Definition of feature according to glossary b) Is correct. From glossary c) Is not correct. Definition of functionality suitability according to glossary d) Is not correct. Like Definition of Decision table testing according to glossary	FL-1.x	K1	1
2	b	a) Is not correct. Contradiction to principle 3: “Early testing saves time and money” b) Is correct. This is one objective of testing c) Is not correct. Principle #2 states that exhaustive testing is impossible, so one can never prove that all defects were identified d) Is not correct. To make an assessment whether a defect will cause a failure or not, one must detect the defect first. Saying that no remaining defect will cause a failure implicitly means that all defects were found. This again contradicts principle #2	FL-1.1.1	K1	1
3	b	a) Is not correct. Testing does not identify the source of defects, debugging identifies the source of defects b) Is correct. Dynamic testing can show failures that are caused by defects in the software. Debugging eliminates the defects, which are the source of failures c) Is not correct. Testing does not remove faults, but debugging removes faults, which is synonyms for defects, that may cause the failures d) Is not correct. Dynamic testing does not directly prevent the causes of failures (defects) but detects the presence of defects	FL-1.1.2	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
4	a	a) Is correct. A crash is clearly noticeable by the user b) Is not correct. This is a defect, not a failure since there is something wrong in the code. It may not result in a visible or noticeable failure, for example if the changes in the source code file are only in comments c) Is not correct. The use of wrong input variables may not result in a visible or noticeable failure, for example if nobody uses this particular algorithm; or if the wrong input variable has a similar value to the correct input variable; or if the FALSE result of the algorithm is not used d) Is not correct. This type of fault will not necessarily lead to a failure; for example, if no one uses this special algorithm	FL-1.2.3	K2	1
5	c	a) Is not correct. Testing is context dependent, regardless of it being manual or automated (principle #6), but does not result in detecting a decreasing number of faults as described above b) Is not correct. Exhaustive testing is impossible, regardless of the amount of effort put into testing (principle #2) c) Is correct. Principle #5 says “If the same tests are repeated over and over again, eventually these tests no longer find any new defects. To detect new defects, existing tests and test data may need changing, and new tests may need to be written.” Automated regression testing of the same test cases will not bring new findings d) Is not correct. ”Defect cluster together” (principle #4). A small number of modules usually contain most of the defects, but this does not mean that fewer and fewer defects will be found	FL-1.3.1	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
6	b	a) Is not correct. Static testing (reviews) contributes, but could not ensure, that requirements are detailed enough b) Is correct. Testing contributes to the achievement of quality in a variety of ways, e.g., such as reducing the risk of inadequate software quality c) Is not correct. This is quality assurance but not testing d) Is not correct. The quality cannot be measured by counting the number of executed test cases without knowing the outcome	FL-1.2.2	K2	1
7	d	a) Is not correct. This activity is performed during the test design activity (test design) b) Is not correct. This activity is performed during the test implementation activity (test implementation) c) Is not correct. This activity is performed during the test completion activity (test completion) d) Is correct. This activity is performed during the test analysis activity (test analysis)	FL-1.4.2	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
8	a	Glossary defines the following tests as: • Test suite: “A set of test scripts or test procedures to be executed in a specific test run.” (1A) • Test case: “A set of preconditions, inputs, actions (where applicable), expected results and post conditions, developed based on test conditions” (2C) • Test script: “A sequence of instructions for the execution of a test” (3B) • Test charter: “Documentation of test activities in session-based exploratory testing” (4D) Thus: a) Is correct b) Is not correct c) Is not correct d) Is not correct	FL-1.4.3	K2	1
9	c	a) Is not correct. Relevant for integration testing b) Is not correct. Relevant for component testing c) Is correct. For acceptance testing, tests are designed to cover all workflows defined in the functional requirements documents. d) Is not correct. Relevant for system testing	FL-2.3.2	K1	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
10	b	a) Is not correct. System testing does not test interfaces between components and interactions between different parts of the system; this is a target of integration tests b) Is correct. Examples of work products that can be used as a test basis for component testing include detailed design, code, data model, component specifications. Examples of work products for system testing include system and software requirement specifications (functional and non-functional) use cases c) Is not correct. Component testing does not ONLY focus on functional characteristics d) Is not correct. Component tests are also executed by developers, whereas system testing typically is the responsibility of (independent) testers	FL-2.2.1	K2	1
11	c	a) Is not correct. Regression testing does not check successful implementation of corrections and confirmation testing does not check for side effects b) Is not correct. The statement about confirmation testing should be about regression testing c) Is correct. See reasons from incorrect answers d) Is not correct. Testing new functionality is not regression testing	FL-2.3.3	K2	1
12	a	a) Is correct. Incremental development involves establishing requirements, designing, building, and testing a system in pieces b) Is not correct. This is a sequential model c) Is not correct. This describes the waterfall model d) Is not correct. Testing alone is not an increment/additional step in the development	FL-2.1.1	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
13	a	a) Is correct. This is maintainability testing, not maintenance testing b) Is not correct. This is a trigger for maintenance testing: Operational tests of the new environment as well as of the changed software c) Is not correct. This is the trigger for maintenance testing: testing restore/retrieve procedures after archiving for long retention periods d) Is not correct. This is the trigger for maintenance testing: Reactive modification of a delivered software product to correct emergency defects that have caused actual failures	FL-2.4.1	K2	1
14	d	a) Is not correct. Tester and developer are NOT roles in a formal review b) Is not correct. Developer is NOT a role in a formal review c) Is not correct. Designer is NOT a role in a formal review d) Is correct. See reasons from incorrect answers	FL-3.2.2	K1	1
15	c	a) Is not correct. 'Collection of metrics' belongs to the main activity "Fixing and Reporting" b) Is not correct. 'Answer any question.' belongs to the main activity "Initiate Review" c) Is correct. The checking of entry criteria takes place in the planning of a formal review d) Is not correct. The evaluation of the review findings against the exit criteria belongs to the main activity "Issue communication and analysis"	FL-3.2.1	K2	1
16	c	a) Is not correct. Informal review does not use a formal process b) Is not correct. Use of checklists are optional c) Is correct. Inspection is a formal process based on rules and checklists d) Is not correct. Does not explicitly require a formal process and the use of checklists is optional	FL-3.2.3	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
17	a	a) Is correct. Defects found early are often much cheaper to remove than defects detected later in the lifecycle b) Is not correct. Dynamic testing still has its challenging because they find other types of defects c) Is not correct. This is dynamic testing d) Is not correct. Static testing is important for safety-critical computer systems	FL-3.1.2	K2	1
18	d	a) Is not correct. It is described that the software architect must have completed the system specification b) Is not correct. 'Checklist-based', last sentence it is documented that you should also look for defects outside the checklist c) Is not correct. It is described: every reviewer did his review done comment d) Is correct. It is described that a checklist is available, but who provides the checklist?	FL-3.2.4	K3	1
19	c	a) Is not correct. This is error guessing b) Is not correct. This is black-box test technique c) Is correct. See reasons from incorrect answers d) Is not correct. This is exploratory testing	FL-4.x	K1	1
20	d	a) Is not correct. This is a white-box test technique b) Is not correct. This is a white-box test technique c) Is not correct. This is an experience-based test technique d) Is correct. Black-box test techniques are based on an analysis of the appropriate test basis (e.g., formal requirements documents, specifications, use cases, user stories)	FL-4.1.1	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
21	b	a) Is not correct. While the given statement is true, the explanation is not. The relationship between statement and decision coverage is misrepresented b) Is correct. Since any test case will cause the outcome of the "if" statement to be either TRUE or FALSE, by definition we achieved 50% decision coverage c) Is not correct. A single test case can give more than 25% decision coverage, this means according to the statement above always 50 % decision coverage d) Is not correct. The statement is specific and always true, because each test case achieves 50 % decision coverage	FL-4.3.2	K2	1
22	b	a) Is not correct. Statement coverage measures the percentage of statements exercised by test cases b) Is correct. Statement testing exercises the executable statements in the code. Statement coverage is measured as the number of statements executed by the tests divided by the total number of executable statements in the test object, normally expressed as a percentage c) Is not correct. The coverage does not measure pass/fail d) Is not correct. It is a metric and does not provide true/false statements	FL-4.3.1	K2	1
23	a	a) Is correct. The statement is true. Achieving 100% decision coverage guarantees 100% statement coverage b) Is not correct. The statement is false because achieving 100 % statement coverage does not in any case mean that the decision coverage is 100% c) Is not correct. The statement is false because we can only do statements about 100% values d) Is not correct. The statement is false	FL-4.3.3	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
24	c	a) Is not correct. Exploratory testing is not suitable to speed up tests, which are already specified. It is most useful when there are few or inappropriate specified requirements or significant time pressure on testing b) Is not correct. The absence of a test charter, which may have been derived from the test analysis, is a poor precondition for the use of exploratory testing c) Is correct. Exploratory tests should be performed by experienced testers with knowledge of similar applications and technologies d) Is not correct. Explorative testing alone is not suitable to provide evidence that the test was very intensive, instead the evidence is provided in combination with other test methods	FL-4.4.2	K2	1
25	d	a) Is not correct. One too few (see the four correct partitions in the correct answer) b) Is not correct. One too much (see the four correct partitions in the correct answer) c) Is not correct. Two too few (see the four correct partitions in the correct answer) d) Is correct. The 4 equivalence partitions correspond to the description in the question, i.e., at least one test case must be created for each equivalence partition: 1. Equivalence partition: 0 ≤ employment time ≤ 2 2. Equivalence partition: 2 < employment time < 5 3. Equivalence partition: 5 ≤ employment time ≤ 10 4. Equivalence partition: 10 < employment time	FL-4.2.1	K3	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
26	d	The following partitions can be identified: 1. <= 50, boundary value 50 2. 51 – 55 boundary values 51, 55 3. 56 – 60 boundary values 56, 60 4. >=61 boundary value 61 Boundary value according to glossary V.3.2: A minimum or maximum value of an ordered equivalence partition. Thus: a) Is not correct. Does not include all necessary boundary values, but it includes additional values: 0, 49, and 59, which are not boundary values in this equivalence partition b) Is not correct. Does not include all necessary boundary values. 51 and 55 are missing c) Is not correct. Does not include necessary boundary values but it includes additional values: 49, 62, and 54, which are not boundary values in this equivalence partition d) Is correct. includes all necessary boundary values	FL-4.2.2	K3	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
27	d	a) Is not correct. If there was no agreement on targets, it is impossible to reach the targets. Since this situation can´t occur, this is not a scenario happening in reality b) Is not correct. The test case is objectively wrong, since under these conditions no bonus is paid because the agreed target was not reached c) Is not correct. There was no agreement on targets, it is impossible to reach the targets. Since this situation can´t occur, this is not a scenario happening in reality d) Is correct. The test case describes the situation that the too short period of employment and the non-fulfilment of the agreed target leads to non-payment of the bonus. This situation can occur in practice but is missing in the decision table	FL-4.2.3	K3	1
28	b	Proposed test case covers all five possible single valid transitions in the given state diagram (S1->S2, S2->S1, S2->S3, S3->S2, and S3->S1). Thus: a) Is not correct. Because no invalid transitions are covered b) Is correct. Because all valid transitions are covered c) Is not correct. Because all valid transitions are covered d) Is not correct. Because the test cases do not have pairs of transitions specified	FL-4.2.4	K3	1
29	c	a) Is not correct. See reason from correct answer b) Is not correct. See reason from correct answer c) Is correct. This is a case where the requirement gives an enumeration of discrete values. Each enumeration value is an equivalence class by itself; therefore, each will be tested when using equivalence partitioning test technique d) Is not correct. See reason from correct answer	FL-4.2.1	K3	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
30	b	a) Is not correct. Selection of tools is a test manager task b) Is correct. See reasons from incorrect answers c) Is not correct. The tester does not decide on the release of the test object d) Is not correct. The tester specifies the test cases, the test manager does the prioritization	FL-5.1.2	K1	1
31	a	a) Is correct. Test case execution (e.g., number of test cases run/not run, and test cases passed/failed) b) Is not correct. This metric can be measured, but its value is low. The number of testers does not give any information about the quality of the test object or test progress c) Is not correct. the coverage of requirements by source code is not measured during test execution. At most, the TEST(!) coverage of the code or requirements is measured d) Is not correct. This metric is part of test preparation and not test execution	FL-5.3.1	K1	1
32	a	a) Is correct. Making decisions about what to test are documented in the test plan. This means when you are planning the test and there are budget limitations, prioritizing is needed; what should be tested and what should be omitted b) Is not correct. Test monitoring and control c) Is not correct. Common test metrics d) Is not correct. It is a part of test analysis	FL-5.2.1	K2	1
33	a	a) Is correct. See reasons from incorrect answers b) Is not correct. The “degree of tester’s independence” does not play a role in exit criteria c) Is not correct. “Availability of test environment” is an entry criterion d) Is not correct. “The Qualification of Tester” is not a typical exit criterion	FL-5.2.3	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
34	a	a) Is correct. This information has been defined earlier in the test project b) Is not correct. This information is included in a test report: information on what occurred during a test period c) Is not correct. This information is included in a test report: • Status of testing and product quality with respect to the exit criteria or definition of done • Metrics of defects, test cases, test coverage, activity progress, and resource consumption d) Is not correct. This information is included in a test report: Information and metrics to support recommendations and decisions about future actions, such as an assessment of defects remaining, the economic benefit of continued testing, outstanding risks, and the level of confidence in the tested software	FL-5.3.2	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
35	b	The possible mappings of points 1 to 4 can be justified as follows: 1. Approach 3 is analytical: Risk-based testing is an example of an analytical approach, where tests are designed and prioritized based on the level of risk 2. Approach 2 is standard-compliant: The control algorithms is checked against industry-specific standard of the energy saving regulation. 3. Approach 4 is consultative: This type of test strategy is driven primarily by the advice, guidance, or instructions of stakeholders, business domain experts, or technology experts, who may be outside the test team or outside the organization itself 4. Approach 1 is reactive: Exploratory testing is a common technique employed in reactive strategies, whereby the explorative testing is assigned to the experience-based testing category Thus: a) Is not correct b) Is correct c) Is not correct d) Is not correct	FL-5.2.2	K2	1
36	a	a) Is correct. The metrics-based approach: estimating the testing effort based on metrics of former similar projects or based on typical values b) Is not correct. This is expert-based approach: estimating the tasks based on estimates made by the owners of the tasks or by experts c) Is not correct. This is expert-based approach: estimating the tasks based on estimates made by the responsible team of the tasks or by experts d) Is not correct. This is expert-based approach: estimating the tasks based on estimates made by the owners of the tasks or by experts	FL-5.2.6	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
37	c	a) Is not correct. R4 is dependent on R2, so R2 should be tested before R4 b) Is not correct. R4 is dependent on R2, R5 and R6, so R5 and R6 should be tested before R4 c) Is correct. The tests are specified in a sequence that takes the dependencies into account d) Is not correct. R2 is dependent on R3, so R3 should be tested before R2	FL-5.2.4	K3	1
38	b	a) Is not correct. The test result is given in the short summary b) Is correct. When testing different versions of software, identifying information is necessary c) Is not correct. You are just writing the defect report; hence, the status is automatically open d) Is not correct. This information is useful for the tester but does not need to be included in the defect report	FL-5.6.1	K3	1
39	d	a) Is not correct. The benefits are not when creating regressions tests, more in executing them b) Is not correct. This is done by configuration management tools c) Is not correct. This needs specialized tools d) Is correct. Reduction in repetitive manual work (e.g., running regression tests, environment set up/tear down tasks, re-entering the same test data, and checking against coding standards), thus saving time	FL-6.1.2	K1	1
40	c	a) Is not correct. Requirement management tools are not particularly suitable for developers b) Is not correct. Configuration management tools are not particularly suitable for developers c) Is correct. Static analysis tools are especially suitable for developers d) Is not correct. Performance testing tools are not better suited for developers than for testers	FL-6.1.1	K2	1

