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Company address: _____

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Phone: _____

Fax: _____

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Foundation Level Sample Exam

SET E (v1.3) – GTB edition –

CTFL Syllabus Version v4.0

ISTQB® Certified Tester Foundation Level

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Revision History

Version	Date	Remarks
		Note: The present sample exam was mainly derived and further developed from previous Sample Exam questions on the ISTQB® CTFL syllabus 2018 (v3.1) and additional newly created questions.
0.1	10.10.2023	Internal BETA 01 DRAFT version
0.2	11.11.2023	Incorporation of the reviewers' findings into German version.
0.3	29.11.2023	Question 26 replaced as similar question is already included in Sample Exam SET A; v0.2 improved according to reported findings from 2nd review.
0.4	29.02.2024	Findings from the review incorporated by 31.01.2024.
0.5	12.03.2024	Internal review and findings incorporated
0.6	27.03.2024	English version added
0.7	27.07.2024	Double questions eliminated
1.0	28.07.2024	Final GTB edition
1.1	30.10.2024	Correction of Q15, Q22, Q33
1.2	20.11.2024	Correction of questions 1, distractor a.); question 22, distractor b.; question 14, distractor a.); question 29, addition in question pool; question 36; distractor a.)
1.3	23.03.2025	Q23, Q32, Q38 wording modified;

Introduction

This is a sample exam. It helps candidates to prepare for the actual certification exam. Questions are included whose structure, layout and format are like a regular ISTQB®/ GTB Certified Tester Foundation Level exam. It is strictly forbidden to use the exam questions as content of a certification exam.

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Exam notes

Number of questions: 40

Duration of the exam: 60 minutes

Total score: 40 (one point per question)

Score to pass the exam: 26 (or more)

Percentage of passing the exam: 65% (or more)

Feedback on this sample exam as a whole (40 questions) or on individual questions was provided in the German-language BETA versions of SET E in the period September – January 2024 by:

Jörn Münzel (former GTB), Horst Pohlmann (GTB), Stephan Weissleder (GTB), Marc-Florian Wendland (GTB), Stephanie Ulrich (GTB), Matthias Hamburg (GTB), Helmut Pichler (ATB), Paul Müller (Software Quality Lab), Andre Baumann (imbus AG), Sabine Gschwandtner (imbus AG), Arne Becher (imbus AG), Christian Odenthal, Joachim Schulz (sepp.med) und Mario Winter (GTB).

Question 1	FL-1.1.1	K1	Score 1.0

Which of the following statements describes a typical test objective?

Select ONE option! (1 out of 4)

a)	The test begins shortly before test object is released in order to find defects that would prevent acceptance.	☐
b)	A validation, that the test object functions as expected by the various stakeholders.	☒
c)	A demonstration, that all defects have been identified.	☐
d)	A demonstration, that the remaining defects will not have negative impacts.	☐

FL-1.1.1 (K1) Identify typical test objectives [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

a) FALSE – This statement describes a test objective that focuses on identifying defects shortly before release. According to [CTFL 4.0], one goal of testing is to find and fix defects before the system goes into production. However, it is not typical to start testing just before release; testing should be done throughout the development process to find and fix defects early (see [CTFL 4.0], Section 1.1.1, Section 1.3).

b) CORRECT – This is one of the typical objectives of testing (see [CTFL 4.0], Section 1.1.1, 9th bullet point). This test objective aims to ensure that the test object meets the requirements and expectations of the various stakeholders. It involves checking the functionality, usability, and other aspects of the test object to ensure that it serves its intended purpose.

c) FALSE – Contradicts Principle 2: "Complete testing is impossible." (see [CTFL 4.0], Section 1.3) and the consequent derivation that it is not possible to prove that all defects have been found. Thus, this is not a typical test objective (see [CTFL 4.0], Section 1.1.1).

d) FALSE – To assess whether a defect causes a failure or not, the defect must be known. Demonstrating that the remaining defects do not cause failures implicitly means that all defects have been found. This contradicts (analogous to Option c)) Principle 2 (see [CTFL 4.0], Section 1.3). Thus, this is not a typical test objective (see [CTFL 4.0], Section 1.1.1).

Question 2	FL-1.1.2	K2	Score 1.0

Which of the following statements best describes the difference between testing and debugging?

Select ONE option! (1 out of 4)

a)	Testing identifies the cause of defects. Debugging analyzes the defects and suggests preventive measures.	☐
b)	Dynamic testing reveals the failures caused by defects. Debugging analyzes and resolves the associated defect.	☒
c)	Testing eliminates failures; while debugging eliminates defects that cause failures.	☐
d)	Dynamic testing prevents the cause of failures. Debugging eliminates the failures.	☐

FL-1.1.2 (K2) Differentiate testing and debugging [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

a) FALSE – Testing does not identify the causes of defects, but rather failures (dynamic testing) or defects (static testing). Debugging identifies the causes of failures (defects) (see [CTFL 4.0], Section 1.1.2, 1st and 2nd paragraph). Preventive measures are neither part of testing nor debugging.

b) CORRECT – Dynamic testing reveals failures caused by defects. Through debugging, the causes of failures can be analyzed and the defects eliminated (see [CTFL 4.0], Section 1.1.2).

c) FALSE – The first part of the sentence is incorrect, as defects and resulting failures are not eliminated by testing, but only by debugging (see [CTFL 4.0], Section 1.1.2).

d) FALSE – Through dynamic testing, the causes of failures (i.e., defects) cannot be prevented, but only the presence of defects that cause failures can be demonstrated. (see [CTFL 4.0], Section 1.1.2 as well as Section 1.3, Principle 1).

Question 3	FL-1.3.1	K2	Score	1.0

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?

Select ONE option! (1 out of 4)

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

FL-1.3.1 (K2) Explain the seven principles of testing [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

a) FALSE – Defect clustering has to do with where defects are most likely to be found, not whether all of them can be found (see [CTFL 4.0], Section 1.3; 4th principle).

b) 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 (see [CTFL 4.0], Section 1.3; 1st principle).

c) FALSE – 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 " (see [CTFL 4.0], Section 1.3, 7th principle)

d) FALSE – Root cause analysis is not a testing principle (see [CTFL 4.0], Section 1.3)

Question 4	FL-1.4.1	K2	Score 1.0

Which of the following is an example of a task that can be carried out as part of the test implementation of the test process?

Select ONE option! (1 out of 4)

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

FL-1.4.1 (K2) Summarize the different test activities and tasks [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

a) FALSE – Analyzing a defect is part of debugging, not testing (see [CTFL 4.0], Section 1.1.2, 2nd Paragraph)

b) CORRECT – Is correct. Creating test data is a test implementation task (see [CTFL 4.0], Section 1.4.1, 6th Paragraph)

c) FALSE – While a tester may need to identify a test item's version for results assigning a test item's version is part of configuration management

d) FALSE – Writing a user story is not a testing activity and should be done by the product owner (see [CTFL 4.0], Section 3.1, 2nd Paragraph)

Question 5	FL-1.4.2	K2	Score 1.0

Which of the following statements is an example of a technical factor that influences the testing process?

