

## CTFL4 Dumps

### ISTQB Certified Tester Foundation Level CTFL 4.0 Exam

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**NEW QUESTION 1**

Which statement is true regarding confirmation testing and regression testing?

- A. Confirmation testing confirms the quality of the test being run while regression testing ensures that the software still works after a change has been made.
- B. Confirmation testing is an optional activity whilst regression testing is not negotiable.
- C. Confirmation testing aims to verify that a defect has been resolved and regression testing ensuring that existing functionality still works after a change.
- D. Testers' involvement is essential whilst running retesting and regression testing.
- E. TESTER Involvement is essential whilst running retesting and regression testing.

**Answer:** C

**Explanation:**

Confirmation testing, also known as retesting, is conducted to verify that specific defects have been fixed. Regression testing, on the other hand, is performed to ensure that recent changes have not adversely affected existing features of the software. Both types of testing are crucial for maintaining the integrity and quality of the software after modifications.

**NEW QUESTION 2**

Consider the following user story about the authentication functionality of an e-commerce website:

"As a logged-in user, I want to change my current password with a new one, so that I can make my account safer".

The following are some of the acceptance criteria defined for the user story:

- [a] After the logged-in user has successfully changed his password, an email confirming the change must be sent to him
- [b] To successfully change the password, the logged-in user must enter the current password, enter a new valid password, and finally confirm by pressing the 'Change Password' button
- [c] To be valid, the new password entered by the logged-in user is not only required to meet the criteria related to the length and type of characters, but must also be different from the last 5 passwords of that user
- [d] A dedicated error message must be presented to the logged-in user when he enters a wrong current password
- [e] A dedicated error message must be presented to the logged-in user when he enters the correct current password, but enters an invalid password

Based only on the given information, which of the following ATDD tests is most likely to be written first?

- A. The logged-in user enters a wrong current password and views the dedicated error message
- B. The logged-in user enters the correct current password, enters a valid new password (different from the last 5 passwords), presses the 'Change Password' button, and finally receives the e-mail confirming that the password has been successfully changed
- C. The logged-in user enters the correct current password, enters an invalid password, and finally views the dedicated error
- D. The logged-in user submits a purchase order containing ten items, selects to pay with a Visa credit card, enters credit card information of a valid card, presses the 'Confirm' button, and finally views the dedicated message confirming that the purchase has been successful

**Answer:** B

**Explanation:**

ATDD stands for Acceptance Test-Driven Development, which is a collaborative approach to software development and testing, in which the acceptance criteria of a user story are defined and automated as executable tests before the implementation of the software system. ATDD tests are usually written in a Given-When-Then format, which describes the preconditions, the actions, and the expected outcomes of a test scenario. ATDD tests are intended to verify that the software system meets the expectations and the needs of the users and the stakeholders, as well as to provide feedback and guidance for the developers and the testers. Based on the given information, the ATDD test that is most likely to be written first is the one that corresponds to option B, which is:

Given the logged-in user is on the Change Password page When the user enters the correct current password, enters a valid new password (different from the last 5 passwords), and presses the Change Password button Then the user receives an email confirming that the password has been successfully changed

This ATDD test is most likely to be written first, because it covers the main functionality and the happy path of the user story, as well as the most important acceptance criterion [a]. It also verifies that the user can change the password with a valid new password that meets the criteria related to the length, the type of characters, and the history of the passwords, as specified in the acceptance criterion [c]. The other options are not likely to be written first, because they either cover less critical or less frequent scenarios, such as entering a wrong current password [d] or an invalid new password [e], or they are not related to the user story or the acceptance criteria at all, such as submitting a purchase order [d]. References: ISTQB Certified Tester Foundation Level (CTFL) v4.0 sources and documents:

? ISTQB® Certified Tester Foundation Level Syllabus v4.0, Chapter 1.3.1, Testing in Software Development Lifecycles1

? ISTQB® Glossary of Testing Terms v4.0, Acceptance Test-Driven Development, User Story, Acceptance Criterion, Given-When-Then2

**NEW QUESTION 3**

A calculator software is used to calculate the result for 5+6. The user noticed that the result given is 6.

This is an example of;

- A. Mistake
- B. Fault
- C. Error
- D. Failure

**Answer:** D

**Explanation:**

According to the ISTQB Glossary of Testing Terms, Version 4.0, 2018, page 18, a failure is ??an event in which a component or system does not perform a required function within specified limits??. In this case, the calculator software does not perform the required function of calculating the correct result for 5+6 within the specified limits of accuracy and precision. Therefore, this is an example of a failure.

The other options are incorrect because:

? A mistake is ??a human action that produces an incorrect result?? (page 25). A mistake is not an event, but an action, and it may or may not lead to a failure. For example, a mistake could be a typo in the code, a wrong assumption in the design, or a misunderstanding of the requirement.

? A fault is ??a defect in a component or system that can cause the component or system to fail to perform its required function?? (page 16). A fault is not an event, but a defect, and it may or may not cause a failure. For example, a fault could be a logical error in the code, a missing specification in the design, or a contradiction in the requirement.

? An error is ??the difference between a computed, observed, or measured value or condition and the true, specified, or theoretically correct value or condition?? (page 15). An error is not an event, but a difference, and it may or may not result in a failure. For example, an error could be a rounding error in the calculation, a

measurement error in the observation, or a deviation error in the condition.

References = ISTQB Glossary of Testing Terms, Version 4.0, 2018, pages 15-18, 25;

ISTQB CTFL 4.0 - Sample Exam - Answers, Version 1.1, 2023, Question 96, page 34.

#### NEW QUESTION 4

Which of the following is not an example of a typical content of a test completion report for a test project?

- A. The additional effort spent on test execution compared to what was planned
- B. The unexpected test environment downtime that resulted in slower test execution
- C. The residual risk level if a risk-based test approach was adopted
- D. The test procedures of all test cases that have been executed

**Answer: D**

#### Explanation:

This answer is correct because the test procedures of all test cases that have been executed are not a typical content of a test completion report for a test project. A test completion report is a document that summarizes the test activities and results at the end of a test project. It usually includes information such as the test objectives, scope, approach, resources, schedule, results, deviations, issues, risks, lessons learned, and recommendations for improvement. The test procedures of all test cases that have been executed are part of the test documentation, but they are not relevant for the test completion report, as they do not provide a high-level overview of the test project outcomes and performance. References: ISTQB Foundation Level Syllabus v4.0, Section 2.5.3.2

#### NEW QUESTION 5

Which of the following statements is an example of testing contributing to higher quality?

- A. A test leader writes a test summary report
- B. A project manager asks to a test leader to estimate the test effort
- C. A tester installs a test ten in the lest environment
- D. A tester finds a bug which is resolved prior to release

**Answer: D**

#### Explanation:

? The question is about identifying an example of testing contributing to higher quality. Quality is the degree to which a component, system or process meets specified requirements and/or user/customer needs and expectations<sup>1</sup>. Testing is the process consisting of all lifecycle activities, both static and dynamic, concerned with planning, preparation and evaluation of software products and related work products to determine that they satisfy specified requirements, to demonstrate that they are fit for purpose and to detect defects<sup>2</sup>.

? Therefore, testing contributes to higher quality by verifying and validating that the software products and related work products meet the specified requirements, are fit for purpose and have no defects, or at least have a reduced number of defects. Testing also provides information about the quality of the software products and related work products to the stakeholders, who can make informed decisions based on the test results<sup>3</sup>.

? Out of the four given statements, only option D is an example of testing contributing to higher quality, as it shows that testing has detected a defect (a flaw in a component or system that can cause the component or system to fail to perform its required function<sup>4</sup>) and that the defect has been resolved (fixed and confirmed) prior to release (delivery of the software product to the customer or end user). This means that testing has prevented a potential failure (an event in which a component or system does not perform a required function within specified limits) from occurring in the operational environment, and thus has improved the quality of the software product.

? Option A is not an example of testing contributing to higher quality, as it is a reporting activity that summarizes the test results and evaluates the test objectives, but does not directly affect the quality of the software product or related work products. A test summary report is a document that records and communicates the outcomes of testing activities, including test completion criteria, test results, incident reports, test summary and evaluation, and lessons learned.

? Option B is not an example of testing contributing to higher quality, as it is a planning activity that estimates the resources and time needed for testing activities, but does not directly affect the quality of the software product or related work products. A test effort estimate is an approximation of the amount of work and/or the duration of time required to perform testing activities.

? Option C is not an example of testing contributing to higher quality, as it is a preparation activity that sets up the test environment (an environment containing hardware, instrumentation, simulators, software tools, and other support elements needed to conduct a test), but does not directly affect the quality of the software product or related work products. A test environment installation is a process of installing and configuring the test environment according to the test environment specification.

References:

? 1: ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 10

? 2: ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 11

? 3: ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 12

? 4: ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 13

? : ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 13

? : ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 77

? : ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 78

? : ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 79

? : ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 80

? : ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 81

? : ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 82

? : ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 83

? : ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 84

? : ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 85

? : ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 86

? : ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 87

? : ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 88

? : ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 89

? : ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 90

? : ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 91

? : ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 92

? : ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 93

? : ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 94

? : ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 95

? : ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 96

? : ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 97

? : ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 98  
? : ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 99  
? : ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 100  
? : ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 101  
? : ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 102  
? : ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 103  
? : ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 104  
? : ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 105  
? : ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 106  
? : ISTQB Certified Tester Foundation Level Syllabus 2018, Version 4.0, p. 107

**NEW QUESTION 6**

The acceptance criteria associated with a user story:

- A. are often written in a rule-oriented format using the template referred to as "Given/When/Then"
- B. are often documented following in rule-oriented format using the following template: "As a [role], I want [feature], so that I can [benefit]"
- C. can be written in different formats and represent an aspect of a user story referred to as confirmation' of the so called "3 C's"
- D. must be written in one of the two following formats: scenario-oriented or rule-oriented

**Answer: C**

**Explanation:**

The acceptance criteria associated with a user story are the conditions that must be met for the user story to be considered done and to deliver the expected value to the user. They are often written in different formats, such as rule-oriented, scenario-oriented, or table- oriented, depending on the nature and complexity of the user story. They represent an aspect of a user story referred to as confirmation, which is one of the so called "3 C's" of user stories. The other two aspects are card and conversation. Card refers to the concise and informal description of the user story, usually following the template: "As a [role], I want [feature], so that I can [benefit]". Conversation refers to the ongoing dialogue between the stakeholders and the team members to clarify and refine the user story and its acceptance criteria. Therefore, option C is the correct answer.

References: ISTQB® Certified Tester Foundation Level Syllabus v4.01, Section 3.2.2, page 35-36; ISTQB® Glossary v4.02, page 37.

**NEW QUESTION 7**

Which of the following statements about static testing and dynamic testing is TRUE?

- A. Static testing is better suited than dynamic testing for highlighting issues that could indicate inappropriate code modularisation.
- B. Dynamic testing can only be applied to executable work products, while static testing can only be applied to non-executable work products.
- C. Both dynamic testing and static testing cause failures, but failures caused by static testing are usually easier and cheaper to analyse.
- D. Security vulnerabilities can only be detected when the software is being executed, and thus they can only be detected through dynamic testing, not through static testing

**Answer: A**

**Explanation:**

Static testing, such as code reviews and static analysis, is particularly effective at identifying issues related to code structure and modularization. These techniques allow for the inspection of the code without executing it, making it easier to spot problems related to how the code is organized. Dynamic testing, on the other hand, focuses on the execution of code and is better suited for identifying runtime issues but does not easily reveal structural problems. The ISTQB CTFL Syllabus v4.0 highlights the strengths of static testing in uncovering such structural issue

**NEW QUESTION 8**

Testing Quadrants, as a model, is effective in aligning stakeholders within Agile teams. Which of the following examples demonstrates this?

- A. Using Testing Quadrants, the test manager is able to measure and communicate test coverage to all stakeholders.
- B. Using Testing Quadrants, the test manager is able to communicate potential product risk to all stakeholders.
- C. Using Testing Quadrant, the test manager is able to prioritize defects by linking these to a specific type of test.
- D. Using Testing Quadrants, the test manager is able to differentiate and describe the types of tests to all stakeholders.

**Answer: D**

**Explanation:**

The Testing Quadrants model helps Agile teams by categorizing different types of tests and their purposes. This differentiation helps test managers explain the testing strategy to all stakeholders, ensuring everyone understands the scope and objectives of each test type. This model aids in planning, executing, and tracking testing activities across different quadrants, making it easier to align with stakeholders' expectations and project goals. Reference: ISTQB CTFL Syllabus V4.0, Section 5.1.7

**NEW QUESTION 9**

Which of the following characterizations applies to a test tool used for the analysis of a developer's code prior to its execution?

- A. Tool support for test design and implementation.
- B. Tool support for static testing.
- C. Tool support for test execution and logging.
- D. Tool support for performance measurement and dynamic analysis.

