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Exam Code: CTAL-ATT

Exam Name: Certified Tester Advanced Level Agile Technical Tester

Exam A

QUESTION 1
What are the characteristics of a unit test that are defined with the acronym FIRST?

A. Fast, Iterative, Replaceable, Stable, Tolerant
B. Fast, Isolated, Repeatable, Self-validating, Thorough
C. Fast, Implemented, Recorded, Source-controlled, Tactical
D. Fast, Immediate, Relevant, Standardized, Transparent

Correct Answer: B
Section:
Explanation:
FIRST Acronym in Unit Testing:
Fast: Unit tests should execute quickly.
Isolated: They should run independently of other tests.
Repeatable: Tests should yield consistent results under the same conditions.
Self-validating: Results should indicate a pass or fail automatically.
Thorough: Each test should comprehensively cover the targeted functionality.
Analyzing the Options:
A: Incorrect terms such as 'Iterative' and 'Tolerant' are unrelated to unit tests.
C: Includes terms like 'Recorded' and 'Source-controlled,' which do not align with FIRST.
D: Terms like 'Immediate' and 'Transparent' are unrelated to unit testing principles.
Aligned with ISTQB Agile Technical Tester syllabus defining unit test characteristics using the FIRST acronym.

QUESTION 2
You are testing a mission-critical system and want to use exploratory testing for part of the testing. According to the syllabus, what is the correlation between this type of testing and the risk level of the item being tested?

A. High = recommended, Medium = recommended, Low = highly recommended
B. High = recommended, Medium = highly recommended, Low = highly recommended
C. High = highly recommended, Medium = highly recommended, Low = highly recommended
D. High = not recommended, Medium = recommended, Low = highly recommended

Correct Answer: C
Section:
Explanation:
Exploratory Testing and Risk Levels:
Exploratory testing is a flexible approach that involves simultaneous test design and execution, making it highly valuable across all risk levels.
For high-risk systems, exploratory testing is essential as it uncovers critical issues efficiently.
For medium- and low-risk systems, it is equally beneficial for identifying functional and usability defects, especially when formal test cases may not cover all scenarios.
Analyzing the Options:
A and B: These fail to emphasize the importance of exploratory testing for high-risk systems.
D: States that exploratory testing is 'not recommended' for high-risk systems, which is inaccurate.
C: Correctly states that exploratory testing is 'highly recommended' across all risk levels, aligning with the ISTQB syllabus guidance.
ISTQB Advanced Agile Technical Tester syllabus highlights exploratory testing as a versatile and valuable technique for all risk levels.

QUESTION 3
You are testing a new feature in the current iteration. The feature is supposed to take the input of a name and return the number of characters in the name. This information is used by another feature that will determine the size needed on a form. The acceptance criteria state the following
1) a name of up to 30 characters should be accepted
2) standard error processing should be in place to limit user errors
The developers are using TDD and you have asked to see their tests. This is what they gave you

```
@Test
Public void shouldCountCharacters() {
        NameCounter nameCounter = new NameCounter();
        assertThat(nameCounter.countCharacters("smith"), is("5"));
        assertThat(nameCounter.countCharacters("x"), is("1"));
{
```

When you run your manual tests you are finding that when you use the following inputs you get the associated results:
From these results what can you conclude about the TDD process?

A. The developers are not running the tests prior to releasing the code
B. The tests cannot be passing
C. The tests are insufficient and need to include more options
D. The story needs to be enhanced to include the capabilities that are causing errors

Correct Answer: C
Section:
Explanation:
The TDD process, as described, seems to lack comprehensive testing that covers all the acceptance criteria. Specifically, the tests provided by the developers do not address the full range of input validation, such as ensuring that names with up to 30 characters are accepted and that standard error processing is in place to limit user errors. This indicates that the tests are insufficient and need to include more options to fully validate the feature against its acceptance criteria.The ISTQB Advanced Level Agile Technical Tester syllabus emphasizes the importance of creating testable acceptance criteria within an Agile team and implementing various Agile test approaches using appropriate techniques12.It also highlights the need for supporting and contributing to test automation activities in an Agile project12, which includes ensuring that all acceptance criteria are met and that tests are sufficiently robust to catch potential errors.
ISTQB Advanced Level Agile Technical Tester Syllabus1
ISTQB Advanced Level Agile Technical Tester Learning Objectives2

QUESTION 4
You have been given the following story
As a shopper
I want to scan my membership card
So that I get all the discounts I'm entitled to receive
Which of the following is the correct use of BDD to design test scenarios?