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ISTQB® Certified Tester Syllabus Foundation Level

Compatible with Syllabus version 2018 v3.1

International Software Testing Qualifications Board

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1.6.1	May 12, 2021	Update to Copyright Notice Minor change to Question: 40
1.6	June 9, 2020	Major changes to Questions: 17, 32, 35 Minor changes to Questions: 40
1.5	March 17, 2020	Transfer to new Sample Exam Template layout Minor changes to Questions: 33 Major changes to Questions: 1, 2, 6, 14, 19, 30
1.4	December 15, 2019	Minor changes to Questions: 5, 15, 24, 25, 26, 32, 33, 34, 38 Major changes to Questions: 1, 3, 8, 27, 30 Replaced of Question: 40
1.3	May 31, 2019	Minor changes to Questions 1,4,12,14,18, 20, 22, 24, 26, 27, 28, 30 Major changes to Questions: 5, 6, 8
1.2	February 16, 2019	Transfer to Sample Exam Template layout Minor changes to multiple Questions Major changes to Questions: 5,15, 18, 23, 24, 27, 30, 31, 33, 35, 37
1.1	May 11, 2018	Spelling error corrected
1.0	May 11, 2018	First issue

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Instructions

In this document you may find:

- Questions[1], including for each question:
  - Any scenario needed by the question stem
  - Point value
  - Response (answer) option set
- Additional questions, including for each question [does not apply to all sample exams]:
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  - Point value
  - Response (answer) option set

- *Answers, including justification are contained in a separate document*

[1] In this sample exam the questions are sorted by the LO they target; this cannot be expected of a live exam.

Questions

Question #1 (1 Point)
Which one of the following answers describes a test condition?

a) A distinguishing characteristic of a component or system
b) A testable aspect of a component or system identified as a basis for testing
c) The degree to which a software product provides functions which meet stated and implied needs when the software is used under specified conditions
d) Test cases designed to execute combinations of conditions and actions resulting from them

Select ONE option.

Question #2 (1 Point)
Which of the following statements is a valid objective for testing?

a) The test should start as late as possible so that development had enough time to create a good product
b) To validate whether the test object works as expected by the users and other stakeholders
c) To prove that all possible defects are identified
d) To prove that any remaining defects will not cause any failures

Select ONE option.

Question #3 (1 Point)
Which of the following statements correctly describes the difference between testing and debugging?

a) Testing identifies the source of defects; debugging analyzes the defects and proposes prevention activities
b) Dynamic testing shows failures caused by defects; debugging eliminates the defects, which are the source of failures
c) Testing removes faults; but debugging removes defects that cause the faults
d) Dynamic testing prevents the causes of failures; debugging removes the failures

Select ONE option.

Question #4 (1 Point)
Which one of the statements below describes the most common situation for a failure discovered during testing or in production?

a) The product crashed when the user selected an option in a dialog box
b) The wrong version of a compiled source code file was included in the build
c) The computation algorithm used the wrong input variables
d) The developer misinterpreted the requirement for the algorithm

Select ONE option.

Question #5 (1 Point)

Mr. Test has been testing software applications on mobile devices for a period of 5 years. He has a wealth of experience in testing mobile applications and achieves better results in a shorter time than others. Over several months, Mr. Test did not modify the existing automated test cases and did not create any new test cases. This leads to fewer and fewer defects being found by executing the tests. What principle of testing did Mr. Test not observe?

a) Testing depends on the environment
b) Exhaustive testing is not possible
c) Repeating of same tests will not find new defects
d) Defects cluster together

Select ONE option.

Question #6 (1 Point)

In what way can testing be part of Quality Assurance?

a) It ensures that requirements are detailed enough
b) Testing reduces the risk of poor software quality
c) It ensures that standards in the organization are followed
d) It measures the quality of software in terms of number of executed test cases

Select ONE option.

Question #7 (1 Point)

Which of the following activities is part of the main activity "test analysis" in the test process?

a) Identifying any required infrastructure and tools
b) Creating test suites from test scripts
c) Analyzing lessons learned for process improvement
d) Evaluating the test basis for testability

Select ONE option.

Question #8 (1 Point)

Match the following test work products (1-4) with the right description (A-D).

1. Test suite
2. Test case
3. Test script
4. Test charter

A. A set of test scripts to be executed in a specific test run
B. A set of instructions for the execution of a test
C. Contains expected results
D. Documentation of test activities in session-based exploratory testing

a) 1A, 2C, 3B, 4D
b) 1D, 2B, 3A, 4C
c) 1A, 2C, 3D, 4B
d) 1D, 2C, 3B, 4A

Select ONE option.

Question #9 (1 Point)

How can white-box testing be applied during user acceptance testing?

a) To check if large volumes of data can be transferred between integrated systems
b) To check if all code statements and code decision paths have been executed
c) To check if all work process flows have been covered
d) To cover all web page navigations

Select ONE option.

Question #10 (1 Point)

Which of the following statements comparing component testing and system testing is TRUE?

a) Component testing verifies the functionality of software modules, program objects, and classes that are separately testable, whereas system testing verifies interfaces between components and interactions between different parts of the system
b) Test cases for component testing are usually derived from component specifications, design specifications, or data models, whereas test cases for system testing are usually derived from requirement specifications or use cases
c) Component testing only focuses on functional characteristics, whereas system testing focuses on functional and non-functional characteristics
d) Component testing is the responsibility of the testers, whereas system testing typically is the responsibility of the users of the system

Select ONE option.

Question #11 (1 Point)
Which one of the following is TRUE?

a) The purpose of regression testing is to check if the correction has been successfully implemented, while the purpose of confirmation testing is to confirm that the correction has no side effects
b) The purpose of regression testing is to detect unintended side effects, while the purpose of confirmation testing is to check if the system is still working in a new environment
c) The purpose of regression testing is to detect unintended side effects, while the purpose of confirmation testing is to check if the original defect has been fixed
d) The purpose of regression testing is to check if the new functionality is working, while the purpose of confirmation testing is to check if the original defect has been fixed

Select ONE option.

Question #12 (1 Point)
Which one of the following is the BEST definition of an incremental development model?

a) Defining requirements, designing software and testing are done in phases where in each phase a piece of the system is added
b) A phase in the development process should begin when the previous phase is complete
c) Testing is viewed as a separate phase which takes place after development has been completed
d) Testing is added to development as an increment

Select ONE option.

Question #13 (1 Point)
Which of the following should NOT be a trigger for maintenance testing?

a) Decision to test the maintainability of the software
b) Decision to test the system after migration to a new operating platform
c) Decision to test if archived data is possible to be retrieved
d) Decision to test after “hot fixes”

Select ONE option.

Question #14 (1 Point)
Which of the following options are roles in a formal review?

a) Developer, Moderator, Review leader, Reviewer, Tester
b) Author, Moderator, Manager, Reviewer, Developer
c) Author, Manager, Review leader, Reviewer, Designer
d) Author, Moderator, Review leader, Reviewer, Scribe

Select ONE option.

Question #15 (1 Point)
Which activities are carried out within the planning of a formal review?

a) Collection of metrics for the evaluation of the effectiveness of the review
b) Answer any questions the participants may have
c) Definition and Verification of fulfillment of entry criteria for the review
d) Evaluation of the review findings against the exit criteria

Select ONE option.

Question #16 (1 Point)
Which of the review types below is the BEST option to choose when the review must follow a formal process based on rules and checklists?

a) Informal Review
b) Technical Review
c) Inspection
d) Walkthrough

Select ONE option.

Question #17 (1 Point)
Which of the following statements about static testing are MOST true?

a) Static testing is a cheap way to detect and remove defects
b) Static testing makes dynamic testing less challenging
c) Static testing makes it possible to find run-time problems early in the lifecycle
d) When testing safety-critical system, static testing has less value because dynamic testing finds the defects better

Select ONE options.

Question #18 (1 Point)

You will be invited to a review. The work product to be reviewed is a description of the in-house document creation process. The aim of the description is to present the work distribution between the different roles involved in the process in a way that can be clearly understood by everyone.

You will be invited to a checklist-based review. The checklist will also be sent to you. It includes the following points:

i. Is the person who performs the activity clearly identified for each activity?
ii. Are the entry criteria clearly defined for each activity?
iii. Are the exit criteria clearly defined for each activity?
iv. Are the supporting roles and their scope of work clearly defined for each activity?

In the following we show an excerpt of the work result to be reviewed, for which you should use the checklist above:

"After checking the customer documentation for completeness and correctness, the software architect creates the system specification. Once the software architect has completed the system specification, he invites testers and verifiers to the review. A checklist describes the scope of the review. Each invited reviewer creates review comments - if necessary - and concludes the review with an official review done-comment."

Which of the following statements about your review is correct?

a) Point ii) of the checklist has been violated because it is not clear which condition must be fulfilled to invite to the review
b) You notice that in addition to the tester and the verifier, the validator must also be invited. Since this item is not part of your checklist, you do not create a corresponding comment
c) Point iii) of the checklist has been violated as it is not clear what marks the review as completed
d) Point i) of the checklist has been violated because it is not clear who is providing the checklist for the invitation to the review

Select ONE option.

Question #19 (1 Point)

What is checklist-based testing?

a) A test technique in which tests are derived based on the tester's knowledge of past faults, or general knowledge of failures
b) A test technique based on an analysis of the specification of a component or system
c) An experience-based test technique whereby the experienced tester uses a list of items to be noted, checked, or remembered, or a set of rules or criteria against which a product must be verified
d) An approach to testing where the testers dynamically design and execute tests based on their knowledge, exploration of the test item and the results of previous tests

Select ONE option.

Question #20 (1 Point)
Which one of the following options is categorized as a black-box test technique?

a) A technique based on analysis of the architecture
b) A technique checking that the test object is working according to the detailed design
c) A technique based on the knowledge of past faults, or general knowledge of failures
d) A technique based on formal requirements

Select ONE option

Question #21 (1 Point)
The following statement refers to decision coverage:

“When the code contains only a single ‘if’ statement and no loops or CASE statements, and its execution is not nested within the test, any single test case we run will result in 50% decision coverage.”

Which of the following statement is correct?

a) The statement is true. Any single test case provides 100% statement coverage and therefore 50% decision coverage
b) The statement is true. Any single test case would cause the outcome of the “if” statement to be either true or false
c) The statement is false. A single test case can only guarantee 25% decision coverage in this case
d) The statement is false. The statement is too broad. It may be correct or not, depending on the tested software

Select ONE option.

Question #22 (1 Point)
Which one of the following is the description of statement coverage?

a) It is a metric, which is the percentage of test cases that have been executed
b) It is a metric, which is the percentage of statements in the source code that have been executed
c) It is a metric, which is the number of statements in the source code that have been executed by test cases that are passed
d) It is a metric, that gives a true/false confirmation if all statements are covered or not

Select ONE option.

Question #23 (1 Point)
Which statement about the relationship between statement coverage and decision coverage is true?

a) 100% decision coverage also guarantees 100% statement coverage
b) 100% statement coverage also guarantees 100% decision coverage
c) 50% decision coverage also guarantees 50% statement coverage
d) Decision coverage can never reach 100%

Select ONE option.

Question #24 (1 Point)

For which of the following situations is exploratory testing suitable?

a) When time pressure requires speeding up the execution of tests already specified
b) When the system is developed incrementally, and no test charter is available
c) When testers are available who have enough knowledge of similar applications and technologies
d) When an advanced knowledge of the system already exists, and evidence is to be if it should be tested intensively

Select ONE option.

Question #25 (1 Point)

An employee's bonus is to be calculated. It cannot be negative, but it can be calculated down to zero. The bonus is based on the length of employment:

- Less than or equal to 2 years
- More than 2 years but less than 5 years
- 5 to 10 years inclusively
- Longer than 10 years

What is the minimum number of test cases required to cover all valid equivalence partitions for calculating the bonus?

a) 3
b) 5
c) 2
d) 4

Select ONE option.

Question #26 (1 Point)

A speed control and reporting system has the following characteristics:

- If you drive 50 km/h or less, nothing will happen.
- If you drive faster than 50 km/h, but no more than 55 km/h, you will be warned.
- If you drive faster than 55 km/h but not more than 60 km/h, you will be fined.
- If you drive faster than 60 km/h, your driving license will be suspended.
- The speed in km/h is available to the system as an integer value.

Which would be the most likely set of values (km/h) identified by applying the boundary value analysis, where only the values on the boundaries of the equivalence classes are selected?

a) 0, 49, 50, 54, 59, 60
b) 50, 55, 60
c) 49, 50, 54, 55, 60, 62
d) 50, 51, 55, 56, 60, 61

Select ONE option.

Question #27 (1 Point)

A company's employees are paid bonuses if they work more than a year in the company and achieve a target which is individually agreed before.