**Answer: B**

**Explanation:**

A test tool used for the analysis of a developer's code prior to its execution falls under the category of static testing tools. Static testing involves examining the code and documentation without executing the code. These tools are used to perform static analysis, which helps in identifying potential defects and code quality issues early in the development process. The ISTQB CTFL syllabus specifies that static analysis tools are essential for finding defects that do not manifest themselves during the execution of the program.

References: ISTQB CTFL Syllabus, Section 3.1, "Static Testing."



**NEW QUESTION 10**

In a two-hour uninterrupted test session, performed as part of an iteration on an Agile project, a heuristic checklist was used to help the tester focus on some specific usability issues of a web application.

The unscripted tests produced by the tester's experience during such session belong to which one of the following testing quadrants?

- A. Q1
- B. Q2
- C. Q3
- D. Q4

**Answer: C**

**Explanation:**

The unscripted tests produced by the tester's experience during the two-hour test session belong to the testing quadrant Q3. The testing quadrants are a classification of testing types based on two dimensions: the test objectives (whether the testing is focused on supporting the team or critiquing the product) and the test basis (whether the testing is based on the technology or the business). The testing quadrants are labeled as Q1, Q2, Q3, and Q4, and each quadrant represents a different testing perspective, such as unit testing, acceptance testing, usability testing, or performance testing. The testing quadrant Q3 corresponds to the testing types that have the objective of critiquing the product from the business perspective, such as exploratory testing, usability testing, user acceptance testing, alpha testing, beta testing, etc. The unscripted tests performed by the tester in the given scenario are examples of exploratory testing and usability testing, as they are based on the tester's experience, intuition, and learning of the web application, and they focus on some specific usability issues, such as the user interface, the user satisfaction, the user feedback, etc. The other options are incorrect, because:

? The testing quadrant Q1 corresponds to the testing types that have the objective of supporting the team from the technology perspective, such as unit testing, component testing, integration testing, system testing, etc. These testing types are usually performed by developers or testers who have access to the source code, the design, the architecture, or the configuration of the software system, and they aim to verify the functionality, the quality, and the reliability of the software system at different levels of integration.

? The testing quadrant Q2 corresponds to the testing types that have the objective of supporting the team from the business perspective, such as functional testing, acceptance testing, story testing, scenario testing, etc. These testing types are usually performed by testers or customers who have access to the requirements, the specifications, the user stories, or the business processes of the software system, and they aim to validate that the software system meets the expectations and the needs of the users and the stakeholders.

? The testing quadrant Q4 corresponds to the testing types that have the objective of critiquing the product from the technology perspective, such as performance testing, security testing, reliability testing, compatibility testing, etc. These testing types are usually performed by testers or specialists who have access to the tools, the metrics, the standards, or the benchmarks of the software system, and they aim to evaluate the non-functional aspects of the software system, such as the efficiency, the security, the reliability, or the compatibility of the software system under different conditions or environments. References: ISTQB Certified Tester Foundation Level (CTFL) v4.0 sources and documents:

? ISTQB® Certified Tester Foundation Level Syllabus v4.0, Chapter 1.3.1, Testing in Software Development Lifecycles

? ISTQB® Glossary of Testing Terms v4.0, Testing Quadrant, Exploratory Testing, Usability Testing, Unit Testing, Component Testing, Integration Testing, System Testing, Functional Testing, Acceptance Testing, Story Testing, Scenario Testing, Performance Testing, Security Testing, Reliability Testing, Compatibility Testing

**NEW QUESTION 10**

Which of the following best describes the way in which statement coverage is measured?

- A. Measured as the number of decision outcomes executed by the tests, divided by the total number of decision outcomes in the test object.
- B. It is not possible to accurately measure statement coverage.
- C. Measured as the number of statements executed by the tests, divided by the total number of executable statements in the code.
- D. Measured as the number of lines of code executed by the test, divided by the total number of lines of code in the test object.

**Answer: C**

**Explanation:**

Statement coverage is a metric used in white-box testing that measures the percentage of executable statements in the code that have been executed by the test cases. It is calculated as the number of statements executed by the tests divided by the total number of executable statements in the code, providing an indication of how much of the code has been tested.

**NEW QUESTION 11**

Which of the following is a typical potential risk of using test automation tools?

- A. Reduced feedback times regarding software quality compared to manual testing.
- B. Reduced test execution times compared to manual testing.
- C. Reduced repeatability and consistency of tests compared to manual testing
- D. Underestimation of effort required to maintain test scripts.

**Answer: D**

**Explanation:**

One of the common risks associated with test automation tools is the underestimation of the effort required to maintain test scripts. Test scripts can become outdated or broken due to changes in the application, requiring significant effort to update and maintain them. This risk is highlighted in the ISTQB CTFL syllabus under the discussion of the benefits and risks of test automation.

References: ISTQB CTFL Syllabus, Section on test tools and automation.

**NEW QUESTION 12**

Determining the schedule for each testing activity and test milestones for a test project, using activity estimates, available resources, and other constraints is a typical task performed during

- A. Test execution
- B. Test design.
- C. Test analysis.
- D. Test planning

**Answer:** D

**Explanation:**

Test planning involves defining the overall approach to testing, including scheduling, resources, and milestones. It is during this phase that the detailed schedule for each testing activity is determined based on estimates, resource availability, and constraints. The ISTQB CTFL Syllabus v4.0 outlines that test planning encompasses the creation of test plans and schedules to ensure that testing activities are properly managed and controlled.

**NEW QUESTION 16**

A financial institution is to implement a system that calculates the interest rates paid on investment accounts based on the sum invested.

You are responsible for testing the system and decide to use equivalence partitioning and boundary value analysis to design test cases. The requirements describe the following expectations:

Investment range| Interest rate  
R500 to R10,000| 10%

R10,001 to R50,000| 11%  
R50,001 to R100,000| 12%  
R100,001 to R500,000| 13%

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

- A. 5
- B. 4
- C. 8
- D. 16

**Answer:** B

**Explanation:**

Using equivalence partitioning, the investment ranges are divided into four partitions:

? R500 to R10,000 (10%)

? R10,001 to R50,000 (11%)

? R50,001 to R100,000 (12%)

? R100,001 to R500,000 (13%)

Thus, the minimum number of test cases required to cover all valid equivalence partitions for calculating the interest is 4.

**NEW QUESTION 19**

The four test levels used in ISTQB syllabus are:

- \* 1. Component (unit) testing
- \* 2. Integration testing
- \* 3. System testing
- \* 4. Acceptance testing

An organization wants to do away with integration testing but otherwise follow V-model. Which of the following statements is correct?

- A. It is allowed as organizations can decide on test levels to do depending on the context of the system under test
- B. It is allowed because integration testing is not an important test level and can be dispensed with.
- C. It is not allowed because integration testing is a very important test level and ignoring it means definite poor product quality
- D. It is not allowed as organizations can't change the test levels as these are chosen on the basis of the SDLC (software development life cycle) model

**Answer:** D

**Explanation:**

The V-model is a software development life cycle model that defines four test levels that correspond to four development phases: component (unit) testing with component design, integration testing with architectural design, system testing with system requirements, and acceptance testing with user requirements. The V-model emphasizes the importance of verifying and validating each phase of development with a corresponding level of testing, and ensuring that the test objectives, test basis, and test artifacts are aligned and consistent across the test levels. Therefore, an organization that wants to follow the V-model cannot do away with integration testing, as it would break the symmetry and completeness of the V-model, and compromise the quality and reliability of the software or system under test. Integration testing is a test level that aims to test the interactions and interfaces between components or subsystems, and to detect any defects or inconsistencies that may arise from the integration of different parts of the software or system. Integration testing is essential for ensuring the functionality, performance, and compatibility of the software or system as a whole, and for identifying and resolving any integration issues early in the development process. Skipping integration testing would increase the risk of finding serious defects later in the test process, or worse, in the production environment, which would be more costly and difficult to fix, and could damage the reputation and credibility of the organization. Therefore, the correct answer is D.

The other options are incorrect because:

? A. It is not allowed as organizations can decide on the test levels to do depending on the context of the system under test. While it is true that the choice and scope of test levels may vary depending on the context of the system under test, such as the size, complexity, criticality, and risk level of the system, the organization cannot simply ignore or skip a test level that is defined and required by the chosen software development life cycle model. The organization must follow the principles and guidelines of the software development life cycle model, and ensure that the test levels are consistent and coherent with the development phases. If the organization wants to have more flexibility and adaptability in choosing the test levels, it should consider using a different software development life cycle model, such as an agile or iterative model, that allows for more dynamic and incremental testing approaches.

? B. It is not allowed because integration testing is not an important test level and can be dispensed with. This statement is false and misleading, as integration testing is a very important test level that cannot be dispensed with. Integration testing is vital for testing the interactions and interfaces between components or subsystems, and for ensuring the functionality, performance, and compatibility of the software or system as a whole. Integration testing can reveal defects or inconsistencies that may not be detected by component (unit) testing alone, such as interface errors, data flow errors, integration logic errors, or performance degradation. Integration testing can also help to verify and validate the architectural design and the integration strategy of the software or system, and to ensure that the software or system meets the specified and expected quality attributes, such as reliability, usability, security, and maintainability. Integration testing can also provide feedback and confidence to the developers and stakeholders about the progress and quality of the software or system development. Therefore, integration testing is a crucial and indispensable test level that should not be skipped or omitted.

? C. It is not allowed because integration testing is a very important test level and ignoring it means definite poor product quality. This statement is partially true, as integration testing is a very important test level that should not be ignored, and skipping it could result in poor product quality. However, this statement is too strong and absolute, as it implies that integration testing is the only factor that determines the product quality, and that ignoring it would guarantee a poor product quality. This is not necessarily the case, as there may be other factors that affect the product quality, such as the quality of the requirements, design, code, and other test levels, the effectiveness and efficiency of the test techniques and tools, the competence and experience of the developers and testers, the availability and adequacy of the resources and environment, the management and communication of the project, and the expectations and satisfaction of the customers and users. Therefore, while integration testing is a very important test level that should not be skipped, it is not the only test level that matters, and skipping it does not necessarily mean definite poor product quality, but rather a higher risk and likelihood of poor product quality.

References = ISTQB Certified Tester Foundation Level Syllabus, Version 4.0, 2018, Section 2.3, pages 16-18; ISTQB Glossary of Testing Terms, Version 4.0, 2018, pages 38-39; ISTQB CTFL 4.0 - Sample Exam - Answers, Version 1.1, 2023, Question 104, page 36.

**NEW QUESTION 20**

Which of the following statements about estimation of the test effort is WRONG?

- A. Once the test effort is estimated, resources can be identified and a schedule can be drawn up.
- B. Effort estimate can be inaccurate because the quality of the product under tests is not known.
- C. Effort estimate depends on the budget of the project.
- D. Experience based estimation is one of the estimation techniques.

**Answer: C**

**Explanation:**

? Effort estimate does not depend on the budget of the project, but rather on the scope, complexity, and quality of the software product and the testing activities<sup>1</sup>. Budget is a constraint that may affect the feasibility and accuracy of the effort estimate, but it is not a factor that determines the effort estimate. Effort estimate is the amount of work required to complete the testing activities, measured in terms of person-hours, person-days, or person-months<sup>2</sup>.

? The other options are correct because: References =

? 1 ISTQB® Certified Tester Foundation Level Syllabus v4.0, 2023, p. 154

? 2 ISTQB® Certified Tester Foundation Level Syllabus v4.0, 2023, p. 155

? 3 ISTQB® Certified Tester Foundation Level Syllabus v4.0, 2023, p. 156

? 4 ISTQB® Certified Tester Foundation Level Syllabus v4.0, 2023, p. 157

? 5 ISTQB® Certified Tester Foundation Level Syllabus v4.0, 2023, p. 158

? 6 ISTQB® Certified Tester Foundation Level Syllabus v4.0, 2023, p. 159

? 7 ISTQB® Certified Tester Foundation Level Syllabus v4.0, 2023, p. 16

? [8] ISTQB® Certified Tester Foundation Level Syllabus v4.0, 2023, p. 160

? [9] ISTQB® Certified Tester Foundation Level Syllabus v4.0, 2023, p. 161

**NEW QUESTION 25**

Which of the following statements about white-box test techniques is true?

