

ISTQB

Exam Questions ISTQB-CTFL

ISTQB-Foundation Level Exam



NEW QUESTION 1

Consider the following testing levels:

- 1) Component Testing
- 2) Integration Testing
- 3) System Testing
- 4) Acceptance Testing

Which of the following statements is true?

- A. Integration and system testing are applicable when V-model is used. Component and acceptance testing are applicable when iterative development models are used.
- B. All the testing levels are applicable to V-model for software development.
- C. Only acceptance testing is applicable for iterative models.
- D. Acceptance testing is applicable for all software development model.
- E. Component and system testing are applicable only for the V-model.
- F. All testing levels are applicable, independent of which software development life-cycle process (V-model, iterative, incremental) is used.
- G. iterative, incremental) is used.

Answer: D

Explanation:

All testing levels are applicable, independent of which software development life-cycle process (V-model, iterative, incremental) is used. Testing levels are defined based on the scope and objectives of testing, not on the software development model. Component testing, integration testing, system testing and acceptance testing are common testing levels that can be applied to any software development model, as long as they are planned and executed properly. The V-model is a software development model that emphasizes the relationship between each development phase and its corresponding testing phase. Iterative and incremental models are software development models that divide the development process into smaller cycles or iterations, where each iteration produces a working version of the software that can be tested and evaluated. Verified References: A Study Guide to the ISTQB® Foundation Level 2018 Syllabus - Springer, page 18.

NEW QUESTION 2

Which of the following statements regarding inspection is NOT true?

- A. An inspection may be led by a trained moderator who shall not be the author.
- B. The main purpose of an inspection is to find solutions to the problems.
- C. An inspection can be performed by peers.
- D. An inspection shall follow a formal process based on rules and checklists with entry and exit criteria.

Answer: B

Explanation:

An inspection is a type of review that follows a defined process with formal entry and exit criteria and roles and responsibilities for participants. An inspection can be performed by peers with different roles, such as moderator, author, reviewer and scribe. The following statement about inspection is not true:

? B) The main purpose of an inspection is to find solutions to the problems. This statement is not true, as the main purpose of an inspection is to find defects or issues in a work product, not to find solutions to the problems. Finding solutions to the problems is a debugging or problem-solving activity that is usually performed by the author or developer after receiving the inspection report. The following statements about inspection are true:

? A) An inspection may be led by a trained moderator who shall not be the author.

This statement is true, as an inspection requires a moderator role who leads the inspection process and ensures that it follows the rules and standards. The moderator should be trained in inspection techniques and should not be the author of the work product under inspection, in order to avoid bias or conflict of interest.

? C) An inspection can be performed by peers. This statement is true, as an inspection involves peer review, which means that the work product under inspection is evaluated by people who have similar roles or expertise as the author, but who are not directly involved in creating or modifying the work product.

? D) An inspection shall follow a formal process based on rules and checklists with entry and exit criteria. This statement is true, as an inspection follows a formal process that consists of six main steps: planning, kick-off meeting, individual preparation, review meeting, rework and follow-up. Each step has defined rules and checklists to guide the participants and ensure consistency and quality. Each step also has entry and exit criteria to ensure that the prerequisites and objectives are met before moving to the next step. Verified References: A Study Guide to the ISTQB® Foundation Level 2018 Syllabus - Springer, Chapter 3, page 28-29.

NEW QUESTION 3

Who of the following has the best knowledge to decide what tests in a test project should be automated?

- A. The developer
- B. The customer
- C. The development manager
- D. The test leader

Answer: D

Explanation:

The test leader is the person who is responsible for planning, monitoring, and controlling the test activities and resources in a test project. The test leader should have the best knowledge of the test objectives, scope, risks, resources, schedule, and quality criteria. The test leader should also be aware of the test automation criteria, such as the execution frequency, the test support, the team education, the roles and responsibilities, and the devs and testers collaboration. Based on these factors, the test leader can decide which tests are suitable for automation and which are not, and prioritize them accordingly. The test leader can also coordinate with the test automation engineers, the developers, and the stakeholders to ensure the alignment of the test automation strategy with the test project goals and expectations. References = ISTQB Certified Tester Foundation Level (CTFL) v4.0 Syllabus, Chapter 2, Section 2.3.1, Page 152; ISTQB Glossary of Testing Terms v4.0, Page 403; ISTQB Certified Tester Foundation Level (CTFL) v4.0 Syllabus, Chapter 6, Section 6.1.1, Page 514; Top 8 Test Automation Criteria You Need To Fulfill - QAMIND1

NEW QUESTION 4

Which of the following is a correct reason to apply test automation?

- A. When a new test automation tool is launched

- B. When there are a lot of repetitive testing tasks
- C. When it is easy to automate
- D. When it is cheap to buy test automation tools

Answer: B

Explanation:

A correct reason to apply test automation is when there are a lot of repetitive testing tasks. Test automation is the use of software tools or scripts to perform or support testing activities, such as test case execution, test result comparison, test data generation, etc. Test automation can be beneficial when there are a lot of repetitive testing tasks that need to be performed frequently or consistently, such as regression testing, performance testing, load testing, etc. Test automation can help to save time and effort, increase reliability and accuracy, and improve coverage and efficiency of testing. The other options are not correct reasons to apply test automation. When a new test automation tool is launched is not a reason to apply test automation, but rather a factor for choosing a test automation tool. When it is easy to automate is not a reason to apply test automation, but rather a factor for evaluating the feasibility of test automation. When it is cheap to buy test automation tools is not a reason to apply test automation, but rather a factor for estimating the cost and benefit of test automation. Verified References: A Study Guide to the ISTQB® Foundation Level 2018 Syllabus - Springer, page 10.

NEW QUESTION 5

Which of the following statements about testing in the context of an agile (iterative- incremental) development model is correct?

- A. Unit test and acceptance test are the most important tests to make sure that the system works as expected.
- B. Each iteration of testing has to be completely finished before a new iteration of development starts.
- C. Regression testing is necessary whenever a new increment is added to the existing system.
- D. Only certain types of non-functional and explorative testing are performed.

Answer: C

Explanation:

In the context of agile (iterative-incremental) development models, testing is integrated into the development process and occurs continuously throughout the lifecycle of the project. Agile testing emphasizes adaptability and the need for feedback at various stages of development. Option C is correct because regression testing is indeed necessary whenever a new increment is added to the existing system. Agile development often involves frequent changes and additions to the codebase, which can potentially introduce new defects into previously tested code. Regression testing ensures that new changes have not adversely affected existing functionality. Options A, B, and D present misconceptions about agile testing:
? A is incorrect because, in agile, all types of testing (unit, integration, system, acceptance) are important and occur throughout the iteration, not just unit and acceptance tests.
? B is incorrect because agile methodologies advocate for continuous integration and testing, where development and testing activities overlap and support each other throughout an iteration.
? D is incorrect because agile methodologies encourage a wide range of testing types, including both functional and non-functional, as well as exploratory testing, to ensure a comprehensive quality assessment.

NEW QUESTION 6

Given the following statements:

- * 1. It can prevent defects by manual examination of the functional specification
- * 2. It is effective since it can be performed very early in the software development life cycle
- * 3. It can detect the failures in the running application
- * 4. It can help eliminate defects in user stories
- * 5. It can verify externally visible behaviors

Which set of statements represent values ONLY for static testing?

- A. 1,3, 4,5
- B. 2,4,5
- C. 1,2,4
- D. 1,2, 3, 4,5

Answer: C

Explanation:

Static testing involves reviewing and inspecting the code, requirements, or design documents without executing the code. It can prevent defects, is effective early in the software development life cycle, and can help eliminate defects in user stories. Option 1: "It can prevent defects by manual examination of the functional specification" - This is a value of static testing.

Option 2: "It is effective since it can be performed very early in the software development life cycle" - This is a value of static testing.

Option 3: "It can detect the failures in the running application" - This is a value of dynamic testing, not static testing.

Option 4: "It can help eliminate defects in user stories" - This is a value of static testing. Option 5: "It can verify externally visible behaviors" - This is a value of dynamic testing, not static testing.

Therefore, the correct set of statements representing values only for static testing is 1, 2, 4, which corresponds to answer C.

References:

? Certified Tester Foundation Level v4.0

? ISTQB Foundation Level Syllabus 4.0 (2023)

NEW QUESTION 7

Which of the following coverage criteria results in the highest coverage for state transition based test cases?

- A. Can't be determined
- B. Covering all transitions at least once
- C. Covering only start and end states
- D. Covering all states at least once

Answer: B

Explanation:

Covering all transitions at least once is the highest coverage criterion for state transition based test cases, because it ensures that every possible change of state is tested at least once. This means that all the events that trigger the transitions, as well as the actions and outputs that result from the transitions, are verified. Covering all transitions at least once also implies covering all states at least once, but not vice versa. Therefore, option D is not the highest coverage criterion. Option C is the lowest coverage criterion, because it only tests the initial and final states of the system or component, without checking the intermediate states or transitions. Option A is incorrect, because the coverage criteria for state transition based test cases can be determined and compared based on the number of transitions and states covered. References = CTFL 4.0 Syllabus, Section 4.2.3, page 49-50.

NEW QUESTION 8

Which of the following BEST describes a benefit of test automation?

- A. More subjective assessment
- B. Reduction in repetitive manual work
- C. Availability of the test automation tool vendor
- D. Negligible effort to maintain the test assets generated by the tool

Answer: B

Explanation:

Test automation provides numerous benefits to software testing, and one of the key advantages is the reduction of repetitive manual work. This benefit is explicitly covered in the ISTQB Foundation Level Syllabus (v4.0).