A. Given that the shopper scans their card When they checkout Then they should receive alt the quantity discounts for everything they have purchased
B. As a store clerk I want to scan a customer's card So that their total includes their discounts
C. Given that I have scanned my card I expect to receive my discounts And an itemized list of what I bought
D. Given that a card is scanned Then discounts should be applied When the customer checks out

Correct Answer: A
Section:
Explanation:
The correct use of Behavior-Driven Development (BDD) to design test scenarios involves specifying the behavior in a given-when-then format. This format helps to clarify the conditions under which a particular outcome

should occur. Option A follows this structure correctly:
Giventhat the shopper scans their card (the precondition),
Whenthey checkout (the action),
Thenthey should receive all the quantity discounts for everything they have purchased (the expected outcome).
This scenario clearly outlines the behavior of the system in response to the user's actions, which is central to BDD.
Reference= The ISTQB Advanced Level Agile Technical Tester syllabus emphasizes the importance of creating testable acceptance criteria for a given user story using requirements engineering and test techniques, which include the application of BDD in the context of a given user story12.

QUESTION 5
You have received this BDD test
Given that a customer enters the correct PIN When they request to make a withdrawal And they have enough money in their account Then they will receive the money And a receipt
Which of the following is the user story that best fits this BDD test?

A. As a customer I want to deposit money into my account So that I can collect interest
B. As an ATM I want to provide services to my customer So they will be happy
C. As a customer I want to withdraw money from my account So that I can buy a present
D. As a bank teller I want customers to use the ATM So that I don't have to deal with them

Correct Answer: C
Section:
Explanation:
The BDD test scenario provided describes a customer performing a withdrawal transaction after entering the correct PIN and having sufficient funds in their account. The outcome is the customer receiving money and a receipt. This aligns with the user story in option C, which focuses on the customer's desire to withdraw money for a specific purpose, which is to buy a present. The other options do not match the actions described in the BDD test scenario.
Reference= The answer is verified based on the ISTQB Advanced Level Agile Technical Tester documents which emphasize the importance of aligning BDD scenarios with the corresponding user stories to ensure that the tests reflect the user's needs and interactions with the system12.

QUESTION 6
You have been working as a tester in an Agile team You have found that the user stories are being defined by the team but it is still unclear what will be a successful outcome Even after story elaboration you are still unclear as to what a story should do As a result, you're not really sure what to test or to know when you'll be done with testing This problem is becoming worse as completed stories are showcased but the product owner is unhappy with the results
You've looked into the matter further and the comments from the product owner indicate that features are missing from the stories. The story is functioning correctly within the limited definition of the story but the product owner is expecting more functionality, such as error handling that isn't being defined in the story
What technique should you implement that would help to further define the product owner's expectations and alleviate the issues that are arising during the show cases?

A. TDD by the developers before they begin coding
B. BDD by the developers when unit tests are being created
C. ATDD by the team to better define the requirements
D. A combination of TDD and BDD by the team to improve the pre-build testing

Correct Answer: C
Section:
Explanation:
Acceptance Test-Driven Development (ATDD) involves the whole team collaboratively discussing acceptance criteria, with examples, and then distilling them into a set of concrete acceptance tests before development begins. It's a way to get clear on what to build, and it's done in a way that allows the team to know when a story is complete. ATDD helps to make sure that all the stakeholders have a common understanding of what is being built and what the success criteria are.
Reference= The ISTQB Advanced Level Agile Technical Tester documents emphasize the importance of defining testable requirements within an Agile team and creating and implementing various Agile test approaches using appropriate techniques1.It also supports the contribution to test automation activities in an Agile project2, which aligns with the principles of ATDD.

QUESTION 7
You have been working to define acceptance tests for a story. You think this will help tailor your testing. You have asked the product owner to be involved as well. You are currently looking at this story:
As a pet owner
I want to purchase food online
So that it can be delivered to my house when I need it
Which of the following is the preferred way to solicit information from the product owner to better understand what will be 'acceptable?