Select ONE option! (1 out of 4)

a)	The software is a web application that must work on various browsers.	☒
b)	The software is intended for a financial services provider with strict security requirements.	☐
c)	The software is developed using an agile methodology that requires short iterations and frequent releases.	☐
d)	The software is tested by a team with varying competencies and experiences.	☐

FL-1.4.2 (K2) Explain the impact of context on the test process [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0, Section 1.4.2):

a) CORRECT – This is an example of a technical factor that influences the testing process. Technical factors influencing the testing process include the type of software, product architecture, and technology used (see [CTFL 4.0], Section 1.4.2, 4th bullet point).

b) FALSE – This is not an example of a technical factor but rather an organizational aspect influencing the testing process, as the criticality of the test object, identified risks, market needs, and specific legal requirements can determine the test strategy, test procedures, test documentation, and reporting (see [CTFL 4.0], Section 1.4.2, 3rd bullet point).

c) FALSE – This is not an example of a technical factor but rather the software development life cycle factor influencing the testing process, as technological practices and development methods can determine the test strategy, test procedures, test automation, and test documentation (see [CTFL 4.0], Section 1.4.2, 7th bullet point).

d) FALSE – This is not an example of a technical factor but rather the team member factor influencing the testing process, as competency, knowledge, experience level, availability, and training needs can determine the test strategy, test procedures, test automation, and test documentation (see [CTFL 4.0], Section 1.4.2, 2nd bullet point).

Frage 6	FL-1.4.5	K2	Score 1.0

Which of the following statements BEST describes the differences between the role of test management and the role of testing?

Select ONE option! (1 out of 4)

a)	The role of test management primarily focuses on the activities of test analysis, test design, test realization, and test execution, while the role of testing assumes overall responsibility for the test process, the test team, and the management of test activities.	☐
b)	The role of test management and the role of testing are identical and can be assumed by the same person simultaneously.	☐
c)	The role of test management assumes overall responsibility for the test process, the test team, and the management of test activities, while the role of testing primarily focuses on the activities of test analysis, test design, test realization, and test execution.	☒
d)	The role of test management and the role of testing have no specific tasks and can vary depending on the context.	☐

FL-1.4.5 (K2) Compare the different roles in testing [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0, Section 1.4.5):

a) FALSE – this statement is incorrect as it swaps the roles of test management and testing.

b) FALSE – as the roles of test management and testing are not identical as they have different tasks and responsibilities; but this statement is partially correct as a person can indeed assume both roles simultaneously.

c) CORRECT – this statement is correct. It accurately reflects the differences between the roles of test management and testing as described in similar manner in the syllabus text (see [CTFL 4.0, section 1.4.5, 3rd Paragraph)

d) FALSE – although the way the roles are exercised can vary depending on the context, both test management and testing have specific tasks and responsibilities.

Question 7	FL-1.5.3	K2	Score 1.0

During the discussion of a user story in an agile project, as a tester, you identify a contradiction in the interpretation of acceptance criteria of a user story between the Product Owner and the development team. You raise this contradiction.

Which of the following options describes an advantage of independent testing that becomes apparent in this situation?

Select ONE option! (1 out of 4)

a)	Testers can recognize different types of failures and conditions.	☐
b)	Testers can take primary responsibility for quality.	☐
c)	Developers can trust that testers will ensure the desired quality of work results.	☐
d)	Testers can question assumptions made by stakeholders.	☒

FL-1.5.3 (K2) Distinguish the benefits and drawbacks of independence of testing [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

a) FALSE – Recognizing different types of failures and conditions is an advantage of independent testing (see [CTFL 4.0], Section 1.5.3, 3rd paragraph), but it is not utilized in this scenario. Here, the advantage lies in questioning assumptions and statements, especially from the testing perspective.

b) FALSE – Assuming primary responsibility for quality by independent testers is not an advantage but rather a disadvantage, as other stakeholders may lose their responsibility for quality (see [CTFL 4.0], Section 1.5.3, 4th paragraph).

c) FALSE – This does not describe an advantage of independent testing but rather a disadvantage (see [CTFL 4.0], Section 1.5.3, 4th paragraph, penultimate sentence: "Developers may lose the sense of responsibility for quality").

d) CORRECT – Questioning and challenging assumptions made by stakeholders is an advantage of independent testing (see [CTFL 4.0], Section 1.5.3, 3rd paragraph). This advantage becomes evident in this scenario as the tester can highlight contradictions in the assumptions and achieve early clarification, thus potentially avoiding future missteps in development.

Question 8	FL-1.5.2	K1	Score 1.0

Which of the following options BEST describes the responsibilities arising from the agile Whole-Team approach?

Select ONE option! (1 out of 4)

a)	Testers are responsible for developing unit tests and pass them on to developers for execution.	☐
b)	Business representatives are tasked with selecting the tools that the development team should use.	☐
c)	Testers are expected to create test cases collaboratively with business representatives and the development team.	☒
d)	Developers are expected to test non-functional requirements (performance, usability, security, etc.).	☐

FL-1.5.2 (K1) Recall the benefits of the Whole-Team approach [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

a) FALSE – Depending on the skills of a team member, anyone can undertake this task. The task is not tied to a specific role (see [CTFL 4.0], Section 1.5.2, 2nd paragraph). Therefore, this statement is not applicable to the Whole-Team approach.

b) FALSE – The Whole-Team approach does not have a hierarchical approach but resolves tasks based on competencies and abilities each individual brings (see [CTFL 4.0], Section 1.5.2, 2nd paragraph). Thus, the team can also decide on tools, not individual roles.

c) CORRECT – Testers support business representatives in defining suitable acceptance test cases (see [CTFL 4.0], Section 1.5.2, 3rd paragraph). The agile Whole-Team approach emphasizes collaboration and accountability of the entire team, including developers, testers, and business representatives.

d) FALSE – Depending on the skills of team members, these tasks can be undertaken by any team member. The tasks are not tied to specific roles (see [CTFL 4.0], Section 1.5.2, 2nd paragraph). Therefore, this statement is not applicable to the Whole-Team approach.

Question 9	FL-2.1.2	K1	Score 1.0

Which of the following statements describes a good practice for testing in all Software lifecycle models (SDLC)?

Select ONE option! (1 out of 4)

a)	Test activities for a testing phase begin during the corresponding development phase.	☒
b)	A testing phase in the software lifecycle model starts when the preceding testing phase is completed.	☐
c)	Testing is considered as a separate phase. It begins when development is completed.	☐
d)	Testing is added to development as an increment.	☐

FL-2.1.2 (K1) Recall good practices for testing applicable to all software development life cycles [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

a) CORRECT – Testing should start during development, for example, test analysis and test design, to detect and fix defects early (see [CTFL 4.0], Section 2.1.2, 3rd bullet point).

b) FALSE – This describes an approach that applies only to a sequential model and even there is not necessarily a good practice (see [CTFL 4.0], Section 2.1).

c) FALSE – This describes the approach in the sequential waterfall model and is therefore not a good practice for all models (see [CTFL 4.0], Section 2.1).

d) FALSE – Testing itself is not an increment/additional step in development, but during development, there are increments that need to be tested (see [CTFL 4.0], Section 2.1.1).

Question 10	FL-2.1.3	K1	Score 1.0

Which of the following described development approaches does NOT define testing as a driver of software development?

Select ONE option! (1 out of 4)

a)	Tests are created first. Then the code is written	☐
b)	Test cases drive the coding	☐
c)	The desired behavior of an application is defined by test cases	☐
d)	Tests are derived from acceptance criteria and partially automated	☒

FL-2.1.3 (K1) Recall examples of test-first approaches in development [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

a) FALSE – This is a correct approach for test-driven development (see [CTFL 4.0], Section 2.1.3, 1st paragraph).

b) FALSE – This is a correct approach for test-driven development, specifically the TDD example (see [CTFL 4.0], Section 2.1.3, 2nd paragraph, 1st bullet point).

c) FALSE – This is a correct approach for test-driven development, specifically the BDD example (see [CTFL 4.0], Section 2.1.3, 4th paragraph, 1st bullet point).

d) CORRECT – This approach does not define test-driven development because in this statement, the test cases are designed and automated based on acceptance criteria, but not necessarily before development (see [CTFL 4.0], Section 2.1.3, 1st paragraph, 2nd sentence). The tests do not necessarily have an explicit influence on development, so it is not an effective approach.