Test automation allows testers to automate repetitive tasks such as regression testing, freeing up their time to focus on more complex and exploratory testing. This leads to improved efficiency and helps in avoiding human errors associated with repetitive tasks. Option A: "More subjective assessment" contradicts the benefit of automation as it focuses on objectivity.

Option C: "Availability of the test automation tool vendor" is not a direct benefit of test automation, although vendor support can be valuable.

Option D: "Negligible effort to maintain the test assets" is misleading as maintaining automated tests often requires effort and attention to changes in the system under test. Therefore, the correct answer is B (ISTQB not-for-profit association) (ISTQB). References:

? Certified Tester Foundation Level v4.0

? ISTQB Foundation Level Syllabus 4.0 (2023)

NEW QUESTION 9

A test engineer finds a defect while testing. After the developer has fixed the defect, the test engineer decides to re-run a complete section of the tests. Which of the following is correct?

- A. The test engineer should not re-run the tests, as they have already been run, and results recorded.
- B. The test engineer should not re-run the tests, they should be part of the developer tests.
- C. The test engineer should re-run the tests, in order to ensure that new defects have not been introduced by the fix.
- D. The test engineer should re-run the tests, because the defect shows that the test cases need to be updated.

Answer: C

Explanation:

The test engineer should re-run the tests, in order to ensure that new defects have not been introduced by the fix. This is also known as regression testing, which is a type of testing that verifies that previously tested software still performs correctly after a change. Regression testing helps to detect any side effects or unintended consequences of a fix or a modification. The other options are incorrect reasons for re-running the tests. The test engineer should not re-run the tests, as they have already been run, and results recorded, because this ignores the possibility of new defects caused by the fix. The test engineer should not re-run the tests, they should be part of the developer tests, because this assumes that developer tests are sufficient and reliable, which may not be true. The test engineer should not re-run the tests, because the defect shows that the test cases need to be updated, because this does not address the impact of the fix on other test cases or functionalities. Verified References: A Study Guide to the ISTQB® Foundation Level 2018 Syllabus - Springer, page 41.

NEW QUESTION 10

A class grade application for instructors assigns letter grades based on students' numerical grades.

The letter grades for different numerical grades should be:

Above 89, up to 100 - A

Above 79, up to 89 • B

Above 69, up to 79 • C

Above 59, up to 69 - D

Below 60- F

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

- A. 0, 58.59,70, 80
- B. 74, 79.84,85, 89
- C. 79, 89.90,99, 100
- D. 69, 79. 80, 89, 90

Answer: D

Explanation:

The set of test inputs that achieve the relatively highest equivalence partition coverage for grading students is option D: 69, 79, 80, 89, 90. This set effectively tests the boundaries between each grade category, ensuring that the grading system accurately transitions from one grade to another at the correct thresholds (ISTQB Main Web)

.References:

? ISTQB® Certified Tester Foundation Level Syllabus v4.0: ISTQB CTFL Syllabus v4.0 PDF

NEW QUESTION 10

Given the following review process main activities and specific review activities:

- * a. Planning
- * b. Initiate review
- * c. Issue communication and analysis d.Fixing and reporting
- * 1. Creating defect reports

- * 2. Estimating effort and timeframe
- * 3. Recording updated status of defects
- * 4. Selecting the people to participate
- * 5. Distributing the work product and other material
- * 6. Evaluating the review findings

Which of the following BEST matches the review process main activities with the appropriate specific review activities?

- A. 2-a, 4-a, 5-b, 6-c, 1-d, 3-d
- B. 2-a, 5-a, 1-b, 4-b, 3-c, 6-d
- C. 1-a, 4-b, 5-b, 6-c, 2-d, 3-d
- D. 2-a, 4-b, 5-c, 1-
- E. 3-d, 6-d

Answer: A

Explanation:

Matching the main review process activities with the specific review activities, we see that planning includes estimating effort and timeframe (2) and selecting people to participate (4). Initiating a review involves distributing work products and other material (5). Issue communication and analysis includes evaluating the review findings (6). Fixing and reporting would entail creating defect reports (1) and recording the updated status of defects (3). References: ISTQB Certified Tester Foundation Level Syllabus v4.0, Section 3.2 "Review Process".

NEW QUESTION 11

Which of the following software development models BEST exemplifies a model that does NOT support the principle of early testing?

- A. The iterative development model
- B. The V-model
- C. The Waterfall model
- D. The incremental development model

Answer: C

Explanation:

The Waterfall model exemplifies a software development model that does not support the principle of early testing. In the Waterfall model, each phase must be completed before the next begins, which delays testing until after the completion of the earlier phases like requirements gathering and design. This can often result in finding defects later in the development cycle, making them more expensive and time-consuming to fix (ISTQB not-for-profit association) (ISTQB not-for-profit association). References:

- ? ISTQB® Certified Tester Foundation Level Syllabus v4.0: https://istqb-main-web-prod.s3.amazonaws.com/media/documents/ISTQB_CTFL_Syllabus-v4.0.pdf
- ? ISTQB News Release on CTFL v4.0: <https://www.istqb.org/news/posts/istqb-releases-certified-tester-foundation-level-v40-ctfl/>

NEW QUESTION 16

Which of the following would be a key difference between a peer review of code and static analysis of code using a tool?

- A. A peer reviews finds defects while static analysis finds failures.
- B. Static analysis targets the code technically whereas Peer review is applicable to further aspects.
- C. Peer reviews cannot find missing requirements whereas static analysis can
- D. A peer reviews find failures while static analysis finds defects.

Answer: B

Explanation:

The key difference between a peer review of code and static analysis of code using a tool lies in their approaches and scope. A peer review is a manual inspection of the code by peers or colleagues, focusing not only on the technical aspects of the code but also on other elements such as design, compliance with standards, and maintainability. Peer reviews can identify defects, suggest improvements, and ensure that the code adheres to best practices and team standards. On the other hand, static analysis is an automated process performed by tools designed to analyze the code without executing it. These tools can detect potential issues such as syntax errors, vulnerabilities, and code smells based on predefined rules and patterns. While static analysis is technically focused, it lacks the broader perspective that human reviewers can provide, such as evaluating the code's maintainability or adherence to project-specific standards. Therefore, static analysis targets the code technically, whereas peer review encompasses a wider range of aspects, making option B the correct answer.

NEW QUESTION 21

Out of the following. what is not needed to specify in defect report?

- A. Test environment details
- B. How to reproduce the defect
- C. How to fix the defect
- D. Severity and priority

Answer: C

Explanation:

A defect report is a document that records the details of a defect found during testing. A defect report typically contains the following items:

- ? Identifier: A unique identifier for the defect report
- ? Summary: A concise summary of the defect
- ? Description: A detailed description of the defect, including the steps to reproduce it, the expected and actual results, and any relevant screenshots or logs
- ? Severity: The degree of impact that the defect has on the system
- ? Priority: The level of urgency for resolving the defect
- ? Status: The current state of the defect, such as new, open, resolved, closed, etc.
- ? Resolution: The action taken to resolve the defect, such as fix, workaround, reject, etc. Out of these items, the one that is not needed to specify in a defect report is how to fix the defect. How to fix the defect is a technical solution that is usually determined by the developer who is assigned to resolve the defect. How to fix the defect is not part of the defect report, but rather part of the code change or patch that is delivered to fix the defect. The other items are needed to specify in a defect report, as they provide essential information for identifying, tracking and resolving defects. Verified References: [A Study Guide to the ISTQB® Foundation

Level 2018 Syllabus - Springer], Chapter 3, page 32-33.

NEW QUESTION 24

Which of the following is a typical product risk?

- A. Poor usability of the software
- B. A problem in the code developed by a 3rd party
- C. Low quality of the configuration data, test data and tests
- D. Problem in defining the right requirements

Answer: A

Explanation:

A typical product risk involves issues directly related to the software product's functionality, performance, usability, reliability, etc. Option A, "Poor usability of the software," directly impacts the end-user's interaction with the software and is a quality attribute of the product itself, making it a product risk. Options B, "A problem in the code developed by a 3rd party," C, "Low quality of the configuration data, test data and tests," and D, "Problem in defining the right requirements," can be considered either product or project risks depending on the context, but option A is the most directly associated with a typical product risk concerning the quality and usability of the software.

NEW QUESTION 27

Which of the following is the BEST reason for selecting a particular type of software development lifecycle model?

- A. The project manager's preference
- B. Tester skill level with the software development lifecycle model
- C. The project team's overall familiarity with the model
- D. The type of product being developed

Answer: D

Explanation:

The choice of a software development lifecycle (SDLC) model is primarily influenced by the type of product being developed. Different products and project requirements may demand different SDLC models to address specific challenges and needs efficiently. For instance, a complex, safety-critical product might best be served by a Waterfall model due to its structured nature and phase dependencies, while a more iterative and incremental model might be suited for projects requiring frequent feedback and changes. References: ISTQB Certified Tester Foundation Level Syllabus v4.0, Section 2.1 "Software Development Lifecycles".

NEW QUESTION 32

In the newest version of payroll system number of changes were made. As a tester you got a task to perform regression and confirmation tests. Which of the following project activities are related to confirmation testing?

- A. Testing due to the application of a new version of the interface
- B. Testing that fixes resolved the defects in the search function
- C. Testing if a system still works after update of an operating system
- D. Testing to ensure the adding of a new functionalities haven't broken existing functions

Answer: B

Explanation:

Confirmation testing, also known as re-testing, is performed to verify that specific defects have been successfully fixed.

Option A: "Testing due to the application of a new version of the interface" would typically involve regression testing, not confirmation testing.