These facts can be shown in a decision table:

Test-ID		T1	T2	T3	T4
Condition1	Employment for more than 1 year?	YES	NO	NO	YES
Condition2	Agreed target?	NO	NO	YES	YES
Condition3	Achieved target?	NO	NO	YES	YES
Action	Bonus payment	NO	NO	NO	YES

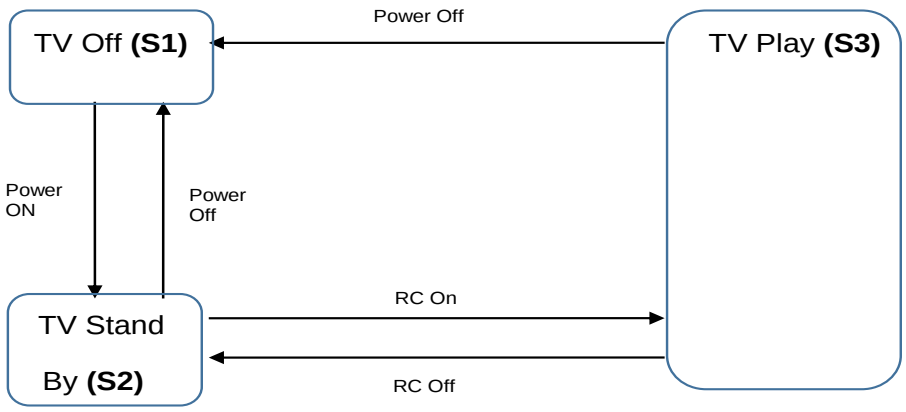
Which of the following test cases represents a situation that can happen in real life, and is missing in the above decision table?

a) Condition1 = YES, Condition2 = NO, Condition3 = YES, Action= NO
b) Condition1 = YES, Condition2 = YES, Condition3 = NO, Action= YES
c) Condition1 = NO, Condition2 = NO, Condition3 = YES, Action= NO
d) Condition1 = NO, Condition2 = YES, Condition3 = NO, Action= NO

Select ONE option.

Question #28 (1 Point)

Which of the following statements about the given state transition diagram and table of test cases is TRUE?



Test Case	1	2	3	4	5
Start State	S1	S2	S2	S3	S3
Input	Power On	Power Off	RC On	RC Off	Power Off
Expected Final State	S2	S1	S3	S2	S1

a) The given test cases cover both valid and invalid transitions in the state transition diagram
b) The given test cases represent all possible valid transitions in the state transition diagram
c) The given test cases represent some of the valid transitions in the state transition diagram
d) The given test cases represent pairs of transitions in the state transition diagram

Select ONE option.

Question #29 (1 Point)

A video application has the following requirement: The application shall allow playing a video on the following display resolution:

1. 640x480
2. 1280x720
3. 1600x1200
4. 1920x1080

Which of the following list of test cases is a result of applying the equivalence partitioning test technique to test this requirement?

a) Verify that the application can play a video on a display of size 1920x1080 (1 test case)
b) Verify that the application can play a video on a display of size 640x480 and 1920x1080 (2 test cases)
c) Verify that the application can play a video on each of the display sizes in the requirement (4 test cases)
d) Verify that the application can play a video on any one of the display sizes in the requirement (1 test case)

Select ONE option.

Question #30 (1 Point)

Which of the following statements BEST describes how tasks are divided between the test manager and the tester?

a) The test manager plans testing activities and chooses the standards to be followed, while the tester chooses the tools and set the tools usage guidelines
b) The test manager plans, coordinates, and controls the testing activities, while the tester automates the tests
c) The test manager plans, monitors, and controls the testing activities, while the tester designs tests and decides on the release of the test object
d) The test manager plans and organizes the testing and specifies the test cases, while the tester executes the tests

Select ONE option.

Question #31 (1 Point)

Which of the following metrics would be MOST useful to monitor during test execution?

a) Percentage of executed test cases
b) Average number of testers involved in the test execution
c) Coverage of requirements by source code
d) Percentage of test cases already created and reviewed

Select ONE option.

Question #32 (1 Point)
Which of the following can affect and be part of the (initial) test planning?

a) Budget limitations
b) Test log
c) Failure rate
d) Use cases

Select ONE options.

Question #33 (1 Point)
Which of the following lists contains only typical exit criteria from testing?

a) Reliability measures, test coverage, schedule and status about fixing defect and remaining risks
b) Reliability measures, test coverage, degree of tester's independence and product completeness
c) Reliability measures, test coverage, test cost, availability of test environment, time to market and product completeness
d) Time to market, remaining defects, tester qualification, availability of testable use cases, test coverage and test cost

Select ONE option.

Question #34 (1 Point)
Which one of the following is NOT included in a test summary report?

a) Defining pass/fail criteria and objectives of testing
b) Deviations from the test approach
c) Measurements of actual progress against exit criteria
d) Evaluation of the quality of the test object

Select ONE option.

Question #35 (1 Point)

The project develops a "smart" heating thermostat. The control algorithms of the thermostat were modeled as Matlab/Simulink models and run on the internet connected server. The thermostat uses the specifications of the server to trigger the heating valves.

The test manager has defined the following test strategy/approach in the test plan:

1. The acceptance test for the whole system is executed as an experience-based test.
2. The control algorithms on the server are checked against standard of the energy saving regulation.
3. The functional test of the thermostat is performed as risk-based testing.
4. The security tests of data / communication via the internet are executed together with external security experts.

What four common types of test strategies/approaches did the test manager implement in the test plan?

a) Methodical, analytical, reactive, and regression-averse
b) Analytical, standard-compliant, consultative, and reactive
c) Model-based, methodical, analytical, and consultative
d) Regression-averse, consultative, reactive, and methodical

Select ONE option.

Question #36 (1 Point)

Which one of the following is the characteristic of a metrics-based approach for test estimation?

a) Budget which was used by a previous similar test project
b) Overall experience collected in interviews with test managers
c) Estimation of effort for test automation agreed in the test team
d) Average of calculations collected from business experts

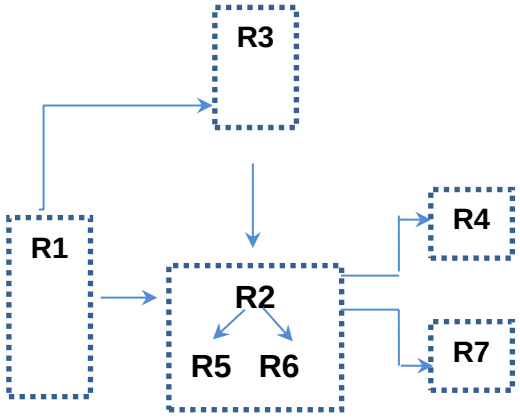
Select ONE option.

Question #37 (1 Point)

As a test manager you are responsible for testing the following parts of requirements:

- R1 - Process anomalies
- R2 - Synchronization
- R3 - Approval
- R4 - Problem solving
- R5 - Financial data
- R6 - Diagram data
- R7 - Changes to the user profile

Notation: Logical requirement dependencies (A -> B means, that B depends on A):



Which one of the following options structures the test execution schedule according to the requirement dependencies?

a) R1 ; R3 ; R4 ; R7 ; R2 ; R5 ; R6
b) R1 ; R3 ; R2 ; R4 ; R7 ; R5 ; R6
c) R1 ; R3 ; R2 ; R5 ; R6 ; R4 ; R7
d) R1 ; R2 ; R5 ; R6 ; R3 ; R4 ; R7

Select ONE option.

Question #38 (1 Point)

You are testing a new version of software for a coffee machine. The machine can prepare different types of coffee based on four categories. i.e., coffee size, sugar, milk, and syrup. The criteria are as follows:

- Coffee size (small, medium, large)
- Sugar (none, 1 unit, 2 units, 3 units, 4 units)
- Milk (yes or no)
- Coffee flavor syrup (no syrup, caramel, hazelnut, vanilla)

Now you are writing a defect report with the following information:

- Title: Low coffee temperature.
- Short summary: When you select coffee with milk, the time for preparing coffee is too long and the temperature of the beverage is too low (less than 40 °C).
- Expected result: The temperature of coffee should be standard (about 75 °C).
- Degree of risk: Medium
- Priority: Normal

What valuable information was omitted in the above defect report?

a) The actual test results
b) Identification of the tested software version
c) Status of the defect
d) Ideas for improving the test case

Select ONE option.

Question #39 (1 Point)

Which one of the following is MOST likely to be a benefit of test execution tools?

a) It is easy to create regression tests
b) It is easy to maintain version control of test assets
c) It is easy to design tests for security testing
d) It is easy to run regression tests

Select ONE option.

Question #40 (1 Point)

Which one of the following test tools is mostly suitable for developers rather than testers?

a) Requirement management tools
b) Configuration management tools
c) Static analysis tools
d) Performance testing tools

Select ONE option.

Sample Exam – Answers

Sample Exam set B
Version 1.4

ISTQB® Certified Tester Syllabus Foundation Level

Compatible with Syllabus version 2018 v3.1

International Software Testing Qualifications Board

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Document Responsibility

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

This document is maintained by a core team from ISTQB® consisting of the Syllabus Working Group and Exam Working Group.

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Revision History

Sample Exam – Answers Layout Template used:	Version 2.4	Date: May 12, 2021

Version	Date	Remarks
1.4	February 2, 2022	Bump of version to follow Questions document version
1.3.1	May 12, 2021	Update of Copyright Notice
1.3	March 17, 2020	Transfer to new Sample Exam Template layout Minor changes to Answers: 15,16, 23, 24 Major changes to Answers: 1, 2
1.2	December 30, 2019	Minor changes to Answers: 2, 8, 11 Major changes to Answers: 10, 23, 28 Replaced Answer: 15
1.1	February 29, 2019	Refactor layout on Sample Exam Template Minor changes to Answers: 14, 20, 32, 34, 35, 37
1.0	May 11, 2018	First version

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	b	Keywords	K1	1
2	a	FL-1.1.1	K1	1
3	c	FL-1.2.3	K2	1
4	c	FL-1.2.4	K2	1
5	d	FL-1.3.1	K2	1
6	a	FL-1.4.2	K2	1
7	b	FL-1.4.4	K2	1
8	b	FL-1.5.2	K2	1
9	d	FL-2.1.1	K2	1
10	a	FL-2.2.1	K2	1
11	c	FL-2.3.2	K1	1
12	b	FL-2.3.3	K2	1
13	a	FL-2.4.2	K2	1
14	d	FL-3.1.2	K2	1
15	d	FL-3.2.1	K2	1
16	a	FL-3.2.2	K1	1
17	b	FL-3.2.3	K2	1
18	b	FL-3.2.4	K3	1
19	b	Keywords	K1	1
20	a	FL-4.1.1	K2	1

Question Number (#)	Correct Answer	LO	K-Level	Points
21	d	FL-4.2.1	K3	1
22	b	FL-4.2.1	K3	1
23	c	FL-4.2.2	K3	1
24	c	FL-4.2.3	K3	1
25	d	FL-4.2.4	K3	1
26	a	FL-4.2.5	K2	1
27	b	FL-4.3.1	K2	1
28	d	FL-4.3.2	K2	1
29	c	FL-4.4.1	K2	1
30	d	FL-5.1.1	K2	1
31	a	FL-5.1.2	K1	1
32	d	FL-5.2.3	K2	1
33	b	FL-5.2.4	K3	1
34	c	FL-5.2.6	K2	1
35	c	FL-5.5.1	K1	1
36	a	FL-5.5.2	K2	1
37	b	FL-5.5.3	K2	1
38	d	FL-5.6.1	K3	1
39	c	FL-6.1.1	K2	1
40	a	FL-6.2.2	K1	1