Question 11	FL-2.1.5	K2	Score 1.0

Which of the following statements BEST describes the Shift-Left approach in software development life cycle (SDLC) testing?

Select ONE option! (1 out of 4)

a)	Test activities start as early as possible in the SDLC and are conducted in parallel with development activities.	☒
b)	Test activities start as late as possible in the SDLC and are conducted after the development activities.	☐
c)	Test activities start in the middle of the SDLC and are conducted in parallel with development activities.	☐
d)	Test activities are distributed across multiple phases of the SDLC and conducted in each phase according to the maturity level of the product.	☐

FL-2.1.5 (K2) Explain the Shift-Left approach [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

a) CORRECT – The Shift-Left approach implements the principle of early testing, where test activities begin as early as possible in the software development life cycle and are conducted in parallel with development activities (see [CTFL 4.0], Section 2.1.5, 1st paragraph).

b) FALSE – Since the Shift-Left approach implements the principle of early testing, this option describes the opposite of Shift-Left and is therefore not a correct statement (see [CTFL 4.0], Section 2.1.5).

c) FALSE – The Shift-Left approach implements the principle of early testing, where test activities begin as early as possible in the software development life cycle. This does not specify a time frame, so the "middle of the software development life cycle" is not a correct statement for the Shift-Left approach (see [CTFL 4.0], Section 2.1.5).

d) FALSE – Since the Shift-Left approach does not prescribe that test activities be divided into multiple phases of the software development life cycle and conducted in each phase according to the maturity level of the product, this statement is not correct in relation to the Shift-Left approach (see [CTFL 4.0], Section 2.1.5).

Question 12	FL-2.1.1	K2	Score 1.0

As a tester in a project following the iterative-incremental development model, which of the following statements should you consider to optimally integrate the testing activities?

Select exactly ONE correct option! (1 out of 4)

a)	You plan testing as a one-time activity once all increments of the product have been implemented.	☐
b)	Static tests should only take place at the component testing level to find as many code-related fault conditions early as possible.	☐
c)	Since quick feedback on the quality of an increment is important, testers should ideally perform regression tests manually.	☐
d)	Due to the delivery of new increments over various iterations, it is important to build comprehensive regression tests.	☒

FL-2.1.1 (K2) Explain the effects of the chosen software development life cycle on testing [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0, Section 2.1.1):

a) FALSE – This approach describes an (also poor) interpretation of the waterfall model, not an iterative-incremental approach.

b) FALSE – Static tests should generally be provided in every iteration at all testing levels, not just in component testing (see [CTFL 4.0], Section 2.1.1, 3rd paragraph: "*This implies that in each iteration, both static and dynamic tests can be performed at all test levels*.").

c) FALSE – While it is correct that quick feedback is necessary for each increment, this suggests that regression tests should be automated rather than manually performed.

d) CORRECT – In each iteration, a piece of new functionality is delivered, meaning that the amount of existing and already accepted functionality also grows from iteration to iteration. This necessitates comprehensive regression testing to mitigate regression risk (see [CTFL 4.0], Section 2.1.1, 3rd paragraph, last sentence: "*Frequent delivery of increments requires rapid feedback and extensive regression testing*").

Question 13	FL-2.2.1	K2	Score 1.0

A test case has the following characteristics:

- **It is based on interface specifications.**
- **The focus is on finding failures in the interaction between components.**
- **Both functional and structure-based tests are applied.**

In which of the following test levels is this test case MOST LIKELY to be executed?

Select ONE option! (1 out of 4)

a)	Component Integration Test	☒
b)	Acceptance Test	☐
c)	System Test	☐
d)	Component Test	☐

FL-2.2.1 (K2) Distinguish between the various test levels [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0)

a) CORRECT – The Component Integration Test focuses on testing interfaces and interactions between components (see [CTFL 4.0], Section 2.2.1, 2nd bullet point). It is based on interface specifications, and both functional and structure-based tests (White-Box testing) are relevant.

b) FALSE – The Acceptance Test focuses on validating the system and its suitability for use, thus emphasizing function and performance (see [CTFL 4.0], Section 2.2.1, 3rd bullet point). It is not based on interface specifications, and the test objectives are not aimed at internal communication.

c) FALSE – The System Test focuses on overall behavior and performance through functional and non-functional tests (see [CTFL 4.0], Section 2.2.1, 5th bullet point). It is not based on interface specifications, and the test objectives are not aimed at internal communication.

d) FALSE – The Component Test focuses on testing isolated components (see [CTFL 4.0], Section 2.2.1, 1st bullet point). While it may involve specification-oriented and structure-based testing, the test objectives are not specifically oriented towards communication via interfaces.

Question 14	FL-2.3.1	K2	Score 1.0

Which of the following options is NOT a trigger for maintenance and maintenance testing?

Select ONE option! (1 out of 4)

a)	Decommissioning	☐
b)	Corrective changes or hotfixes	☐
c)	Upgrades or migrations of the operating environment	☐
d)	Implementation of new features	☒

FL-2.3.1 (K2) Summarize maintenance testing and its triggers [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

a) FALSE– Decommissioning is a trigger for maintenance and a maintenance test (see [CTFL 4.0], section 2.3.1, 3rd paragraph, 3rd bullet point).

b) FALSE – Corrective changes or hotfixes are also triggers for maintenance and maintenance testing as they involve bug fixes or urgent changes to the system (see [CTFL 4.0], section 2.3.1, 3. Paragraph; 1st bullet point).

c) FALSE – Upgrades or migrations of the operating environment can also trigger maintenance and maintenance testing as they may require testing of the new environment as well as the changed software (see [CTFL 4.0], section 2.3.1, 3. Paragraph; 2nd bullet point).

d) CORRECT – The implementation of new features is not a trigger for maintenance and maintenance testing as it is typically carried out in development activities and not in maintenance activities (see [CTFL 4.0], Chap. 2.1).

Question 15	FL-3.1.2	K2	Score 1.0

Which of the following statements is MOST true about static testing?

Select ONE option! (1 out of 4)

a)	Static testing is a cheap way to detect 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	☐

FL-3.1.2 (K2) Explain the value of static testing [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

a) CORRECT – Defects found early are often much cheaper to remove than defects detected later in the lifecycle (see [CTFL 4.0], Section 3.1.2).

b) FALSE – Dynamic testing still has its challenging because they find other types of defects (see [CTFL 4.0], Section 3.1.2).

c) FALSE – This is dynamic testing (see Glossary).

d) FALSE – Static testing is important for safety-critical computer systems (see [CTFL 4.0], Section 3.1.2).

Question 16	FL-3.2.1	K1	Score 1.0

Which of the following statements does NOT describe an advantage of early and frequent stakeholder feedback?

Select ONE option! (1 out of 4)

a)	Frequent stakeholder feedback helps to understand and implement changes to requirements earlier.	☐
b)	Frequent stakeholder feedback helps the development team better understand what they are developing.	☐
c)	Frequent stakeholder feedback helps the development team focus on the features that bring the most value.	☐
d)	Frequent stakeholder feedback can lead to misunderstandings about requirements.	☒

FL-3.2.1 (K1) Identify the benefits of early and frequent stakeholder feedback [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

a) FALSE – This is an advantage of early and frequent stakeholder feedback (see [CTFL 4.0], Section 3.2.1, 2nd paragraph: "(...) changes to the requirements understood and implemented earlier.").

b) FALSE – This is an advantage of early and frequent stakeholder feedback (see [CTFL 4.0], Section 3.2.1, 2nd paragraph: "This helps the development team better understand what it is developing.").

c) FALSE – This is an advantage of early and frequent stakeholder feedback (see [CTFL 4.0], Section 3.2.1, 2nd paragraph: "It allows them to focus on the features that bring the most value to the stakeholders.").

d) CORRECT – The statement is not an advantage according to the syllabus, as it negates the described benefit (see [CTFL 4.0], Section 3.2.1, 2nd paragraph: "Frequent stakeholder feedback during the SDLC can prevent misunderstandings about requirements and ensure that changes to the requirements are understood and implemented earlier.").