Option B: "Testing that fixes resolved the defects in the search function" fits the description of confirmation testing as it focuses on ensuring that specific issues have been addressed. Option C: "Testing if a system still works after update of an operating system" is an example of regression testing, as it checks the overall system behavior after an update. Option D: "Testing to ensure the adding of new functionalities haven't broken existing functions" is another example of re (ISTQB not-for-profit association) (Udemy) it checks for unintended consequences of new changes.

Therefore, the correct answer is B. References:

? Certified Tester Foundation Level v4.0

? ISTQB Foundation Level Syllabus 4.0 (2023)

NEW QUESTION 36

ST is a Software Testing organization which utilizes a testing knowledge base. Access to ST knowledge base can be either full or limited. Access level is determined based on ST certification and testing experience as follows:

- * 1. If ST certified, with less than 5 years testing experience - allow limited access
- * 2. If ST certified, 5-10 years of testing experience - allow full access
- * 3. If not ST certified with 5-10 years of testing experience - allow limited access.

What would be the results for:

- A - ST certified. 12 years of testing experience
- B - Not ST certified. 7 years of testing experience
- C - Not ST certified. 3 years of testing experience

- A. A - unknown B - limited access C - unknown
- B. A - full access B - limited access C - unknown
- C. A - full access B - limited access C - limited access
- D. A - unknown B - full access C - unknown

Answer: B

Explanation:

The correct answer can be derived by applying the given rules to each case:

? A is ST certified and has 12 years of testing experience, which is more than 10 years. Therefore, A does not match any of the rules and the result is unknown.

? B is not ST certified and has 7 years of testing experience, which is between 5 and 10 years. Therefore, B matches rule 3 and the result is limited access.

? C is not ST certified and has 3 years of testing experience, which is less than 5 years. Therefore, C does not match any of the rules and the result is unknown.
 Verified References: This question does not require any external references, as it is based on logical reasoning.

NEW QUESTION 37

Which of the following statements contradicts the general principles of testing?

- A. Most defects are found in a small subset of a system's modules.
- B. If new defects are to be found we should run the same test set more often.
- C. Testing is better if it starts at the beginning of a project.
- D. How testing is done, is based on the situation in a particular project.

Answer: B

Explanation:

Statement B contradicts the general principles of testing, because running the same test set more often will not increase the chances of finding new defects, unless there are some changes in the system or environment that affect the test results. Running different test sets with different inputs, outputs or conditions would be more effective in finding new defects. Statements A, C and D are consistent with the general principles of testing. Statement A states that most defects are found in a small subset of a system's modules, which is true according to the defect clustering principle. Statement C states that testing is better if it starts at the beginning of a project, which is true according to the early testing principle. Statement D states that how testing is done, is based on the situation in a particular project, which is true according to the context-dependent testing principle. Verified References: A Study Guide to the ISTQB® Foundation Level 2018 Syllabus - Springer, pages 4-6.

NEW QUESTION 38

Why is it important to select a test technique?

- A. There are usually too many test cases that may be run on a system.
- B. Test techniques help reduce the number of tests.
- C. The only way to test a software application is by using well-proven test techniques.
- D. Selecting the right test technique in a given situation increases the effectiveness of the test process by creating tests with a higher chance of finding bugs.
- E. Test techniques define the number of regression cycles, which in turn impact the project schedule.

Answer: C

Explanation:

Selecting the right test technique is crucial because different techniques are suited to different types of testing and can significantly increase the effectiveness of the testing process by creating tests that are more likely to find defects. While reducing the number of tests (A) and defining the number of regression cycles (D) are considerations in the testing process, they are not the primary reasons for selecting a test technique. The assertion that the only way to test a software application is by using well-proven test techniques (B) is too restrictive and does not acknowledge the adaptability required in testing to suit different contexts and objectives. Therefore, option C is the most comprehensive reason, as it focuses on the effectiveness and efficiency of testing, leading to the creation of high-quality tests that have a higher chance of finding bugs.

NEW QUESTION 42

Which are the MAIN goals of risk management in a software project?

- A. To increase the success probability for the project regardless of costs.
- B. To increase focus on preventative processes and to increase satisfaction for the testers.
- C. To control contractual problems and minimize the impacts of company policies.
- D. To reduce the probability of undesired situations and to reduce the effect of potential impact.

Answer: D

Explanation:

Risk management is a process that identifies, analyzes, evaluates and mitigates risks in a software project. Risks are factors that may negatively affect the quality, schedule, budget or scope of a software project. The main goals of risk management in a software project are to reduce the probability of undesired situations and to reduce the effect of potential impact. This can be achieved by applying various strategies, such as avoidance, transfer, reduction or acceptance. Risk management does not aim to increase the success probability for the project regardless of costs, as this may not be feasible or realistic. Risk management does not aim to increase focus on preventative processes and to increase satisfaction for the testers, as these are secondary or indirect outcomes. Risk management does not aim to control contractual problems and minimize the impacts of company policies, as these are specific types of risks that may not apply to all projects. Verified References: A Study Guide to the ISTQB® Foundation Level 2018 Syllabus - Springer, Chapter 2, page 14-15.

NEW QUESTION 47

Which of the following options cover the test types performed during typical system testing phase:

- A. Usability II Requirements based scenarios III Testing parts of the code in isolation IV Correct order of parameters in API calls
- B. I, III
- C. II
- D. I
- E. IV
- F. II
- G. IV

Answer: B

Explanation:

System testing is a level of testing performed to evaluate the behavior and quality of a whole software product or system. System testing can include various types of testing, such as:

- ? I) Usability testing: A type of testing that evaluates how easy, efficient and satisfying it is to use the software product or system from the user's perspective.
- ? II) Requirements based scenarios testing: A type of testing that verifies that the software product or system meets its specified requirements or user stories by executing realistic scenarios or workflows. System testing does not include the following types of testing, as they are more suitable for lower levels of testing, such

as unit testing or integration testing:

? III) Testing parts of the code in isolation: A type of testing that verifies the functionality and quality of individual software components or units by isolating them from other components or units.

? IV) Correct order of parameters in API calls: A type of testing that verifies the functionality and quality of software components or units that communicate with each other through application programming interfaces (APIs) by checking the correct order and format of parameters in API calls. Verified References: [A Study Guide to the ISTQB® Foundation Level 2018 Syllabus - Springer], Chapter 2, page 20-21; Chapter 4, page 34-35.

NEW QUESTION 52

While reporting a defect, which attribute indicates the degree of impact that the defect has on the system?

- A. Priority
- B. Severity
- C. Status
- D. Description

Answer: B

Explanation:

In defect reporting, the attribute that indicates the degree of impact that the defect has on the system is the severity. Severity reflects the seriousness of the defect in terms of its impact on the operation of the system, ranging from minor issues that do not significantly affect the system's functionality to critical defects that can cause system failure. Therefore, option B is the correct answer.

NEW QUESTION 57

Which of the following can be considered a VALID exit criterion? I Estimates of defect density or reliability measures.

II. The completion and publication of an exhaustive Test Report.

III. Accuracy measures, such as code, functionality or risk coverage. IV Residual risks such as lack of code coverage in certain areas.

- A. I, III, IV
- B. I, II, III
- C. III, IV
- D. II, III, IV

Answer: A

Explanation:

An exit criterion is a condition that defines when a test activity has been completed or when a test phase can be concluded. An exit criterion can be based on various factors, such as:

? I) Estimates of defect density or reliability measures. These are quantitative measures that indicate how many defects are present in the software product or how likely it is to fail under certain conditions. These can be used as exit criteria to ensure that the software product meets a certain level of quality or performance before moving to the next phase or releasing it to the customer.

? III) Accuracy measures, such as code coverage, functionality coverage or risk coverage. These are quantitative measures that indicate how much of the software product has been tested in terms of its code, functionality or risk. These can be used as exit criteria to ensure that the test suite is adequate or complete before moving to the next phase or releasing it to the customer.

? IV) Residual risks, such as lack of code coverage in certain areas, unresolved defects or unknown factors. These are qualitative measures that indicate the remaining risks or uncertainties associated with the software product after testing. These can be used as exit criteria to ensure that the residual risks are acceptable or manageable before moving to the next phase or releasing it to the customer. The following factor is not a valid exit criterion:

? II) The completion and publication of an exhaustive Test Report. This is not a valid exit criterion, as it does not reflect the quality or completeness of the testing process or product. A test report is a document that summarizes the results and outcomes of a test activity or phase. A test report can be used as an input for deciding whether to exit a test activity or phase, but it is not a condition that defines when to exit. Verified References: A Study Guide to the ISTQB® Foundation Level 2018 Syllabus - Springer, Chapter 2, page 13; Chapter 6, page 58-59.

NEW QUESTION 61

Which test approach will best fit a new project, with little documentation and high probability for bugs?

- A. Exploratory testing
- B. Requirements based testing
- C. Metric based approach
- D. Regression testing

Answer: A

Explanation:

Exploratory testing is an approach to testing that emphasizes learning, test design and test execution at the same time. Exploratory testing relies on the tester's skills, creativity and intuition to explore the software under test and discover defects. Exploratory testing is suitable for a new project with little documentation and high probability for bugs, as it can help uncover unknown requirements, assumptions and risks. Exploratory testing is not requirements based testing, which is an approach to testing that derives test cases from documented requirements or specifications. Requirements based testing is not feasible for a new project with little documentation, as it requires clear and complete requirements to be available. Exploratory testing is not metric based approach, which is an approach to testing that uses quantitative measures to monitor and control the testing process and evaluate the quality of the software product. Metric based approach is not effective for a new project with high probability for bugs, as it may not capture all aspects of quality and may lead to false confidence or unrealistic expectations. Exploratory testing is not regression testing, which is an approach to testing that verifies that previously tested software still performs correctly after changes. Regression testing is not relevant for a new project with no previous versions or baselines. Verified References: [A Study Guide to the ISTQB® Foundation Level 2018 Syllabus - Springer], Chapter 5, page 47-48.