- A. Achieving full statement coverage and full branch coverage for a software product means that such software product has been fully tested and there are no remaining bugs within the code
- B. Code-related white-box test techniques are not required to measure the actual code coverage achieved by black-box testing, as code coverage can be measured using the coverage criteria associated with black-box test techniques
- C. Branch coverage is the most thorough code-related white-box test technique, and therefore applicable standards prescribe achieving full branch coverage at the highest safety levels for safety-critical systems
- D. Code-related white-box test techniques provide an objective measure of coverage and can be used to complement black-box test techniques to increase confidence in the code

**Answer: D**

**Explanation:**

This answer is correct because code-related white-box test techniques are test design techniques that use the structure of the code to derive test cases. They provide an objective measure of coverage, such as statement coverage, branch coverage, or path coverage, which indicate how much of the code has been exercised by the test cases. Code-related white-box test techniques can be used to complement black-box test techniques, which are test design techniques that use the functional or non-functional requirements of the system or component to derive test cases. By combining both types of techniques, testers can increase their confidence in the code and find more defects. References: ISTQB Glossary of Testing Terms v4.0, ISTQB Foundation Level Syllabus v4.0, Section 2.3.2.2

**NEW QUESTION 29**

You are testing the latest version of an air-traffic control system prior to production deployment using exploratory testing. After following an unusual sequence of input steps, the system crashes. After the crash, you document a defect report with the following information:

- Title: System crashes unexpectedly during input.
  - Brief summary: System crashes when an unusual sequence of inputs is used.
  - Version: V1.001
  - Test: Exploratory testing prior to production deployment
  - Priority: Urgent
  - Risk: High
  - References: Screenshot of crashed application
- What critical Information Is missing from this report?

- A. Conclusions, recommendations, and approvals.
- B. Change history.
- C. Description of the defect to enable reproduction.
- D. Status of defect

**Answer: C**

**Explanation:**

The critical information missing from the defect report is a detailed description of the defect to enable reproduction. A clear and concise description of the steps taken to reproduce the defect is essential for developers to understand the context and to be able to replicate the issue in their environment. Without this information, it can be challenging to diagnose and fix the defect. The ISTQB CTFL syllabus emphasizes the importance of providing all necessary details in a defect report to facilitate effective communication and resolution.

References: ISTQB CTFL Syllabus, Section 5.5, "Defect Management."

**NEW QUESTION 33**

Which of the following is a test task that usually occurs during test implementation?



- A. Make sure the planned test environment is ready to be delivered
- B. Find, analyze, and remove the causes of the failures highlighted by the tests
- C. Archive the testware for use in future test projects
- D. Gather the metrics that are used to guide the test project

**Answer:** A

**Explanation:**

A test task that usually occurs during test implementation is to make sure the planned test environment is ready to be delivered. The test environment is the hardware and software configuration on which the tests are executed, and it should be as close as possible to the production environment where the software system will operate. The test environment should be planned, prepared, and verified before the test execution, to ensure that the test conditions, the test data, the test tools, and the test interfaces are available and functional. The other options are not test tasks that usually occur during test implementation, but rather test tasks that occur during other test activities, such as:

? Find, analyze, and remove the causes of the failures highlighted by the tests: This is a test task that usually occurs during test analysis and design, which is the activity of analyzing the test basis, designing the test cases, and identifying the test data. During this activity, the testers can use techniques such as root cause analysis, defect prevention, or defect analysis, to find, analyze, and remove the causes of the failures highlighted by the previous tests, and to prevent or reduce the occurrence of similar failures in the future tests.

? Archive the testware for use in future test projects: This is a test task that usually occurs during test closure, which is the activity of finalizing and reporting the test results, evaluating the test process, and identifying the test improvement actions. During this activity, the testers can archive the testware, which are the test artifacts produced during the testing process, such as the test plan, the test cases, the test data, the test results, the defect reports, etc., for use in future test projects, such as regression testing, maintenance testing, or reuse testing.

? Gather the metrics that are used to guide the test project: This is a test task that usually occurs during test monitoring and control, which is the activity of tracking and reviewing the test progress, status, and quality, and taking corrective actions when necessary. During this activity, the testers can gather the metrics, which are the measurements of the testing process, such as the test coverage, the defect density, the test effort, the test duration, etc., that are used to guide the test project, such as planning, estimating, scheduling, reporting, or improving the testing process. References: ISTQB Certified Tester Foundation Level (CTFL) v4.0 sources and documents:

? ISTQB® Certified Tester Foundation Level Syllabus v4.0, Chapter 2.1.1, Test Planning<sup>1</sup>

? ISTQB® Certified Tester Foundation Level Syllabus v4.0, Chapter 2.1.2, Test Monitoring and Control<sup>1</sup>

? ISTQB® Certified Tester Foundation Level Syllabus v4.0, Chapter 2.1.3, Test Analysis and Design<sup>1</sup>

? ISTQB® Certified Tester Foundation Level Syllabus v4.0, Chapter 2.1.4, Test Implementation<sup>1</sup>

? ISTQB® Certified Tester Foundation Level Syllabus v4.0, Chapter 2.1.5, Test Execution<sup>1</sup>

? ISTQB® Certified Tester Foundation Level Syllabus v4.0, Chapter 2.1.6, Test Closure<sup>1</sup>

? ISTQB® Glossary of Testing Terms v4.0, Test Environment, Test Condition, Test Data, Test Tool, Test Interface, Failure, Root Cause Analysis, Defect Prevention, Defect Analysis, Testware, Regression Testing, Maintenance Testing, Reuse Testing, Test Coverage, Defect Density, Test Effort, Test Duration<sup>2</sup>

**NEW QUESTION 35**

What is test oracle?

- A. The source of test objectives
- B. The source for the actual results
- C. The source of expected results
- D. The source of input conditions

**Answer:** C

**Explanation:**

A test oracle is a mechanism or principle that can be used to determine whether the observed behavior or output of a system under test is correct or not<sup>1</sup>. A test oracle can be based on various sources of expected results, such as specifications, user expectations, previous versions, comparable systems, etc<sup>2</sup>. References: ISTQB Certified Tester Foundation Level(CTFL) v4.0 Syllabus, Section 1.2.1, Page 91; ISTQB Glossary of Testing Terms, Version 4.0, Page 332.

**NEW QUESTION 37**

A program is used to control a manufacturing line (turn machines on and off. start and stop conveyer belts, add raw materials to the flow. etc.). Not all actions are possible at all times. For example, there are certain manufacturing stages that cannot be stopped - unless there is an emergency. A tester attempts to evaluate if all such cases (where a specific action is not allowed) are covered by the tests.

Which coverage metric will provide the needed information for this analysis?

- A. Code coverage
- B. Data flow coverage
- C. Statement coverage
- D. Branch Coverage

**Answer:** D

**Explanation:**

Branch coverage is a type of structural coverage metric that measures the percentage of branches or decision outcomes that are executed by the test cases. A branch is a point in the code where the control flow can take two or more alternative paths based on a condition. For example, an if-else statement is a branch that can execute either the if-block or the else-block depending on the evaluation of the condition. Branch coverage ensures that each branch is taken at least once by the test cases, and thus reveals the behavior of the software under different scenarios. Branch coverage is also known as decision coverage or all-edges coverage.

Branch coverage is suitable for testing the cases where a specific action is not allowed, because it can verify that the test cases cover all the possible outcomes of the conditions that determine the action. For example, if the program has a condition that checks if the manufacturing stage can be stopped, then branch coverage can ensure that the test cases cover both the cases where the stage can be stopped and where it cannot be stopped. This way, branch coverage can help identify any missing or incorrect branches that may lead to undesired or unsafe actions.

The other options are not correct because they are not suitable for testing the cases where a specific action is not allowed. Code coverage is a general term that encompasses various types of coverage metrics, such as statement coverage, branch coverage, data flow coverage, etc. Code coverage does not specify which type of coverage metric is used for the analysis. Data flow coverage is a type of structural coverage metric that measures the percentage of data flow paths that are executed by the test cases. A data flow path is a sequence of statements that define, use, or kill a variable. Data flow coverage is useful for testing the correctness and completeness of the data manipulation in the software, but not for testing the conditions that determine the actions. Statement coverage is a type of structural coverage metric that measures the percentage of statements or lines of code that are executed by the test cases. Statement coverage ensures that each statement is executed at least once by the test cases, but it does not reveal the behavior of the software under different scenarios. Statement coverage is a



weaker criterion than branch coverage, because it does not account for the branches or decision outcomes in the code. References = ISTQB Certified Tester Foundation Level (CTFL) v4.0 syllabus, Chapter 4: Test Techniques, Section 4.3: Structural Testing Techniques, Pages 51-54.

**NEW QUESTION 41**

Which of the following best describes the relationship between a test progress report and a test summary report?

- A. The test report prepared during a test activity may be referred to as a test progress report, while a test report prepared at the end of a test activity may be referred to as a test summary report.
- B. The test report prepared during a test activity may be referred to as a test summary report, while a test report prepared at the end of a test activity may be referred to as a test progress report.
- C. There is no difference between a test progress report and a test summary report.
- D. Both the test progress report and the test summary report should always be generated via an automated tool.

**Answer:** A

**Explanation:**

Reference:ISTQB CTFL Syllabus V4.0, Section 5.3.2

**NEW QUESTION 42**

Consider a review for a high-level architectural document written by a software architect. The architect does most of the review preparation work, including distributing the document to reviewers before the review meeting. However, reviewers are not required to analyze the document in advance, and during the review meeting the software architect explains the document step by step. The only goal of this review is to establish a common understanding of the software architecture that will be used in a software development project.

Which of the following review types does this review refer to?

- A. Inspection
- B. Audit
- C. Walkthrough
- D. Informal review

**Answer:** C

**Explanation:**

This answer is correct because a walkthrough is a type of review where the author of the work product leads the review process and explains the work product to the reviewers. The reviewers are not required to prepare for the review in advance, and the main objective of the walkthrough is to establish a common understanding of the work product and to identify any major defects or issues. A walkthrough is usually informal and does not follow a defined process or roles. In this case, the review for a high-level architectural document written by a software architect matches the characteristics of a walkthrough. References: ISTQB Glossary of Testing Terms v4.0, ISTQB Foundation Level Syllabus v4.0, Section 2.4.2.2

**NEW QUESTION 46**

Which of the following statements about TDD, BDD and ATDD is TRUE?

- A. Refactonng is a practice that is an integral part of TDD and is applied both to tests and to code wntten to satisfy those tests.
- B. ATDD is a black-box test design technique that is applicable exclusively at acceptance test level.
- C. BDD is a developer practice where business stakeholders are not usually involved as the tests are directly written at unit/component test level.
- D. ATDD is the practice of running the automated acceptance tests as part of a continuous integration process.

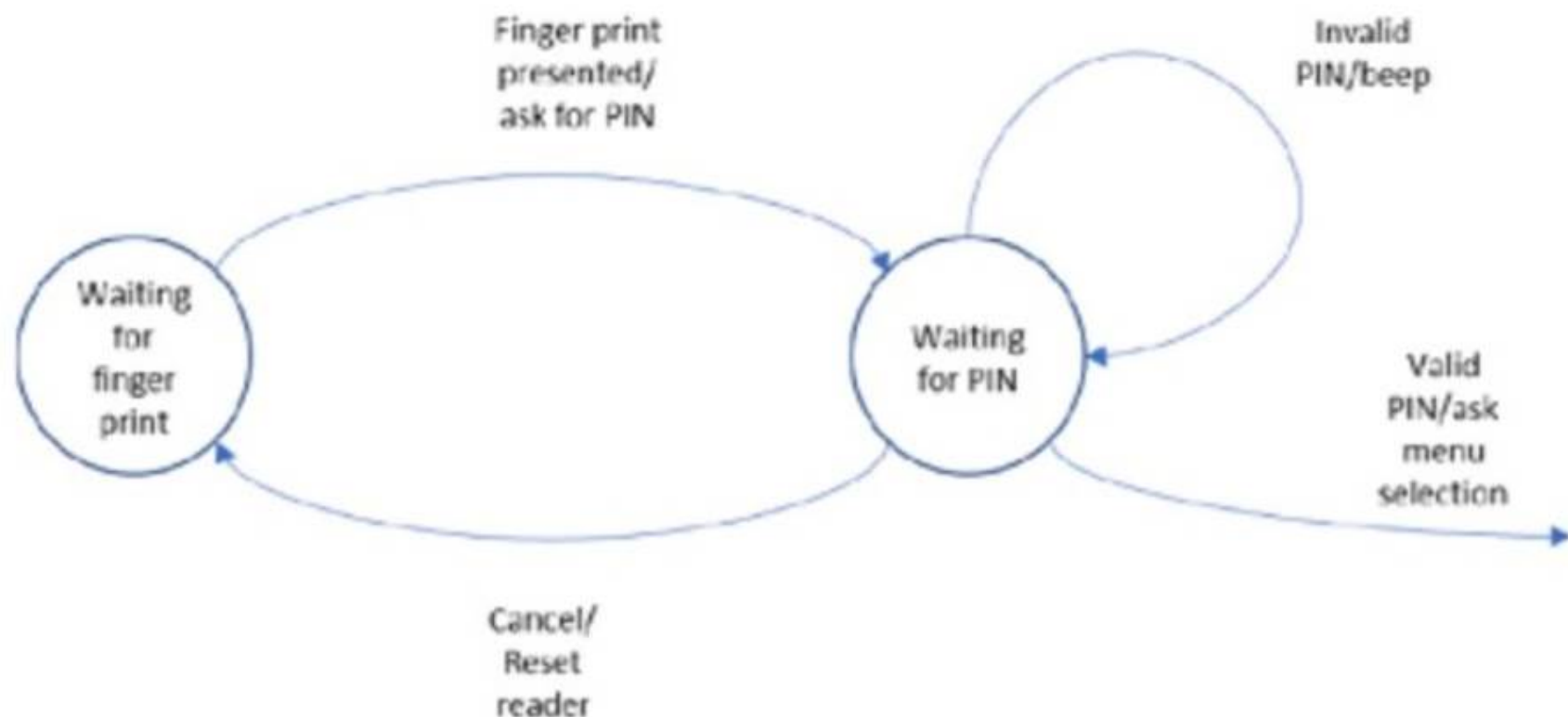
**Answer:** A

**Explanation:**

Test-Driven Development (TDD) emphasizes writing tests before code and includes refactoring as a key practice to improve both the tests and the code. This ensures that the codebase remains clean and maintainable. The ISTQB CTFL Syllabus v4.0 discusses TDD as a practice that includes writing tests first, coding to satisfy those tests, and then refactoring the code to improve its structure and readability while keeping the tests intact.