Question 17	FL-3.2.4	K2	Score 1.0

Which of the review types listed below is BEST suited when the review is to be conducted in accordance with the full general review process and with the aim of finding as many anomalies as possible?

Select ONE option! (1 out of 4)

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

FL-3.2.4 (K2) Compare and contrast various types of reviews [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

a) FALSE – An informal review does not use a defined process (see [CTFL 4.0], Section 3.2.4, 3rd paragraph, 1st bullet point).

b) FALSE – The main goal of a technical review is consensus-building and decision-making regarding a technical issue. While a defined review process and anomaly detection are possible, they are not decisive factors for choosing this type of review (see [CTFL 4.0], Section 3.2.4, 3rd paragraph, 3rd bullet point).

c) CORRECT – Inspection utilizes the full general review process with the aim of uncovering as many anomalies or deviations as possible, among other objectives (see [CTFL 4.0], Section 3.2.4, 3rd paragraph, 4th bullet point).

d) FALSE – A walkthrough does not necessarily require a defined process, for example, individual review might be skipped. Additionally, a walkthrough pursues a variety of goals, including uncovering anomalies. However, maximizing the number of anomalies found is not its primary focus (see [CTFL 4.0], Section 3.2.4, 3rd paragraph, 2nd bullet point).

Question 18	FL-3.2.5	K1	Score 1.0

During a phase of intense project overtime, an extensive system architecture specification is sent to various project participants, along with additional information and the announcement of a technical review in three days. The technical review was not originally scheduled. No further adjustments are made to the assigned tasks of the project participants who are to act as reviewers during the technical review.

Based on the information provided, which of the following success factors for reviews is missing, based solely on the information given?

Select ONE option! (1 out of 4)

a)	Appropriate type of review	☐
b)	Sufficient time for preparation	☒
c)	Setting clear goals and measurable end criteria	☐
d)	Well-led review session	☐

FL-3.2.5 (K1) Recall the factors contributing to a successful review [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

a) FALSE – Technical reviews are suitable for technical documents such as a system architecture, indicating an appropriate review type was chosen (see [CTFL 4.0], Section 3.2.5, 1st paragraph, 2nd bullet point).

b) CORRECT – Sufficient preparation time is an important success factor for reviews, but the project participants are already working overtime and have no additional time for an "Individual Review" since their assigned tasks are not reduced. In short: Adequate preparation time is not scheduled (see [CTFL 4.0], Section 3.2.5, 1st paragraph, 5th bullet point). Sufficient preparation time is crucial to ensure that the reviewers can thoroughly examine the system architecture specification and provide high-quality feedback. Without sufficient preparation time, the effectiveness of the review may be compromised.

c) FALSE – Setting clear goals and measurable end criteria is a valid success factor, but its absence cannot be inferred from the information provided in the stem. These could be provided in the "further information" (see [CTFL 4.0], Section 3.2.5, 1st paragraph, 1st bullet point).

d) FALSE – A well-led review session can be a success factor, but there is no reason to assume that the review session will not be well-led based on the provided information (see [CTFL 4.0], Section 3.2.5, 1st paragraph, 9th bullet point).

Question 19	FL-4.1.1	K2	Score 1.0

Before an iteration planning meeting, you analyze a User Story and its acceptance criteria. From this, you derive corresponding test cases to apply the principle of early testing.

Which test procedure or approach are you using?

Select ONE option! (1 out of 4)

a)	White-Box-Testing	☐
b)	Black-Box-Testing	☒
c)	Experience-Based Testing	☐
d)	Error Guessing	☐

FL-4.1.1 (K2) Distinguish between Black-Box Testing, White-Box Testing, and Experience-Based Testing [CTFL 4.0]

Justification: (see ISTQB® Foundation Level Syllabus v4.0)

a) FALSE – White-Box Testing (also known as structure-based testing) is based on an analysis of the internal structure and processing of the test object. Since the test cases depend on the design of the software, they can only be created after the design or implementation of the test object (see [CTFL 4.0], Section 4.1, 4th paragraph).

b) CORRECT – Black-Box Testing (also known as specification-based testing) is based on an analysis of the specified behavior of the test object without knowledge of the internal structure. The specified behavior is defined in the User Story and acceptance criteria and can be analyzed accordingly (see [CTFL 4.0], Section 4.1, 3rd paragraph).

c) FALSE – Experience-Based Testing uses the knowledge and experience of testers to design test cases (see [CTFL 4.0], Section 4.1, 5th paragraph). They use specifications only as a framework and not as a basis for test design (see [CTFL 4.0], Section 4.4).

d) FALSE – Error Guessing (Intuitive Test Case Generation) is an experience-based testing method based on the knowledge of testers (see also explanation for Option c).

Question 20	FL-4.2.1	K3	Score 1.0

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	very low	10
T2	7.0	medium	60
T3	0.5	very low	10

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

Select ONE option! (1 out of 4)

a)	1	☐
b)	2	☒
c)	3	☐
d)	4	☐

FL-4.2.1 (K3) Apply equivalence partitioning to derive test cases [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

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:

T1	1.5 (1)	Very low (4)
T2	7.0 (3)	Medium (6)
T3	0.5 (1)	Very low (4)

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) FALSE

b) CORRECT

c) FALSE

d) FALSE

Question 21	FL-4.2.2	K3	Score 1.0

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?

Select exactly ONE correct option! (1 out of 4)

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	☐

FL-4.2.2 (K3) Apply boundary value analysis to derive test cases [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0, Section 4.2.2):

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) FALSE – 4 out of 8 (11, 20 ,22 and 23)

b) FALSE – 3 out of 8 (15, 19 and 23)

c) CORRECT – 5 out of 8 (10, 16, 19, 22 and 23)

d) FALSE – 3 out of 8 (15, 19 and 22)

Question 22	FL-4.2.3	K3	Score 1.0

A system for calculating penalties for speeding violations in traffic is specified with the following decision table:

Rules		R1	R2	R3	R4
Conditions	Speed > 50	Y	Y	N	N
	School Zone	Y	N	Y	N
Actions	250 € fine	-	X	-	-
	License suspension	X	-	-	-

Based on the provided decision table and existing test cases:

TC1: Speed = 65, School Zone = Yes
TC2: Speed = 45, School Zone = Yes
TC3: Speed = 50, School Zone = No
TC4: Speed = 49, School Zone = No

Which of the rules in the decision table is not yet covered by a test case?

Select ONE option! (1 out of 4)

a)	Rule 4	☐
b)	Rule 1	☐
c)	Rule 2	☒
d)	Rule 3	☐

FL-4.2.3 (K3) Apply decision table testing to derive test cases [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

Rule 2 is not covered because there is no test case for the inputs Speed > 50 = Yes and School Zone = No. A possible test case would be:

TF5: Speed = 51, School Zone = No

a) FALSE – Rule 4 is covered by test cases 3 and 4.