Answers

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
1	b	a) Is not correct. Based on definition of equivalence partition b) Is correct. Based on definition from Glossary c) Is not correct. Based on Glossary definition of testware d) Is not correct. Based on definition of test oracle	Keywords	K1	1
2	a	a) Is correct. One of the major objectives of testing b) Is not correct. Validation of the project plan would be a project management activity c) Is not correct. Contradiction to principle #2; complete/exhaustive testing is not possible d) Is not correct. “Comparing actual results with expected results” is a test performing activity, but not a test objective	FL-1.1.1	K1	1
3	c	a) Is not correct. This is an example of a mistake made by the developer b) Is not correct. This is an example of a defect (something wrong in the code that may cause a failure) c) Is correct. This is a deviation from the expected functionality - a cruise control system should not be affected by the radio d) Is not correct. This is an example of a defect (something wrong in a specification that may cause a failure if subsequently implemented)	FL-1.2.3	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
4	c	a) Is not correct. The lack of familiarity of the requirements author with the fitness domain is a root cause b) Is not correct. The lack of training of the tester in state transition testing was one of the root causes of the defect (the developer presumably created the defect, as well) c) Is correct. The incorrect configuration data represents faulty software in the fitness tracker (a defect), that may cause failures d) Is not correct. The lack of experience in designing user interfaces for wearable devices is a typical example of a root cause of a defect	FL-1.2.4	K2	1
5	d	a) Is not correct. 'Beware of the pesticide paradox' is concerned with re-running the same tests and their fault-finding effectiveness decreasing b) Is not correct. This testing principle is concerned with performing testing differently based on the context (e.g., games vs safety-critical) c) Is not correct. This testing principle is concerned with the difference between a tested and fixed system and a validated system. No 'errors' does not mean the system is fit for use d) Is correct. If clusters of defects are identified (areas of the system containing more defects than average), then testing effort should be focused on these areas	FL-1.3.1	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
6	a	The correct pairing of test activities and tasks is: A. Test design – (2) Identifying test data to support the test cases B. Test implementation – (3) Prioritizing test procedures and creating test data C. Test execution – (4) Analyzing discrepancies to determine their cause D. Test completion – (1) Entering change requests for open defect reports Thus: a) Is correct b) Is not correct c) Is not correct d) Is not correct	FL-1.4.2	K2	1
7	b	a) Is not correct. Traceability will allow existing test cases to be linked with updated and deleted requirements (although there is no support for new requirements), but it will not help with the automation of maintenance testing b) Is correct. If all test cases are linked with requirements, then whenever a new test case (with traceability) is added, it is possible to see if any previously uncovered requirements are covered by the new test case c) Is not correct. Traceability between the test basis and test artifacts will not provide information on which testers found high-severity defects, and, even if this information could be determined, it would be of limited value d) Is not correct. Traceability can help with identifying test cases affected by changes, however areas impacted by side-effects would be the focus of regression testing	FL-1.4.4	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
8	b	a) Is not correct. Both developers and testers gain from experience b) Is correct. Developers are often more interested in designing and building solutions than in contemplating what might be wrong with those solutions c) Is not correct. Both developers and testers should be able to communicate well d) Is not correct. Testers shall focus on the quality, not on the quantity	FL-1.5.2	K2	1
9	d	Considering each statement: 1. Each development activity should have a corresponding testing activity. TRUE 2. Reviewing should start as soon as final versions of documents become available. FALSE – it should start as soon as drafts are available 3. The design and implementation of tests should start during the corresponding development activity. FALSE – the analysis and design of tests should start during the corresponding development activity, not the implementation 4. Testing activities should start in the early stages of the software development lifecycle. TRUE Thus: a) Is not correct b) Is not correct c) Is not correct d) Is correct	FL-2.1.1	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
10	a	Considering the scenario: 1. 'testing is based on interface specifications' – the test basis for integration testing includes interface specifications (along with communication protocol specification), while these are not included for any of the other test levels 2. 'testing is focused on finding failures in communication' - failures in the communication between tested components is included as a typical failure for integration testing, but failures in communication is not included for any of the other test levels 3. 'the test approach uses both functional and structural test types' - functional and structural test types are both included as possible approaches for integration testing, and would also be appropriate for any of the other test levels, although they are only otherwise explicitly mentioned in the syllabus for system testing Thus: a) Is correct b) Is not correct c) Is not correct d) Is not correct	FL-2.2.1	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
11	c	a) Is not correct. It is possible to perform any of the test types (functional, non-functional, white-box) at any test level - so, although it is correct that functional and non-functional testing can be performed at system and acceptance test levels, it is incorrect to state that white-box testing is restricted to component and integration testing b) Is not correct. It is possible to perform any of the test types (functional, non-functional, white-box) at any test level - so, it is incorrect to state that white-box testing is restricted to component testing c) Is correct. It is possible to perform any of the test types (functional, non-functional, white-box) at any test level d) Is not correct. It is possible to perform any of the test types (functional, non-functional, white-box) at any test level - so, it is incorrect to state that white-box testing is restricted to component testing and integration testing	FL-2.3.2	K1	1
12	b	a) Is not correct. Although the description of regression testing is largely correct, the description of confirmation testing (which should be testing a defect has been fixed) is not correct b) Is correct. The descriptions of both confirmation and regression testing match the intent of those in the syllabus c) Is not correct. Although the description of regression testing is largely correct, the description of confirmation testing (re-running all previously run tests to get the same results) is not correct, as the purpose of confirmation testing is to check that tests that previously failed now pass (the fix worked) d) Is not correct. Although the description of confirmation testing is largely correct, the description of regression testing (re-running tests that previously failed) is not correct (this is a more detailed description of confirmation testing)	FL-2.3.3	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
13	a	a) Is correct. Impact analysis may be used to identify those areas of the system that will be affected by the fix, and so the extent of the impact (e.g., necessary regression testing) can be used when deciding if the change is worthwhile b) Is not correct. Although testing migrated data is part of maintenance testing (see conversion testing), impact analysis does not identify how this is done c) Is not correct. Impact analysis shows which parts of a system are affected by a change, so it can show the difference between different hot fixes in terms of the impact on the system, however it does not give any indication of the value of the changes to the user d) Is not correct. Impact analysis shows which parts of a system are affected by a change; it cannot provide an indication of the effectiveness of test cases	FL-2.4.2	K2	1
14	d	a) Is not correct. Reviews should increase the quality of specifications, however the time required for development and testing should decrease b) Is not correct. Detecting defects is generally easier earlier in the lifecycle c) Is not correct. Reviews will result in fewer missed requirements and better communication between testers and developers, however this is not true for static analysis d) Is correct. This is a benefit of static analysis	FL-3.1.2	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
15	d	a) Is not correct. During planning it is decided whether checklists are used. The preparation of the checklists is not part of the planning. In addition, the reviewers are neither involved in the planning, nor responsible for the creation of the checklists b) Is not correct. During issue communication, any potential defects that have been identified in the individual review are communicated. The completion of checklists by the reviewers already takes place, if at all, during individual review c) Is not correct. During review session, the reviewers communicate any potential defects of the work product that they did identify during the individual review. Defect reports are only created during the fixing and reporting activity d) Is correct. Initiating the review (“Kick-off”) involves distributing the work product and other materials, like checklists	FL-3.2.1	K2	1
16	a	a) Is correct. The management decides about performing the review b) Is not correct. The moderator, not the review leader should ensure the effective running of review meetings c) Is not correct. The author fixes the work product under review d) Is not correct. The manager monitors ongoing cost-effectiveness	FL-3.2.2	K1	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
17	b	Considering the attributes: • There is a role of a scribe – specified for walkthroughs, technical reviews, and inspections; thus, the reviews being performed cannot be informal reviews • The purpose is to detect potential defects – the purpose of detecting potential defects is specified for all types of review. • The review meeting is led by the author – this is not allowed for inspections and is typically not the author for technical reviews, but is part of walkthroughs, and allowed for informal reviews • Reviewers find potential issues by individual review - all types of reviews can include individual review (even informal reviews) • A review report is produced - all types of reviews can produce a review report, although it would be less likely for an informal review Thus: a) Is not correct b) Is correct c) Is not correct d) Is not correct	FL-3.2.3	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
18	b	Considering the potential inconsistencies: • 6-10 – If librarians should get system responses within 5 seconds, it is NOT inconsistent for borrowers to get system responses within 3 seconds. • 6-15 - If librarians should get system responses within 5 seconds, it is inconsistent for all users to get system responses within 3 seconds. • 7-12 – If borrowers can borrow a maximum of 3 books at one time it is NOT inconsistent for them to also reserve books (if they are on-loan). • 9-11 – If a borrower can be fined for failing to return a book within 3 weeks it is inconsistent for them to also be allowed to borrow a book at no cost for a maximum of 4 weeks – as the length of valid loans are different. Of the potential inconsistencies, 6-15 and 9-11 are valid inconsistencies. Thus: a) Is not correct b) Is correct c) Is not correct d) Is not correct	FL-3.2.4	K3	1
19	b	a) Is not correct. Exploratory testing is often carried out when timescales are short, so making in-depth investigations of the background of the test object is unlikely b) Is correct. Glossary definition c) Is not correct. Based on the Glossary definition of session-based testing, but with test execution replaced by test analysis d) Is not correct. Glossary definition of experience-based testing	Keywords	K1	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
20	a	The correct pairing of descriptions with the different categories of test techniques is: • Black-box test techniques Deviations from the requirements are checked (4) User stories are used as the test basis (5) • White-box test techniques Coverage is measured based on a selected structure of the test object (1) The processing within the test object is checked (2) • Experience-based test techniques Tests are based on defects' likelihood and their distribution (3) Thus: a) Is correct b) Is not correct c) Is not correct d) Is not correct	FL-4.1.1	K2	1

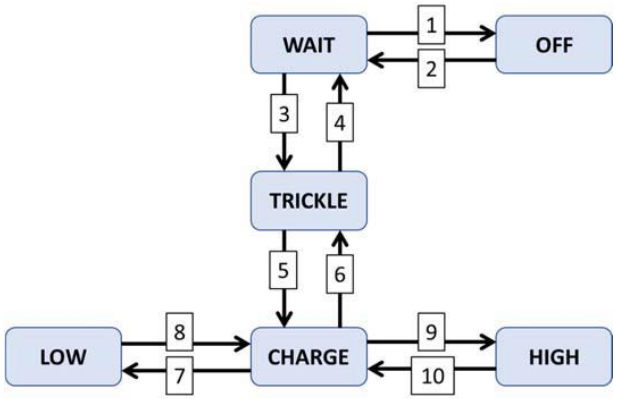
Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
21	d	The following valid equivalence partitions can be identified: 1. Up to 1000 - Couch Potato! 2. Above 1000, up to 2000 - Lazy Bones! 3. Above 2000, up to 4000 - Getting There! 4. Above 4000, up to 6000 - Not Bad! 5. Above 6000 - Way to Go! The sets of test inputs therefore cover the following partitions: a) Is not correct. 0 (1), 1000 (1), 2000 (2), 3000 (3), 4000 (3) – 3 partitions (out of 5) b) Is not correct. 1000 (1), 2001 (3), 4000 (3), 4001 (4), 6000 (4) – 3 partitions (out of 5) c) Is not correct. 123 (1), 2345 (3), 3456 (3), 4567 (4), 5678 (4) – 3 partitions (out of 5) d) Is correct. 666 (1), 999 (1), 2222 (3), 5555 (4), 6666 (5) – 4 partitions (out of 5)	FL-4.2.1	K3	1

<table>
<tr><th>Question Number (#)</th><th>Correct Answer</th><th>Explanation / Rationale</th><th>Learning Objective (LO)</th><th>K-Level</th><th>Number of Points</th></tr>
<tr><td>22</td><td>b</td><td>The following valid input equivalence partitions can be identified:
• Hours
1. Below 3 hours
2. 3 to 6 hours
3. Above 6 hours
• Intensity
4. Very low
5. Low
6. Medium
7. High
The given test cases cover the following valid input equivalence partitions:
<table><tr><td>T1</td><td>1.5 (1)</td><td>Very low (4)</td></tr><tr><td>T2</td><td>7.0 (3)</td><td>Medium (6)</td></tr><tr><td>T3</td><td>0.5 (1)</td><td>Very low (4)</td></tr></table>
Thus, the missing valid input equivalence partitions are: (2), (5) and (7). These can be covered by two test cases, as (2) can be combined with either (5) or (7).
Thus:
a) Is not correct
b) Is correct
c) Is not correct
d) Is not correct</td><td>FL-4.2.1</td><td>K3</td><td>1</td></tr>
</table>

<table>
<tr><th>Question Number (#)</th><th>Correct Answer</th><th>Explanation / Rationale</th><th>Learning Objective (LO)</th><th>K-Level</th><th>Number of Points</th></tr>
<tr><td>23</td><td>c</td><td>For the input equivalence partitions given, the above used boundary value technique yields the following 8 coverage items:
10°C, 11°C, 15°C, 16°C, 19°C, 20°C, 22°C, 23°C.

Hence, the options have the following boundary value coverage:
a) Is not correct. 4 out of 8 (11, 20 ,22 and 23)
b) Is not correct. 3 out of 8 (15, 19 and 23)
c) Is correct. 5 out of 8 (10, 16, 19, 22 and 23)
d) Is not correct. 3 out of 8 (15, 19 and 22)</td><td>FL-4.2.2</td><td>K3</td><td>1</td></tr>
<tr><td>24</td><td>c</td><td>The complete decision table is shown below:
<table>
<tr><th colspan="2">Rules</th><th>R1</th><th>R2</th><th>R3</th><th>R4</th></tr>
<tr><td rowspan="2">Inputs</td><td>Speed > 50</td><td>T</td><td>T</td><td>F</td><td>F</td></tr>
<tr><td>School Zone</td><td>T</td><td>F</td><td>T</td><td>F</td></tr>
<tr><td rowspan="2">Outputs</td><td>$250 Fine</td><td>F</td><td>T</td><td>F</td><td>F</td></tr>
<tr><td>Driving license withdrawal</td><td>T</td><td>F</td><td>F</td><td>F</td></tr>
</table>
To achieve full coverage, test cases covering rules 2 and 3 are needed. DT4 satisfies the constraints of rule 2, while DT2 satisfies the constraints of rule 3.

Thus:
a) Is not correct
b) Is not correct
c) Is correct
d) Is not correct</td><td>FL-4.2.3</td><td>K3</td><td>1</td></tr>
</table>

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
25	d	Given the annotated state model below:  The options achieve the following transition coverage: a) Is not correct: OFF (2) WAIT (1) OFF *(2)* WAIT (3) TRICKLE (5) CHARGE (9) HIGH (10) CHARGE (7) LOW = 7 transitions (out of 10) b) Is not correct: WAIT (3) TRICKLE (4) WAIT (1) OFF (2) WAIT *(3)* TRICKLE (5) CHARGE (7) LOW (8) CHARGE = 7 transitions (out of 10) c) Is not correct: HIGH (10) CHARGE (7) LOW (8) CHARGE (6) TRICKLE (4) WAIT (3) TRICKLE *(4)* WAIT *(3)* TRICKLE = 6 transitions (out of 10) d) Is correct: WAIT (3) TRICKLE (5) CHARGE (9) HIGH (10) CHARGE (6) TRICKLE (4) WAIT (1) OFF (2) WAIT = 8 transitions (out of 10)	FL-4.2.4	K3	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
26	a	a) Is correct. This explains that each use case specifies some behavior that a subject can perform in collaboration with one or more actors. It also (later) explains that tests are designed to exercise the defined behaviors (basic, exceptional and errors) b) Is not correct. Use cases normally specify requirements, and so do not 'include' the components that will implement them c) Is not correct. Tests based on use cases do exercise interactions between the actor and the system, but they are focused on the functionality and do not consider the ease of use of user interfaces d) Is not correct. Tests do cover the use case paths through the use case, but there is no concept of decision coverage of these paths, and certainly not of business process flows	FL-4.2.5	K2	1
27	b	a) Is not correct. Statement coverage is a measure of the proportion of executable statements exercised by tests. The number of executable statements is often close to the number of lines of code minus the comments, but this option only talks about the number of lines of code exercised and not the proportion exercised b) Is correct. Statement coverage is a measure of the proportion of executable statements exercised by tests (normally presented as a percentage) c) Is not correct. Statement coverage is a measure of the percentage of executable statements exercised by tests, however many of the lines of source code are not executable (e.g., comments) d) Is not correct. Statement coverage is a measure of the proportion of executable statements exercised by tests. This option only talks about the number of executable statements exercised and not the proportion (or percentage) exercised	FL-4.3.1	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
28	d	a) Is not correct. A path through source code is one potential route through the code from the entry point to the exit point that could exercise a range of decision outcomes. Two different paths may exercise all but one of the same decision outcomes, and by just changing a single decision outcome a new path is followed. Test cases that would achieve decision coverage are typically a tiny subset of the test cases that would achieve path coverage. In practice, most non-trivial programs (and all programs with unconstrained loops, such as 'while' loops) have a potentially infinite number of possible paths through them and so measuring the percentage covered is practically infeasible b) Is not correct. Coverage of business flows can be a focus of use case testing, but use cases rarely cover a single component. It may be possible to cover the decisions within business flows, but only if they were specified in enough detail, however this option only suggests coverage of "business flows" as a whole. Even if business flows would cover some decisions, the measure "Decision Coverage" don't measure the percentage of business flows, but the percentage of decision outcomes exercised by the business flows c) Is not correct. Achieving full decision coverage does require all 'if' statements to be exercised with both true and false outcomes, however, there are typically several other decision points in the code (e.g., 'case' statements and the code controlling loops) that also need to be taken into consideration when measuring decision coverage d) Is correct. Decision coverage is a measure of the proportion of decision outcomes exercised (normally presented as a percentage)	FL-4.3.2	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
29	c	a) Is not correct. error guessing is not a usability technique for guessing how users may fail to interact with the test object b) Is not correct. Although a tester who used to be a developer may use their personal experience to help them when performing error guessing, the technique is not based on prior knowledge of development c) Is correct. The basic concept behind error guessing is that the tester tries to guess what mistakes may have been made by the developer and what defects may be in the test object based on past-experience (and sometimes checklists) d) Is not correct. Duplicating the development task has several flaws that make it impractical, such as the requirement for the tester to have equivalent skills to the developer and the time involved in performing the development. It is not error guessing	FL-4.4.1	K2	1
30	d	a) Is not correct. Quality should be the responsibility of everyone working on the project and not the sole responsibility of the test team b) Is not correct. First, it is not a benefit if an external test team does not meet delivery deadlines, and second, there is no reason to believe that external test teams will feel they do not have to meet strict delivery deadlines c) Is not correct. It is bad practice for the test team to work in complete isolation, and we would expect an external test team to be concerned with changing project requirements and communicate well with developers d) Is correct. Specifications are never perfect, meaning that assumptions will have to be made by the developer. An independent tester is useful in that they can challenge and verify the assumptions and subsequent interpretation made by the developer	FL-5.1.1	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
31	a	a) Is correct. One of the typical tasks of a test manager b) Is not correct. One of the typical tasks of a tester c) Is not correct. One of the typical tasks of a tester d) Is not correct. One of the typical tasks of a tester	FL-5.1.2	K1	1