A. Propose the following acceptance criteria Purchase below the limit for free delivery Purchase above the limit for free delivery Request store pickup
B. Explain boundary value analysis to the product owner and have them indicate the appropriate boundaries to test
C. Work with the product owner to elicit examples of how they would use the software Combine their examples with testing techniques to flesh out the set of acceptance criteria
D. Create the following acceptance criteria and review them with the product owner Login Verify password reset Verify account details Update account details Browse and select food Add to cart Remove from cart Add more items to cart Select delivery Remove items from can until delivery is no longer free Checkout and verify the deliver charge is added Browse again and select food Select delivery and verify it is free Checkout and verify no delivery charge is added

Correct Answer: C
Section:
Explanation:
Working with the product owner to elicit examples of usage is a key aspect of Agile methodologies. This collaborative approach ensures that the acceptance tests are relevant and based on real-world scenarios that reflect the product owner's vision. By combining these examples with testing techniques, testers can create a comprehensive set of acceptance criteria that are directly tied to the user's needs and the functionality of the software. This method aligns with the principles of Agile testing, where communication and collaboration are essential for understanding requirements and creating effective acceptance tests.

QUESTION 8
You are testing a large e-commerce system for household goods that is being implemented using Agile methodologies You are currently working on deriving tests tor stories that are implementing the following epic.
As a customer I want to use the e-commerce system, so that I can have my purchased goods delivered to my house.
The story you are currently working on is
As a customer I want to be told how many items I need to purchase, so I can receive free shipping
Which of the following is an appropriate test charter for this story?

A. Login as a customer buy various goods request free delivery add more items to your cart checkout, verify that your delivery is free
B. Buy 12 of one item and see if you are advised that you get free shipping
C. Login as a customer buy an item verify message tells you how many are needed for free delivery add items to your cart until you qualify checkout verify delivery is free
D. As a supplier verify that when a customer purchases the correct number of goods the system doesn't add any delivery fees at checkout

Correct Answer: C
Section:
Explanation:
The appropriate test charter for the user story provided should focus on the customer's experience and the functionality described in the story. Option C is the most suitable because it covers the entire process from the customer's perspective: logging in, purchasing an item, receiving information about the requirement for free shipping, adding more items, and then verifying that the delivery is free upon checkout. This test charter effectively tests the acceptance criteria of the user story by ensuring that the system provides the necessary information and applies the free shipping offer correctly when the conditions are met.

QUESTION 9
You are testing a large e-commerce system for household goods that is being implemented using Agile methodologies You are currently working on deriving tests for stories that are implementing the following epic.
As a customer I want to use the e-commerce system, so that I can have my purchased goods delivered to my house.
The story you are currently working on is:
As a customer I want to be told when my items will be delivered, so I can plan to be home.
You have been given the following charter that was proposed by another tester for testing this story
Login as a customer, buy enough of each item to qualify for free shipping for each item checkout and verify that no shipping fee has been added.
What is the main flaw in this charter?

A. It focuses on the delivery company instead of the activities of the user
B. It does not cover the mam functionality of the user story
C. The expected results are not defined
D. The actions of the user are not clearly stated in the charter

Correct Answer: B
Section:
Explanation:
The main flaw in the proposed test charter is that it does not cover the main functionality of the user story. The user story focuses on the customer wanting to be informed about the delivery time of their items so they can plan to be home. The proposed charter only tests for the absence of a shipping fee and does not address whether the system provides the customer with the delivery time information.
Reference= The ISTQB Advanced Level Agile Technical Tester syllabus emphasizes the importance of aligning test charters with the user story's main functionality to ensure that tests provide adequate coverage12.It is crucial in Agile methodologies to create and evaluate testable acceptance criteria that reflect the user story's objectives12.