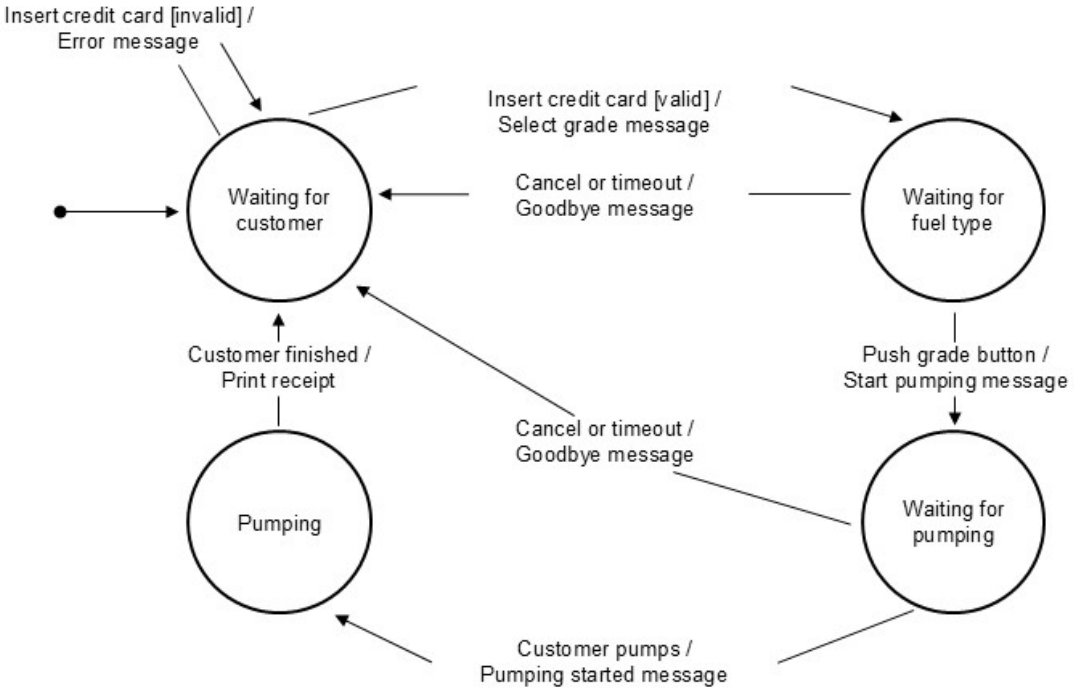
b) FALSE – Rule 1 is covered by test case 1.

c) CORRECT – Rule 2 is not covered.

d) FALSE – Rule 3 is covered by test case 2.

Question 23	FL-4.2.4	K3	Score 1.0

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?

Select ONE option! (1 out of 4)

a)	4	☒
b)	7	☐
c)	1	☐
d)	Infinite	☐

FL-4.2.4 (K3) Apply state transition testing to derive test cases [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

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) CORRECT

b) FALSE

c) FALSE

d) FALSE

Question 24	FL-4.3.1	K2	Score 1.0

Which of the following descriptions of statement coverage applies?

Select ONE option! (1 out of 4)

a)	Statement coverage is a measure of the number of source code lines (excluding comments) that were executed during the test.	☐
b)	Statement coverage is a measure of the percentage of instructions in the source code that were executed during the test.	☒
c)	Statement coverage is a measure of the percentage of source code lines (excluding comments) that were executed during the test.	☐
d)	Statement coverage is a measure of the number of instructions in the source code that were executed during the test.	☐

FL-4.3.1 (K2) Explain statement testing [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

Glossary "Statement Coverage": Coverage of executable statements (As of September 2023).

See [CTFL 4.0], Section 4.3.1, paragraph 1: Coverage is measured as the number of statements executed by the test cases divided by the total number of statements in the code and expressed as a percentage.

a) FALSE – Statement coverage refers to the statements covered by tests. Since multiple statements can be in a single line of source code or a statement can span multiple lines, the number of source code lines is not a measure of statement coverage (see above).

b) CORRECT – The percentage of statements is the proportion of executed statements in the test to all statements, that is, the number of statements executed by the test divided by the total number of statements, expressed as a percentage (see above).

c) FALSE – Statement coverage does not refer to source code lines but to statements executed by tests, see also justification for a).

d) FALSE – Statement coverage does not refer to the absolute number of statements executed by the test suite, but to their proportion to all statements (see above).

Question 25	FL-4.3.3	K2	Score 1.0

Which of the following statements represents an added value of white-box testing?

Select ONE option! (1 out of 4)

a)	White-box tests can provide metrics for coverage, such as statement coverage.	☒
b)	White-box tests can verify if the code meets the acceptance criteria.	☐
c)	White-box tests can test compatibility with other systems.	☐
d)	White-box tests can uncover all defects in the code.	☐

FL-4.3.3 (K2) Explain the value of white-box testing [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

a) CORRECT – White-box tests belong to the category of structure- and code-based testing methods and can therefore provide metrics for code-based metrics, such as statement coverage (see [CTFL 4.0], Section 4.3.3, 3rd paragraph and section 4.3.1).

b) FALSE – White-box tests belong to the category of structure-based testing methods and have the weakness that they cannot recognize the fulfillment of requirements (see [CTFL 4.0], Section 4.3.3., 1st paragraph). Acceptance criteria are a type of requirement. This is the strength of black-box tests, which belong to the specification-based testing methods.

c) FALSE – White-box tests belong to the category of structure-based testing methods and focus on the internal structure of the test object (see [CTFL 4.0], Section 4.1, 4th paragraph). Compatibility, especially interoperability with other components or systems, is usually tested as part of an integration test.

d) FALSE – White-box tests cannot uncover all defects in the code. For example, data-dependent defects are sometimes not detected (see [CTFL 4.0], Section 4.3.1, last paragraph: "*For example, defects that are data-dependent are not detected (e.g., division by zero, which only fails when the denominator is set to zero*).") as well as defects that lie on a specific, potentially unexecuted execution path (see [CTFL 4.0], Section 4.3.2, 3rd paragraph*: "However, executing a branch with a test case will not uncover defects in all cases. For example, defects that require the execution of a specific path in a code are not detected."*).

Question 26	FL-4.4.3	K2	Score 1.0

You are testing a mobile app that allows customers to access and manage their bank accounts. You are running a test suite that includes evaluating each screen and each field on every screen based on a collection of user interface heuristics. It was derived from a popular book on this topic and is intended to maximize the attractiveness, usability, and accessibility of such apps.

Which of the following test techniques BEST categorizes the test techniques you are using?

Select ONE option! (1 out of 4)

a)	Decision Table Testing	☐
b)	Exploratory Testing	☐
c)	Checklist-based Testing	☒
d)	Error Guessing	☐

FL-4.4.3 (K2) Explain checklist-based testing [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

a) FALSE – The book provides a general guide and is not a formal requirements document, specification, or a collection of use cases, user stories, or business processes.

b) FALSE – While you could consider the collection as a series of test charters, it more closely resembles a series of test conditions.

c) CORRECT – The collection of best practices for user interfaces is the list of test conditions. Checklist-based testing uses predefined lists and criteria to verify the quality and compliance of an application. In the above case, a collection of heuristics is used to evaluate the attractiveness, usability, and accessibility of the mobile app.

d) FALSE – The tests do not focus on errors that could occur, but rather on understanding what is important to the user in terms of ease of use (usability).

Question 27	FL-4.4.2	K2	Score 1.0

For which of the following situations is the use of exploratory testing BEST suited?

Select ONE option! (1 out of 4)

a)	When time pressure requires the acceleration of already specified tests.	☐
b)	When the system is being developed incrementally and no test charter is available.	☐
c)	When testers with sufficient knowledge of similar applications and technologies are available.	☒
d)	When an extensive specification of the system is available for test analysis and design.	☐

FL-4.4.2 (K2) Explain exploratory testing [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

a) FALSE – Exploratory testing can be useful when under time pressure, but it is not suitable for accelerating the execution of already specified tests. In exploratory testing, tests are designed, executed, and evaluated simultaneously, but no previously specified tests are conducted (see [CTFL 4.0], Section 4.4.2, paragraph 1).

b) FALSE – Exploratory testing is independent of the SDLC, regardless of whether it is developed incrementally or sequentially. Exploratory testing should use a test charter (see [CTFL 4.0], Section 4.4.2).

c) CORRECT – Exploratory testing is useful when time pressure exists and/or specifications are inadequate. It is particularly effective when testers are experienced and have domain knowledge, and it can complement other testing approaches (see [CTFL 4.0], Section 4.4.2, paragraph 3).

d) FALSE – In this situation, specification-based testing methods would probably be more suitable for deriving test cases from the extensive specification. Exploratory testing is particularly suitable when there is no adequate specification available (see [CTFL 4.0], Section 4.4.2, paragraph 3, first sentence: *"Exploratory testing makes sense when there are few or inadequate specifications…"*).