NEW QUESTION 66

Which of the following issues cannot be identified by static analysis tools?

- A. Very low MTBF (Mean Time Between failure)
- B. Potentially endless loops
- C. Referencing a variable with an undefined value

D. Security vulnerabilities

Answer: A

Explanation:

Static analysis tools are software tools that examine the source code of a program without executing it. They can detect various types of issues, such as syntax errors, coding standards violations, security vulnerabilities, and potential bugs¹². However, static analysis tools cannot identify issues that depend on the runtime behavior or performance of the program, such as very low MTBF (Mean Time Between failure)³. MTBF is a measure of the reliability of a system or component. It is calculated by dividing the total operating time by the number of failures. MTBF reflects how often a system or component fails during its expected lifetime. Static analysis tools cannot measure MTBF because they do not run the program or observe its failures. MTBF can only be estimated by dynamic testing, which involves executing the program under various conditions and collecting data on its failures⁴. Therefore, very low MTBF is an issue that cannot be identified by static analysis tools. The other options, such as potentially endless loops, referencing a variable with an undefined value, and security vulnerabilities, are issues that can be identified by static analysis tools. Static analysis tools can detect potentially endless loops by analyzing the control flow and data flow of the program and checking for conditions that may never become false⁵. Static analysis tools can detect referencing a variable with an undefined value by checking the scope and initialization of variables and reporting any use of uninitialized variables⁶. Static analysis tools can detect security vulnerabilities by checking for common patterns of insecure code, such as buffer overflows, SQL injections, cross-site scripting, and weak encryption. References = What Is Static Analysis? Static Code Analysis Tools - Perforce Software, How Static Code Analysis Works | Perforce, Static Code Analysis: Techniques, Top 5 Benefits & 3 Challenges, What is MTBF? Mean Time Between Failures Explained | Perforce, Static analysis tools - Software Testing MCQs - CareerRide, ISTQB_Chapter3 | Quizizz, [Static Code Analysis for Security Vulnerabilities | Perforce].

NEW QUESTION 67

Which of the following statements about reviews are TRUE?

- A. In walkthroughs the review meeting is typically led by the autho
- B. II Inspection is characterized by an open-ended review meetingIII Preparation before the review meeting is part of informal reviews IV Management rarely participates in technical review meetings
- C. II, III
- D. I, II
- E. I, IV
- F. III, IV

Answer: C

Explanation:

The following statements about reviews are true:

? I) In walkthroughs the review meeting is typically led by the author. A walkthrough is a type of review that has a predefined objective and agenda but no formal process or roles. A walkthrough is typically led by the author of the work product under review, who guides the participants through a scenario and solicits feedback.

? IV) Management rarely participates in technical review meetings. A technical review is a type of review that has a predefined objective and agenda but no formal process or roles. A technical review is typically performed by peers with technical expertise in order to evaluate technical aspects of a work product. Management rarely participates in technical review meetings, as they may not have sufficient technical knowledge or skills to contribute effectively. The following statements about reviews are false:

? II) Inspection is characterized by an open-ended review meeting. An inspection is a type of review that follows a defined process with formal entry and exit criteria and roles and responsibilities for participants. An inspection is characterized by a structured review meeting with a fixed duration and agenda.

? III) Preparation before the review meeting is part of informal reviews. Preparation before the review meeting is part of formal reviews, such as inspections or technical reviews. Preparation involves checking

NEW QUESTION 71

Which of the following BEST matches the attributes with a level of testing?

- A. Stubs and drivers are often usedII The test environment should correspond to the production environment III Finding defects is not the main focusIV Testing can be based on use casesV Testing is normally performed by testersVI Testing for functional and non-functional characteristics
- B. Component - VI Integration - IV System - I Acceptance - 111
- C. Component - IV Integration - I System - VI Acceptance - V
- D. Component-I Integration - V System - II Acceptance - IV
- E. Component - V Integration - II System - IV Acceptance - VI

Answer: D

Explanation:

The relationship between impact analysis and regression testing in maintenance testing is that impact analysis is used to evaluate the amount of regression testing to be performed. Maintenance testing is a type of testing that is performed on an existing software product after it has been delivered or deployed, in order to ensure that it still meets its requirements and functions correctly after a change or a modification. Maintenance testing can be triggered by various reasons, such as corrective maintenance (fixing defects), adaptive maintenance (adapting to new environments), perfective maintenance (improving performance), preventive maintenance (avoiding future problems), etc. Impact analysis is a technique that is used to assess the extent and nature of changes introduced by maintenance activities on the software product or project. Impact analysis helps to identify which parts of the software product are affected by the changes, which parts need to be modified or updated accordingly, which parts need to be retested or verified for correctness or compatibility, etc. Regression testing is a type of testing that verifies that previously tested software still performs correctly after a change or a modification. Regression testing helps to detect any side effects or unintended consequences of maintenance activities on the software product's functionality or quality. Regression testing can be performed at various levels and scopes depending on the impact analysis results. Therefore, in maintenance testing, impact analysis is used to evaluate the amount of regression testing to be performed. Verified References: A Study Guide to the ISTQB® Foundation Level 2018 Syllabus - Springer, page 20.

NEW QUESTION 75

In which of the following test documents would you expect to find test exit criteria described⁹

- 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 testing¹. 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 deliverables². 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 criteria³:

? 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 type³. The project plan describes the overall objectives, scope, assumptions, risks, and deliverables of the software project⁴. The requirements specification describes the functional and non-functional requirements of the software product⁵. 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 77

A software company decides to invest in reviews of various types. The thought process they have is that each artifact needs to be reviewed using only one of the review methods depending on the criticality of the artifact.

- A. The thought process is incorrec
- B. The whole company should adopt same standard for review of all artifacts.
- C. The thought process is correc
- D. The whole company should decide or the review method based on their CMM level.
- E. The thought process is incorrec
- F. Same artifact can be reviewed using different review methods
- G. The thought process is correc
- H. It wastes time to review same artifact using efferent review methods

Answer: C

Explanation:

The thought process of the software company is incorrect, because it assumes that each artifact can be reviewed using only one review method, and that the review method depends solely on the criticality of the artifact. This is a simplistic and rigid approach that does not consider the benefits and limitations of different review methods, the context and purpose of the review, and the feedback and improvement opportunities that can be gained from multiple reviews. According to the CTFL 4.0 Syllabus, the selection of review methods should be based on several factors, such as the type and level of detail of the artifact, the availability and competence of the reviewers, the time and budget constraints, the expected defects and risks, and the desired outcomes and quality criteria. Moreover, the same artifact can be reviewed using different review methods at different stages of the development lifecycle, to ensure that the artifact meets the changing requirements, standards, and expectations of the stakeholders. For example, a requirement specification can be reviewed using an informal review method, such as a walkthrough, to get an initial feedback from the users and developers, and then using a formal review method, such as an inspection, to verify the completeness, correctness, and consistency of the specification. Therefore, the software company should adopt a more flexible and context-sensitive approach to selecting and applying review methods for different artifacts, rather than following a fixed and arbitrary rule. References = CTFL 4.0 Syllabus, Section 3.2.1, page 31-32; Section 3.2.2, page 33-34; Section 3.2.3, page 35-36.

NEW QUESTION 78

Which of the following statements about test reports are TRUE?

- II. Test reports shall give stakeholders information as basis for decisions.
- III Test reports shall summarize what happened through a period of testing.
- IV. Test reports shall be approved by the development team, the test team and the customer

- A. Test reports shall include information about remaining risks.
- B. II, III, V
- C. I, II, IV
- D. I, III, v
- E. II, III, IV

Answer: A

Explanation:

Statements II, III and V are true about test reports. Test reports are documents that provide information on the results and status of testing activities for a given period or phase. Test reports should give stakeholders information as basis for decisions, such as whether to release the software product, whether to continue testing, whether to change the scope or priorities of testing, etc. Test reports should summarize what happened through a period of testing, such as what test cases were executed, what defects were found, what risks were identified, what issues were encountered, what achievements were made, etc. Test reports should include information about remaining risks, such as what defects are still open, what test cases are still pending, what functionalities are still untested, what uncertainties are still unresolved, etc. Statements I and IV are not true about test reports. Test reports do not need to be approved by the test team, the development team, or the customer, unless it is specified by the test policy or the test plan. Test reports only need to be reviewed and verified by the test leader or the test manager before being distributed to the intended recipients. Verified References: A Study Guide to the ISTQB® Foundation Level 2018 Syllabus - Springer, page 141.

NEW QUESTION 81

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 activities¹. 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-months².

? 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 83

Which of the following is the main benefit of a configuration management of testware?

- A. All testware is backed up with restore option, including incident reports and change request
- B. The testware can be traced to information in requirements tools and to the bug tracking system.
- C. All testware items are identified, version controlled, tracked for changes with relation to each other
- D. There is an easy way to assess the level to test coverage provided by the existing tests

Answer: C

Explanation:

Configuration management of testware is a critical aspect of maintaining the integrity and traceability of test assets throughout the testing lifecycle. The main benefit of configuration management is to ensure that all testware items, such as test cases, test scripts, test data, and test results, are systematically identified, version controlled, and tracked for changes in relation to each other.

Option C accurately describes this benefit. By applying configuration management principles to testware, teams can manage changes to test assets efficiently, ensuring that the testware remains consistent, up-to-date, and aligned with the version of the software under test. This control mechanism facilitates the reproducibility of tests, enhances the reliability of testing activities, and supports traceability from requirements through to defects.