QUESTION 10
Consider the following section of pseudocode

```
function getPassword() {
var x;
var y;
var z;
var passwordGood = false
// Get password from user, user is allowed 3 tries
do until x = 3
  call getPassword (password)
  if password is good
    x = 3
    passwordGood = true
  else
    x = x + 1
    display "Password is not valid, try again"
  endif
If passwordGood <> true
```

Display 'You exceeded the number of tries to enter a password. Your account is now locked. Call customer.
For this section of code, which of the following issues should be identified during a code review?
1. Variables have not been properly defined with meaningful names

2. There are unused variables defined
3. Divisors are not tested for zero
4. Loop counters are not properly initialized
5. There are endless loops
6. There are statements within the loop that should be outside the loop

A. 1, 3, 4, 5
B. 7, 3, 4, 6
C. 2, 3, 5, 6
D. 1, 2, 4, 6

Correct Answer: D
Section:
Explanation:
The pseudocode provided for review indicates a password entry system with a lockout mechanism after a certain number of failed attempts. The issues identified during the code review are:
Variables have not been properly defined with meaningful names - the variables used in the pseudocode are not descriptive, which can make the code difficult to understand and maintain.
There are unused variables defined - the pseudocode includes variables that are declared but not used, which is inefficient and can lead to confusion.
Loop counters are not properly initialized - if a loop counter is used, it must be initialized correctly to ensure the loop functions as intended.
There are statements within the loop that should be outside the loop - certain messages or actions may be repeated unnecessarily within a loop when they should be placed outside to execute only once.

QUESTION 11
Which of the following best describes when the test automation suite should be updated in order to keep up with the development of new/changed software?

A. At the end of each iteration after the completion of manual testing
B. At the end of each release during regression testing
C. At the start of each iteration during planning
D. During each iteration as the code is received

Correct Answer: D
Section:
Explanation:
Updating the test automation suite during each iteration as the code is received ensures that the suite evolves with the software. It allows for immediate feedback on the impact of changes, supports continuous integration, and helps in identifying defects early in the development process.This practice is in line with Agile principles, which advocate for continuous testing and integration to improve quality and reduce the time to market1. Reference= The ISTQB Advanced Level Agile Technical Tester documents outline the importance of maintaining and updating test automation suites in an Agile environment to support continuous integration and delivery, and to ensure that the tests provide adequate coverage throughout the development cycle2.

QUESTION 12
Which of the following is an example of how continuous testing facilitates continuous delivery?

A. Automated testing conducted in the delivery environment helps validate that the delivery has been successful
B. Continuous testing is the process that delivers the code to the test environment
C. Automated testing removes the need to report defects so the code can move more quickly toward production
D. Continuous testing supports continuous delivery to production by constantly regression testing the software in the production environment so problems are identified quickly

Correct Answer: A
Section:
Explanation:
Continuous testing facilitates continuous delivery by ensuring that every change made to the codebase is tested automatically and immediately, which helps in identifying defects as early as possible. Automated testing in the

delivery environment is crucial as it validates the success of the delivery process by ensuring that the software operates as expected in the production-like environment before the actual release.
Reference= The ISTQB Advanced Level Agile Technical Tester certification highlights the importance of technical testing skills in Agile development, including test automation approaches and continuous deployment and delivery1234.

QUESTION 13
As a tester on an Agile team you have been given the following user story to analyze
As a medical professional
I want to see the availability of operating rooms
So I can schedule surgeries as needed
You have talked with the product owner and she expressed some concern over the term 'medical professional' You have looked into this and found that doctors want to schedule their surgeries but the hospital administrator does not want them to have this ability At this point what should you do to try to resolve this issue?

A. Wait for the team to sort out the requirements and test something else in the meantime
B. Continue with testing from the perspective of a doctor and trust the procedures to be worked out later regarding who can do what
C. Work with the BA and the product owner to try to negotiate the differing approaches and come to an agreement
D. Expand the testing to cover all personas to ensure that everyone can use the application and let the process sort out later when access is allowed to the application

Correct Answer: C
Section:
Explanation:
When a conflict arises regarding user story requirements, it is essential to engage in active collaboration to resolve the issue. The tester should work with the Business Analyst (BA) and the product owner to clarify and negotiate the requirements. This approach ensures that the user story reflects the needs of all stakeholders and that the acceptance criteria are agreed upon before testing proceeds. It aligns with Agile principles, which emphasize teamwork, customer collaboration, and the ability to respond to change.

QUESTION 14
Whose perspective should be used when a user story is created?