Question 28	FL-4.5.2	K2	Score 1.0

An agile development team has formulated the following user story: "As a user, I want the volume of the electronic egg timer's alarm to be adjustable so that I can always hear it."

Which of the following acceptance criteria is BEST suited from a testing perspective for designing clear acceptance tests?

Select ONE option! (1 out of 4)

a)	The volume is easy to adjust for every person, i.e., the adjustment buttons must have a usable size.	☐
b)	The tester can hear the alarm tone well even at the lowest level.	☐
c)	The volume can be adjusted within a range of 40 to 80 decibels.	☒
d)	The volume adjustment works correctly in the best-selling models of this egg timer.	☐

FL-4.5.2 (K2) Classify the different options of writing acceptance criteria [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

a) FALSE – Acceptance criteria are considered as test conditions and should therefore support a check for correctness or adequacy without making implementation specifications (see [CTFL 4.0], Sections 4.5.2 and 2.2.2). This is not the case here, as firstly it is not specified how the volume control is to be operated, e.g., as a rotary knob or via buttons, and secondly, a "usable size" does not provide measurable values, e.g., as a reference to a standard.

b) FALSE – Acceptance criteria are considered as test conditions and should therefore support a check for correctness or adequacy (see [CTFL 4.0], Sections 4.5.2 and 2.2.2). This is not the case here, as firstly the tester's hearing is individual and thus not reliably applicable as a criterion of correctness, and secondly, a size of "well audible" does not provide a measurable value.

c) CORRECT – Acceptance criteria are considered as test conditions and should therefore support a check for correctness or adequacy (see [CTFL 4.0], Sections 4.5.2 and 2.2.2). This is the case here, as the adjustment range is clearly defined, and the assigned volume is measurable (and corresponds to the general limits of "quiet" to "loud").

d) FALSE – Acceptance criteria are considered as test conditions and should therefore support a check for correctness or adequacy (see [CTFL 4.0], Sections 4.5.2 and 2.2.2). This is not the case here, as firstly, in a new development, it is not clear which egg timers will be the best-selling ones, and secondly, the requirement "correctly" is not specified, what is meant by that (not testable, not measurable).

Question 29	FL-4.5.3	K3	Score 1.0

Please consider the following user story:

"As a system administrator, I want to be able to monitor the server's performance to ensure that the system is running efficiently."

Which test case is BEST suited for an acceptance test-driven development of the user story?

Select ONE option! (1 out of 4)

a)	1. Login as system administrator; select the server; check the server performance. GIVEN: I am logged in as a system administrator AND GIVEN: I have selected the server, WHEN I select "Check server performance", THEN I am shown an overview of the server's performance.	☐
b)	2. Login as user; perform a task; check the server performance. GIVEN: I am logged in as a user AND GIVEN: I have performed a task, WHEN I select "Check server performance", THEN I am shown an overview of the server's performance.	☐
c)	3. Login as system administrator; select the server; perform a performance test. GIVEN: I am logged in as a system administrator AND GIVEN: I have selected the server, WHEN I select "Perform performance test", THEN a performance test is performed and I receive an overview of the results.	☒
d)	4. Login as system administrator; perform a performance test; check the server performance. GIVEN: I am logged in as a system administrator AND GIVEN: I have performed a performance test, WHEN I select "Check server performance", THEN I am shown an overview of the server's performance.	☐

FL-4.5.3 (K3) Apply acceptance test-driven development (ATDD) to derive test cases [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

Justification for the test cases:

a) FALSE – NOT SUITABLE - Although this option includes the role of the system administrator and the action of checking the server performance, it lacks the specific action of performing a performance test.

b) FALSE– NOT SUITABLE - This option does not include the role of the system administrator, which is a key aspect of the user story.

c) CORRECT – SUITABLE - This option includes both the role of the system administrator and the specific actions of selecting the server and performing a performance test, which corresponds to the user story.

d) FALSE – NOT SUITABLE - Although this option includes the role of the system administrator and the action of checking the server performance, it lacks the specific action of selecting the server.

Question 30	FL-5.1.2	K1	Score 1.0

Which of the following activities do testers perform during release planning in an agile project?

Select ONE option! (1 out of 4)

a)	Testers identify and refine functional and non-functional aspects of the test object.	☐
b)	Testers support the derivation of tasks from user stories.	☐
c)	Testers participate in the detailed risk analysis of the user stories.	☐
d)	Testers assist in creating user stories, their testability, and acceptance criteria.	☒

FL-5.1.2 (K1) Recognize the potential added value that a tester creates for iteration and release planning [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

a) FALSE – This is a task in iteration planning: "... and identify and refine the functional and non-functional aspects of the test object." (see [CTFL 4.0], Section 5.1.2)

b) FALSE – Release planning does not include task planning (yet), this is part of iteration planning: "... break down the user stories into tasks (especially testing tasks), estimate the testing effort for all testing tasks ..." (see [CTFL 4.0], Section 5.1.2).

c) FALSE – Release planning does not involve participating in the detailed risk analysis of the user stories, this is part of iteration planning: "(see [CTFL 4.0], Section 5.1.2, last paragraph).

d) CORRECT – This is a task of testers in release planning: "... participate in the creation of testable user stories and acceptance criteria, ..." (see [CTFL 4.0], Section 5.1.2, 2nd paragraph). Testers work closely with the product team to ensure that the user stories are clearly defined, have testable acceptance criteria, and meet customer requirements.

Question 31	FL-5.1.3	K2	Score 1.0

Given are the following examples of entry and exit criteria for a system test:

1. **The planned test budget of 400 effort hours for the system test is exhausted.**
2. **More than 95% of the planned test cases have been executed.**
3. **The test environment for the performance test is designed, set up, and verified.**
4. **There are no Priority 1 defects and a maximum of 4 Priority 2 defects open.**
5. **The design specification has been reviewed and approved through a technical review.**
6. **The unit test for the 'tax rate' and 'total price' components is completed and approved.**

Which of the following combinations best categorizes the examples as entry and exit criteria?

Select ONE option! (1 out of 4)

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

FL-5.1.3 (K2) Compare and contrast entry and exit criteria [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

The correct assignment of the examples to entry and exit criteria is as follows:

- Entry criteria:
  - (3) The test environment for the performance test is designed, set up, and verified - an example indicating that a test environment must be ready before testing can commence (availability of resources, see [CTFL 4.0], Section 5.1.3, 2nd paragraph).
  - (5) The design specifications for the system have undergone a review, possibly been revised, and approved - an example showing that test assets must be available before testing can begin (availability of test basis/testable requirements, see [CTFL 4.0], Section 5.1.3, 2nd paragraph).
  - (6) The components for calculating the tax rate and total price have passed unit tests and are approved, an example demonstrating the necessity for a test object to meet an initial quality before testing can commence (quality of the test object, e.g., release from a previous test level, see [CTFL 4.0], Section 5.1.3, 2nd paragraph).
- Exit criteria:
  - (1) Exhaustion of a planned test budget can be an example of an exit criterion if stakeholders desire this and accept the risk (see [CTFL 4.0], Section 5.1.3, 4th paragraph).
  - (2) Reaching a limit on executed test cases within the planned tests can be a test completion criterion and thus an exit criterion for a test level (see [CTFL 4.0], Section 5.1.3, 3rd paragraph).
  - (4) Compliance with a certain number of known, prioritized, and unresolved defects (open defects) can serve as a measure of completeness and thus an exit criterion (see [CTFL 4.0], Section 5.1.3, 3rd paragraph). However, this should never be the sole exit criterion but should be related to test case coverage (see example of executed test cases).