Options A, B, and D describe other aspects of test management and testing processes but do not capture the core benefit of configuration management of testware, which is centered on the systematic control and tracking of testware items.

NEW QUESTION 84

Which of the following BEST describes checklist-based testing?

- A. Checklist-based testing includes formal tests from detailed lists of test conditions, allowing much repeatability
- B. Checklist-based testing may involve a list of tests based on what is important to the user as well as an understanding of why and how software fails
- C. Checklist-based testing, while popular, provides little consistency and few guidelines concerning test case development
- D. Checklist-based testing is restricted to non-functional testing, including usability, performance, and security test

Answer: B

Explanation:

Checklist-based testing involves using checklists that contain items, such as potential test conditions, that should be tested. These checklists are often based on insights into what is important to the user, potential areas where software might fail, and specific aspects that need to be tested. It provides a structured yet flexible approach to testing, ensuring key areas are covered while allowing testers to use their experience and understanding of the system. Checklist-based testing is not limited to non-functional testing but can be applied to various types of testing, including functional testing. References:

? ISTQB Certified Tester Foundation Level Syllabus v4.0, Section 4.4.5.

NEW QUESTION 87

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

- A. Test cases are derived based on non-functional requirements such as usability
- B. Test cases are created using white-box test techniques to execute scenarios of use cases
- C. Test cases are derived based on pair testing between a user and a tester to find defects
- D. Test cases are designed to cover various user behaviors, including basic, exceptional or alternative and error behaviors associated with human users or systems

Answer: D

Explanation:

Use cases describe a system's behavior as it responds to a request from a user. They typically consist of various scenarios, such as basic flow, alternative flow, and exceptional flow, which represent possible behaviors when a user interacts with the system. When deriving test cases from use cases, it is important to cover these different types of user behaviors. Test cases should be designed to verify how the system behaves during each of these scenarios. This ensures that the system operates correctly for normal and error conditions encountered by human users or systems interacting with the application. Thus, test cases derived from use cases aim to cover basic, exceptional, and alternative flows, ensuring comprehensive coverage. References:

? ISTQB Certified Tester Foundation Level Syllabus v4.0, Section 4.2.4.

NEW QUESTION 88

Which of the following should be included in a test status report?

- A. Estimation details
- B. Total number of open and closed defects III Actual effort spent
- C. Defect reports
- D. Number of executed, failed, blocked tests
- E. III.V
- F. II, III
- G. I
- H. IV
- I. II, III.V

Answer: D

Explanation:

The following should be included in a test status report: total number of open and closed defects, actual effort spent, and number of executed, failed, and blocked tests.

A test status report is a document that provides information on the results and status of testing activities for a given period or phase. A test status report should include information that is relevant, accurate, and timely for the intended audience and purpose. Some of the information that should be included in a test status report are: total number of open and closed defects, which can indicate the defect trend and defect density of the software product; actual effort spent, which can indicate the productivity and efficiency of the testing process; number of executed, failed, and blocked tests, which can indicate the test progress and test coverage of the software product. The following should not be included in a test status report: estimation details, defect reports, and impact analysis. Estimation details are not part of a test status report, but rather part of a test plan or a test estimation document. Estimation details provide information on the expected time, resources, and costs for testing activities, not on the actual results or status of testing activities. Defect reports are not part of a test status report, but rather separate documents that provide detailed information on individual defects found during testing. Defect reports include information such as defect description, defect severity, defect priority, defect status, defect resolution, etc. Defect reports can be referenced or summarized in a test status report, but not included in full. Impact analysis is not part of a test status report, but rather part of a risk assessment or prioritization process. Impact analysis provides information on the potential effects or consequences of a change or a defect on the software product or project. Impact analysis can be used to evaluate the amount or scope of testing to be performed, but not to report the results or status of testing activities. Verified References: A Study Guide to the ISTQB® Foundation Level 2018 Syllabus - Springer, page 141.

NEW QUESTION 93

Mark the correct sentences:

- * Defects are a result of environmental conditions and are also referred to as "Failures"
- * A human mistake may produce a defect
- * A system will totally fail to operate correctly when a failure exists in it
- * When a defect exists in a system it may result in a failure
- * Defects occur only as a result of technology changes

- A. II, IV
- B. I, II
- C. IV, V
- D. II, III, IV

Answer: A

Explanation:

? The question is about marking the correct sentences among the given statements related to defects, failures, and mistakes. According to the ISTQB glossary, the definitions of these terms are:

? Therefore, out of the five given statements, only two are correct, namely:

? The other three statements are incorrect, namely: References:

? 1: ISTQB Glossary of Testing Terms 4.0, 2023, available at ISTQB) and ASTQB).

NEW QUESTION 98

4 equivalence classes are given for integer values:

$0 < x < 100$

$100 \leq x \leq 200$

$200 < x < 500$

$x \geq 500$

Which of the following options represent correct set of data for valid equivalence class partitions?

- A. 50; 100; 200; 1000
- B. 0.199, 100.200, 201.499, 500;
- C. 0.50; 100; 150.200.350.500;
- D. 50; 100; 250; 1000

Answer: C

Explanation:

The correct set of data for valid equivalence class partitions should include one value from each equivalence class, and no value from outside the range. Option C satisfies this condition, as it has one value from each of the four equivalence classes (50, 100, 250, 500). Option A has two values from the same equivalence class (100 and 200), option B has values outside the range (0 and 0.99), and option D has two values from the same equivalence class (1000 and 500). Verified References: A Study Guide to the ISTQB® Foundation Level 2018 Syllabus - Springer, page 35.

NEW QUESTION 101

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 105

Which of the following statements about static analysis are FALSE?

- A. Static analysis can be used Instead of dynamic testing.I
- B. Stalk: analysis can uncover defects like security vulnerabilities.II
- C. Static analysis can be used to check conformance to specifications and standard
- D. IV Static analysis typically detects failures prior to component testing.
- E. II
- F. I
- G. III
- H. II
- I. IV
- J. I, IV

Answer: D

Explanation:

Static analysis involves analyzing the software's code, design, and structure without executing the program. It can uncover various types of defects, including security vulnerabilities (II) and non-conformance to specifications and standards (III). However, static analysis cannot replace dynamic testing (I), which involves executing the software to observe its behavior under various conditions. Dynamic testing can identify failures that static analysis cannot, such as those related to runtime issues and interaction between different parts of the software. Statement IV is false because static analysis does not detect failures; it detects defects. Failures are observed when the software is executed, which is beyond the scope of static analysis.

NEW QUESTION 107

A software application incorrectly provided customers discounts of 50% off their total purchases if the purchases exceeded \$100. It was discovered through an audit that the discount should have been only 5% off these purchases. A root cause analysis uncovered that the requirements Incorrectly stated 50% instead of 5% in this scenario.

Which of the following MOST accurately reflects this scenario?

- A. The audit finding Is the root cause, the incorrect calculation of 50% Is the defect, and the Incorrect requirement Is the effect
- B. The incorrect customer discount is the effect and the reason for the requirement error is the root cause
- C. The incorrect discount is the root cause, requiring a root cause analysis which led to investigating the software code, design, and requirements
- D. A defect in the code is determined to be the root cause of the incorrect calculation

Answer: B

Explanation:

According to the ISTQB CTFL syllabus, a defect is a deviation from the expected result which in this scenario is the incorrect discount applied to the customers. The root cause, as per the ISTQB definition, is the originating cause of a defect, which in this case is the incorrect requirement stating 50% instead of 5%. Therefore, the incorrect requirement is the root cause and the customer receiving the wrong discount is the effect of this root cause. References:ISTQB Certified Tester Foundation Level Syllabus v4.0, Section 1.4.3 "Defects, Root Causes, and Effects".

NEW QUESTION 112

You are testing the download process of a mobile phone application. For which to the following capabilities to the system you need to design a nonfunctional test?

- A. It was easy to locate, download and install the application
- B. The application was correctly downloaded

- C. The application created an installation log file in a given folder
- D. The application installed only after the user's approval

Answer: A

Explanation:

This question asks for a non-functional aspect of testing the download process of a mobile application. Option A, "It was easy to locate, download and install the application," refers to usability, which is a non-functional quality attribute. Non-functional testing involves testing the system's attributes, such as usability, performance, reliability, etc., rather than specific behaviors or functions. Options B, "The application was correctly downloaded," C, "The application created an installation log file in a given folder," and D, "The application installed only after the user's approval," describe functional aspects, focusing on what the software does rather than how it performs or is experienced by the user.

NEW QUESTION 114

Decision table testing is being performed on transactions in a bank's ATM (Automated Teller Machine) system. Two test cases have already been generated for rules 1 and 4. which are shown below:

SEE ATTACHMENT 1

Given the following additional test cases: SEE ATTACHMENT 2

Which two of the additional test cases would achieve full coverage of the full decision table (when combined with the test cases that have already been generated for rules 1 and 4)?

- A. DT1, DT4
- B. DT3, DT4
- C. DT2, DT3
- D. DT1,DT2

Answer: C

Explanation:

Decision table testing is used to analyze combinations of inputs to determine the appropriate outputs, often based on specific rules or conditions.

For the problem statement:

? Rule 1: (Withdrawal = Allowed, Balance = Sufficient, Fast Cash = True, Correct PIN = True)

? Rule 4: (Withdrawal = Allowed, Balance = Sufficient, Fast Cash = True, Correct PIN = False)

The additional test cases are:

? DT1: (Withdrawal = Allowed, Balance = Insufficient, Fast Cash = True, Correct PIN = True)

? DT2: (Withdrawal = Allowed, Balance = Sufficient, Fast Cash = False, Correct PIN = True)

? DT3: (Withdrawal = Allowed, Balance = Insufficient, Fast Cash = True, Correct PIN = False)

? DT4: (Withdrawal = Allowed, Balance = Sufficient, Fast Cash = False, Correct PIN = False)

From the given test cases, DT2 covers the scenario where Fast Cash is False, which is not covered in the initial cases. DT3 covers the case where Balance is Insufficient and PIN is incorrect.

