Free Questions for CTFL_Syll_4.0 by vceexamstest

Shared by Aguirre on 16-01-2024

For More Free Questions and Preparation Resources

Check the Links on Last Page

Question 1

Question Type: MultipleChoice

Can "cost" be regarded as Exit criteria?

Options:

A- Yes. Spending too much money on test ng will result in an unprofitable product, and having cost as an exit criterion helps avoid this

B- No. The financial value of product quality cannot be estimated, so it is incorrect to use cost as an exit criterion

C- Yes. Going by cost as an exit criterion constrains the testing project which will hello achieve the desired quality level defined for the project

D- No The cost of testing cannot be measured effectively, so it is incorrect to use cost as an exit criterion

Answer:

A

Explanation:

Cost can be regarded as an exit criterion for testing, because it is a factor that affects the profitability and feasibility of the software product. Testing is an investment that aims to improve the quality and reliability of the software product, but it also consumes resources, such as time, money, and human effort. Therefore, testing should be planned and executed in a way that balances the cost and benefit of testing activities. Having cost as an exit criterion helps to avoid spending too much money on testing, which may result in an unprofitable product or a loss of competitive advantage. Cost can also help to prioritize and focus the testing efforts on the most critical and valuable features and functions of the software product. However, cost should not be the only exit criterion for testing, as it may not reflect the true quality and risk level of the software product. Other exit criteria, such as defect rate, test coverage, user satisfaction, etc., should also be considered and defined in the test plan.

The other options are incorrect, because they either deny the importance of cost as an exit criterion, or they make false or unrealistic assumptions about the cost of testing. Option B is incorrect, because the financial value of product quality can be estimated, for example, by using cost-benefit analysis, return on investment, or cost of quality models. Option C is incorrect, because going by cost as an exit criterion does not necessarily constrain the testing project or help achieve the desired quality level. Cost is a relative and variable factor that depends on the scope, complexity, and context of the software product and the testing project. Option D is incorrect, because the cost of testing can be measured effectively, for example, by using metrics, such as test effort, test resources, test tools, test environment, etc.

Question 2

Question Type: MultipleChoice

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 mil 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

Options:

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 are1:

Defect: A flaw in a component or system that can cause the component or system to fail to perform its required function, e.g. an incorrect statement or data definition. A defect, if encountered during execution, may cause a failure of the component or system.

Failure: An event in which a component or system does not perform a required function within specified limits.

Mistake: A human action that produces an incorrect result.

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

A human mistake may produce a defect: This is true, as a mistake is a source or cause of a defect, e.g. a programmer may make a mistake in writing a code statement, which results in a defect in the software component.

When a defect exists in a system it may result in a failure: This is true, as a defect is a potential or actual cause of a failure, e.g. a defect in the software component may cause the system to fail to perform a required function when the defect is encountered during execution.

The other three statements are incorrect, namely:

Defects are a result of environmental conditions and are also referred to as "Failures": This is false, as defects are not a result of environmental conditions, but of mistakes or other factors, and defects are not the same as failures, but rather the causes of failures.

A system will totally fail to operate correctly when a failure exists in it: This is false, as a system may not necessarily fail completely or stop operating when a failure occurs, but may continue to operate with reduced functionality or performance, or with incorrect results.

Defects occur only as a result of technology changes: This is false, as defects can occur due to various reasons, not only technology changes, such as human mistakes, design flaws, requirement changes, hardware failures, etc.

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

Question 3

Question Type: MultipleChoice

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

Options:

A- 100% Stale 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 stale transition coverage, equivalence class coverage, and boundary value coverage, are not guaranteed to be 100% by achieving 100% decision coverage.Stale 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.Reference=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.

Question 4

Question Type: MultipleChoice

The four test levels used in ISTQB syllabus are:

1. Component (unit) testing

2. Integration testing

3. System testing

4. Acceptance testing

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

Options:

A- It is allowed as organizations can decide on men test levels to do depending on the context of the system under test

B- It is allowed because integration testing is not an important test level arc! can be dispensed with.