**NEW QUESTION 49**

The following state transition diagram describes the functionality involved in a system using fingerprint and password authentication to log onto a system.



How many distinct states of the system are visible in the above diagram?

- A. 1
- B. 2
- C. 3
- D. 4

**Answer: C**

**Explanation:**

The state transition diagram provided shows three distinct states:

- ? Waiting for fingerprint
- ? Waiting for PIN
- ? Valid PIN/ask menu selection

Each state represents a different stage in the system's operation, with transitions based on user actions and system responses.

**NEW QUESTION 54**

Which of the following statements is TRUE'?

- A. Unlike functional testing, non-functional testing can only be applied to conventional systems, not artificial intelligence-based system.
- B. Functional testing focuses on what the system is supposed to do, while white-box testing focuses on how well the system does what it is supposed to do
- C. Functional testing can be applied to all test levels, while non-functional testing can be applied only to system and acceptance test levels.
- D. Black-box test techniques and experience-based test techniques may be applicable to both functional testing and non-functional testing

**Answer: D**

**Explanation:**

Statement D is correct. According to the ISTQB CTFL syllabus, both black- box test techniques (which focus on testing without internal knowledge of the application) and experience-based test techniques (which rely on testers' experience and intuition) can be applied to both functional and non-functional testing. Functional testing is concerned with what the system does, whereas non-functional testing looks at how the system performs under certain conditions. These techniques are versatile and can be employed to address both these aspects.

**NEW QUESTION 57**

Test automation allows you to:

- A. demonstrate the absence of defects
- B. produce tests that are less subject to human errors
- C. avoid performing exploratory testing
- D. increase test process efficiency by facilitating management of defects

**Answer: B**

**Explanation:**

Test automation allows you to produce tests that are less subject to human errors, as they can execute predefined test scripts or test cases with consistent inputs, outputs, and expected results. Test automation can also reduce the manual effort and time required to execute repetitive or tedious tests, such as regression tests, performance tests, or data- driven tests. Test automation does not demonstrate the absence of defects, as it can only verify the expected behavior of the system under test, not the unexpected or unknown behavior. Test automation does not avoid performing exploratory testing, as exploratory testing is a valuable technique to discover new information, risks, or defects that are not covered by automated tests. Test automation does not increase test process efficiency by facilitating management of defects, as defect management is a separate activity that involves reporting, tracking, analyzing, and resolving defects, which may or may not be related to automated tests. References: ISTQB Certified Tester Foundation Level (CTFL) v4.0 sources and documents:

? ISTQB® Certified Tester Foundation Level Syllabus v4.0, Chapter 3.3.1, Test Automation1

? ISTQB® Glossary of Testing Terms v4.0, Test Automation2

#### NEW QUESTION 59

Consider a given test plan which, among others, contains the following three sections: "Test Scope", "Testing Communication", and "Stakeholders". The features of the test object to be tested and those excluded from the testing represent information that is:

- A. not usually included in a test plan, and therefore in the given test plan it should not be specified neither within the three sections mentioned, nor within the others
- B. usually included in a test plan and, in the given test plan, it is more likely to be specified within "Test Scope" rather than in the other two sections mentioned
- C. usually included in a test plan and, in the given test plan, it is more likely to be specified within "Testing Communication" rather than in the other two sections mentioned
- D. usually included in a test plan and, in the given test plan, it is more likely to be specified within "Stakeholders" rather than in the other two sections mentioned

**Answer: B**

#### Explanation:

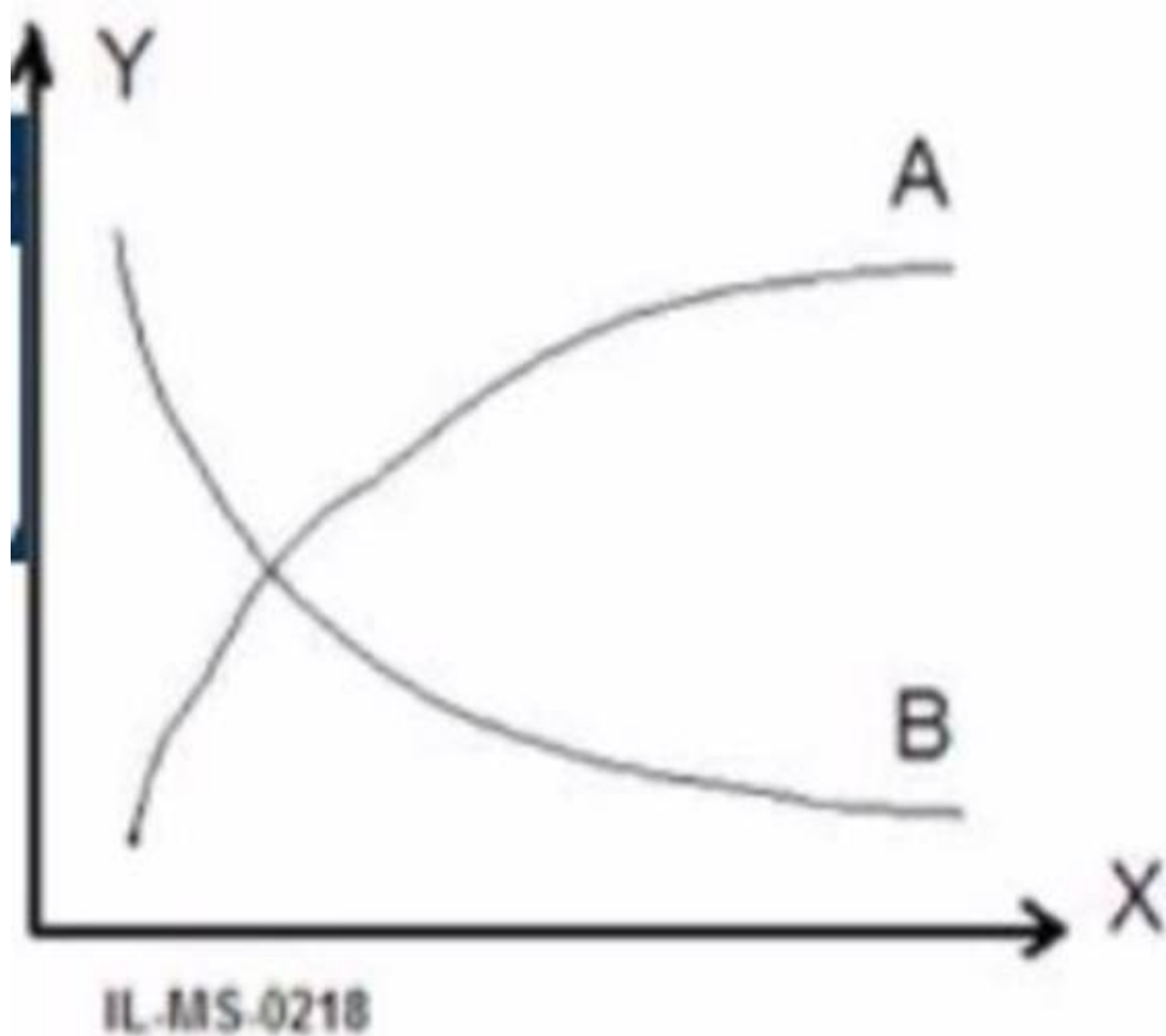
The features of the test object to be tested and those excluded from the testing represent information that is usually included in a test plan and, in the given test plan, it is more likely to be specified within "Test Scope" rather than in the other two sections mentioned. The test scope defines the boundaries and limitations of the testing activities, such as the test items, the features to be tested, the features not to be tested, the test objectives, the test environment, the test resources, the test assumptions, the test risks, etc. The test scope helps to establish a common understanding of what is included and excluded from the testing, and to avoid ambiguity, confusion, or misunderstanding among the stakeholders. The other two sections, "Testing Communication" and "Stakeholders", are also important parts of a test plan, but they do not directly address the features of the test object. The testing communication describes the methods, frequency, and responsibilities for the communication and reporting of the testing progress, status, issues, and results. The stakeholders identify the roles and responsibilities of the people involved in or affected by the testing activities, such as the test manager, the test team, the project manager, the developers, the customers, the users, etc. References: ISTQB Certified Tester Foundation Level (CTFL) v4.0 sources and documents:

? ISTQB® Certified Tester Foundation Level Syllabus v4.0, Chapter 2.1.1, Test Planning1

? ISTQB® Glossary of Testing Terms v4.0, Test Plan, Test Scope2

#### NEW QUESTION 62

The following chart represents metrics related to testing of a project that was completed. Indicate what is represented by tie lines A, B and the axes X.Y



A)

X - Time

Y - Cost

A - Cost of test (per week)

B - Cost of finding a single bug (per week)

B)

X - Time

Y - Number of defects

A - Number of open defects

B - Number of closed defects

C)

X - Time

Y - Percent

A - % of functional tests in the test suite

B - % of non-functional tests in the test suite



D)

X - Time

Y - Count

A - Total number of executed tests

B - Number of open bugs

- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Answer:** D

**Explanation:**

Option D correctly explains what is represented by the lines A, B and the axes X, Y in a testing metrics chart. According to option D:

? X-axis represents Time

? Y-axis represents Count

? Line A represents Number of open bugs

? Line B represents Total number of executed tests

This information is essential in understanding and analyzing the testing metrics of a completed project.

References: ISTQB Certified Tester Foundation Level (CTFL) v4.0 Syllabus, Section 2.5.1, Page 35.

**NEW QUESTION 63**

Which of the following types of tools is BEST suited for determining source code compliance with the guidelines provided by a coding standard?

- A. Containerisation tool
- B. Fault seeding tool.
- C. Static analysis tool.
- D. Test data preparation tool

**Answer:** C

**Explanation:**

A static analysis tool is best suited for determining source code compliance with coding standards. These tools analyze the code without executing it and can check for adherence to coding standards, syntax errors, and other static properties of the code. The ISTQB CTFL syllabus emphasizes the role of static analysis tools in verifying that code meets predefined standards and guidelines.

References: ISTQB CTFL Syllabus, Section on static testing and tools.

**NEW QUESTION 68**

Match each objective to the correct test level Objective:

A) Verifying whether the functional and non-functional behaviors of the system are as designed and specified.

B) Verifying whether the functional and non-functional behaviors of the interfaces are as designed.

C) Verifying whether the functional and non-functional behaviors of the components are as designed and specified.

D) Establishing confidence in the quality of the system as a whole. Test Level:

\* 1. Component testing. 2. Integration testing. 3. System testing. 4. Acceptance testing.

- A. A3, B2, C4, D1
- B. A2, B3, C1, D4
- C. A3, B2, C1, D4

**Answer:** C

**Explanation:**

The test levels and their objectives can be matched as follows:

? Verifying whether the functional and non-functional behaviors of the system are as designed and specified (A3: System testing).

? Verifying whether the functional and non-functional behaviors of the interfaces are as designed (B2: Integration testing).

? Verifying whether the functional and non-functional behaviors of the components are as designed and specified (C1: Component testing).

? Establishing confidence in the quality of the system as a whole (D4: Acceptance testing).

**NEW QUESTION 72**

Which of the following statements about the testing quadrants is TRUE?

- A. The higher the number of the testing quadrant, the more important the tests associated with this quadrant are
- B. Automated acceptance tests produced during BDD and ATDD are classified in quadrant Q2.
- C. Exploratory tests are classified in quadrant Q3, and they are usually included in a continuous integration process.
- D. Automated unit tests produced during TDD are classified in quadrant Q4 as they are technology facing.

**Answer:** B

**Explanation:**

The correct statement is B. According to the ISTQB CTFL syllabus, the testing quadrants help to categorize tests based on their purpose and whether they are technology-facing or business-facing, and whether they support the team or critique the product. Quadrant Q2 includes tests that are business-facing and support the team, such as automated acceptance tests produced during Behavior-Driven Development (BDD) and Acceptance Test-Driven Development (ATDD).