Combining Rules 1 and 4 with DT2 and DT3 covers all the scenarios. References:

? Certified Tester Foundation Level v4.0

? 10 Sample Exams ISTQB Foundation Level (CTFL) v4.0

NEW QUESTION 118

Consider the following statements about risk-based testing.

- I) Risk-based testing has the objective to reduce the level of protect risks.
- II) Tests should be prioritized to find tie critical detects as early as possible.
- III) Non-testing activities may also help to reduce risk
- IV) Risks have to be reassessed on a regular basis.
- V) The project stakeholders can give useful input to determine the risks

- A. I III IV and V are tru
- B. II is false.
- C. II, III IV and V are correc
- D. I is false.
- E. I, II and IV are tru
- F. III and V are false.
- G. II, III and V are tru
- H. 1 ants Iv are false.

Answer: B

Explanation:

The following statements about risk-based testing are correct:

? II) Tests should be prioritized to find tie critical detects as early as possible. Risk- based testing involves prioritizing tests based on risk level, which reflects both the likelihood and impact of defects or failures. Tests with higher risk level should be executed earlier than tests with lower risk level, in order to find and fix critical defects as soon as possible.

? III) Non-testing activities may also help to reduce risk. Risk-based testing does not

only involve testing activities, but also other activities that can help mitigate risks, such as reviews, inspections, audits, simulations or prototyping.

NEW QUESTION 121

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

- A. A computation is not always performed correctly in some situations
- B. A system architecture may not support some non-functional requirements

- C. Team members' skills may not be sufficient for the assigned work
- D. Specific modules do not adequately meet their intended functions according to the user

Answer: C

Explanation:

A project risk relates to potential issues that could affect the overall success of the project. Among the options provided, the risk that "Team members' skills may not be sufficient for the assigned work" is clearly a project risk because it pertains to the potential failure of the project due to inadequate skillsets among the team. This risk affects the entire project's ability to meet its objectives. References:
? ISTQB Certified Tester Foundation Level Syllabus v4.0, Section 1.4.2.

NEW QUESTION 124

A system has a self-diagnostics module that starts executing after the system is reset. The diagnostics are running 12 different tests on the systems memory hardware. The following is one of the requirements set for the diagnostics module:

'The time taking the diagnostics tests to execute shall be less than 2 seconds' Which of the following is a failure related to the specified requirement?

- A. The diagnostic tests fail to start after a system reset
- B. The diagnostic tests take too much time to execute
- C. The diagnostic tests that measure the speed of the memory, fail
- D. The diagnostic tests fail due to incorrect implementation of the test code

Answer: B

Explanation:

A failure is an event in which a component or system does not perform a required function within specified limits¹. A requirement is a condition or capability needed by a user to solve a problem or achieve an objective². In this case, the requirement is that the diagnostics tests should execute in less than 2 seconds. Therefore, any event that violates this requirement is a failure. The only option that clearly violates this requirement is B. The diagnostic tests take too much time to execute. If the diagnostic tests take more than 2 seconds to complete, then they do not meet the specified limit and thus fail. The other options are not necessarily failures related to the specified requirement. Option A. The diagnostic tests fail to start after a system reset is a failure, but not related to the time limit. It is related to the functionality of the self-diagnostics module. Option C. The diagnostic tests that measure the speed of the memory, fail is also a failure, but not related to the time limit. It is related to the accuracy of the memory tests. Option D. The diagnostic tests fail due to incorrect implementation of the test code is also a failure, but not related to the time limit. It is related to the quality of the test code. References = ISTQB® Certified Tester Foundation Level Syllabus v4.0, Requirements Engineering Fundamentals.

NEW QUESTION 128

A company runs a pilot project for evaluation of a test automation tool. Which of the following is NOT a valid object of this pilot project?

- A. Get familiar with the functionality and options of the tool
- B. Check how the tool fits to the existing test processes
- C. Train all testers on using the tool
- D. Decide upon standards for tool implementation

Answer: C

Explanation:

? A pilot project is a small-scale experiment or trial that is conducted to evaluate the feasibility, effectiveness, and suitability of a test automation tool before implementing it on a larger scale¹.

? The objectives of a pilot project may vary depending on the context and scope of the test automation initiative, but some common ones are²:

? Therefore, option C is not a valid objective of a pilot project, as it is not necessary to train all testers on using the tool at this stage. Training all testers on using the tool would be more appropriate after the tool has been selected and approved for full-scale implementation, and after the standards and guidelines have been established. Training all testers on using the tool during the pilot project would be inefficient, costly, and premature, as the tool may not be suitable or effective for the intended purpose, or may be replaced by another tool later.

References:

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

? 2: 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

NEW QUESTION 133

The following incident report that was generated during test of a web application. What would you suggest as the most important report improvement?

Defect detected date: 15 8.2010 Defect detected by: Joe Smith Test level System test

Test case: Area 5/TC 98 Build version: 2011-16.2

Defect description After having filled out all required fields in screen 1, t click ENTER to continue to screen 2 Nothing happens, no system response at all.

- A. Add information about which web browser was used
- B. Add information about which developer should fix the bug
- C. Add the time stamp when the incident happened
- D. Add an impact analysis

Answer: A

Explanation:

The most important report improvement for the given incident report would be to add information about which web browser was used when the defect was detected. This information is relevant for reproducing and debugging the defect, as different web browsers may have different behaviors or compatibility issues with the web application. The other options are less important or irrelevant for the incident report. The developer who should fix the bug can be assigned by the project manager or the defect tracking system, not by the tester who reports the defect. The time stamp when the incident happened is not very useful, as it does not indicate the cause or the frequency of the defect. The impact analysis is not part of the incident report, but rather of the risk assessment or prioritization process. Verified References: A Study Guide to the ISTQB® Foundation Level 2018 Syllabus - Springer, page 140.

NEW QUESTION 137

Which of the following provides the BEST description of statement coverage?

- A. A white-box test technique which covers the decision results which determine the next statement to be executed
- B. A black-box test technique which uses a state table to derive test cases
- C. A white-box test technique which focuses on the percentage of executable statements that has been executed by a test suite
- D. An experience-based test technique in which test cases are based on the tester's knowledge of past failures

Answer: C

Explanation:

Statement coverage is a white-box test technique which focuses on executing all possible statements in the code at least once during testing. This helps in determining the percentage of executable statements that have been executed by the test suite, aiming to ensure that all parts of the program have been tested at least once (ISTQB Main Web).References:

? ISTQB® Certified Tester Foundation Level Syllabus v4.0: ISTQB CTFL Syllabus v4.0 PDF

NEW QUESTION 140

Given the following state model of sales order software: SEE ATTACHMENT

Which of the following sequences of transitions provides the highest level of transition coverage for the model (assuming you can start in any state)?

- A. IN PRODUCTION -> CANCELLED -> PLACED -> IN PRODUCTION -> CANCELLED -> PLACED
- B. IN PRODUCTION -> SHIPPED -> INVOICED -> CANCELLED -> PLACED -> IN PRODUCTION
- C. PLACED -> IN PRODUCTION -> SHIPPED -> CANCELLED -> PLACED
- D. PLACED -> CANCELLED -> PLACED -> CANCELLED -> PLACED -> IN PRODUCTION -> CANCELLED

Answer: B

Explanation:

To achieve the highest level of transition coverage, one must consider all the possible transitions between the states in the given state model of the sales order software. The transitions in the sequence provided in Option B - "IN PRODUCTION -> SHIPPED -> INVOICED -> CANCELLED -> PLACED -> IN PRODUCTION" cover all the states and transitions effectively. This covers the transitions from IN PRODUCTION to SHIPPED, SHIPPED to INVOICED, INVOICED to CANCELLED, CANCELLED to PLACED, and

PLACED to IN PRODUCTION, thereby maximizing the transition coverage.References:

? ISTQB Certified Tester Foundation Level Syllabus v4.0, Section 4.3.5.

NEW QUESTION 141

Which of the following activities does NOT belong to a typical technical review?

- A. Pre-meeting preparation by reviewers
- B. Using checklists during the meeting
- C. Inviting end-users to the meeting
- D. Preparation of a review report

Answer: C

Explanation:

Technical reviews are structured meetings that aim to examine various aspects of a product or project to identify any defects or improvements. Options A (Pre-meeting preparation by reviewers), B (Using checklists during the meeting), and D (Preparation of a review report) are typical activities in a technical review process. Inviting end-users to the meeting (C), however, is generally not part of a typical technical review, as these reviews are usually more focused on the technical aspects and are conducted by peers or experts within the development or testing teams rather than end-users.

NEW QUESTION 144

A Static analysis tool analyzes a given program's CONTROL FLOW among other things. Which of the following options represents the most likely outcome of the control flow analysis:

- A. Identification of unreachable code
- B. Report on adherence to the coding standards
- C. Number of comment lines
- D. Number of source code lines

Answer: A

Explanation:

A static analysis tool is a tool that analyzes a given program's source code or executable code without executing it. A static analysis tool can perform various types of analysis on a program's code, such as syntax checking, data flow analysis, control flow analysis, complexity measurement, coding standards compliance checking, etc. Control flow analysis is a type of analysis that examines how a program's statements are executed in different paths or branches. One of the most likely outcomes of control flow analysis is identification of unreachable code, which is code that can never be executed due to logical errors or design flaws. Unreachable code can reduce readability and maintainability of the code, as well as increase complexity and size. The other options are not outcomes of control flow analysis, but rather outcomes of other types of analysis. Report on adherence to coding standards is an outcome of coding standards compliance checking. Number of comment lines and number of source code lines are outcomes of complexity measurement. Verified References: A Study Guide to the ISTQB® Foundation Level 2018 Syllabus - Springer, page 8.