Thus, option d) is CORRECT.

Question 32	FL-5.1.4	K3	Score 1.0

You want to estimate the test effort for a new project using a three-point estimate. You have received the following estimates from the experts: the most optimistic estimate (a) is 300 person-days, the most likely estimate (m) is 400 person-days, and the most pessimistic estimate (b) is 500 person-days.

How do you estimate the test effort based on the three-point estimate for this project?

Select ONE option! (1 out of 4)

a)	350 person-days	☐
b)	420 person-days	☐
c)	400±33 person-days	☒
d)	450 person-days	☐

FL-5.1.4 (K3) Apply estimation techniques to calculate the required test effort [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

a) INCORRECT: This estimate would result if only the optimistic (300 person-days) and most likely (400 person-days) estimates were considered, for example, by taking their simple average: (300+400) / 2 = 350 PT.

b) INCORRECT: The figure of 420 person-days would presumably result from incorrectly applying the three-point PERT formula: (E) is calculated as E = (a + 4*m + b) / 6 = (300 + 4*400 + 500) / 6 = 400. However, the correct calculation clearly yields exactly 400 person-days, not 420. Thus, option b contains a computational error and is therefore incorrect.

c) CORRECT: Option c correctly applies the three-point estimation (PERT method) and fully incorporates all three expert estimates (optimistic = 300, most likely = 400, pessimistic = 500): Erwarteter Wert (PERT formel): (E) is calculated as E = (a + 4*m + b) / 6 = (300 + 4*400 + 500) / 6 = 400. Standardabweichung: SD = (b - a) / 6 = (500 - 300) / 6 = 33. Therefore, option c correctly provides not only the precise expected value but also an indication of uncertainty or variability in the estimate.

d) INCORRECT: This option considers only the most likely (400 person-days) and the pessimistic (500 person-days) estimates, for example, by their simple average: (400+500) / 2 = 450 PT). The optimistic scenario (300 person-days) is ignored here, resulting in an excessively pessimistic (high) estimate. Opportunities or potentials for reduced effort are neglected.

Question 33	FL-5.1.5	K3	Score 1.0

You have been asked to establish an optimal, risk-based execution sequence for the following test cases, which have already been prioritized and examined for any dependencies:

Test case-ID	Priority	Depending on
T7	2	-
T8	1	T7
T9	3	T8
T10	3	T8
T11	1	T9
T12	2	T10

Priority 1 is more urgent than Priority 2, and so forth.

Which of the following test sequences takes into account the dependencies and priorities mentioned above?

Select ONE option! (1 out of 4)

a)	T7 -> T8 -> T10 -> T11 -> T9 -> T12	☐
b)	T7 -> T8 -> T9 -> T10 -> T11 -> T12	☐
c)	T7 -> T8 -> T10 -> T9 -> T11 -> T12	☐
d)	T7 -> T8 -> T9 -> T11 -> T10 -> T12	☒

FL-5.1.5 (K3) Apply prioritization of test cases [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

a) FALSE – This sequence does not take into account the dependence of T11, which depends on T9, and should therefore be executed after T9.

b) FALSE – This sequence correctly takes into account the priority of T11, which should be executed before T10 (see also the justification for option d.).

c) FALSE – This sequence does not take into account the dependency and priority of T9 and T10, which depends on T8. T8 activates T9 and T10. Here, prioritization is required for the first time: T9 and T10 both have priority 3, but T9 activates a priority 1 TF with T11, while T10 only releases a priority 2 TF with T12. Thus, T9 would clearly be better for the optimal sequence, but here T10 is listed before T9, which is not the optimal sequence. (see also the justification for option d.).

d) CORRECT – This sequence takes into account both the priorities and the dependencies.

In detail:

- At the beginning of the test execution, T7 has no alternative, since all the other TFs initially have unfulfilled dependencies.
- T7 only activates T8, which therefore has to follow as the second.
- T8 activates T9 and T10. This is the first instance where prioritization is required: T9 and T10 both have priority 3, but T9 enables a priority 1 TF with T11, while T10 only enables a priority 2 TF with T12. This makes T9 clearly better.
- T10 and T11 are now free. T11 is clearly the better choice based on priority.
- After that, T10 is the only option.
- T12 is the laggard.

Question 34	FL-5.1.7	K2	Score 1.0

Which of the following statements illustrates the benefit of the testing quadrants?

Select ONE option! (1 out of 4)

a)	The tester can refer to the respective quadrants when selecting test types, so that all involved stakeholders better understand the purpose of the tests.	☒
b)	The tester can use the test types described by test quadrants as a coverage metric; the more tests are performed from each quadrant, the higher the coverage.	☐
c)	The team should plan approximately the same number of test cases for each quadrant to ensure that all test levels and types are equally considered.	☐
d)	The tester can use the test quadrants for risk analysis; with lower levels of the quadrants representing lower risk for the customer.	☐

FL-5.1.7 (K2) Summarize the test quadrants and their relationships to test levels and test types [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

a) CORRECT – The test quadrants provide a way to differentiate test types and describe them to all stakeholders, including developers, testers, and business representatives, increasing understanding (see [CTFL 4.0], Section 5.1.7, 1st paragraph).

b) FALSE – The test quadrants model supports test management in visualizing test levels and test types to ensure that all appropriate test types and test levels are included in the SDLC, and to understand that some test types are more relevant for certain test levels than others (see [CTFL 4.0], Section 5.1.7, 1st paragraph). The model does not provide any kind of metric.

c) FALSE – The test quadrants model supports test management in visualizing test levels and test types to ensure that all appropriate test types and test levels are included in the SDLC, and to understand that some test types are more relevant for certain test levels than others (see [CTFL 4.0], Section 5.1.7, 1st paragraph). What test levels are relevant for the test object and what test types, and thus what number of test cases derive from it, is not determined by the model. Especially, the number of test cases for each quadrant will vary depending on the system; for example, quadrant Q1 with component and component integration tests will typically include significantly more test cases than quadrant Q3 with acceptance tests and usability tests.

d) FALSE – Test quadrants are not related to risk levels because the test quadrants model only supports test management in visualizing test levels and test types to ensure that all appropriate test types and test levels are included in the SDLC, and to understand that some test types are more relevant for certain test levels than others (see [CTFL 4.0], Section 5.1.7).

Question 35	FL-5.2.4	K2	Score 1.0

Which of the following statements about product risk control in the context of risk mitigation does NOT apply?

Select ONE option! (1 out of 4)

a)	The complexity of the database module was rated high, therefore additional test cases were created for the module.	☐
b)	The requirements for the user interface are unclear, therefore a user experience expert is included in the project.	☐
c)	The performance of the system is critical to the success of the project, therefore code reviews are skipped to save time.	☒
d)	The system must have high availability, therefore additional load tests are performed.	☐

FL-5.2.4 (K2) Explain possible measures that can be taken in response to analyzed product risks [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

a) FALSE – This is an appropriate risk mitigation measure as additional test cases can help ensure the quality of the module and detect potential errors early.

b) FALSE – This is an appropriate risk mitigation measure as a user experience expert can help clarify the requirements and ensure a user-friendly design of the interface.

c) CORRECT – This does not apply as code reviews are an important risk mitigation measure. They help detect potential errors and problems in the code base early and fix them, which can ultimately contribute to improving system performance.

d) FALSE – This is an appropriate risk mitigation measure as load tests can help check and ensure the performance and availability of the system under high load.

The correct answer is option c), as code reviews are an important risk mitigation measure and should not be skipped to save time. They contribute to improving code quality and ultimately system performance.