32	d	The correct pairings of examples to entry and exit criteria are: • Entry criteria ○ (3) The trading performance test environment has been designed, set-up and verified – example of the need for a test environment to be ready before testing can begin ○ (5) The autopilot design specifications have been reviewed and reworked – example of the need for the test basis to be available before testing can begin ○ (6) The tax rate calculation component has passed unit testing – example of the need for a test object to have met the exit criteria for a prior level of testing before testing can begin • Exit criteria ○ (1) The original testing budget of $30,000 plus contingency of $7,000 has been spent – example of spending the testing budget being a signal to stop testing ○ (2) 96% of planned tests for the drawing package have been executed and the remaining tests are now out of scope – example of all the planned tests being run being a signal to stop testing (normally used alongside the exit criteria on outstanding defects remaining) ○ (4) Current status is no outstanding critical defects and two high-priority ones – example of the number of outstanding defects achieving a planned limit being a signal to stop testing (normally used alongside the exit criteria on planned tests being run). Thus: a) Is not correct b) Is not correct c) Is not correct d) Is correct	FL-5.2.3	K2	1
33	b	The test cases should be scheduled in priority order, but the schedule must also take account of the dependencies.	FL-5.2.4	K3	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
		The two highest priority test cases (TC1 and TC3) are both dependent on TC4, so the first three test cases should be scheduled as either TC4 – TC1 – TC3 or TC4 – TC3 – TC1 (we have no way to discriminate between TC1 and TC3). Next, we need to consider the remaining medium priority test case, TC6. TC6 is dependent on TC5, but TC5 is dependent on TC2, so the next two three cases must be scheduled as TC2 – TC5 – TC6. This means there are two possible optimal schedules: • TC4 – TC1 – TC3 – TC2 – TC5 – TC6 or • TC4 – TC3 – TC1 – TC2 – TC5 – TC6 Thus: a) Is not correct b) Is correct c) Is not correct d) Is not correct			

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
34	c	a) Is not correct. Estimates may be updated as more information becomes available, but estimates are needed to assist with planning before the testing starts b) Is not correct. In the expert-based approach, the experts need to be experts in testing, not in using the test object c) Is correct. Test Managers, who will be leading testers doing the testing, are considered experts in their respective areas and suitable for estimating the necessary resources needed d) Is not correct. While it is useful to know the testing costs from previous projects, a more sophisticated approach is needed than simply taking an average of past projects (the new project may not be like the previous projects, e.g., it may be far larger or far smaller than previous projects)	FL-5.2.6	K2	1
35	c	a) Is not correct. Risk is determined by considering a combination of the likelihood of problem situations and the harm that may result from them but cannot be calculated by adding these together (the probability would be in the range 0 to 1 and the harm could be in dollars) b) Is not correct. Risk is determined by considering a combination of a likelihood and an impact. This definition only considers likelihood and chance (both forms of probability) with no consideration of the impact (or harm) c) Is correct. See reasons from incorrect answers d) Is not correct. Risk is determined by considering a combination of a likelihood and an impact. This definition only considers hazards and losses (a hazard is a bad event, like a risk, while loss is a form of impact) with no consideration of the likelihood (or probability)	FL-5.5.1	K1	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
36	a	a) Is correct. If the expected security features are not supported by the system architecture, then the system could be seriously flawed. As the system being produced is the problem here, it is a product risk b) Is not correct. If the developers run over budget, or run out of time, that is a problem with the running of the project – it is a project risk c) Is not correct. If the test cases do not provide full coverage of the requirements, this means the testing may not fulfil the requirements of the test plan – it is a project risk d) Is not correct. If the test environment is not ready, this means the testing may not be done, or it may have to be done on a different environment and it is impacting how the project is run – it is a project risk	FL-5.5.2	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
37	b	This question is looking for bad application of product risk analysis. a) Is not correct. As we are told security flaws have a particularly high impact, their risk level will be higher, and thus we have prioritized the security testing ahead of some other testing. Thus, product risk analysis has influenced the testing properly. b) Is correct. As less defects than expected have been found in the network module, the perceived risk in this area should be lower, and so less testing should be focused on this area, NOT additional testing. Thus, product risk analysis has NOT CORRECTLY influenced the testing in this situation c) Is not correct. Because the users had problems with the user interface of the previous system, there is now high awareness of the risk associated with the user interface, which has resulted in additional usability testing being planned. Thus, product risk analysis has properly influenced the thoroughness and scope of testing d) Is not correct. As the time needed to load web pages has been identified as crucial to the success of the new website, the performance of the website should be considered a risk, and the employment of an expert in performance testing helps to mitigate this risk. Thus, product risk analysis has properly influenced the testing	FL-5.5.3	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
38	d	Considering each of the pieces of information: 1. Degree of impact (severity) of the defect – the developers are already aware of the problem and are waiting to fix it, so this is a less important piece of information. 2. Identification of the test object – as the developers are already aware of the problem and you are performing system testing, and you have already provided the version of the system you are testing you can assume they know the object that was being tested, so this is a less important piece of information. 3. Details of the test environment – the set-up of the test environment may have a noticeable effect on the test results, and detailed information should be provided, so this is an important piece of information. 4. Urgency/priority to fix – the developers are already aware of the problem and are waiting to fix it, so this is a less important piece of information. 5. Actual results – the actual results may well help the developers to determine what is going wrong with the system, so this is an important piece of information. 6. Reference to test case specification – this will show the developers the tests you ran, including the test inputs that caused the system to fail (and expected results), so this is an important piece of information. Thus: a) Is not correct b) Is not correct c) Is not correct d) Is correct	FL-5.6.1	K3	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
39	c	The correct pairings of test activities and test tools are: 1. Performance measurement and dynamic analysis – (b) Dynamic analysis tools 2. Test execution and logging – (a) Code coverage tools 3. Management of testing and testware – (d) Defect management tools 4. Test design – (c) Test data preparation tools Thus: a) Is not correct b) Is not correct c) Is correct d) Is not correct	FL-6.1.1	K2	1
40	a	a) Is correct b) Is not correct. The evaluation of the test automation skills and training, mentoring and coaching needs of the testers who will use the tool should have been performed as part of the tool selection activity c) Is not correct. The decision on whether the tool provides the required functionality and does not duplicate existing tools should have been performed as part of the tool selection activity d) Is not correct. The evaluation of the tool vendor in terms of the training and other support they provide should have been performed as part of the tool selection activity	FL-6.2.2	K1	1

Sample Exam – Questions

Sample Exam set B
Version 1.4

ISTQB® Certified Tester Syllabus Foundation Level

Compatible with Syllabus version 2018 v3.1

International Software Testing Qualifications Board

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Revision History

Sample Exam – Questions Layout Template used:	Version 2.4	Date: May 12, 2021

Version	Date	Remarks
1.4	February 2, 2022	Minor changes to Questions: 8, 32, 38, 39
1.3.1	May 12, 2021	Update to Copyright Notice
1.3	March 17, 2020	Transfer to new Sample Exam Template layout Minor changes to Questions: 3, 9, 20, 21, 23, 24 Major changes to Questions: 1, 2, 31
1.2	December 30, 2019	Minor changes to Questions: 1, 2, 4, 8, 10, 14, 20, 22, 24, 27, 32 Major changes to Question: 38 Replaced of Question: 15
1.1	February 28, 2019	Refactor layout on Sample Exam Template, Minor changes to Questions: 4, 8, 10, 14, 32, 34, 35
1.0	May 11, 2018	First version

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:

- Questions[1], including for each question:
  - Any scenario needed by the question stem
  - Point value
  - Response (answer) option set
- Additional questions, including for each question [does not apply to all sample exams]:
  - Any scenario needed by the question stem
  - Point value
  - Response (answer) option set

- *Answers, including justification are contained in a separate document*

[1] In this sample exam the questions are sorted by the LO they target; this cannot be expected of a live exam.

Questions

Question #1 (1 Point)
Which of the following provides the definition of the term test case?

a) Subset of the value domain of a variable within a component or system in which all values are expected to be treated the same based on the specification
b) A set of preconditions, inputs, actions, expected results and post conditions, developed based on test conditions
c) Work products produced during the test process for use in planning, designing, executing, evaluating, and reporting on testing
d) A source to determine an expected result to compare with the actual result of the system under test

Select ONE option.

Question #2 (1 Point)
Which of the following is a typical objective of testing?

a) To find defects and failures
b) To validate the project plan works as required
c) Ensuring of complete testing
d) Comparing actual results with expected results

Select ONE option.

Question #3 (1 Point)
Which of the following is an example of a failure in a car cruise control system?

a) The developer of the system forgot to rename variables after a cut-and-paste operation
b) Unnecessary code that sounds an alarm when reversing was included in the system
c) The system stops maintaining a set speed when the radio volume is increased or decreased
d) The design specification for the system wrongly states speeds

Select ONE option.

Question #4 (1 Point)
Which of the following is a defect rather than a root cause in a fitness tracker?

a) Because the author of the requirements was unfamiliar with the domain of fitness training, he therefore wrongly assumed that users wanted heartbeat in beats per hour
b) The tester of the smartphone interface had not been trained in state transition testing, so missed a major defect
c) An incorrect configuration variable implemented for the GPS function could cause location problems during daylight saving times
d) Because the designer had never worked on wearable devices before, she as designer of the user interface therefore misunderstood the effects of reflected sunlight

Select ONE option.

Question #5 (1 Point)

As a result of risk analysis, more testing is being directed to those areas of the system under test where initial testing found more defects than average.

Which of the following testing principles is being applied?

a) Beware of the pesticide paradox
b) Testing is context dependent
c) Absence-of-errors is a fallacy
d) Defects cluster together

Select ONE option.

Question #6 (1 Point)

Given the following test activities and tasks:

A. Test design
B. Test implementation
C. Test execution
D. Test completion

1. Entering change requests for open defect reports
2. Identifying test data to support the test cases
3. Prioritizing test procedures and creating test data
4. Analyzing discrepancies to determine their cause

Which of the following BEST matches the activities with the tasks?

a) A-2, B-3, C-4, D-1
b) A-2, B-1, C-3, D-4
c) A-3, B-2, C-4, D-1
d) A-3, B-2, C-1, D-4

Select ONE option.

Question #7 (1 Point)

Which of the following BEST describes how value is added by maintaining traceability between the test basis and test artifacts?

a) Maintenance testing can be fully automated based on changes to the initial requirements
b) It is possible to determine if a new test case has increased coverage of the requirements
c) Test managers can identify which testers found the highest severity defects
d) Areas that may be impacted by side-effects of a change can be targeted by confirmation testing

Select ONE option.

Question #8 (1 Point)

Which of the following qualities is MORE likely to be found in a tester's mindset rather than in a developer's?

a) A tester´s mindset tends to grow and mature as the tester gains experience
b) Ability to see what might go wrong
c) Good communication with team members
d) Focus on getting all things done

Select ONE option.

Question #9 (1 Point)

Given the following statements about the relationships between software development activities and test activities in the software development lifecycle:

1. Each development activity should have a corresponding testing activity
2. Reviewing should start as soon as final versions of documents become available
3. The design and implementation of tests should start during the corresponding development activity
4. Testing activities should start in the early stages of the software development lifecycle

Which of the following CORRECTLY shows which are true and false?

a) True – 1, 2; False – 3, 4
b) True – 2, 3; False – 1, 4
c) True – 1, 2, 4; False – 3
d) True – 1, 4; False – 2, 3

Select ONE option.

Question #10 (1 Point)

Given that the testing being performed has the following attributes:

- Based on interface specifications
- Focused on finding failures in communication
- The test approach uses both functional and structural test types

Which of the following test levels is MOST likely being performed?

a) Integration testing
b) Acceptance testing
c) System testing
d) Component testing

Select ONE option.

Question #11 (1 Point)

Which of the following statements about test types and test levels is CORRECT?

a) Functional and non-functional testing can be performed at system and acceptance test levels, while white-box testing is restricted to component and integration testing
b) Functional testing can be performed at any test level, while white-box testing is restricted to component testing
c) It is possible to perform functional, non-functional and white-box testing at any test level
d) Functional and non-functional testing can be performed at any test level, while white-box testing is restricted to component and integration testing

Select ONE option.

Question #12 (1 Point)

Which of the following statements BEST compares the purposes of confirmation testing and regression testing?

a) The purpose of regression testing is to ensure that all previously run tests still work correctly, while the purpose of confirmation testing is to ensure that any fixes made to one part of the system have not adversely affected other parts
b) The purpose of confirmation testing is to check that a previously found defect has been fixed, while the purpose of regression testing is to ensure that no other parts of the system have been adversely affected by the fix
c) The purpose of regression testing is to ensure that any changes to one part of the system have not caused another part to fail, while the purpose of confirmation testing is to check that all previously run tests still provide the same results as before
d) The purpose of confirmation testing is to confirm that changes to the system were made successfully, while the purpose of regression testing is to run tests that previously failed to ensure that they now work correctly

Select ONE option.