A. User acceptance tester
B. End user
C. Stakeholder paying for the project
D. Automated user software

Correct Answer: B
Section:
Explanation:
When creating a user story, it is essential to consider the perspective of the end user. This is because user stories are meant to capture the requirements and experiences of the actual users who will interact with the system or product. The ISTQB Advanced Level Agile Technical Tester syllabus emphasizes the importance of analyzing user stories and epics using requirements engineering techniques, which include creating and evaluating testable acceptance criteria from the end user's perspective. This approach ensures that the developed features will meet the real needs and expectations of the users, leading to a more user-centered and valuable product.
Reference= ISTQB Advanced Level Agile Technical Tester documents and Training resources12.

QUESTION 15
''As the leader of the marketing department, I want to have a content management system so that my employees can edit and provide quality content to the readers''
Which of the following requirements engineering techniques would be the MOST effective for identifying and prioritizing user stories for the given Epic?

A. Storyboarding
B. Story mapping
C. Defining Personas
D. Class Diagrams

E. Use Cases

Correct Answer: B
Section:
Explanation:
Story mapping is the most effective requirements engineering technique for identifying and prioritizing user stories related to the epic mentioned. It allows the team to visualize the entire customer journey, which is crucial for a content management system that aims to enhance the content editing and publishing process. By mapping out the user stories, the team can see how they fit into the overall system, prioritize them based on the value they provide to the end-users, and ensure that all necessary functionalities are covered.

QUESTION 16
You have to review the following user story that will be developed and tested during the next
Sprint:
As a potential conference attendee, I want to be able to register for the conference online, so that registration is simple and paperless.
The following acceptance criteria are also mentioned:
i) Payment can be made via PayPal, Debit or Credit Cards
ii) An acknowledgement email is sent to the attendee after submitting the form
iii) Protection against spam is working as expected
iv) Information from the form is stored in the registrations database
v) All incorrect user inputs are flagged by the system
Which of the following correctly shows which acceptance criteria are testable?

A. ii, iv, v are testable
B. i, iii, v are testable
C. i, ii, iv are testable
D. iii, iv, v are testable

Correct Answer: C
Section:
Explanation:
The testable acceptance criteria for the user story are those that can be verified through testing to ensure they meet the user's needs and the system's functionality. In this case:
Criterion (i) is testable because you can verify the payment methods.
Criterion (ii) is testable as you can check if the acknowledgement email is sent after form submission.
Criterion (iv) is testable by confirming that the information is stored in the database correctly.
Criteria (iii) and (v), while important, are not explicitly testable from the user story's perspective without further clarification on how spam protection is measured and what constitutes 'incorrect' user inputs.
Reference= The ISTQB Advanced Level Agile Technical Tester materials emphasize the importance of creating testable acceptance criteria that are clear, measurable, and verifiable within the context of the user story12.This ensures that the developed feature meets the user's requirements and functions as intended2.

QUESTION 17
Which of the following correctly describes positive characteristic of unit tests?

A. Unit tests should be independent from system components other than the one to be tested
B. Unit test can be derived from the given epics and existing code of the test object
C. While refactoring, the redesign of the unit test to adapt to the changed code is crucial
D. A unit test should be written against large and complex code structures to get fast and feedback of the code quality

Correct Answer: A
Section:
Explanation:
One of the fundamental characteristics of unit tests is that they should be independent of other system components. This means that a unit test should only cover the functionality of a single component or unit of code,

without relying on or interacting with external systems or modules. This independence ensures that the tests are focused, reliable, and can be run quickly, providing immediate feedback on the code quality of the unit being tested.

QUESTION 18
A developer has implemented a class that calculates if a given date is a leap year. The definition for the leap year is given:
Every year that is exactly divisible by four is a leap year, except for years that are exactly divisible by 100, but these centurial years are leap years if they are exactly divisible by 400.
- divisible by 4
- but not by 100
- years divisible by 400 are leap anyway
You have already thought about it and started with the first test class; the test class looks like
(pseudo JavaScript used here):

```
// LeapYear.spec.js
describe('Leap year calculator', () => {
it('should consider 1996 as leap', () => {
expect(LeapYear.isLeap(1996)).toBe(true);
});
});
```

What would now be your next step to proceed as efficient as possible, to validate the correctness of the class above?

A. First write additional test classes to test also other relevant aspects of the leap year calculation
B. First write code that covers other relevant aspects of the leap year calculation
C. First write code that makes this test case fail
D. First write code that makes this test case pass

Correct Answer: D
Section:
Explanation:
In the context of test-driven development (TDD), the next step after writing a failing test is to write the minimum amount of code necessary to make the test pass. This approach encourages simple designs and inspires confidence that the system is functioning as expected. Once the test passes, you can then refactor the code to improve its structure without changing its behavior.