C- It is not allowed because integration testing is a very important test level and ignoring i: means definite poor product quality

D- It is not allowed as organizations can't change the test levels as these are chosen on the basis of the SDLC (software development life cycle) model

Answer:

D

Explanation:

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

The other options are incorrect because:

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

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

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

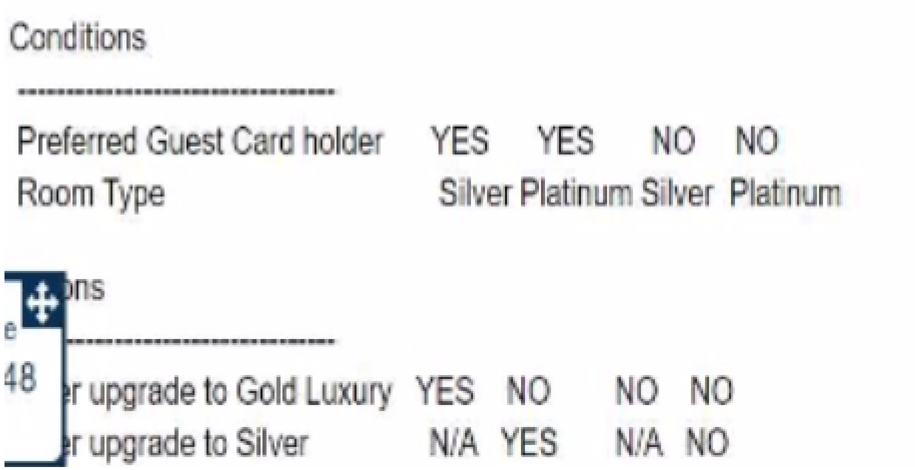
Reference= ISTQB Certified Tester Foundation Level Syllabus, Version 4.0, 2018, Section 2.3, pages 16-18; ISTQB Glossary of Testing Terms, Version 4.0, 2018, pages 38-39; ISTQB CTFL 4.0 - Sample Exam - Answers, Version 1.1, 2023, Question 104, page 36.

Question 5

Question Type: MultipleChoice

You are testing a room upgrade system for a hotel. The system accepts three differed types of room (increasing order of luxury): Platinum. Silver and Gold Luxury. ONLY a Preferred Guest Card holder s eligible for an upgrade.

Below you can find the decision table defining the upgrade eligibility:



Conditions

Preferred Guest Card holder	YES	YES	NO	NO
Room Type	Silver	Platinum	Silver	Platinum

ons

e

48

r upgrade to Gold Luxury	YES	NO	NO	NO
r upgrade to Silver	N/A	YES	N/A	NO

What is the expected result for each of the following test cases?

Customer A: Preference Guest Card holder, holding a Silver room

Customer B: Non Preferred Guest Card holder, holding a Platinum room

Options:

A- Customer A; doesn't offer any upgrade; Customer B: offers upgrade to Gold luxury room

B- Customer A: doesn't offer any upgrade; Customer B: doesn't offer any upgrade.

C- Customer A: offers upgrade to Gold Luxury room; Customer B: doesn't offer any upgrade

D- Customer A: offers upgrade to Silver room; Customer B: offers upgrade to Silver room.

Answer:

C

Explanation:

According to the decision table in the image, a Preferred Guest Card holder with a Silver room is eligible for an upgrade to Gold Luxury (YES), while a non-Preferred Guest Card holder, regardless of room type, is not eligible for any upgrade (NO). Therefore, Customer A (a Preferred Guest Card holder with a Silver room) would be offered an upgrade to Gold Luxury, and Customer B (a non-Preferred Guest Card holder with a Platinum room) would not be offered any upgrade.Reference= The answer is derived directly from the decision table provided in the image; specific ISTQB Certified Tester Foundation Level (CTFL) v4.0 documents are not referenced.

Question 6

Question Type: MultipleChoice

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

Options:

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:

A)Once the test effort is estimated, resources can be identified and a schedule can be drawn up, as they are interrelated aspects of the test planning process3.Resources are the people, tools, equipment, and facilities needed to perform the testing activities4.Schedule is the time frame and sequence of the testing activities, aligned with the project milestones and deadlines5.

B)Effort estimate can be inaccurate because the quality of the product under tests is not known, as it affects the number and severity of the defects that may be found and the rework that may be needed to fix them6.Quality is the degree to which the software product satisfies the specified requirements and meets the needs and expectations of the users and clients7.

D) Experience based estimation is one of the estimation techniques, which relies on the judgment and expertise of the testers and other project stakeholders to estimate the test effort based on similar projects or tasks done in the past. Experience based estimation can be useful when there is a lack of historical data, formal methods, or detailed information about the software product and the testing activities.