Question 36	FL-5.3.3	K2	Score 1.0

In a regulatory project that is already behind schedule, the relevant stakeholders have requested to be informed daily about the test status.

What is the MOST EFFECTIVE way to communicate the test status when stakeholders cannot coordinate directly due to spatial and temporal constraints?

Select ONE option! (1 out of 4)

a)	Formal means of communication (e.g. formal reports, emails) should be used to ensure that important information reaches the recipients.	☒
b)	Communication should take place via a chat group to ensure that all team members are informed about the test status as promptly as possible.	☐
c)	The relevant stakeholders should be verbally informed about the test status to convey the most important information directly.	☐
d)	The test status should be communicated in daily coordination meetings via video conference, with stakeholders from all involved time zones participating.	☐

FL-5.3.3 (K2) Exemplify how to communicate the status of testing [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

a) CORRECT – For temporally and spatially distributed teams, a more **formal** type of **communication** is preferable (see [CTFL 4.0], Section 5.3.3, 2nd paragraph, 2nd sentence: "A more formal communication may be suitable for distributed teams where direct face-to-face communication is not always possible due to geographical distances or time differences"). In summary, more formal communication in this context means that information is structured, documented and communicated in a comprehensible way, which is particularly important in distributed teams.

b) FALSE – **Chat groups** are a very good way for quick exchanges, but not necessarily for temporally distributed groups, as it can be difficult to find relevant information in the chat history. Additionally, the argument is incorrect. In temporally distributed teams, it is not relevant that information be transmitted promptly to the recipient group.

c) FALSE – This is not always possible for temporally distributed teams and therefore not the most efficient form of communication. The question clearly states that team members cannot coordinate directly due to temporal distribution. ("**Verbal communication**")

d) FALSE – Since stakeholders already want to be informed daily about the test status, it is not an option to support them through an unsuitable tool such as a video conference. ("**Daily coordination meetings**")

Question 37	FL-5.4.1	K2	Score 1.0

Which of the following statements describes how configuration management can support testing activities?

Select ONE option! (1 out of 4)

a)	A tester records the progress made during testing on the current day in a test management tool.	☐
b)	A tester stores test data for data-driven test execution in a database and ensures that the data can be read from the database at the time of test execution.	☐
c)	A tester uses a spreadsheet program to formalize the business rules of a system to be tested in the form of decision tables.	☐
d)	A tester automatically restores the relevant test assets for an older version of a product in order to perform maintenance testing for that older version.	☒

FL-5.4.1 (K2) Summarize possible support for testing through configuration management [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

a) FALSE – The use of test management tools as repositories for information and progress tracking is part of the test monitoring and control activity and not part of configuration management. ("Test progress in the test management tool")

b) FALSE – These activities are primarily unrelated to configuration management but are part of test implementation.

c) FALSE – The formalization of logical business rules in the form of decision tables is part of test analysis, where test conditions are formally documented, and primarily not related to configuration management of test assets.

d) CORRECT – A significant part of configuration management involves reverting to an earlier baseline of a configuration item when needed (see [CTFL 4.0], Section 5.4, 3rd paragraph). This exactly corresponds to the situation described in option d).

Question 38	FL-5.5.1	K3	Score 1.0

You are testing a new version of the software for a coffee machine. With this software, the machine can prepare various types of coffee, which are categorized into four categories: coffee quantity, sugar, milk, and Coffee flavor.

The categories are as follows:

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

You are writing a defect report with the following information:

Title: Low coffee temperature.

Brief summary: When selecting coffee with milk, the temperature of the drink is too low (below 40 ºC).

Expected result: The temperature of the coffee should meet the standard (approximately 75 ºC).

Impact severity: Moderate

Priority: Normal

What relevant information have you forgotten in the defect report above?

Select ONE option! (1 out of 4)

a)	Actual test result	☐
b)	Identification of the tested software version	☒
c)	Ideas for improving the test case	☐
d)	Quality of the work result that was tested	☐

FL-5.5.1 (K3) Prepare a defect report [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

a) FALSE – The expected result and the actual result are usually valuable information in a defect report (see [CTFL 4.0], Section 5.5, 3rd paragraph and 7th bullet point). The expected test result is specified (approximately 75 ºC), and the actual result is also provided ("temperature of the drink too low (less than 40 ºC)").

b) CORRECT – The identification of the test object and the test environment are typically valuable information in a defect report (see [CTFL 4.0], Section 5.5, 3rd paragraph and 4th bullet point); therefore, specifying the deployed software version is an important and valuable part of the defect report.

c) FALSE – This information may be useful for the tester but is typically not part of a defect report (see [CTFL 4.0], Section 5.5, 3rd paragraph).

d) FALSE – The quality of the tested work result is important information for the project but not for a defect report. Rather, the estimated quality of the work result is derived, among other things, from the number of defect reports created for the work result.

Question 39	FL-6.1.1	K2	Score 1.0

Given the following test activities

1. **Performance measurement and IT security checks**
2. **Test automation**
3. **Test activity management**
4. **Test design and test implementation**

and test tools:

A. **Tools for test execution.**
B. **Test tools for non-functional tests.**
C. **Tools for preparing test cases and test data.**
D. **Defect management tools.**

Which assignment of tools to activities is the BEST?

Select ONE option! (1 out of 4)

a)	1 – D, 2 – C, 3 – B, 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	☐

FL-6.1.1 (K2) Explain possible support for testing by different types of test tools [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

The correct assignment of test activities to types of test tools is as follows (see [CTFL 4.0], Section 6.1):

- 1. Performance measurement and IT security checks are non-functional tests, therefore (B) non-functional test tools support them (see [CTFL 4.0], Section 6.1, 5th bullet point).
- 2. Test automation belongs to automated test execution, therefore (A) tools for test execution support it (see [CTFL 4.0], Section 6.1, 4th bullet point).
- 3. Test management involves managing defect states, therefore (D) a defect management tool supports it (see [CTFL 4.0], Section 6.1, 1st bullet point).
- 4. Test design and implementation involve preparing test data, therefore (C) tools for preparing test data support them (see [CTFL 4.0], Section 6.1, 3rd bullet point).

Thus, option c) [1 - B, 2 - A, 3 - D, 4 - C] is CORRECT.

Question 40	FL-6.2.1	K1	Score 1.0

Which of the following statements best describes the potential benefit of using tools for automated test execution?

Select ONE option! (1 out of 4)

a)	Implementing regression tests is easier since they can be implemented directly with a test script.	☐
b)	There is a more efficient assessment of the test object by the automation tool.	☐
c)	Using a test tool when manual testing is more appropriate.	☐
d)	Regression tests can be conducted more quickly, thus providing faster feedback to the team.	☒

FL-6.2.1 (K1) Describe the benefits and risks of test automation [CTFL 4.0].

Justification (see ISTQB® Foundation Level Syllabus v4.0):

a) FALSE – Test execution tools that support test automation do not facilitate the creation and implementation of regression tests, but rather their execution (see [CTFL 4.0], Section 6.2, 1st bullet point).

b) FALSE – Automated test execution enables an objective assessment of the test object. However, objectivity is not the same as a more efficient assessment (see [CTFL 4.0], Section 6.2, 2nd paragraph, 3rd bullet point).

c) FALSE – This does not describe a benefit of test automation but rather a risk (see [CTFL 4.0], Section 6.2, 3rd paragraph, 3rd bullet point).

d) CORRECT – Potential benefits of test automation and the use of test execution tools include time savings through the reduction of repetitive manual tasks (e.g., execution of regression tests, ...) (see [CTFL 4.0], Section 6.2, 2nd paragraph, 1st and 5th bullet points).

Space for your notes:
(are neither read nor valuated during correction)

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(are neither read nor valuated during correction)