QUESTION 19
What level of automation testing should be included in the production deployment process when continuous deployment is used?

A. Automated unit testing is sufficient
B. Integration and system testing
C. UAT and other acceptance testing
D. Regression testing is sufficient

Correct Answer: B
Section:
Explanation:
Continuous Deployment:
Continuous deployment involves automatically releasing code to production. To ensure reliability, integration and system-level testing must confirm that all components work together as expected.
Testing Scope:
While unit tests and regression tests are part of the pipeline, integration and system testing are critical for validating end-to-end functionality.
Conclusion:
Option B is correct as integration and system testing are necessary for production readiness in continuous deployment.

QUESTION 20

Which statement correctly describes continuous testing'

A. Each modification made to the system triggers the tests that cover that change to be executed automatically.
B. Each modification made to the system is automatically tested and then automatically made implemented in live
C. Each new build of the system triggers deployment into a testing environment.
D. Each new build of the system triggers a pre-defined set of tests to be executed automatically.

Correct Answer: D
Section:
Explanation:
Continuous testing in Agile involves automatically executing a pre-defined set of tests with every new build of the system.This practice is part of continuous integration and delivery, ensuring that new changes are verified quickly and frequently, which is essential for Agile's fast-paced and iterative development cycles.Reference= The ISTQB Advanced Level Agile Technical Tester syllabus emphasizes the importance of continuous testing in Agile projects, highlighting techniques such as test automation, continuous deployment, and delivery as fundamental to the Agile approach123.

QUESTION 21
Which statement about test automation is TRUE?

A. The number of test cases in the test suite increases by default from one iteration to another
B. Test suite coverage can be increased without the need for refactoring
C. Test development time should not consider changes to the test environments)
D. Staff availability should not be allowed to constrain automated deployment

Correct Answer: B
Section:
Explanation:
This statement is true because increasing test suite coverage refers to adding more test cases or enhancing existing ones to cover more features or scenarios. This can be done independently of refactoring, which is the process of restructuring existing code without changing its external behavior. While refactoring can improve the design and maintainability of both production code and test scripts, it is not a prerequisite for increasing test suite coverage.
Reference= The ISTQB Advanced Level Agile Technical Tester syllabus outlines the importance of test automation in Agile projects, including the ability to increase test coverage through various test automation strategies12.

QUESTION 22
Which option below BEST explains the value of a test charter in exploratory testing'5

A. It provides expected test outcomes against which defects, if found, can be reported.
B. It provides guidance for the tester at the beginning of a test session
C. it provides bi-directional traceability to aspects of the epic or story under test
D. It provides a way to prevent a test session's timebox from being exceeded

Correct Answer: B
Section:
Explanation:
A test charter in exploratory testing is a document that outlines the scope, objectives, and focus of a test session. It guides the tester on what to test, how to test, and the boundaries of the test. The charter helps to direct the tester's efforts during the exploratory testing session, ensuring that the testing is structured and focused on the areas of highest importance or risk.It does not provide expected outcomes or prevent timebox from being exceeded, nor does it offer bi-directional traceability; instead, it serves as a starting point for the exploratory testing process12.
Reference= ISTQB Advanced Level Agile Technical Tester documents and Training resources34.

QUESTION 23
A unit test should be isolated Which option correctly describes the meaning of 'isolated' as a characteristic of a unit test?

Whenever it is run under the same conditions, it should produce the same results.

A. It should only test the functionality related to it.
B. it should provide immediate feedback.
C. It should test only the code for which it was originally written

Correct Answer: A
Section:
Explanation:
The term 'isolated' in the context of unit testing refers to the practice of testing a unit of code in isolation from other units. This means that the test should only cover the functionality of the unit it is designed to test, without any interactions with other units or systems. This isolation helps to ensure that the test is focused, reliable, and not affected by external factors, making it easier to pinpoint the source of any issues that arise.
Reference= The ISTQB Advanced Level Agile Technical Tester documents outline the principles of unit testing, including the importance of isolation to ensure that each test is targeted and effective12.