Question #13 (1 Point)

Which of the following statements CORRECTLY describes a role of impact analysis in Maintenance Testing?

a) Impact analysis is used when deciding if a fix to a maintained system is worthwhile
b) Impact analysis is used to identify how data should be migrated into the maintained system
c) Impact analysis is used to decide which hot fixes are of most value to the user
d) Impact analysis is used to determine the effectiveness of new maintenance test cases

Select ONE option.

Question #14 (1 Point)
Which of the following statements CORRECTLY reflects the value of static testing?

a) By introducing reviews, we have found that both the quality of specifications and the time required for development and testing have increased
b) Using static testing means we have better control and cheaper defect management due to the ease of detecting defects later in the lifecycle
c) Now that we require the use of static analysis, missed requirements have decreased and communication between testers and developers has improved
d) Since we started using static analysis, we find coding defects that might have not been found by performing only dynamic testing

Select ONE option.

Question #15 (1 Point)
Which of the following statements on the use of checklists in a formal review is CORRECT?

a) As part of the review planning, the reviewers create the checklists needed for the review
b) As part of the issue communication, the reviewers fill in the checklists provided for the review
c) As part of the review meeting, the reviewers create defect reports based on the checklists provided for the review
d) As part of the review initiation, the reviewers receive the checklists needed for the review

Select ONE option.

Question #16 (1 Point)
Which of the following CORRECTLY matches the roles and responsibilities in a formal review?

a) Manager – Decides on the execution of reviews
b) Review Leader - Ensures effective running of review meetings
c) Scribe – Fixes defects in the work product under review
d) Moderator – Monitors ongoing cost-effectiveness

Select ONE option.

Question #17 (1 Point)

The reviews being used in your organization have the following attributes:

- There is a role of a scribe
- The purpose is to detect potential defects
- The review meeting is led by the author
- Reviewers find potential defects by individual review
- A review report is produced

Which of the following review types is MOST likely being used?

a) Informal Review
b) Walkthrough
c) Technical Review
d) Inspection

Select ONE option.

Question #18 (1 Point)

You have been asked to take part in a checklist-based review of the following excerpt from the requirements specification for a library system:

Librarians can:

1. Register new borrowers
2. Return books from borrowers
3. Accept fines from borrowers
4. Add new books to the system with their ISBN, author and title
5. Remove books from the system
6. Get system responses within 5 seconds

Borrowers can:

7. Borrow a maximum of 3 books at one time
8. View the history of books they have borrowed/reserved
9. Be fined for failing to return a book within 3 weeks
10. Get system responses within 3 seconds
11. Borrow a book at no cost for a maximum of 4 weeks
12. Reserve books (if they are on-loan)

All users (librarians and borrowers):

13. Can search for books by ISBN, author, or title
14. Can browse the system catalogue
15. The system shall respond to user requests within 3 seconds
16. The user interface shall be easy-to-use

You have been assigned the checklist entry that requires you to review the specification for inconsistencies between individual requirements (i.e., conflicts between requirements).

Which of the following CORRECTLY identifies inconsistencies between pairs of requirements?

a) 6-10, 6-15, 7-12
b) 6-15, 9-11
c) 6-10, 6-15, 9-11
d) 6-15, 7-12

Select ONE option.

Question #19 (1 Point)

Which of the following provides the BEST description of exploratory testing?

a) A testing practice in which an in-depth investigation of the background of the test object is used to identify potential weaknesses that are examined by test cases
b) An approach to testing whereby the testers dynamically design and execute tests based on their knowledge, exploration of the test item and the results of previous tests
c) An approach to test design in which test activities are planned as uninterrupted sessions of test analysis and design, often used in conjunction with checklist-based testing
d) Testing based on the tester's experience, knowledge, and intuition

Select ONE option.

Question #20 (1 Point)

Which of the following BEST matches the descriptions with the different categories of test techniques?

1. Coverage is measured based on a selected structure of the test object
2. The processing within the test object is checked
3. Tests are based on defects' likelihood and their distribution
4. Deviations from the requirements are checked
5. User stories are used as the test basis

Using notation for the following 4 options:

Black	- Black-box test techniques
White	- White-box test techniques
Experience	- Experience-based test techniques

a) Black – 4, 5 White – 1, 2; Experience – 3
b) Black – 3 White – 1, 2; Experience – 4, 5
c) Black – 4 White – 1, 2; Experience – 3, 5
d) Black – 1, 3, 5 White – 2; Experience – 4

Select ONE option.

Question #21 (1 Point)

A fitness app measures the number of steps that are walked each day and provides feedback to encourage the user to keep fit.

The feedback for different numbers of steps should be:

Up to 1000	- Couch Potato!
Above 1000, up to 2000	- Lazy Bones!
Above 2000, up to 4000	- Getting There!
Above 4000, up to 6000	- Not Bad!
Above 6000	- Way to Go!

Which of the following sets of test inputs would achieve the BEST equivalence partition coverage?

a) 0, 1000, 2000, 3000, 4000
b) 1000, 2001, 4000, 4001, 6000
c) 123, 2345, 3456, 4567, 5678
d) 666, 999, 2222, 5555, 6666

Select ONE option.

Question #22 (1 Point)

A daily radiation recorder for plants produces a sunshine score based on a combination of the number of hours a plant is exposed to the sun (below 3 hours, 3 to 6 hours or above 6 hours) and the average intensity of the sunshine (very low, low, medium, high).

Given the following test cases:

	Hours	Intensity	Score
T1	1.5	v. low	10
T2	7.0	medium	60
T3	0.5	v. low	10

What is the minimum number of additional test cases that are needed to ensure full coverage of ALL VALID INPUT equivalence partitions?

a) 1
b) 2
c) 3
d) 4

Select ONE option.

Question #23 (1 Point)

A smart home app measures the average temperature in the house over the previous week and provides feedback to the occupants on their environmental friendliness based on this temperature.

The feedback for different average temperature ranges (to the nearest °C) should be:

Up to 10°C - Icy Cool!
11°C to 15°C - Chilled Out!
16°C to 19°C - Cool Man!
20°C to 22°C - Too Warm!
Above 22°C - Hot & Sweaty!

Using BVA (only Min- and Max values), which of the following sets of test inputs provides the highest level of boundary coverage?

a) 0°C, 11°C, 20°C, 22°C, 23°C
b) 9°C, 15°C, 19°C, 23°C, 100°C
c) 10°C, 16°C, 19°C, 22°C, 23°C
d) 14°C, 15°C, 18°C, 19°C, 21°C, 22°C

Select ONE option.

Question #24 (1 Point)

Decision table testing is being performed on a speeding fine system. Two test cases have already been generated for rules R1 and R4, which are shown below:

	Rules	**R1**	**R4**
Conditions	Speed > 50	T	F
	School Zone	T	F
Actions	$250 Fine	F	F
	Driving license withdrawal	T	F

Given the following additional test cases:

	Rules	**DT1**	**DT2**	**DT3**	**DT4**
Input	Speed	55	44	66	77
	School Zone	T	T	T	F
Expected Result	$250 Fine	F	F	F	T
	Driving license withdrawal	T	F	T	F

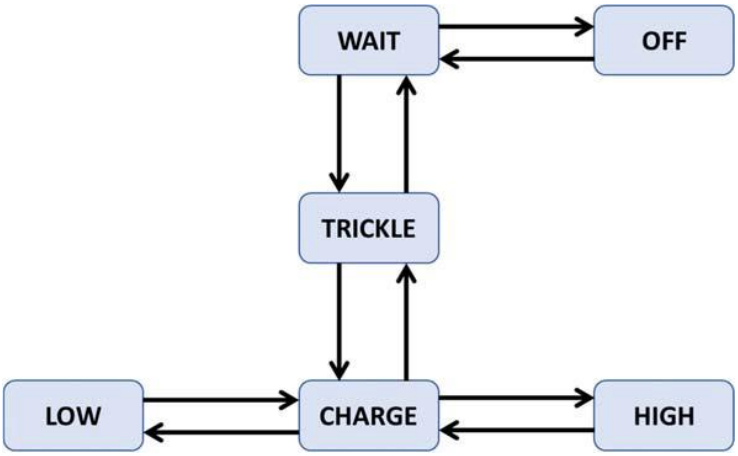
Which two of the additional test cases would achieve full coverage of the complete decision table (when combined with the test cases that have already been generated for rules R1 and R4)?

a) DT1, DT2
b) DT2, DT3
c) DT2, DT4
d) DT3, DT4

Select ONE option.

Question #25 (1 Point)

Given the following state model of a battery charger software:



Which of the following sequences of transitions provides the highest level of transition coverage for the model?

a) OFF → WAIT → OFF → WAIT → TRICKLE → CHARGE → HIGH → CHARGE → LOW

b) WAIT → TRICKLE → WAIT → OFF → WAIT → TRICKLE → CHARGE → LOW → CHARGE

c) HIGH → CHARGE → LOW → CHARGE → TRICKLE → WAIT → TRICKLE → WAIT → TRICKLE

d) WAIT → TRICKLE → CHARGE → HIGH → CHARGE → TRICKLE → WAIT → OFF → WAIT

Select ONE option.

Question #26 (1 Point)

Which of the following statements BEST describes how test cases are derived from a use case?

a) Test cases are created to exercise defined basic, exceptional and error behaviors performed by the system under test in collaboration with actors
b) Test cases are derived by identifying the components included in the use case and creating integration tests that exercise the interactions of these components
c) Test cases are generated by analyzing the interactions of the actors with the system to ensure the user interfaces are easy to use
d) Test cases are derived to exercise each of the decision points in the business process flows of the use case, to achieve 100% decision coverage of these flows

Select ONE option.

Question #27 (1 Point)
Which of the following descriptions of statement coverage is CORRECT?

a) Statement coverage is a measure of the number of lines of source code exercised by tests
b) Statement coverage is a measure of the proportion of executable statements in the source code exercised by tests
c) Statement coverage is a measure of the percentage of lines of source code (without comments) exercised by tests
d) Statement coverage is a measure of the number of executable statements in the source code exercised by tests

Select ONE option.

Question #28 (1 Point)
Which of the following descriptions of decision coverage is CORRECT?

a) Decision coverage is a measure of the percentage of possible paths through the source code exercised by tests
b) Decision coverage is a measure of the percentage of business flows through the component exercised by tests
c) Decision coverage is a measure of the 'if' statements in the code that are exercised with both the true and false outcomes
d) Decision coverage is a measure of the proportion of decision outcomes in the source code exercised by tests

Select ONE option.

Question #29 (1 Point)
Which of the following BEST describes the concept behind error guessing?

a) Error guessing requires you to imagine you are the user of the test object and guess mistakes the user could make interacting with it
b) Error guessing involves using your personal experience of development and the mistakes you made as a developer
c) Error guessing involves using your knowledge and experience of defects found in the past and typical mistakes made by developers
d) Error guessing requires you to rapidly duplicate the development task to identify the sort of mistakes a developer might make

Select ONE option.

Question #30 (1 Point)

Which of the following BEST explains a benefit of independent testing?

a) The use of an independent test team allows project management to assign responsibility for the quality of the final deliverable to the test team, so ensuring everyone is aware that quality is the test team's overall responsibility
b) If a test team external to the organization can be afforded, then there are distinct benefits in terms of this external team not being so easily swayed by the delivery concerns of project management and the need to meet strict delivery deadlines
c) An independent test team can work totally separately from the developers, need not be distracted with changing project requirements, and can restrict communication with the developers to defect reporting through the defect management system
d) When specifications contain ambiguities and inconsistencies, assumptions are made on their interpretation, and an independent tester can be useful in questioning those assumptions and the interpretation made by the developer

Select ONE option.

Question #31 (1 Point)

Which of the following tasks is MOST LIKELY to be performed by the test manager?

a) Write test summary reports based on the information gathered during testing
b) Review tests developed by others
c) Prepare and acquire test data
d) Analyze, review, and assess requirements, specifications, and models for testability

Select ONE option.

Question #32 (1 Point)

Given the following examples of entry and exit criteria:

1. The original testing budget of $30,000 plus contingency of $7,000 has been spent
2. 96% of planned tests for the drawing package have been executed and the remaining tests are now out of scope
3. The trading performance test environment has been designed, set-up and verified
4. Current status is no outstanding critical defects and two high-priority ones
5. The autopilot design specifications have been reviewed and reworked
6. The tax rate calculation component has passed unit testing.

Which of the following BEST categorizes them as entry and exit criteria:

a) Entry criteria – 5, 6; Exit criteria – 1, 2, 3, 4
b) Entry criteria – 2, 3, 6; Exit criteria – 1, 4, 5
c) Entry criteria – 1, 3; Exit criteria – 2, 4, 5, 6
d) Entry criteria – 3, 5, 6; Exit criteria – 1, 2, 4

Select ONE option.

Question #33 (1 Point)

Given the following priorities and dependencies for these test cases:

Test Case	Priority	Technical dependency on:	Logical dependency on:
TC1	High	TC4	
TC2	Low		
TC3	High		TC4
TC4	Medium		
TC5	Low		TC2
TC6	Medium	TC5	

Which of the following test execution schedules BEST considers the priorities and technical and logical dependencies?

a) TC1 – TC3 – TC4 – TC6 – TC2 – TC5
b) TC4 – TC3 – TC1 – TC2 – TC5 – TC6
c) TC4 – TC1 – TC3 – TC5 – TC6 – TC2
d) TC4 – TC2 – TC5 – TC1 – TC3 – TC6

Select ONE option.

Question #34 (1 Point)

Which of the following statements about test estimation approaches is CORRECT?

a) With the metrics-based approach, the estimate is based on test measures from the project and so this estimate is only available after the testing starts
b) With the expert-based approach, a group of expert users identified by the client recommends the necessary testing budget
c) With the expert-based approach, the test managers responsible for the different testing activities predict the expected testing effort
d) With the metrics-based approach, an average of the testing costs recorded from several past projects is used as the testing budget

Select ONE option.