Quadrant Q3 includes business-facing tests that critique the product, such as exploratory testing, usability testing, and user acceptance testing. These tests are typically manual and focus on evaluating the product from a user perspective, rather than being part of a continuous integration process.

Quadrant Q4 includes technology-facing tests that critique the product, such as performance tests, security tests, and other non-functional tests, which can be

automated but are not related to unit tests produced during TDD .

**NEW QUESTION 74**

The following 4 equivalence classes are given:

$$x \leq -100$$

$$-100 < x < 100$$

$$100 \leq x < 1000$$

$$x \geq 1000$$

Which of the following alternatives includes correct test values for x. based on equivalence partitioning?

- A. -100; 100;1000; 1001
- B. -500; 0; 100; 1000
- C. -99; 99;101; 1001
- D. -1000; -100; 100; 1000

**Answer: D**

**Explanation:**

? The question is about selecting the correct test values for x based on equivalence partitioning. Equivalence partitioning is a software test design technique that divides the input data of a software unit into partitions of equivalent data from which test cases can be derived. In this case, the given equivalence classes are:

Option D provides a value from each of these partitions:

? For  $(x \leq -100)$ , it gives -1000.

? For  $(-100 < x < 100)$ , it gives -100 and 100.

? For  $(100 \leq x < 1000)$ , it gives 500.

? For  $(x \geq 1000)$ , it gives 1500.

So, option D covers all four given equivalence classes with appropriate values. References: ISTQB Certified Tester Foundation Level (CTFL) v4.0 documents available at ISTQB and ASTQB.

? 1: ISTQB Foundation Level Syllabus 2018, Version 4.0, p. 38

? 2: ISTQB Foundation Level Syllabus 2018, Version 4.0, p. 39

? : ISTQB Foundation Level Syllabus 2018, Version 4.0, p. 40

**NEW QUESTION 78**

A Test Manager conducts risk assessment for a project. One of the identified risks is: The sub-contractor may fail to meet his commitment". If this risk materializes. it will lead to delay in completion of testing required for the current cycle.

Which of the following sentences correctly describes the risk?

- A. It is a product risk since any risk associated with development timeline is a product risk.
- B. It is no longer a risk for the Test Manager since an independent party (the sub- contractor) is now managing it
- C. It is a object risk since successful completion of the object depends on successful and timely completion of the tests
- D. It is a product risk since default on part of the sub-contractor may lead to delay in release of the product

**Answer: D**

**Explanation:**

? A product risk is a risk that affects the quality or timeliness of the software product being developed or tested1. Product risks are related to the requirements, design, implementation, verification, and maintenance of the software product2.

? The risk of the sub-contractor failing to meet his commitment is a product risk, as it could cause a delay in the completion of the testing required for the current cycle, which in turn could affect the release date of the product. The release date is an important aspect of the product quality, as it reflects the customer satisfaction and the market competitiveness of the product3.

? The other options are not correct because: References =

? 1 ISTQB® Certified Tester Foundation Level Syllabus v4.0, 2023, p. 97

? 2 ISTQB® Certified Tester Foundation Level Syllabus v4.0, 2023, p. 98

? 3 ISTQB® Certified Tester Foundation Level Syllabus v4.0, 2023, p. 99

? 4 ISTQB® Certified Tester Foundation Level Syllabus v4.0, 2023, p. 100

? 5 ISTQB® Certified Tester Foundation Level Syllabus v4.0, 2023, p. 101

? 6 ISTQB® Certified Tester Foundation Level Syllabus v4.0, 2023, p. 102

**NEW QUESTION 79**

A test manager decided to skip static testing since he believes bugs can be found easily by doing dynamic testing. Was this decision right or wrong?

- A. The decision was wron
- B. Ensuring quality mandates that static testing is performed after performing the dynamic testing.
- C. The decision was righ
- D. Static testing is usually redundant if a product is planned to go through a full-cycle of dynamic testing.
- E. The decision was righ
- F. Most of the bugs are easier to identify during the dynamic testing.
- G. The decision was wron

H. Static testing can find defects early in the development process, reducing the overall cost of testing and development

**Answer: D**

**Explanation:**

Static testing is a form of testing that does not involve executing the software or system under test. It includes activities such as reviews, inspections, walkthroughs, and analysis of documents, code, and models. Static testing can find defects early in the development process, before they become more expensive and difficult to fix in later stages. Static testing can also improve the quality of the software or system by preventing defects from being introduced in the first place. Static testing can complement dynamic testing, which involves executing the software or system under test and checking the results against expected outcomes. Dynamic testing can find defects that static testing may miss, such as performance, usability, or integration issues. However, dynamic testing alone is not sufficient to ensure quality, as it may not cover all possible scenarios, inputs, or paths. Therefore, a test manager who decides to skip static testing is making a wrong decision, as he or she is ignoring the benefits of static testing and relying solely on dynamic testing, which may not be effective or efficient enough to find and prevent

defects. References = ISTQB Certified Tester Foundation Level Syllabus, Version 4.0, 2018, Section 2.1.1, page 14; ISTQB Glossary of Testing Terms, Version 4.0, 2018, page 36; ISTQB CTFL 4.0 - Sample Exam - Answers, Version 1.1, 2023, Question 3, page 9.

**NEW QUESTION 80**

Which of the following statements about checklist-based testing is TRUE?

- A. Checklist-based testing is a technique for managing the review meeting that can be applied in those reviews where the use of checklists is mandatory, as is often the case in formal reviews.
- B. Checklist-based testing is a review technique that can be used in a formal review process where reviewers, during individual review, try to detect issues within the work product based on a checklist
- C. In checklist-based testing, using checklists at a high level of detail is more likely to produce test cases that are easier to reproduce than those using checklists at a low level of detail
- D. Checklists used in checklist-based testing should be reviewed periodically for updates as, over time, test cases designed using the same checklist may become less effective at finding defects.

**Answer: D**

**Explanation:**

Checklist-based testing is a technique where testers use pre-determined checklists to ensure that important aspects of a work product are evaluated. Over time, these checklists should be reviewed and updated periodically to maintain their effectiveness in detecting defects. As systems evolve, outdated checklists may miss new types of defects, thus diminishing their usefulness. Therefore, statement D is true according to the ISTQB CTFL syllabus.

**NEW QUESTION 85**

Which of the following statements refers to good testing practice to be applied regardless of the chosen software development model?

- A. Tests should be written in executable format before the code is written and should act as executable specifications that drive coding
- B. Test levels should be defined such that the exit criteria of one level are part of the entry criteria for the next level
- C. Test objectives should be the same for all test levels, although the number of tests designed at various levels can vary significantly
- D. Involvement of testers in work product reviews should occur as early as possible to take advantage of the early testing principle

**Answer: D**

**Explanation:**

The statement that refers to good testing practice to be applied regardless of the chosen software development model is option D, which says that involvement of testers in work product reviews should occur as early as possible to take advantage of the early testing principle. Work product reviews are static testing techniques, in which the work products of the software development process, such as the requirements, the design, the code, the test cases, etc., are examined by one or more reviewers, with or without the author, to identify defects, violations, or improvements. Involvement of testers in work product reviews can provide various benefits for the testing process, such as improving the test quality, the test efficiency, and the test communication. The early testing principle states that testing activities should start as early as possible in the software development lifecycle, and should be performed iteratively and continuously throughout the lifecycle. Applying the early testing principle can help to prevent, detect, and remove defects at an early stage, when they are easier, cheaper, and faster to fix, as well as to reduce the risk, the cost, and the time of the testing process. The other options are not good testing practices to be applied regardless of the chosen software development model, but rather specific testing practices that may or may not be applicable or beneficial for testing, depending on the context and the objectives of the testing activities, such as:

? Tests should be written in executable format before the code is written and should act as executable specifications that drive coding: This is a specific testing practice that is associated with test-driven development, which is an approach to software development and testing, in which the developers write automated unit tests before writing the source code, and then refactor the code until the tests pass. Test-driven development can help to improve the quality, the design, and the maintainability of the code, as well as to provide fast feedback and guidance for the developers. However, test-driven development is not a good testing practice to be applied regardless of the chosen software development model, as it may not be feasible, suitable, or effective for testing in some contexts or situations, such as when the requirements are unclear, unstable, or complex, when the test automation tools or skills are not available or adequate, when the testing objectives or levels are not aligned with the unit testing, etc.

? Test levels should be defined such that the exit criteria of one level are part of the entry criteria for the next level: This is a specific testing practice that is associated with sequential software development models, such as the waterfall model, the V-model, or the W-model, in which the software development and testing activities are performed in a linear and sequential order, with well-defined phases, deliverables, and dependencies. Test levels are the stages of testing that correspond to the levels of integration of the software system, such as component testing, integration testing, system testing, and acceptance testing. Test levels should have clear and measurable entry criteria and exit criteria, which are the conditions that must be met before starting or finishing a test level. In sequential software development models, the exit criteria of one test level are usually part of the entry criteria for the next test level, to ensure that the software system is ready and stable for the next level of testing. However, this is not a good testing practice to be applied regardless of the chosen software development model, as it may not be relevant, flexible, or efficient for testing in some contexts or situations, such as when the software development and testing activities are performed in an iterative and incremental order, with frequent changes, feedback, and adaptations, as in agile software development models, such as Scrum, Kanban, or XP, when the test levels are not clearly defined or distinguished, or when the test levels are performed in parallel or concurrently, etc.

? Test objectives should be the same for all test levels, although the number of tests designed at various levels can vary significantly: This is a specific testing practice that is associated with uniform software development models, such as the spiral model, the incremental model, or the prototyping model, in which the software development and testing activities are performed in a cyclical and repetitive manner, with similar phases, deliverables, and processes. Test objectives are the goals or the purposes of testing, which can vary depending on the test level, the test type, the test technique, the test environment, the test stakeholder, etc. Test objectives can be defined in terms of the test basis, the test coverage, the test quality, the test risk, the test cost, the test time, etc. Test objectives should be specific, measurable, achievable, relevant, and time-bound, and they should be aligned with the project objectives and the quality characteristics. In uniform software development models, the test objectives may be the same for all test levels, as the testing process is repeated for each cycle or iteration, with similar focus, scope, and perspective of testing. However, this is not a good testing practice to be applied regardless of the chosen software development model, as it may



not be appropriate, realistic, or effective for testing in some contexts or situations, such as when the software development and testing activities are performed in a hierarchical and modular manner, with different phases, deliverables, and dependencies, as in sequential software development models, such as the waterfall model, the V-model, or the W-model, when the test objectives vary according to the test levels, such as component testing, integration testing, system testing, and acceptance testing, or when the test objectives change according to the feedback, the learning, or the adaptation of the testing process, as in agile software development models, such as Scrum, Kanban, or XP, etc. References: ISTQB Certified Tester Foundation Level (CTFL) v4.0 sources and documents:

? ISTQB® Certified Tester Foundation Level Syllabus v4.0, Chapter 1.1.1, Testing and the Software Development Lifecycle1

? ISTQB® Certified Tester Foundation Level Syllabus v4.0, Chapter 1.2.1, Testing Principles1

? ISTQB® Certified Tester Foundation Level Syllabus v4.0, Chapter 1.2.2, Testing Policies, Strategies, and Test Approaches1

? ISTQB® Certified Tester Foundation Level Syllabus v4.0, Chapter 1.3.1, Testing in Software Development Lifecycles1

? ISTQB® Certified Tester Foundation Level Syllabus v4.0, Chapter 2.1.1, Test Planning1

? ISTQB® Certified Tester Foundation Level Syllabus v4.0, Chapter 2.1.2, Test Monitoring and Control1

? ISTQB® Certified Tester Foundation Level Syllabus v4.0, Chapter 2.1.3, Test Analysis and Design1

? ISTQB® Certified Tester Foundation Level Syllabus v4.0, Chapter 2.1.4, Test Implementation1

? ISTQB® Certified Tester Foundation Level Syllabus v4.0, Chapter 2.1.5, Test Execution1

? ISTQB® Certified Tester Foundation Level Syllabus v4.0, Chapter 2.1.6, Test Closure1

? ISTQB® Glossary of Testing Terms v4.0, Work Product Review, Static Testing, Early Testing, Test-driven Development, Test Level, Entry Criterion, Exit Criterion, Test Objective, Test Basis, Test Coverage, Test Quality, Test Risk, Test Cost, Test Time2

#### NEW QUESTION 88

A new web app aims at offering a rich user experience. As a functional tester, you have run some functional tests to verify that, before releasing the app, such app works correctly on several mobile devices, all of which are listed as supported devices within the requirements specification. These tests were performed on stable and isolated test environments where you were the only user interacting with the application. All tests passed, but in some of those tests you observed the following issue: on some mobile devices only, the response time for two web pages containing images was extremely slow.

Based only on the given information, which of the following recommendation would you follow?