QUESTION 24
A unit test should be deterministic. Which option correctly describes the meaning of 'deterministic' as a characteristic of a unit test9

A. It should be small so that many tests can be run in a short period of time
B. Whenever it is run under the same conditions, it should produce the same results.
C. it should not depend on any other test.
D. It should only test the functionality related to it.

Correct Answer: B
Section:
Explanation:
A deterministic unit test is one that produces the same results every time it is run under the same conditions. This characteristic is crucial for unit tests because it ensures that the tests are reliable and that their results are repeatable.Deterministic tests help in identifying when a change in the codebase has introduced a defect, as any variation in the test outcome can be attributed to the change rather than an unpredictable test behavior12.
Reference= The ISTQB Advanced Level Agile Technical Tester syllabus and study resources emphasize the importance of deterministic behavior in unit tests as part of ensuring test reliability and effectiveness34.

QUESTION 25
Which option below describes the BEST approach for testing a Medium risk mission- or safety-critical system?

A. Automated tests recommended. Exploratory tests recommended, manual Black-box tests recommended
B. Automated tests recommended. Exploratory tests highly recommended, manual Black box tests recommended.
C. Automated tests optional (neutral). Exploratory tests highly recommended, manual Black-box tests optional (neutral).
D. Automated tests optional. Exploratory tests highly recommended, manual Black-box tests recommended

Correct Answer: B
Section:
Explanation:
For a Medium risk mission- or safety-critical system, a combination of automated, exploratory, and manual black-box tests is recommended. Automated tests ensure consistent and efficient coverage of known scenarios, while exploratory tests allow testers to investigate and discover unknown issues.Manual black-box tests are important for verifying the system from an end-user perspective without knowledge of the internal workings, which is crucial for safety-critical systems.Reference= The ISTQB Advanced Level Agile Technical Tester syllabus and materials emphasize the importance of a comprehensive testing approach that includes various techniques suitable for the system's risk level and criticality123

QUESTION 26
You have identified existing test cases that require re-factoring, Which is the NEXT task you should perform?

A. Adjust the observable behavior of the tests to meet the user stories
B. Re run the tests to ensure that the test results remain the same
C. Analyze the Impact of the functionality of the current iteration on the existing regression tests
D. Make changes to the internal structure of the tests to improve maintainability

Correct Answer: C
Section:
Explanation:
After identifying test cases that require refactoring, the next task is to analyze the impact of the current iteration's functionality on the existing regression tests. This involves assessing how the new changes will affect the tests and determining if the tests still cover the necessary aspects of the software. The goal is to ensure that the regression tests remain relevant and effective in light of the recent changes made to the application.
Reference= The ISTQB Advanced Level Agile Technical Tester syllabus and related materials emphasize the importance of maintaining the relevance and effectiveness of regression tests throughout the development iterations, which includes analyzing the impact of new functionalities on existing tests12.

QUESTION 27
You are defining the test approach for an Agile project that is developing a system that will control traffic lights at busy road junctions based on input from sensors that measure traffic density and flow rates on the roads leading to the junctions. It i s a safety-critical application but. because of the skill and experience of the project team, a risk assessment has determined that its risk level is low.
which option in the table below represents the BEST test approach for this release?
Key to symbols
+ (highl y recommended)
+ (recommended)
o (neutial / optional)
- (not recommended) - (not to be used)
Option Number Test Automation Exploratory Testing (manual) Black-box testing
1 + + ++
2 -
+
3 4- 4- +
4 0 ++ +

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

Correct Answer: B
Section:
Explanation:
Option 4 is the best test approach for this Agile project. It suggests a neutral stance on test automation, highly recommends exploratory testing, and recommends black-box testing. This approach is suitable for a safety-critical application with a low-risk level due to the skilled and experienced project team. Exploratory testing is crucial in this context as it allows testers to investigate the system's behavior under various scenarios and discover issues that may not be covered by automated tests or predefined test cases.Black-box testing is also recommended to ensure that the system meets its requirements without the need for detailed knowledge of its internal workings12.
Reference= ISTQB Advanced Level Agile Technical Tester documents and Training resources34.

QUESTION 28

Which option correctly slates a recommended guideline for formulating 8DD scenarios0

A. The When steps should describe the specific technical actions that a user performs
B. The scenario should use the third person to describe the initial slate and the interactions from the perspective of the user.
C. The scenario should describe a general behavior that the system supports from the perspective of a specific user
D. Dependencies between scenarios should be documented.