NEW QUESTION 149

Which of the following BEST describes exploratory testing?

- A. Exploratory testing is a suitable test technique which may replace both black-box and white-box test techniques
- B. Exploratory testing is a valid and useful black-box test technique since it focuses on test cases related to the architecture and design of a system
- C. Exploratory testing requires both solid specifications and much project time available for test execution

D. Exploratory testing may be used within defined time periods, during which the tester may follow a test charter as a guide

Answer: D

Explanation:

Exploratory testing involves simultaneous test design and execution and is guided by a test charter, which outlines what needs to be tested, how it should be tested, and what to look for. This technique is typically conducted within predefined time periods, known as time-boxing, which allows testers to explore a system, understand its functionalities, and identify potential issues without detailed documentation or prior test case planning. The key aspects of exploratory testing include flexibility, adaptability, and the ability to respond to system behavior during testing. References: ? ISTQB Certified Tester Foundation Level Syllabus v4.0, Section 4.4.2.

NEW QUESTION 154

Which of the following is NOT a product risk?

- A. Poor software usability
- B. Failure-prone software is delivered
- C. Problems in defining the right requirements
- D. Software does not perform the intended functions

Answer: C

Explanation:

Problems in defining the right requirements is not a product risk, but rather a project risk. A product risk is a risk that affects the quality or performance of the software product itself, such as poor usability, failure-prone functionality, security vulnerabilities, compatibility issues, etc. A project risk is a risk that affects the management or delivery of the software project itself, such as unrealistic schedule, insufficient resources, unclear scope, changing requirements, etc. The other options are examples of product risks, as they relate to the software product's characteristics or features. Verified References: A Study Guide to the ISTQB® Foundation Level 2018 Syllabus - Springer, page 12.

NEW QUESTION 157

The following part of a business process flow is specified; REPEAT (book a bill) UNTIL (User presses Cancel). How many test cases are necessary in order to achieve 100% branch coverage of the process flow?

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

Answer: C

Explanation:

To achieve 100% branch coverage of the process flow, we need to test both the true and false outcomes of the condition (User presses Cancel). Branch coverage is a type of structural testing that measures how many decision outcomes in a program have been executed by a test suite. Branch coverage can be used to assess the adequacy or completeness of a test suite.

To test the true outcome of the condition, we need a test case that simulates the user pressing Cancel after booking a bill. This test case will exit the loop and end the process flow.

To test the false outcome of the condition, we need a test case that simulates the user not pressing Cancel after booking a bill. This test case will repeat the loop and book another bill.

Therefore, we need at least two test cases to achieve 100% branch coverage of the process flow. One test case for each possible outcome of the condition.

Verified References: [A Study Guide to the ISTQB® Foundation Level 2018 Syllabus - Springer], Chapter 4, page 40-41.

NEW QUESTION 160

Which ONE of the following statements about state transition testing is correct?

- A. The state transition diagram explicitly shows all invalid transitions.
- B. The size of the state table depends on the number of possible transitions between the states
- C. Usually it is not possible to create tests to cover all transitions and all states
- D. All transitions between states are explicitly shown in the state table.

Answer: D

Explanation:

State transition testing is a black-box testing technique used to analyze the behavior of a system by examining the transitions between different states in response to events. In state transition testing, a state table or diagram is used to represent the states of a system and the transitions between these states triggered by events.

Option D is correct because in state transition testing, all transitions between states should be explicitly shown in the state table. This includes valid transitions that the system is expected to make under normal operation and, where relevant, invalid transitions that should be tested to ensure the system handles unexpected or erroneous inputs gracefully. The state table provides a comprehensive view of how the system should behave, making it possible to create tests that cover all defined transitions.

NEW QUESTION 161

Which of the following is NOT a common objective of testing?

- A. Finding defects in the software
- B. Preventing defects
- C. Debugging the software to find the reason for defects
- D. Providing information on the status of the system

Answer: C

Explanation:

Debugging the software to find the reason for defects is not a common objective of testing, but rather a task of development or maintenance. Debugging is a process of locating and fixing errors in the software code, while testing is a process of finding and reporting defects in the software behavior or quality. Testing does not aim to fix defects, but rather to provide information on their existence and impact. The other options are common objectives of testing. Finding defects in the software is one of the main objectives of testing, as it helps to improve the quality and reliability of the software. Preventing defects is another objective of testing, as it helps to avoid rework and reduce costs and risks. Providing information on the status of the system is another objective of testing, as it helps to support decision making and risk management. Verified

References: A Study Guide to the ISTQB® Foundation Level 2018 Syllabus - Springer, page 3.

NEW QUESTION 164

Your manager asked you when testing will be complete. In order to answer this question, you'll most likely use:

- A. Test progress reports
- B. Your colleagues advice
- C. A conversion spreadsheet
- D. A Test Oracle

Answer: A

Explanation:

When a manager asks when testing will be complete, the most appropriate and informative resource to provide an answer is test progress reports (Option A). Test progress reports contain detailed information on the status of testing activities, including what has been accomplished, what remains to be done, the results of the tests conducted, and any issues or risks that might impact the completion of testing. These reports allow for an informed assessment of the testing progress and estimation of when testing might be completed. Options B, C, and D do not provide the structured, detailed, and specific information required to accurately answer the manager's question about the completion of testing.

NEW QUESTION 165

The ISTQB glossary defines Quality Assurance as: "Plan or quality management focused on providing confidence that quality requirements will be fulfilled. Which of the following is not one of the Quality Assurance activity?"

- A. Requirements elicitation
- B. Defect analysis
- C. Functional Testing
- D. Performance Testing

Answer: C

Explanation:

Quality Assurance (QA) activities are focused on providing confidence that quality requirements will be fulfilled through planned and systematic processes. These activities are preventive in nature, aimed at ensuring quality is built into the product from the beginning.

? Requirements elicitation (A) is part of the requirements engineering process and is concerned with gathering the needs and conditions to meet for a new or altered product.

? Defect analysis (B) can be part of QA activities as it involves analyzing defects to prevent them in future development cycles.

? Functional Testing (C) and Performance Testing (D) are types of dynamic testing, which are actually Quality Control activities rather than Quality Assurance. They are concerned with the identification of defects in the product, not with the processes to prevent defects.

Since the question asks for an activity that is NOT part of Quality Assurance, options A and B are incorrect because they can be part of QA activities. Between C and D, while both are dynamic testing activities, Functional Testing (C) is more directly related to verifying the functionality against specified requirements, which is more aligned with Quality Control. Therefore, C is the best answer.

NEW QUESTION 166

Which of the following is true about Oracles?

- A. Sometimes old version of a product can be used as an Oracle
- B. Oracles help in reproducing the irreproducible bugs
- C. Oracles are derived from the design
- D. Oracles can be generated automatically using data generators

Answer: A

Explanation:

An oracle is a mechanism or source that can provide the expected result for a given test input or situation. Sometimes old version of a product can be used as an oracle, if it is assumed that the old version behaves correctly for the test cases that are executed on the new version. This is also known as back-to-back testing.

Oracles do not help in reproducing the irreproducible bugs, as they only provide the expected results, not the actual results. Oracles are not derived from the design, but from the requirements or specifications. Oracles cannot be generated automatically using data generators, as data generators only provide test inputs, not test outputs. Verified References: A Study Guide to the ISTQB® Foundation Level 2018 Syllabus - Springer, page 9.

NEW QUESTION 170

You need to test the login page of a web site. The page contains fields for user name and password. Which test design techniques are most appropriate for this case?

- A. Decision table testing, state transition testing.
- B. Equivalence partitioning, Boundary value analysis.
- C. Exploratory testing, statement coverage.
- D. Decision coverage, fault attack.

Answer: B

Explanation:

Equivalence partitioning and boundary value analysis are test design techniques that are most appropriate for testing the login page of a web site. The page

contains fields for user name and password, which are input values that can be divided into partitions of equivalent data. Equivalence partitioning is a technique that divides the input data and output results of a software component into partitions of equivalent data. Each partition should contain data that is treated in the same way by the component. Equivalence partitioning can be used to reduce the number of test cases by selecting one representative value from each partition. Boundary value analysis is a technique that tests boundary values between partitions of equivalent data. Boundary values are values at the edge of an equivalence partition or at the smallest incremental distance on either side of an edge. Boundary value analysis can be used to detect defects caused by incorrect handling of boundary conditions. For example, for testing the user name field, we can identify two equivalence partitions: valid user name (existing and correct) and invalid user name (non-existing or incorrect). The boundary values for these partitions are the minimum and maximum length of user name allowed by the system.

Decision table testing and state transition testing are not suitable for testing the login page of a web site, as they are more applicable for testing components that have multiple inputs and outputs that depend on logical combinations of conditions or events. Decision table testing is a technique that shows combinations of inputs and/or stimuli (causes) with their associated outputs and/or actions (effects). State transition testing is a technique that models how a system transitions from one state to another depending on events or conditions.

Exploratory testing and statement coverage are not suitable for testing the login page of a web site, as they are more applicable for testing components that require learning, creativity and intuition or structural analysis. Exploratory testing is an approach to testing that emphasizes learning, test design and test execution at the same time. Exploratory testing relies on the tester's skills, creativity and intuition to explore the software under test and discover defects. Statement coverage is a type of structural testing that measures how many statements in a program have been executed by a test suite. Statement coverage can be used to assess the adequacy or completeness of a test suite.