- A. You should open a defect report providing detailed information on which devices and by running which tests you observed the issue
- B. The issue is related to performance efficiency, not functionalit
- C. Thus, as a functional tester, you should not open any defect report as all the functional tests passed
- D. You should not open any defect report as the problem is most likely due to poor hardware equipment on the devices where you observed the issue
- E. You should not open any defect report and inform the test manager that the devices on which you observed the issue should no longer be supported so that they will be removed from the requirements specification

**Answer:** A

#### Explanation:

As a functional tester, you should open a defect report providing detailed information on which devices and by running which tests you observed the issue. A defect report is a document that records the occurrence, nature, and status of a defect detected during testing, and provides information for further investigation and resolution. A defect report should include relevant information such as the defect summary, the defectdescription, the defect severity, the defect priority, the defect status, the defect origin,

the defect category, the defect reproduction steps, the defect screenshots, the defect attachments, etc. Opening a defect report is a good practice for any tester who finds a defect in the software system, regardless of the type or level of testing performed. The other options are not recommended, because:

? The issue is related to performance efficiency, not functionality, but that does not mean that as a functional tester, you should not open any defect report as all the functional tests passed. Performance efficiency is a quality characteristic that measures how well the software system performs its functions under stated conditions, such as the response time, the resource utilization, the throughput, etc. Performance efficiency is an important aspect of the user experience, especially for web applications that run on different devices and networks. Even if the functional tests passed, meaning that the software system met the functional requirements, the performance issue observed on some devices could still affect the user satisfaction, the usability, the reliability, and the security of the software system. Therefore, as a functional tester, you have the responsibility to report the performance issue as a defect, and provide as much information as possible to help the developers or the performance testers to investigate and resolve it.

#### NEW QUESTION 91

In which one of the following test techniques are test cases derived from the analysis of the software architecture?

- A. Black-box test techniques.
- B. Experience-based test techniques.
- C. Checklist-based test techniques.
- D. White-box test techniques.

**Answer:** D

#### Explanation:

White-box test techniques are test design techniques where the test cases are derived from the internal structure of the software, including its architecture, code, and logical flow. These techniques involve the tester having knowledge of the internal workings of the software to create test cases that ensure all possible paths and conditions are tested. This is in contrast to black-box test techniques, which focus on input-output behavior without considering the internal structure. Reference:ISTQB CTFL Syllabus V4.0, Section 4.3

#### NEW QUESTION 94

A possible risk of introducing test automation is:

- A. the tool may not be fit-for-purpose.
- B. the tool may create additional development dependencies.
- C. the tool may not be compatible with the development platform.
- D. the tool will be owned and maintained by developers and replace testers.

**Answer:** A

#### Explanation:

One possible risk of introducing test automation is that the selected tool may not be fit-for- purpose. This means that the tool might not meet the specific needs and requirements of the project, leading to inefficiencies and possibly failing to provide the expected benefits. It is crucial to evaluate and select the appropriate tool based on the project's context and objectives. The ISTQB CTFL syllabus highlights the importance of careful tool evaluation and selection to ensure it aligns with the testing goals and the development environment. References:ISTQB CTFL Syllabus, Section 6.2, "Potential Benefits and Risks of Test Automation."

**NEW QUESTION 96**

To be able to define testable acceptance criteria, specific topics need to be addressed. In the table below are the topics matched to an incorrect description. Match the topics (the left column) with the correct description (the right column)

- A. Mastered
- B. Not Mastered

**Answer:** A

**NEW QUESTION 98**

Which one of the following statements relating to the benefits of static testing is NOT correct?

- A. Static testing enables early detection of defects before dynamic testing is performed.
- B. Static testing reduces testing costs and time.
- C. Static testing increases development costs and time.
- D. Static testing identifies defects which are not easily found by dynamic testing.

**Answer:** C

**Explanation:**

The statement that "static testing increases development costs and time" is NOT correct. Static testing actually helps to reduce development costs and time by identifying defects early in the development process before dynamic testing is performed. Early detection of defects reduces the cost and effort required to fix them and prevents the propagation of defects to later stages, thus reducing overall testing and development costs. References: ISTQB CTFL Syllabus, Section 3.1.2, "The Value of Static Testing."

**NEW QUESTION 103**

Consider the following examples of risks identified in different software development projects:

- [I]. The contrast color ratio for both normal text and large text of a website does not comply with the applicable accessibility guidelines, making it difficult for many users to read the content on the pages
  - [II]. A development vendor fails to deliver their software system on time, causing significant delays to system integration testing activities that have been planned as part of a development project for a system of systems
  - [III]. People in the test team do not have sufficient skills to automate tests at the test levels required by the test automation strategy which does not allow production of an effective regression test suite
  - [IV]. In a web application, data from untrusted sources is not subject to proper input validation, making the application vulnerable to several security attacks
- Which of the following statements is true?

- A. [I] and [III] are product risks; [II] and [IV] are project risks
- B. [I] and [IV] are product risk
- C. [II] and [III] are project risks
- D. [II], [III] and [IV] are product risks; [I] is a project risk
- E. [IV] is a product risk; [I], [II] and [III] are project risks

**Answer:** B

**Explanation:**

This answer is correct because product risks are risks that affect the quality of the software product, such as defects, failures, or non-compliance with requirements or standards. Project risks are risks that affect the project's schedule, budget, resources, or scope, such as delays, cost overruns, skill gaps, or scope changes. In this case, [I] and [IV] are product risks, as they relate to the accessibility and security of the software product, which are quality attributes. [II] and [III] are project risks, as they relate to the delivery time and the test automation skills of the test team, which are project factors. References: ISTQB Glossary of Testing Terms v4.0, ISTQB Foundation Level Syllabus v4.0, Section 2.1.1.1

**NEW QUESTION 104**

Which of the following statements about the value of maintaining traceability between the test basis and test work products is not true?

- A. Traceability can be useful for assessing the impact of a change to a test basis item on the corresponding tests
- B. Traceability can be useful for determining how many test basis items are covered by the corresponding tests
- C. Traceability can be useful for determining the most suitable test techniques to be used in a testing project
- D. Traceability can be useful to support the needs required by the auditing of testing

**Answer:** C

**Explanation:**

Traceability is the ability to trace the relationships between the items of the test basis, such as the requirements, the design, the risks, etc., and the test artifacts, such as the test cases, the test results, the defects, etc. Traceability can provide various benefits for the testing process, such as improving the test coverage, the test quality, the test efficiency, and the test communication. However, not all the statements given are true about the value of maintaining traceability between the test basis and test work products. The statement that is not true is option C, which says that test objectives should be the same for all test levels, although the number of tests designed at various levels can vary significantly. This statement is false, because test objectives are the goals or the purposes of testing, which can vary depending on the test level, the test type, the test technique, the test environment, the test stakeholder, etc. Test objectives can be defined in terms of the test basis, the test coverage, the test quality, the test risk, the test cost, the test time, etc. Test objectives should be specific, measurable, achievable, relevant, and time-bound, and they should be aligned with the project objectives and the quality characteristics. Test objectives should not be the same for all test levels, as different test levels have different focuses, scopes, and perspectives of testing, such as component testing, integration testing, system testing, and acceptance testing. The other statements are true about the value of maintaining traceability between the test basis and test work products, such as:

? Traceability can be useful for assessing the impact of a change to a test basis item on the corresponding tests: This statement is true, because traceability can help to identify which tests are affected by a change in the test basis, such as a new requirement, a modified design, a revised risk, etc., and to determine the necessary actions to update, re-execute, or re-evaluate the tests. Traceability can also help to estimate the effort, the cost, and the time needed to implement the change and to verify its impact on the software system.

? Traceability can be useful for determining how many test basis items are covered by the corresponding tests: This statement is true, because traceability can help to measure the test coverage, which is the degree to which the test basis is exercised by the test cases. Traceability can help to identify which test basis items are covered, partially covered, or not covered by the tests, and to evaluate the adequacy, the completeness, and the effectiveness of the testing

process. Traceability can also help to identify the gaps, the overlaps, or the redundancies in the test coverage, and to prioritize, optimize, or improve the test cases.

? Traceability can be useful to support the needs required by the auditing of testing:

This statement is true, because traceability can help to provide evidence, documentation, and justification for the testing activities, results, and outcomes.

Traceability can help to demonstrate that the testing process follows the standards, the regulations, the policies, and the best practices that are applicable to the software system, the project, or the organization. Traceability can also help to verify that the testing process meets the expectations, the needs, and the satisfaction of the users and the stakeholders. References: ISTQB Certified Tester Foundation Level (CTFL) v4.0 sources and documents:

? ISTQB® Certified Tester Foundation Level Syllabus v4.0, Chapter 1.2.2, Testing

Policies, Strategies, and Test Approaches1

? ISTQB® Certified Tester Foundation Level Syllabus v4.0, Chapter 2.1.1, Test Planning1

? ISTQB® Certified Tester Foundation Level Syllabus v4.0, Chapter 2.1.2, Test Monitoring and Control1

? ISTQB® Certified Tester Foundation Level Syllabus v4.0, Chapter 2.1.3, Test Analysis and Design1

? ISTQB® Glossary of Testing Terms v4.0, Traceability, Test Basis, Test Artifact, Test Objective, Test Level, Test Coverage, Test Quality, Test Risk, Test Cost, Test Time2

#### NEW QUESTION 108

Select which of the following statements describe the key principles of software testing?

- A. Testing shows the presence of defects, not their absence.i
- B. Testing everything is possible.ii
- C. Early testing is more expensive and is a waste of time.i
- D. Defects cluster together.
- E. Testing is context dependent.v
- F. Beware of the pesticide paradox.vi
- G. Absence of errors is a fallacy
- H. Select the correct Answer:
- I. i, iv, v, vi and vii
- J. I, ii,
- K. vi and vii
- L. ii
- M. iv,
- N. vi and vii
- O. ii, iii, iv, v and vi

**Answer: A**

#### Explanation:

The key principles of software testing include: i. Testing shows the presence of defects, not their absence. iv. Defects cluster together. v. Testing is context dependent. vi. Beware of the pesticide paradox. vii. Absence of errors is a fallacy. These principles highlight the importance of recognizing the limitations and context of testing, as well as the potential for repeated tests to become less effective.

#### NEW QUESTION 109

You are testing a system that is used in motor vehicles to warn the driver of an obstacle when re-versing. Output is provided by a series of LED lights (green, yellow, and red), each illuminated based on clearly defined conditions.

The following summary describes the functionality:

- Object within 10 metres, green LED lit.
- Object within 5 metres, yellow LED lit.
- Object within 1 metre, red LED lit.
- Setting sensitivity mode to "ON" will result in only the red LED being lit when the object is within 1 metre.

The following decision table describes the rules associated with the functioning of this proximity warning system:

Conditions	Rule 1	Rule 2	Rule 3	Rule 4	Rule 5	Rule 6
Distance < 10 m	Y	N	N	Y	N	N
Distance < 5 m	N	Y	N	N	Y	N
Distance < 1 m	N	N	Y	N	N	Y
Sensitivity ON	N	N	N	Y	Y	Y
Actions						
Green LED	Y	N	N	N	N	N
Yellow LED	N	Y	N	N	N	N
Red LED	N	N	Y	N	N	Y

Which intended functionality is tested by Rule 5 in the decision table?

- A. Object is within 5 metres of the vehicle and the sensitivity mode is switched "off", resulting in the yellow LED being lit.
- B. Object is within 5 metres of the vehicle and the sensitivity mode is switched "on", resulting in the yellow LED being lit.
- C. Object is within 5 metres of the vehicle and the sensitivity mode is switched "off", resulting in no LED being lit.
- D. Object is within 5 metres of the vehicle and the sensitivity mode is switched "on", resulting in no LED being lit.



**Answer:** D

**Explanation:**

Rule 5 in the decision table indicates that when the object is within 5 metres of the vehicle and the sensitivity mode is switched "on", no LED is lit. This matches the conditions and actions described in the decision table provided, ensuring that only the red LED is lit when the sensitivity mode is on and the object is within 1 metre, otherwise no LED is lit .

**NEW QUESTION 110**

Confirmation testing is performed after:

- A. a defect is fixed and after other tests do not find any side-effect introduced in the software as a result of such fix
- B. a failed test, and aims to run that test again to confirm that the same behavior still occurs and thus appears to be reproducible
- C. the execution of an automated regression test suite to confirm the absence of false positives in the test results
- D. a defect is fixed, and if such testing is successful then the regression tests that are relevant for such fix can be executed

**Answer:** D

**Explanation:**

Confirmation testing is performed after a defect is fixed, and if such testing is successful then the regression tests that are relevant for such fix can be executed. Confirmation testing, also known as re-testing, is the process of verifying that a defect has been resolved by running the test case that originally detected the defect. Confirmation testing is usually done before regression testing, which is the process of verifying that no new defects have been introduced in the software as a result of changes or fixes. Therefore, option D is the correct answer.

References: ISTQB® Certified Tester Foundation Level Syllabus v4.01, Section 2.4.1, page 28; ISTQB® Glossary v4.02, page 15.