Reference=

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

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

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

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

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

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

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

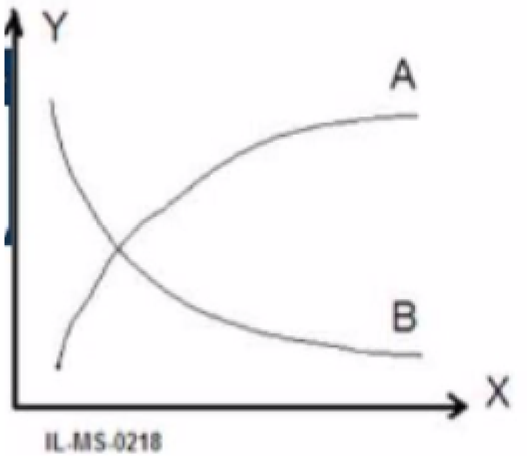
[8] ISTQB Certified Tester Foundation Level Syllabus v4.0, 2023, p. 160

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

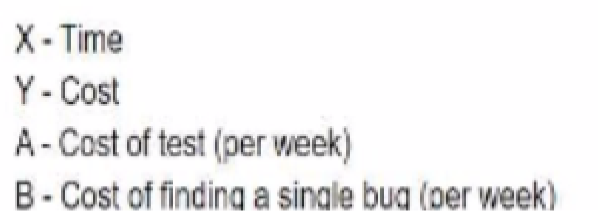
Question 7

Question Type: MultipleChoice

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



A)



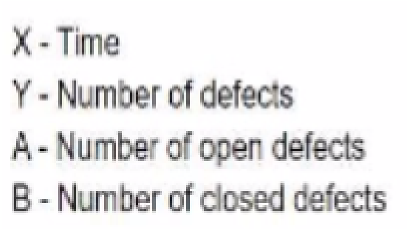
X - Time

Y - Cost

A - Cost of test (per week)

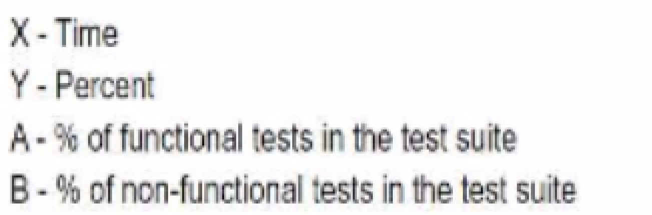
B - Cost of finding a single bug (per week)

B)



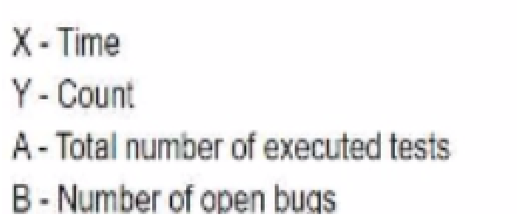
X - Time
Y - Number of defects
A - Number of open defects
B - Number of closed defects

C)



X - Time
Y - Percent
A - % of functional tests in the test suite
B - % of non-functional tests in the test suite

D)



X - Time
Y - Count
A - Total number of executed tests
B - Number of open bugs

Options:

A- Option A

B- Option B

C- Option C

D- Option D

Answer:

D

Explanation:

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

X-axis represents Time

Y-axis represents Count

Line A represents Number of open bugs

Line B represents Total number of executed tests

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

Question 8

Question Type: **MultipleChoice**

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

Options:

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.Reference= 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.

Question 9

Question Type: MultipleChoice

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.

Options:

A- The thought process is incorrect. The whole company should adopt same standard for review of all artifacts.

B- The thought process is correct. The whole company should decide or the review method based on their CMM level.

C- The thought process is incorrect. Same artifact can be reviewed using different review methods

D- The thought process is correct. 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.Reference= 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.

Question 10

Question Type: MultipleChoice

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

Options:

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.

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

Question 11

Question Type: **MultipleChoice**

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?

Options:

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.Reference=ISTQB Certified Tester Foundation Level Syllabus v4.0,Requirements Engineering Fundamentals.

Question 12

Question Type: **MultipleChoice**

A calculator software is used to calculate the result for 5+6.

The user noticed that the result given is 6.

This is an example of;

Options:

A- Mistake

B- Fault

C- Error

D- Failure

Answer:

D

Explanation:

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

The other options are incorrect because:

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

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

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

Reference= ISTQB Glossary of Testing Terms, Version 4.0, 2018, pages 15-18, 25; ISTQB CTFL 4.0 - Sample Exam - Answers, Version 1.1, 2023, Question 96, page 34.