Decision coverage and fault attack are not suitable for testing the login page of a web site, as they are more applicable for testing components that have complex logic or potential errors. Decision coverage is a type of structural testing that measures how many decision outcomes in a program have been executed by a test suite. Decision coverage can be used to assess the adequacy or completeness of a test suite. Fault attack is a type of functional testing that deliberately introduces faults into a system in order to provoke failures or errors. Verified References: [A Study Guide to the ISTQB® Foundation Level 2018 Syllabus - Springer], Chapter 4, page 34-46; Chapter 5, page 47-48.

NEW QUESTION 174

Why it is essential that defects found in a review be reported objectively?

- A. In order to facilitate easy entry of detected defects in a OTS (Defect Tracking System)
- B. In order to allow the author of reviewed work product(S) to take the feedback positively as an effort at improving the product (S) and not as a personal assault
- C. In order to allow the review moderator to easily understand them, and assign them to the right developer for fixing
- D. In order to allow augmentation of existing checklists used for reviewing the work product (S)

Answer: B

Explanation:

The purpose of a review is to find defects and improve the quality of the work product, not to criticize or blame the author. Reporting defects objectively means describing them factually and constructively, without using negative or emotional language that could offend the author or damage their motivation. This way, the author can take the feedback positively as an effort at improving the product and not as a personal assault. Verified References: A Study Guide to the ISTQB® Foundation Level 2018 Syllabus - Springer, page 138.

NEW QUESTION 178

Which of the following is correct with regards to debugging?

- A. Debugging identifies the cause of a failure
- B. Debugging is often performed by test engineers
- C. Debugging is considered part of the testing activities
- D. Debugging is intended to find as many defects as possible in the code

Answer: A

Explanation:

Debugging is the process of finding, analyzing and removing the causes of failures in software. Debugging is not considered part of testing, but rather a development activity that can involve testing. Debugging is not intended to find as many defects as possible, but rather to fix the specific failure that was observed. Debugging is usually performed by developers, not by test engineers. Verified References: A Study Guide to the ISTQB® Foundation Level 2018 Syllabus - Springer, Chapter 1, page 6.

NEW QUESTION 183

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 185

In what way do Configuration Management effects testing?

- A. Without proper configuration management, test planning cannot proceed.
- B. Proper configuration management ensures that testers can uniquely identify the tested item
- C. Configuration management is important for developers, not for testers
- D. There is very little influence of configuration management practices on the test project.

Answer: B

Explanation:

Configuration management is a process that establishes and maintains consistency among work products throughout their life cycle. Configuration management affects testing in various ways, such as:

? Proper configuration management ensures that testers can uniquely identify the tested item, which can help traceability, reproducibility and accountability.

? Proper configuration management ensures that testers have access to consistent versions of software components and testware, which can help reliability, compatibility and efficiency.

? Proper configuration management ensures that testers can track changes and defects in software components and testware, which can help verification, validation and reporting.

? Proper configuration management ensures that testers can control the configuration of the test environment, which can help stability, security and performance.

Configuration management is not a prerequisite for test planning, as test planning can proceed without configuration management, although it may be less effective or accurate. Configuration management is not important for developers only, but for testers as well, as it affects the quality and consistency of the testing process and products. Configuration management has a significant influence on the test project, as it affects various aspects of testing, such as traceability, reproducibility, reliability, compatibility, efficiency, verification, validation, reporting, stability, security and performance. Verified References: A Study Guide to the ISTQB® Foundation Level 2018 Syllabus - Springer, Chapter 6, page 60-61.

NEW QUESTION 189

When should component integration tests be carried out?

- A. Integration tests should always be done after system tests
- B. Integration tests should be done at the customer's site, after acceptance tests
- C. Integration tests can be done before or after system tests
- D. Integration tests should always be done before system tests

Answer: D

Explanation:

Component integration tests are designed to verify the interactions and interfaces between integrated components. These tests should be carried out after component testing (where individual components are tested in isolation) but before system testing (where the entire system is tested as a whole). This ensures that any issues arising from the integration of components are identified and resolved early in the testing process, making option D the correct answer.

NEW QUESTION 192

Which of the following is a CORRECT statement about how a tester should communicate about defects, test results, and other test information?

- A. Testers should include personal opinions and judgements in defect reports and review findings
- B. Testers should emphasize the benefits of testing, such as increased quality and reduced risk
- C. Testers should reject all questions about their test findings and information
- D. Testers should take a command-and-control approach with the project team

Answer: B

Explanation:

Communication from testers about defects, test results, and other test information should emphasize the benefits of testing such as increased quality and reduced risk. This positive framing helps in reinforcing the value of testing and ensuring stakeholders understand the contribution of testing to the overall project success (ISTQB not-for-profit association).References:

? ISTQB® Certified Tester Foundation Level Syllabus v4.0: https://istqb-main-web-prod.s3.amazonaws.com/media/documents/ISTQB_CTFL_Syllabus-v4.0.pdf

NEW QUESTION 195

What type of testing measures its effectiveness by tracking which lines of code were executed by the tests?

- A. Acceptance testing
- B. Structural testing
- C. Integration testing
- D. Exploratory testing

Answer: B

Explanation:

Structural testing is a type of testing that measures its effectiveness by tracking which lines of code were executed by the tests. Structural testing, also known as white-box testing or glass-box testing, is based on the internal structure, design, or implementation of the software. Structural testing aims to verify that the software meets the specified quality attributes, such as performance, security, reliability, or maintainability, by exercising the code paths, branches, statements, conditions, or data flows. Structural testing uses various coverage metrics, such as function coverage, line coverage, branch coverage, or statement coverage, to determine how much of the code has been tested and to identify any untested or unreachable parts of the code. Structural testing can be applied at any level of

testing, such as unit testing, integration testing, system testing, or acceptance testing, but it is more commonly used at lower levels, where the testers have access to the source code.

The other options are not correct because they are not types of testing that measure their effectiveness by tracking which lines of code were executed by the tests. Acceptance testing is a type of testing that verifies that the software meets the acceptance criteria and the user requirements. Acceptance testing is usually performed by the end-users or customers, who may not have access to the source code or the technical details of the software. Acceptance testing is more concerned with the functionality, usability, or suitability of the software, rather than its internal structure or implementation. Integration testing is a type of testing that verifies that the software components or subsystems work together as expected. Integration testing is usually performed by the developers or testers, who may use both structural and functional testing techniques to check the interfaces, interactions, or dependencies between the components or subsystems. Integration testing is more concerned with the integration logic, data flow, or communication of the software, rather than its individual lines of code. Exploratory testing is a type of testing that involves simultaneous learning, test design, and test execution. Exploratory testing is usually performed by the testers, who use their creativity, intuition, or experience to explore the software and discover any defects, risks, or opportunities for improvement. Exploratory testing is more concerned with the behavior, quality, or value of the software, rather than its internal structure or implementation. References = ISTQB Certified Tester Foundation Level (CTFL) v4.0 syllabus, Chapter 4: Test Techniques, Section 4.3: Structural Testing Techniques, Pages 51-54; Chapter 1: Fundamentals of Testing, Section 1.4: Testing Throughout the Software Development Lifecycle, Pages 11-13; Chapter 3: Static Testing, Section 3.4: Exploratory Testing, Pages 40-41.

NEW QUESTION 199

A bank offers a savings account with various interest rates based on the current balance in the account. The balance ranges and respective interest rates are:
 Up to \$100.00 = 2%

\$100.01 to \$500.00 = 4%

\$500.01 to \$1,000.00 = 5% Above \$1,000.00 = 7%

Using two-point boundary value analysis, which of the following sets of test inputs provides the relatively highest level of boundary coverage?

- A. \$5.00, \$100.00, \$499.99, \$1,000.00, \$1,000.01
- B. \$100.00, \$100.01, \$100.02, \$500.00, \$999.99
- C. \$100.00, \$500.00, \$1,000.00, \$1,000.01
- D. \$5.00, \$100.00, \$500.00, \$1,000.01

Answer: B

Explanation:

Boundary Value Analysis (BVA) is a software testing technique in which tests are designed to include values at the boundaries. The concept is to focus on the boundaries since errors tend to occur at the edges of input ranges rather than in the middle.

Given the problem statement:

? Up to \$100.00 = 2%

? \$100.01 to \$500.00 = 4%

? \$500.01 to \$1,000.00 = 5%

? Above \$1,000.00 = 7%

Two-point boundary value analysis means testing the two boundaries of each range. For each range:

? The boundaries for "Up to \$100.00" would be \$100.00 and \$100.01.

? The boundaries for "\$100.01 to \$500.00" would be \$100.00 and \$500.00.

? The boundaries for "\$500.01 to \$1,000.00" would be \$500.00 and \$1,000.00.

? The boundaries for "Above \$1,000.00" would be \$1,000.00 and \$1,000.01. Now, let's examine the options:

? A. \$5.00, \$100.00, \$499.99, \$1,000.00, \$1,000.01

? B. \$100.00, \$100.01, \$100.02, \$500.00, \$999.99

? C. \$100.00, \$500.00, \$1,000.00, \$1,000.01

? D. \$5.00, \$100.00, \$500.00, \$1,000.01

Given the options, B provides the highest boundary coverage (ISTQB not-for-profit association) (Udemy).

References:

? Certified Tester Foundation Level v4.0

? 10 Sample Exams ISTQB Foundation Level (CTFL) v4.0

NEW QUESTION 201

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 expectations¹. 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 defects².

? 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 results³.

? 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 function⁴) 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 203

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