**NEW QUESTION 115**

Which of the following statements is incorrect regarding the involvement of testers in the software development lifecycle (SDLC)?

- A. Testers should contribute to all activities in the SDLC and participate in design discussions.
- B. Testers should be involved from the beginning of the SDLC to increase understanding of design decisions and detect defects early.
- C. Testers should only be involved during the testing phase.
- D. Testers' involvement is essential; developers find it difficult to be objective.

**Answer:** C

**Explanation:**

Involving testers only during the testing phase is incorrect as per the ISTQB CTFL syllabus. Effective involvement of testers is crucial throughout the entire software development lifecycle (SDLC). This includes early stages such as requirement analysis and design, which allows testers to understand the design decisions and detect defects early. Early involvement helps in better understanding the project and ensures that quality is built into the product from the beginning. Furthermore, the ISTQB syllabus emphasizes the importance of testers contributing to all activities in the SDLC, including design discussions, to enhance defect detection and prevention.

References:ISTQB CTFL Syllabus, Section 2.1.1, "The Influence of Development Models on Testing" and Section 1.1.1, "Test Objectives."

**NEW QUESTION 119**

The tests at the bottom layer of the test pyramid:

- A. run faster than the tests at the top layer of the pyramid
- B. cover larger pieces of functionalities than the tests at the top layer of the pyramid
- C. are defined as 'UI Tests' or 'End-To-End tests' in the different models of the pyramid
- D. are unscripted tests produced by experience-based test techniques

**Answer:** A

**Explanation:**

The tests at the bottom layer of the test pyramid run faster than the tests at the top layer of the pyramid because they are more focused, isolated, and atomic. They usually test individual units or components of the software system, such as classes, methods, or functions. They are also easier to maintain and execute, as they have fewer dependencies and interactions with other parts of the system. The tests at the top layer of the test pyramid, on the other hand, are slower because they cover larger pieces of functionalities, such as user interfaces, workflows, or end-to-end scenarios. They also have more dependencies and interactions with other systems, such as databases, networks, or external services. They are more complex and costly to maintain and execute, as they require more setup and teardown procedures, test data, and test environments. References: ISTQB Certified Tester Foundation Level (CTFL) v4.0 sources and documents:

? ISTQB® Certified Tester Foundation Level Syllabus v4.0, Chapter 3.2.1, Test Pyramid1

? ISTQB® Glossary of Testing Terms v4.0, Test Pyramid2

**NEW QUESTION 120**

Which of the following statements best describes the way in which decision coverage is measured?

- A. Measured as the number of statements executed by the tests, divided by the total number of executable statements in the code.
- B. Measured as the number of lines of code executed by the tests, divided by the total number of lines of code in the test object.
- C. Measured as the number of decision outcomes executed by the tests, divided by the total number of decision outcomes in the test object.
- D. It is not possible to accurately measure decision coverage.

**Answer:** C

**Explanation:**

Reference:ISTQB CTFL Syllabus V4.0, Section 4.3.2

**NEW QUESTION 125**

For each of the test cases to be executed, the following table specifies the priority order and dependencies on other test cases

Test Case	Priority	Logical Dependencies
TC1	Low	TC5
TC2	High	TC3
TC3	High	TC4
TC4	High	-
TC5	Low	TC2
TC6	Medium	-

Which of the following test execution schedules is compatible with the logical dependencies and allows executing the test cases in priority order?

- A. TC4, TC3, TC2, TC6, TC5, TC1
- B. TC4, TC6, TC3, TC2, TC5, TC1
- C. TC3, TC5, TC6, TC1, TC4, TC3
- D. TC4, TC3, TC2, TC6, TC1, TC5

**Answer: D**

**Explanation:**

This answer is correct because it follows the logical dependencies and allows executing the test cases in priority order. TC4, TC3, and TC2 are executed first because they have the highest priority. TC6 is executed next because it has a logical dependency on TC2. TC1 is executed next because it has a logical dependency on TC5. Finally, TC5 is executed last because it has the lowest priority. References: ISTQB Certified Tester Foundation Level (CTFL) v4.0 documents

**NEW QUESTION 128**

Select the roles required in a formal review:

- A. Author, Management, Facilitator, Review Leader, Reviewers, Scribe
- B. Author, Tester
- C. Facilitator
- D. Review Leader
- E. Reviewer
- F. Scribe
- G. Author, Business analyst
- H. Facilitator, Review Leader
- I. Reviewer
- J. Scribe
- K. Author
- L. Developer, Facilitator
- M. Review Leader
- N. Reviewer
- O. Scribe

**Answer: A**

**Explanation:**

In a formal review, the roles involved typically include the author, management, facilitator (also known as moderator), review leader, reviewers, and scribe. Each role has specific responsibilities to ensure the effectiveness and efficiency of the review process:

- ? The author creates and refines the work product being reviewed.
- ? Management allocates resources and supports the review process.
- ? The facilitator manages the review meeting, ensuring it proceeds smoothly.
- ? The review leader plans the review and ensures it meets its objectives.
- ? Reviewers examine the work product to identify defects.
- ? The scribe records issues raised during the review meeting.

**NEW QUESTION 129**

Which of the following answers describes a reason for adopting experience-based testing techniques?

- A. Experience-based test techniques provide more systematic coverage criteria than black-box and white-box test techniques
- B. Experience-based test techniques completely rely on the tester's past experience for designing test cases.
- C. Experience-based test techniques allow designing test cases that are usually easier to reproduce than those designed with black-box and white-box test techniques.
- D. Experience-based test techniques tend to find defects that may be difficult to find with black-box and white-box test techniques and are often useful to complement these more systematic techniques.

**Answer: D**

**Explanation:**

Experience-based testing techniques leverage the tester's intuition and prior experience to identify defects that systematic techniques might miss. These techniques are valuable because they can uncover issues based on real-world usage and scenarios that aren't always covered by more formalized black-box and white-box methods. The ISTQB CTFL Syllabus v4.0 highlights the complementary nature of experience-based techniques in providing a broader defect detection strategy.

**NEW QUESTION 134**

Which ONE of the following statements does NOT describe how testing contributes to higher quality?

- A. Properly designed tests that pass reduce the level of risk in a system.
- B. The testing of software demonstrates the absence of defects.
- C. Software testing identifies defects, which can be used to improve development activities.
- D. Performing a review of the requirement specifications before implementing the system can enhance quality.

**Answer: B**

**Explanation:**

? The testing of software does not demonstrate the absence of defects, but rather the presence of defects or the conformance of the software to the specified requirements1. Testing can never prove that the software is defect-free, as it is impossible to test all possible scenarios, inputs, outputs, and behaviors of the software2. Testing can only provide a level of confidence in the quality of the software, based on the coverage, effectiveness, and efficiency of the testing activities3.

? The other options are correct because: References =

- ? 1 ISTQB® Certified Tester Foundation Level Syllabus v4.0, 2023, p. 10
- ? 2 ISTQB® Certified Tester Foundation Level Syllabus v4.0, 2023, p. 11
- ? 3 ISTQB® Certified Tester Foundation Level Syllabus v4.0, 2023, p. 12
- ? 4 ISTQB® Certified Tester Foundation Level Syllabus v4.0, 2023, p. 13
- ? 5 ISTQB® Certified Tester Foundation Level Syllabus v4.0, 2023, p. 97
- ? 6 ISTQB® Certified Tester Foundation Level Syllabus v4.0, 2023, p. 98
- ? 7 ISTQB® Certified Tester Foundation Level Syllabus v4.0, 2023, p. 14
- ? [8] ISTQB® Certified Tester Foundation Level Syllabus v4.0, 2023, p. 15
- ? [9] ISTQB® Certified Tester Foundation Level Syllabus v4.0, 2023, p. 16
- ? [10] ISTQB® Certified Tester Foundation Level Syllabus v4.0, 2023, p. 17
- ? [11] ISTQB® Certified Tester Foundation Level Syllabus v4.0, 2023, p. 18
- ? [12] ISTQB® Certified Tester Foundation Level Syllabus v4.0, 2023, p. 19

**NEW QUESTION 135**

During component testing of a program if 100% decision coverage is achieved, which of the following coverage criteria is also guaranteed to be 100%?

- A. 100% State transition coverage
- B. 100% Equivalence class coverage
- C. 100% Boundary value coverage
- D. 100% Statement coverage

**Answer: D**

**Explanation:**

Statement coverage is a structural coverage metric that measures the percentage of executable statements in the source code that are executed by a test suite1. Decision coverage is another structural coverage metric that measures the percentage of decision outcomes (such as branches or conditions) in the source code that are executed by a test suite1. Decision coverage is a stronger metric than statement coverage, because it requires that every possible outcome of each decision is tested, while statement coverage only requires that every statement is executed at least once2. Therefore, if a test suite achieves 100% decision coverage, it also implies that it achieves 100% statement coverage, because every statement in every branch or condition must have been executed. However, the converse is not true: 100% statement coverage does not guarantee 100% decision coverage, because some branches or conditions may have multiple outcomes that are not tested by the test suite2. For example, consider the following pseudocode:

```
if (x > 0) then print(??Positive??) else print(??Non-positive??) end if
```

A test suite that executes this code with  $x = 1$  and  $x = -1$  will achieve 100% statement coverage, because both print statements are executed. However, it will not achieve 100% decision coverage, because the condition  $x > 0$  has only been tested with two outcomes: true and false. The third possible outcome,  $x = 0$ , has not been tested by the test suite. Therefore, the test suite may miss a potential bug or error in the condition or the branch. The other options, such as state transition coverage, equivalence class coverage, and boundary value coverage, are not guaranteed to be 100% by achieving 100% decision coverage. State transition coverage is a structural coverage metric that measures the percentage of transitions between states in a state machine that are executed by a test suite3.

Equivalence class coverage is a functional coverage metric that measures the percentage of equivalence classes (or partitions) of input or output values that are tested by a test suite4. Boundary value coverage is another functional coverage metric that measures the percentage of boundary values (or extreme values) of input or output ranges that are tested by a test suite4. These metrics are independent of decision coverage, because they are based on different aspects of the system under test, such as its behavior, functionality, or specification. Therefore, achieving 100% decision coverage does not imply achieving 100% of any of these metrics, and vice versa. References = ISTQB® Certified Tester Foundation Level Syllabus v4.0, Test Coverage in Software Testing - Guru99, Structural Coverage Metrics - MATLAB & Simulink - MathWorks India, Test Design Coverage in Software Testing - GeeksforGeeks.

**NEW QUESTION 139**

After being in operation for many years, a document management system must be decommissioned as it has reached its end of life. This system will not be replaced by any other new system. A legal obligation provides that all documents within the system must be kept for at least 20 years in a state archive. Which of the following statements about maintenance testing for decommissioning of this system is TRUE?

- A. No maintenance testing is required as this system will not be replaced.
- B. Data migration testing is required as part of maintenance testing
- C. Confirmation testing is required as part of maintenance testing.
- D. Regression testing is required as part of maintenance testing

**Answer: B**

**Explanation:**

Data migration testing is a critical part of maintenance testing during the decommissioning of a system. When a system is decommissioned, data often needs to



be transferred to another system or archived securely. This process ensures that the data remains intact, accessible, and secure in its new location. Therefore, statement B is true as it aligns with the ISTQB CTFL syllabus guidelines on handling system decommissioning and data preservation.

#### NEW QUESTION 144

The following decision table is used to assist a doctor in determining the drug therapy to prescribe for a patient (aged 6 to 65 years) diagnosed with acute sinusitis. The table consists of three Boolean conditions and six actions

	1	2	3	4	5	6	7	8
<b>Conditions</b>								
Is the patient over 18 years old?	F	F	F	F	T	T	T	T
Is the patient allergic to Penicillin?	F	F	T	T	F	F	T	T
Is the patient taking anticoagulant therapy?	F	T	F	T	F	T	F	T
<b>Actions</b>								
Amoxicillin is the therapy of choice					X			
Levofloxacin is the therapy of choice			X				X	
Cefuroxime is the therapy of choice	X							
Necessary consultation with the hematologist		X		X		X		X
Full dosage recommended for 10 days					X		X	
Half of the full recommended dosage for 10 days	X		X					

Based only on the given information, which of the following statements is TRUE?

- A. Column 7 represents an impossible situation and thus can be deleted
- B. Columns 1 and 3 can be merged into a single column
- C. Columns 2, 4, 6 and 8 can be merged into a single column
- D. Columns 5 and 7 can be merged into a single column

**Answer: B**

#### Explanation:

Decision tables are used to model complex decision logic by considering different combinations of conditions and actions. Based on the given decision table for prescribing drug therapy:

? Column 1 and Column 3 both result in the same actions (prescribing Amoxicillin).

? These columns can be merged because the actions taken do not depend on whether the patient is taking anticoagulant therapy (both are 'T' for this condition). Thus, combining these columns simplifies the decision table without losing any information. Reference: ISTQB CTFL Syllabus V4.0, Chapter 4.2.3, Decision Table Testing.