Question #35 (1 Point)

Which of the following BEST defines risk level?

a) Risk level is calculated by adding together the probabilities of all problem situations and the financial harm that results from them
b) Risk level is estimated by multiplying the likelihood of a threat to the system by the chance that the threat will occur and will result in financial damage
c) Risk level is determined by a combination of the probability of an undesirable event and the expected impact of that event
d) Risk level is the sum of all potential hazards to a system multiplied by the sum of all potential losses from that system

Select ONE option.

Question #36 (1 Point)

Which of the following is MOST likely to be an example of a PRODUCT risk?

a) The expected security features may not be supported by the system architecture
b) The developers may not have time to fix all the defects found by the test team
c) The test cases may not provide full coverage of the specified requirements
d) The performance test environment may not be ready before the system is due for delivery

Select ONE option.

Question #37 (1 Point)

Which of the following is LEAST likely to be an example of product risk analysis CORRECTLY influencing the testing?

a) The potential impact of security flaws has been identified as being particularly high, so security testing has been prioritized ahead of some other testing activities
b) Testing has found the quality of the network module to be higher than expected, so additional testing will be performed in that area
c) The users had problems with the user interface of the previous system, so additional usability testing is planned for the replacement system
d) The time needed to load web pages is crucial to the success of the new website, so an expert in performance testing has been employed for this project

Select ONE option.

Question #38 (1 Point)

You are performing system testing of a train reservation system. Based on the test cases performed, you have noticed that the system occasionally reports that no trains are available, although this should be the case. You have provided the developers with a summary of the defect and the version of the tested system. They recognize the urgency of the defect and are now waiting for you to provide further details.

In addition to the information already provided, the following additional information is given:

1. Degree of impact (severity) of the defect
2. Identification of the test object
3. Details of the test environment
4. Urgency/priority to fix
5. Actual results
6. Reference to test case specification

Which of this additional information is most useful to include in the defect report?

a) 1, 2, 6
b) 1, 4, 5, 6
c) 2, 3, 4, 5
d) 3, 5, 6

Select ONE option.

Question #39 (1 Point)

Given the following test activities and test tools:

1. Performance measurement and dynamic analysis
2. Test execution and logging
3. Management of testing and testware
4. Test design

A. Code coverage tools
B. Dynamic analysis tools
C. Test data preparation tools
D. Defect management tools

Which of the following BEST matches the activities and tools?

a) 1 – B, 2 – C, 3 – D, 4 – A
b) 1 – B, 2 – A, 3 – C, 4 – D
c) 1 – B, 2 – A, 3 – D, 4 – C
d) 1 – A, 2 – B, 3 – D, 4 – C

Select ONE option.

Question #40 (1 Point)

Which of the following is MOST likely to be used as a reason for using a pilot project to introduce a tool into an organization?

a) The need to evaluate how the tool fits with existing processes and practices and determining what would need to change
b) The need to evaluate the test automation skills and training, mentoring and coaching needs of the testers who will use the tool
c) The need to evaluate whether the tool provides the required functionality and does not duplicate existing test tools
d) The need to evaluate the tool vendor in terms of the training and other support they provide

Select ONE option.

Sample Exam – Answers

Sample Exam set C
Version 1.3

ISTQB® Certified Tester Syllabus Foundation Level

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Document Responsibility

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

This document is maintained by a core team from ISTQB® consisting of the Syllabus Working Group and Exam Working Group.

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Revision History

Sample Exam – Answers Layout Template used:	Version 2.4	Date: May 12, 2021

Version	Date	Remarks
1.3	February 2, 2022	Bump of version to follow Questions document version
1.2.1	May 12, 2021	Update of Copyright Notice
1.2	May 17, 2020	Improved readability of Rationale
1.1	May 29, 2019	Cosmetic and wording fixes
1.0	May 3, 2019	Release at Yerevan GA

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	b	Keywords	K1	1
2	a	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	c	FL-1.2.1	K2	1
8	b	FL-1.4.2	K2	1
9	b	FL-2.3.2	K1	1
10	c	FL-2.4.2	K2	1
11	c	FL-2.2.1	K2	1
12	d	FL-2.3.1	K2	1
13	d	FL-2.3.3	K2	1
14	a	FL-3.2.2	K1	1
15	d	FL-3.1.3	K2	1
16	b	FL-3.2.5	K2	1
17	c	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

Question Number (#)	Correct Answer	LO	K-Level	Points
21	a	FL-4.4.2	K2	1
22	c	FL-4.4.3	K2	1
23	d	FL-4.3.2	K2	1
24	a	FL-4.3.3	K2	1
25	a	FL-4.2.1	K3	1
26	c	FL-4.2.2	K33	1
27	c	FL-4.2.3	K3	1
28	a	FL-4.2.4	K3	1
29	c	FL-4.2.1	K3	1
30	d	FL-5.6.1	K3	1
31	b	FL-5.2.4	K3	1
32	a	FL-5.3.1	K1	1
33	d	FL-5.5.1	K1	1
34	c	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	a	FL-6.1.1	K2	1

Answers

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
1	b	a) Is not correct. This is the Glossary definition of quality assurance b) Is correct. This is the Glossary definition of quality c) Is not correct. This is the Glossary definition of security d) Is not correct. This is the Glossary definition of cost of quality	Keywords	K1	1
2	a	a) Is correct. This is an objective listed b) Is not correct. This is debugging c) Is not correct. This is an activity within the test execution group of activities within the test process d) Is not correct. This is part of debugging	FL-1.1.1	K1	1
3	d	a) Is not correct. The root cause is the distraction that the programmer experienced while programming b) Is not correct. The accepting of invalid inputs is the failure c) Is not correct. The error is the mistaken thinking that resulted in putting the defect in the code d) Is correct. The problem in the code is a defect	FL-1.2.4	K2	1
4	b	a) 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 b) 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 c) 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 d) 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) Thus: a) Is not correct b) Is not correct c) Is not correct d) Is correct	FL-1.4.4	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
7	c	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	c	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	c	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. Thus: a) Is not correct b) Is not correct c) Is correct d) Is not correct	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

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
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. Thus: a) Is not correct b) Is not correct c) Is not correct d) Is correct	FL-2.3.3	K2	1
14	a	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

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
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	c	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
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	K3	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
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
21	a	a) Is correct. Exploratory testing is a form of experience-based testing, which benefits from the skills and experience of the tester b) 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

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
22	c	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
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 must 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 deciding whether a greeting should or should not be given	FL-4.3.2	K2	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
24	a	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 is 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	a	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) Thus: 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	FL-4.2.1	K3	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
26	c	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) Thus: 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 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	FL-4.2.2	K33	1
27	c	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: a) Is not correct b) Is not correct c) Is correct d) Is not correct	FL-4.2.3	K3	1

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
28	a	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 cancels, or timeout from waiting for pumping, the next test cancels, 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 fail 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: a) Is correct b) Is not correct c) Is not correct d) Is not correct	FL-4.2.4	K3	1
29	c	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) Thus: 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	FL-4.2.1	K3	1

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: a) Is not correct b) Is not correct c) Is not correct d) Is correct	FL-5.2.4	K3	1
32	a	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

Question Number (#)	Correct Answer	Explanation / Rationale	Learning Objective (LO)	K-Level	Number of Points
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: a) Is not correct b) Is not correct c) Is not correct d) Is correct	FL-5.5.1	K1	1
34	c	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 screens = 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 Thus: 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	FL-5.5.2	K2	1
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	a	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

f

Sample Exam – Questions

Sample Exam set C
Version 1.3

ISTQB® Certified Tester Syllabus Foundation Level

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Document Responsibility

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

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1.3	Sep 29, 2021	Minor changes to Questions: 17, 26, 27, 38
1.2.1	May 12, 2021	Update to Copyright Notice
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1.1	May 29, 2019	Cosmetic and wording fixes
1.0	May 3, 2019	Release at Yerevan GA

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:

- Questions[1], including for each question:
  - Any scenario needed by the question stem
  - Point value
  - Response (answer) option set
- Additional questions, including for each question [does not apply to all sample exams]:
  - Any scenario needed by the question stem
  - Point value
  - Response (answer) option set

- *Answers, including justification are contained in a separate document*

[1] In this sample exam the questions are sorted by the LO they target; this cannot be expected of a live exam.

Questions

Question #1 (1 Point)
What is quality?

a) Activities focused on providing confidence that quality requirements will be fulfilled
b) The degree to which a component or system satisfies the stated and implied needs of its various stakeholders
c) The degree to which a component or system protects information and data so that persons or other components or systems have the degree of access appropriate to their types and levels of authorization
d) The total costs incurred on quality activities and issues and often split into prevention costs, appraisal costs, internal failure costs and external failure costs

Select ONE option.

Question #2 (1 Point)
Which of the following is a typical test objective?

a) Preventing defects
b) Repairing defects
c) Comparing actual results to expected results
d) Analyzing the cause of failure

Select ONE option.

Question #3 (1 Point)
A phone ringing momentarily distracts a programmer, causing the programmer to improperly program the logic that checks the upper boundary of an input variable. Later, during system testing, a tester notices that this input field accepts invalid input values. The improperly coded logic for the upper boundary check is:

a) The root-cause
b) The failure
c) The error
d) The defect

Select ONE option.

Question #4 (1 Point)
A product owner says that your role as a tester on an Agile team is to catch all the bugs before the end of each iteration. Which of the following is a testing principle that could be used to respond to this (false) statement?

a) Defect clustering
b) Testing shows the presence of defects
c) Absence of error fallacy
d) Root cause analysis

Select ONE option.

Question #5 (1 Point)

Programmers often write and execute unit tests against code which they have written. During this self-testing activity, which of the following is a tester mindset that programmers should adopt to perform this unit testing effectively?

a) Good communication skills
b) Code coverage
c) Evaluating code defects
d) Attention to detail

Select ONE option.

Question #6 (1 Point)

Consider the following testing activities:

1. Selecting regression tests
2. Evaluating completeness of test execution
3. Identifying which user stories have open defect reports
4. Evaluating whether the number of tests for each requirement is consistent with the level of product risk

Consider the following ways traceability can help testing:

A. Improve understandability of test status reports to include status of test basis items
B. Make testing auditable
C. Provide information to assess process quality
D. Analyze the impact of changes

Which of the following best matches the testing activity with how traceability can assist that activity?

a) 1D, 2B, 3C, 4A
b) 1B, 2D, 3A, 4C
c) 1D, 2C, 3A, 4B
d) 1D, 2B, 3A, 4C

Select ONE option.

Question #7 (1 Point)

A tester participated in a discussion about proposed database structure. The tester identified a potential performance problem related to certain common user searches. This possible problem was explained to the development team. Which of the following is a testing contribution to success that BEST matches this situation?

a) Enabling required tests to be identified at an early stage
b) Ensuring processes are carried out properly
c) Reducing the risk of fundamental design defects
d) Reducing the risk of untestable functionality

Select ONE option.

Question #8 (1 Point)
Which of the following is an example of a task that can be carried out as part of the test process?

a) Analyzing a defect
b) Designing test data
c) Assigning a version to a test item
d) Writing a user story

Select ONE option.

Question #9 (1 Point)
You are running a performance test with the objective of finding possible network bottlenecks in interfaces between components of a system. Which of the following statements describes this test?

a) A functional test during the integration test level
b) A non-functional test during the integration test level
c) A functional test during the component test level
d) A non-functional test during the component test level

Select ONE option.

Question #10 (1 Point)
Which of the following statements is true?

a) Impact analysis is useful for confirmation testing during maintenance testing
b) Confirmation testing is useful for regression testing during system design
c) Impact analysis is useful for regression testing during maintenance testing
d) Confirmation testing is useful for impact analysis during maintenance testing

Select ONE option.

Question #11 (1 Point)
Consider the following types of defects that a test level might focus on:

a) Defects in separately testable modules or objects
b) Not focused on identifying defects
c) Defects in interfaces and interactions
d) Defects in the whole test object

Which of the following list correctly matches test levels from the Foundation syllabus with the defect focus options given above?

a)	1 = performance test;	2 = component test;	3 = system test;	4 = acceptance test
b)	1 = component test;	2 = acceptance test;	3 = system test;	4 = integration test
c)	1 = component test;	2 = acceptance test;	3 = integration test;	4 = system test
d)	1 = integration test;	2 = system test;	3 = component test;	4 = acceptance test

Select ONE option.

Question #12 (1 Point)

A mass market operating system software product is designed to run on any PC hardware with an x86-family processor. You are running a set of tests to look for defects related to support of the various PCs that use such a processor and to build confidence that important PC brands will work. What type of test are you performing?

a) Performance test
b) Processor test
c) Functional test
d) Portability test

Select ONE option.

Question #13 (1 Point)

During an Agile development effort, a product owner discovers a previously unknown regulatory requirement that applies to most of the user stories within a particular epic. The user stories are updated to provide for the necessary changes in software behavior. The programmers on the team are modifying the code appropriately. As a tester on the team, what types of tests will you run?

a) Confirmation tests
b) Regression tests
c) Functional tests
d) Change-related tests

Select ONE option.

Question #14 (1 Point)

In a formal review, what is the role name for the participant who runs an inspection meeting?

a) Facilitator
b) Programmer
c) Author
d) Project manager

Select ONE option.

Question #15 (1 Point)

You are reading a user story in the product backlog to prepare for a meeting with the product owner and a developer, noting potential defects as you go. Which of the following statements is true about this activity?

a) It is not a static test, because static testing involves execution of the test object
b) It is not a static test, because static testing is always performed using a tool
c) It is a static test, because any defects you find could be found cheaper during dynamic testing
d) It is a static test because static testing does not involve execution of the test object

Select ONE option.

Question #16 (1 Point)

During a period of intensive project overtime, a system architecture document is sent to various project participants, announcing a previously unplanned technical review to occur in one week. No adjustments are made to the participants' list of assigned tasks. Based on this information alone, which of the following is a factor for review success that is MISSING?

a) Appropriate review type
b) Adequate time to prepare
c) Sufficient metrics to evaluate the author
d) Well-managed review meeting

Select ONE option.

Question #17 (1 Point)

You are working as a tester on an Agile team and have participated in over two dozen user story refinement sessions with the product owner and the developers on the team at the start of each iteration. As the reviews have gotten more effective at detecting defects in user stories and the product owner more proficient at correcting those defects, you and the team notice that the team's velocity, as shown in your burndown charts, has started to increase. Which of the following is a benefit of static testing that is MOST DIRECTLY related to the team's increased velocity?

a) Increasing total cost of quality
b) Reducing testing cost
c) Increasing development productivity
d) Reducing total cost of quality

Select ONE option.