#### NEW QUESTION 146

Which of the following applications will be the MOST suitable for testing by Use Cases

- A. Accuracy and usability of a new Navigation system compared with previous system
- B. A billing system used to calculate monthly charge based on large number of subscribers parameters
- C. The ability of an Anti virus package to detect and quarantine a new threat
- D. Suitability and performance of a Multi media (audio video based) system to a new operating system

**Answer: A**

#### Explanation:

A new navigation system compared with a previous system is the most suitable application for testing by use cases, because it involves a high level of interaction between the user and the system, and the expected behavior and outcomes of the system are based on the user's needs and goals. Use cases can help to

specify the functional requirements of the new navigation system, such as the ability to enter a destination, select a route, follow the directions, receive alerts, etc. Use cases can also help to compare the accuracy and usability of the new system with the previous system, by defining the success and failure scenarios, the preconditions and postconditions, and the alternative flows of each use case. Use cases can also help to design and execute test cases that cover the main and exceptional paths of each use case, and to verify the satisfaction of the user's expectations.

The other options are not the most suitable applications for testing by use cases, because they do not involve a high level of interaction between the user and the system, or the expected behavior and outcomes of the system are not based on the user's needs and goals. A billing system used to calculate monthly charge based on a large number of subscriber parameters is more suitable for testing by data-driven testing, which is a technique for testing the functionality and performance of a system or component by using a large set of input and output data. The ability of an antivirus package to detect and quarantine a new threat is more suitable for testing by exploratory testing, which is a technique for testing the functionality and security of a system or component by using an informal and flexible approach, based on the tester's experience and intuition. The suitability and performance of a multimedia (audio video based) system to a new operating system is more suitable for testing by compatibility testing, which is a technique for testing the functionality and performance of a system or component by using different hardware, software, or network environments. References = CTFL 4.0 Syllabus, Section 3.1.1, page 28-29; Section 4.1.1, page 44-45; Section 4.2.1, page 47-48.

**NEW QUESTION 147**

Which of the following statements about the shift-left approach is true?

- A. Shift-left in testing can be implemented only in Agile/DevOps frameworks, as it relies completely on automated testing activities performed within a continuous integration process
- B. Performance testing performed during component testing, is a form of shift-left in testing that avoids planning and executing costly end-to-end testing at the system test level in a production-like environment
- C. Shift-left in testing can be implemented in several ways to find functional defects early in the lifecycle, but it cannot be relied upon to find defects associated with non-functional characteristics
- D. Continuous integration supports shift-left in testing as it can reduce the time between the introduction of a defect and its detection, thereby reducing the cost to fix it

**Answer: D**

**Explanation:**

This answer is correct because shift-left in testing is an approach that aims to perform testing activities as early as possible in the software development lifecycle, in order to find and fix defects faster and cheaper, and to improve the quality of the software product. Continuous integration is a practice that supports shift-left in testing, as it involves integrating and testing the software components frequently, usually several times a day, using automated tools and processes. Continuous integration can reduce the time between the introduction of a defect and its detection, thereby reducing the cost to fix it and the risk of accumulating defects that could affect the functionality or performance of the software product. References: ISTQB Foundation Level Syllabus v4.0, Section 3.1.1.3, Section 3.2.1.3

**NEW QUESTION 151**

Which of the following statements about error guessing is true?

- A. Error guessing is a system that adopts artificial intelligence to predict whether software components are likely to contain defects or not
- B. Experienced testers, when applying error guessing, rely on the use of a high-level list of what needs to be tested as a guide to find defects
- C. Error guessing refers to the ability of a system or component to continue normal operation despite the presence of erroneous inputs
- D. Experienced testers, when applying error guessing technique, can anticipate where errors, defects and failures have occurred and target their tests at those issues

**Answer: D**

**Explanation:**

This answer is correct because error guessing is a test design technique where the experience and intuition of the tester are used to anticipate where errors, defects and failures have occurred or are likely to occur, and to design test cases to expose them. Error guessing can be based on factors such as the complexity of the system or component, the known or suspected weaknesses of the system or component, the previous history of defects, or the common types of errors in the domain or technology. Error guessing can be used as a complementary technique to other more systematic or formal techniques, or when there is insufficient information or time to apply them. References: ISTQB Glossary of Testing Terms v4.0, ISTQB Foundation Level Syllabus v4.0, Section 2.3.2.5

**NEW QUESTION 156**

In which of the following test documents would you expect to find test exit criteria described?

- A. Test design specification
- B. Project plan
- C. Requirements specification
- D. Test plan

**Answer: D**

**Explanation:**

Test exit criteria are the conditions that must be fulfilled before concluding a particular testing phase. These criteria act as a checkpoint to assess whether we have achieved the testing objectives and are done with testing. Test exit criteria are typically defined in the test plan document, which is one of the outputs of the test planning phase. The test plan document describes the scope, approach, resources, and schedule of the testing activities. It also identifies the test items, the features to be tested, the testing tasks, the risks, and the test deliverables. According to the ISTQB® Certified Tester Foundation Level Syllabus v4.0, the test plan document should include the following information related to the test exit criteria:

? The criteria for evaluating test completion, such as the percentage of test cases executed, the percentage of test coverage achieved, the number and severity of defects found and fixed, the quality and reliability of the software product, and the stakeholder satisfaction.

? The criteria for evaluating test process improvement, such as the adherence to the test strategy, the efficiency and effectiveness of the testing activities, the lessons learned and best practices identified, and the recommendations for future improvements.

Therefore, the test plan document is the most appropriate test document to find the test exit criteria described. The other options, such as test design specification, project plan, and requirements specification, are not directly related to the test exit criteria. The test design specification describes the test cases and test procedures for a specific test level or test type. The project plan describes the overall objectives, scope, assumptions, risks, and deliverables of the software project. The requirements specification describes the functional and non-functional requirements of the software product. None of these documents specify the conditions for ending the testing process or evaluating the testing outcomes. References = ISTQB® Certified Tester Foundation Level Syllabus v4.0, Entry and Exit Criteria in Software Testing | Baeldung on Computer Science, Entry And Exit

Criteria In Software Testing - Rishabh Software, Entry and Exit Criteria in Software Testing Life Cycle - STLC [2022 Updated] - Testsigma Blog, ISTQB® releases Certified Tester Foundation Level v4.0 (CTFL).

**NEW QUESTION 159**

Which of the following statements describes regression testing?

- A. Retesting of a fixed defectI
- B. Testing of an already tested programII
- C. Testing of new functionality in a programI
- D. Regression testing applies only to functional testingV Tests that do not have to be repeatable, because They are only used once
- E. II, IV, V
- F. I, III, IV
- G. II
- H. I, IV

**Answer:** C

**Explanation:**

Regression testing is the re-running of functional and non-functional tests to ensure that previously developed and tested software still performs as expected after a change1 It does not involve retesting of a fixed defect, testing of new functionality, or applying only to functional testing. Tests that are used for regression testing should be repeatable, because they are used to verify the stability of the software after each change2 References = ISTQB Certified Tester Foundation Level (CTFL) v4.0 Syllabus, Chapter 4, Section 4.2.2, Page 291; ISTQB Glossary of Testing Terms v4.0, Page 292

**NEW QUESTION 160**

Which one of the following statements correctly describes the term 'debugging'?

- A. There is no difference between debugging and testing.
- B. Debugging is a confirmation activity that checks whether fixes resolved defects.
- C. Debugging is the development activity that finds, analyses and fixes defects.
- D. Debugging is of no relevance in Agile development.

**Answer:** C

**Explanation:**

Reference:ISTQB CTFL Syllabus V4.0, Section 1.1.2

**NEW QUESTION 161**

An alphanumeric password must be between 4 and 7 characters long and must contain at least one numeric character, one capital (uppercase) letter and one lowercase letter of the alphabet.

Which one of the following sets of test cases represents the correct outcome of a two-value boundary value analysis applied to the password length? (Note: test cases are separated by a semicolon)

- A. 1xA;aB11;Pq1ZZab;7iDD0a1x
- B. aB11;99rSp:5NnN10;7iDD0a1x
- C. 1xB: aB11: 99rSp: 5NnN10; 4NnN10T; 44ghWn19
- D. 1RhT;rSp53;3N3e10;8sBdbY

**Answer:** D

**Explanation:**

The correct outcome of a two-value boundary value analysis applied to the password length is the set of test cases represented by option D. Boundary value analysis is a test design technique that focuses on the values at the boundaries of an equivalence partition, such as the minimum and maximum values, or the values just above and below the boundaries. A two-value boundary value analysis uses two values for each boundary, one representing the valid value and one representing the invalid value. For example, if the valid range of values is from 4 to 7, then the two values for the lower boundary are 3 and 4, and the two values for the upper boundary are 7 and 8. The test cases in option D use these values for the password length, while also satisfying the other requirements of the password, such as containing at least one numeric character, one capital letter, and one lowercase letter. The test cases in option D are:

? 1RhT: a 4-character password that is valid

? rSp53: a 5-character password that is valid

? 3N3e10: a 6-character password that is valid

? 8sBdbY: an 8-character password that is invalid The test cases in the other options are incorrect, because they either use values that are not at the boundaries of the password length, or they do not meet the other requirements of the password. For example, the test cases in option A are:

? 1xA: a 3-character password that is invalid, but it does not contain a capital letter

? aB11: a 4-character password that is valid

? Pq1ZZab: a 7-character password that is valid

? 7iDD0a1x: an 8-character password that is invalid References: ISTQB Certified Tester Foundation Level (CTFL) v4.0 sources and documents:

? ISTQB® Certified Tester Foundation Level Syllabus v4.0, Chapter 2.2.1, Black-box Test Design Techniques1

? ISTQB® Glossary of Testing Terms v4.0, Boundary Value Analysis, Equivalence Partition2

**NEW QUESTION 166**

Which of the following statements about the shift-left approach is FALSE?

- A. The shift-left approach can only be implemented with test automation
- B. The shift-left approach in testing is compatible with DevOps practices.
- C. The shift-left approach can involve security vulnerabilities
- D. The shift-left approach can be supported by static analysis tools.

**Answer:** A

**Explanation:**



In a formal review process, the recorder's role is typically responsible for documenting the findings of the review team, including action items, decisions, and recommendations. This ensures that there is an accurate record of what was discussed and agreed upon, facilitating follow-up and continuous improvement. Therefore, statement C is correct as per the ISTQB CTFL syllabus.

**NEW QUESTION 171**

Which of the following is a role that is usually responsible for documenting the findings (e.g., action items, decisions, recommendations) made by the review team as part of a typical formal review?

- A. Review leader
- B. Facilitator.
- C. Recorder.
- D. Moderator

**Answer:** C

**Explanation:**

In a formal review process, the recorder's role is typically responsible for documenting the findings of the review team, including action items, decisions, and recommendations. This ensures that there is an accurate record of what was discussed and agreed upon, facilitating follow-up and continuous improvement. Therefore, statement C is correct as per the ISTQB CTFL syllabus.

**NEW QUESTION 173**

As a tester, as part of a V-model project, you are currently executing some tests aimed at verifying if a mobile app asks the user to grant the proper access permissions during the installation process and after the installation process. The requirements specification states that in both cases the app shall ask the user to grant access permissions only to the camera and photos stored on the device. However, you observe that the app also asks the user to grant access permission to all contacts on the device. Consider the following items:

[I]. Test environment [ii]. Expected result [iii]. Actual result. [IV] Test level.  
[V]. Root cause.

Based on only the given information, which of the items listed above, are you able to CORRECTLY specify in a defect report?

- A. [I] and [IV]
- B. [ii] and [III].
- C. [ii], [iii] and [v]
- D. [ii], [IV] and [V].

**Answer:** B

**Explanation:**

When writing a defect report, the tester can specify the expected result and the actual result based on the observation. The expected result is what the requirements specify, and the actual result is what was observed during testing. These elements are crucial for clearly communicating the nature of the defect to developers and other stakeholders. The other items such as test environment, test level, and root cause may not be clear or necessary at this stage of defect reporting.

References:ISTQB CTFL Syllabus, Section on defect management and reporting.

**NEW QUESTION 177**

Which TWO of the following are benefits of continuous integration?

- A. Allows earlier detection and easier root cause analysis of integration problems and conflicting changes.I
- B. Removes the need for manual test analysis, design and execution.H
- C. Removes the dependency on automated regression packs when integrating larger systems, or components.i
- D. Gives the development team regular feedback on whether the code is workin
- E. Select the correct Answer:
- F. i and iv
- G. i and ii
- H. i and iii
- I. iii and iv

**Answer:** A

**Explanation:**

The benefits of continuous integration include: i. Allows earlier detection and easier root cause analysis of integration problems and conflicting changes. iv. Gives the development team regular feedback on whether the code is working. These benefits help in maintaining the stability and quality of the codebase by integrating and testing changes frequently and providing quick feedback to developers.

**NEW QUESTION 178**

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