Question #18 (1 Point)

You are working on a video game development project, using Agile methods. It is based on Greek mythology and history, and players can play key roles in scenarios such as the battles between the Greeks and Trojans.

Consider the following user story and its associated acceptance criteria:

As a player,
I want to be able to acquire the Rod of Midas (a new magic object),
so that I can turn objects and other players into gold

AC1: The Rod must work on any object or player, no matter what size, which can be touched anywhere by the player holding the Rod
AC2: Holding the Rod does not change the player holding it into gold
AC3: Any object or player touched by the Rod transforms completely into gold within one millisecond
AC4: The Rod appears as shown in Prototype O.W.RoM
AC5: The transformation starts at the point of contact with the Rod and moves at a rate of one meter per millisecond

You are participating in a checklist-based review session of this user story.

This user story and its associated acceptance criteria contain which of the following typical defects identified by static testing in this type of work product?

a) Deviation from standards
b) Contradiction
c) Security vulnerability
d) Coverage gaps

Select ONE option.

Question #19 (1 Point)

What is decision coverage?

a) The coverage of condition outcomes
b) Decision coverage is a synonym for statement coverage
c) The coverage of executable statements
d) The coverage of decision outcomes

Select ONE option.

Question #20 (1 Point)

Prior to an iteration planning session, you are studying a user story and its acceptance criteria, deriving test conditions and associated test cases from the user story as a way of applying the principle of early QA and test. What test technique are you applying?

a) White-box
b) Black-box
c) Experience-based
d) Error guessing

Select ONE option.

Question #21 (1 Point)

Which of the following is a true statement about exploratory testing?

a) More experienced testers who have tested similar applications and technologies are likely to do better than less experienced testers at exploratory testing
b) Exploratory testing does not identify any additional tests beyond those that would result from formal test techniques
c) The time required to complete an exploratory testing session cannot be predicted in advance
d) Exploratory testing can involve the use of black-box techniques but not white-box techniques

Select ONE option.

Question #22 (1 Point)

You are testing a mobile app that allows customers to access and manage their bank accounts. You are running a test suite that involves evaluating each screen and each field on each screen

against a general list of user interface best practices, derived from a popular book on the topic, that maximize attractiveness, ease-of-use, and accessibility for such apps. Which of the following options BEST categorizes the test technique you are using?

a) Specification-based
b) Exploratory
c) Checklist-based
d) Error guessing

Select ONE option.

Question #23 (1 Point)

Consider a mobile app that allows customers to access and manage their bank accounts. A user story has just been added to the set of features that checks customers' social media accounts and bank records to give personalized greetings on birthdays and other personal milestones. Which of the following test techniques could a PROGRAMMER use during a unit test of the code to ensure that coverage of situations when the greetings ARE supposed to occur and when the greetings ARE NOT supposed to occur?

a) Statement testing
b) Exploratory testing
c) State transition testing
d) Decision testing

Select ONE option.

Question #24 (1 Point)

A batch application has been in production unchanged for over two years. It runs overnight once a month to produce statements that will be e-mailed to customers. For each customer, the application goes through every account and lists every transaction on that account in the last month. It uses a nested-loop structure to process customers (outer loop), each customer's accounts (middle loop), and each account's transactions (inner loop).

One night, the batch application terminates prematurely, failing to e-mail statements to some customers, when it encounters a customer with one account for which no transactions occurred in the last month. This is a very unusual situation and has not occurred in the years since this application was placed in production.

While fixing the defect, a programmer asks you to recommend test techniques that are effective against this kind of defect. Which of the following test techniques would most likely have been able to detect the underlying defect?

a) Decision testing
b) Statement testing
c) Checklist-based testing
d) Error guessing

Select ONE option.

Question #25 (1 Point)

You are testing an unattended gasoline pump that only accepts credit cards. Once the credit card is validated, the pump nozzle placed into the tank, and the desired grade selected, the customer enters the desired amount of fuel in gallons using the keypad. The keypad only allows the entry of digits. Fuel is sold in tenths (0.1) of a gallon, up to 50.0 gallons.

Which of the following is a minimum set of desired amounts that covers the equivalence partitions for this input?

a) 0.0, 20.0, 60.0
b) 0.0, 0.1, 50.0
c) 0.0, 0.1, 50.0, 70.0
d) -0.1, 0.0, 0.1, 49.9, 50.0, 50.1

Select ONE option.

Question #26 (1 Point)

You are testing an e-commerce system that sells cooking supplies such as spices, flour, and other items in bulk. The units in which the items are sold are either grams (for spices and other expensive items) or kilograms (for flour and other inexpensive items). Regardless of the units, the smallest valid order amount is 0.5 units (e.g., half a gram of cardamom pods) and the largest valid order amount is 25.0 units (e.g., 25 kilograms of sugar). The precision of the unit's field is 0.1 units.

Which of the following is a set of input values that cover the boundary values with two-point boundary values for this field?

a) 0.3, 10.0, 28.0
b) 0.4, 0.5, 0.6, 24, 9, 25, 0, 25.1
c) 0.4, 0.5, 25.0 25.1
d) 0.5, 0.6, 24.9, 25.0

Select ONE option.

Question #27 (1 Point)

Consider the following decision table for the portion of an online airline reservation system that allows frequent flyers to redeem points for reward travel:

Condition	1	2	3
Account/password okay	N	Y	Y
Sufficient points	-	N	Y
Action			
Show flight history	N	Y	Y
Allow reward travel	N	N	Y

Suppose that there are two equivalence partitions for the condition where "Account/password okay" is not true, one where the account is invalid and another where the account is valid, but the password is invalid. Suppose that there is only one equivalence partition corresponding to the condition where "Account/password okay" is true, where both the account and password are valid.

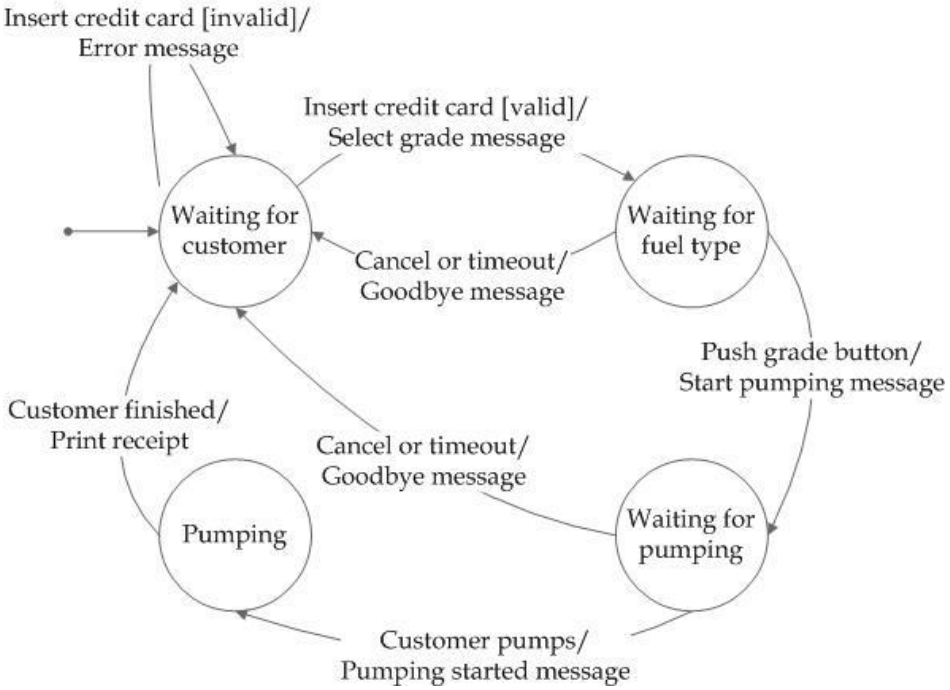
If you want to design tests to cover the equivalence partitions for "Account/password okay" and also for this portion of the decision table, what is the minimum number of tests required?

a) 2
b) 3
c) 4
d) 9

Select ONE option.

Question #28 (1 Point)

Consider the following state transition diagram for a credit-card only, unattended gasoline pump:



Assume that you want to develop the minimum number of tests to cover each transition in the state transition diagram. Assume further that each test must start at the beginning state, waiting for customer, and each test ends when a transition arrives at the beginning state. How many tests do you need?

a) 4
b) 7
c) 1
d) Infinite

Select ONE option.

Question #29 (1 Point)

You are testing an e-commerce system that sells cooking supplies such as spices, flour, and other items in bulk. The units in which the items are sold are either grams (for spices and other expensive items) or kilograms (for flour and other inexpensive items). Regardless of the units, the smallest valid order amount is 0.5 units (e.g., half a gram of cardamom pods) and the largest valid order amount is 25.0 units (e.g., 25 kilograms of sugar). The precision of the units' field is 0.1 units.

Which of the following is a MINIMAL set of input values that cover the equivalence partitions for this field?

a) 10.0, 28.0
b) 0.4, 0.5, 25.0, 25.1
c) 0.2, 0.9, 29.5
d) 12.3

Select ONE option.

Question #30 (1 Point)

You are working as a tester on an online banking system. Availability is considered one of the top products (quality) risks for the system. You find a reproducible failure that results in customers losing their connections to the bank Web site when transferring funds between common types of accounts and being unable to reconnect for between three and five minutes.

Which of the following would be a good summary for a defect report for this failure, one that captures both the essence of the failure and its impact on stakeholders?

a) Web server logs show error 0x44AB27 when running test 07.005, which is not an expected error message in /tmp filesystem
b) Developers have introduced major availability defect which will seriously upset our customers
c) Performance is slow and reliability flaky under load
d) Typical funds-transfer transaction results in termination of customer session, with a delay in availability when attempting to reconnect

Select ONE option.

Question #31 (1 Point)

You are testing a mobile app that allows users to find a nearby restaurant, based on the type of food they want to eat. Consider the following list of test cases, priorities (smaller number is high priority), and dependencies, in the following format:

Test case number	Test condition covered	Priority	Logical dependency
01.001	Select type of food	3	none
01.002	Select restaurant	2	01.001
01.003	Get directions	1	01.002
01.004	Call restaurant	1	01.002

Which of the following is a possible test execution schedule that considers both priorities and dependencies?

a) 01.001, 01.002, 01.003, 01.005,
b) 01.001, 01.002, 01.004, 01.003,
c) 01.003, 01.004, 01.002, 01.001,
d) 01.001, 01.002, 01.004, 01.005,

Select ONE option.

Question #32 (1 Point)

Which of the following is a common test metric often used to monitor BOTH test preparation and test execution?

a) Test case status
b) Defect find/fix rates
c) Test environment preparation
d) Estimated cost to find the next defect

Select ONE option.

Question #33 (1 Point)

Which of the following are two factors that can be used to determine the level of risk?

a) Testing and development
b) Dynamic and reactive
c) Statement and decision
d) Likelihood and impact

Select ONE option.

Question #34 (1 Point)

You are working as a project manager on an in-house banking software project. To prevent rework and excessive find/fix/retest cycles, the following process has been put in place for resolving a defect once it is found in the test lab:

1. The assigned developer finds and fixes the defect, then creates an experimental build
2. A peer developer reviews, unit tests, and confirmation tests the defect fix on his/her desktop
3. A tester – usually the one who found the defect – confirmation tests the defect fix in the development environment
4. Once a day, a new release with all confirmed defect fixes included, is installed in the test environment
5. The same tester from step 3 confirmation tests the defect fix in the test environment

Nevertheless, a large number of defects which the testers confirmed as fixed in the development environment (in step 3) are somehow failing confirmation testing in the test environment, with the resulting rework and cycle time outcomes. You have the highest confidence in your testers and have ruled out mistakes or omissions in step 3.

Which of the following is the MOST likely part of the process to check next?

a) The activity of developers, who may not be adequately testing in step 2
b) The activity of testers, who may be confused about what to test in step 5
c) Configuration management, which may not be maintaining the integrity of the product in step 4
d) The activity of developers, who may not be fixing defects properly in step 1

Select ONE option.

Question #35 (1 Point)

You are engaged in planning a test effort for a new mobile banking application. As part of estimation, you first meet with the proposed testers and others on the project. The team is well-coordinated and has already worked on similar projects. To verify the resulting estimate, you then refer to some industry averages for testing effort and costs on similar projects, published by a reputable consultant.

Which statement accurately describes your estimation approach?

a) A simultaneous expert-based and metrics-based approach
b) Primarily an expert-based approach, augmented with a metrics-based approach
c) Primarily a metrics-based approach, augmented with an expert-based approach
d) Primarily planning poker, checked by velocity from burndown charts

Select ONE option.

Question #36 (1 Point)

During a project following Agile methods, you find a discrepancy between the developer's interpretation of an acceptance criteria and the product owner's interpretation, which you bring up during a user story refinement session. Which of the following is a benefit of test independence exemplified by this situation?

a) Recognizing different kinds of failures
b) Taking primary responsibility for quality
c) Removing a defect early
d) Challenging stakeholder assumptions

Select ONE option.

Question #37 (1 Point)

You are defining the process for carrying out product risk analysis as part of each iteration on an Agile project. Which of the following is the proper place to document this process in a test plan?

a) Scope of testing
b) Approach of testing
c) Metrics of testing
d) Configuration management of the test object

Select ONE option.

Question #38 (1 Point)

Consider the following list of undesirable outcomes that could occur on a mobile app development effort:

A. Incorrect totals on screens
B. Change to acceptance criteria during acceptance testing
C. Users find the soft keyboard too hard to use with your app
D. System responds too slowly to user input during search string entry
E. Testers not allowed to report test results in daily standup meetings

Which of the following properly classifies these outcomes as project and product risks?

a) Product risks: B, E; Project risks: A, C, D
b) Product risks: A, C, D; Project risks: B, E
c) Product risks: A, C, D, E Project risks: B
d) Product risks: A, C Project risks: B, D, E

Select ONE option.

Question #39 (1 Point)

You have just completed a pilot project for a regression testing tool. You understand the tool much better and have tailored your testing process to it. You have standardized an approach to using the tool and its associated work products. Which of the following is a typical test automation pilot project goal that remains to be carried out?

a) Learn more details about the tool
b) See how the tool would fit with existing processes and practices
c) Decide on standard ways of using, managing, storing, and maintaining the tool and the test assets
d) Assess whether the benefits will be achieved at reasonable cost

Select ONE option.

Question #40 (1 Point)

Which of the following tools is most useful for reporting test metrics?

a) Test management tool
b) Static analysis tool
c) Coverage tool
d) Model-Based testing tools

Select ONE option.