Correct Answer: C
Section:
Explanation:
In Behavior-Driven Development (BDD), scenarios are formulated to describe the general behavior of the system from the perspective of a specific user. This helps in understanding the user's needs and how the system should respond. It's important for scenarios to be clear and understandable to all stakeholders, including non-technical ones, which is why they are often written in simple language describing the behavior rather than the technical actions.

QUESTION 29
From these results, what can you conclude about the TDD process?

A. The developers are not running the tests prior to releasing the code
B. The tests cannot be passing
C. The tests are insufficient and need to include more options
D. The story needs to be enhanced to include the capabilities that are causing errors

Correct Answer: C
Section:
Explanation:
Analyzing the TDD Process:
The provided test cases only cover two inputs: 'smith' and 'x,' and these pass successfully.
Real-world inputs such as longer names ('Steinbrenner') or edge cases (blank inputs) are not tested, resulting in errors and crashes.
Insufficient Tests:
The developers have not accounted for all possible input scenarios, such as names exceeding 30 characters or invalid inputs.
Expanding the tests to cover such cases would align the implementation with the acceptance criteria.
Analyzing the Options:
A: The tests are running but are inadequate in scope.
B: The tests are likely passing for the covered cases but fail to address uncovered scenarios.
D: The story already includes relevant details; the issue lies with test case insufficiency.
Aligned with ISTQB guidance on the importance of comprehensive test coverage in TDD.

QUESTION 30
**You have been given the following story:
As a shopper
I want to scan my membership card
So that I get all the discounts I'm entitled to receive
Which of the following is the correct use of BDD to design test scenarios?**

A. Given that the shopper scans their card When they checkout Then they should receive all the quantity discounts for everything they have purchased
B. As a store clerk I want to scan a customer's card So that their total includes their discounts
C. Given that I have scanned my card I expect to receive my discounts And an itemized list of what I bought

D. Given that a card is scanned Then discounts should be applied When the customer checks out

Correct Answer: A
Section:
Explanation:
Behavior-Driven Development (BDD):
BDD uses the Gherkin syntax to write test scenarios in a human-readable format: Given-When-Then.
The focus is on defining the behavior of the system in terms of user actions and outcomes.
Evaluating Options:
A: Correctly follows the Given-When-Then format, aligns with the user story, and focuses on the shopper's experience and entitlement to discounts.
B: Written from the perspective of the store clerk, which does not match the story's focus on the shopper.
C: Does not fully capture the conditions and behavior expected in the story.
D: Swaps the order of 'Then' and 'When,' which violates the proper BDD syntax.
Aligned with ISTQB guidance on creating effective BDD scenarios that reflect user stories and desired behaviors.

QUESTION 31
In order to create a shareable testing service from server or network traffic log data, which of the following types of tool would you use?

A. A service virtualization tool
B. A hardware emulator
C. a parallel development tool
D. An integrated development environment

Correct Answer: A
Section:
Explanation:
A service virtualization tool is used to create a simulated environment that mimics the behavior of components in a production environment. This allows for the creation of a shareable testing service from server or network traffic log data, enabling testing of applications and services without the need for the actual live production components.Service virtualization tools can capture and simulate the network traffic and data patterns, which is essential for creating robust and reliable test environments that are independent of the actual live systems12.
Topic 3, Exam Set C

QUESTION 32
Which of the following is an expected benefit of using storyboards to help analyze user stories and epics?

A. They help to identify the different types of users who will use that piece of functionality
B. They help to ensure adequate user group coverage in testing
C. They help to expose stakeholders or groups of stakeholders who might have been forgotten
D. They help to visualize stories to help categorize them into areas of functionality

Correct Answer: D
Section:
Explanation:
Storyboards are a visual tool used in Agile methodologies to represent and analyze user stories and epics. They provide a sequential depiction of interactions, which aids in understanding and categorizing functionalities.
Visualization of Stories: Storyboards offer a visual representation of user interactions, making it easier to categorize stories into different functional areas. This visualization helps teams understand the flow and grouping of functionalities within the system.
Categorization into Functional Areas: By depicting user interactions and system responses, storyboards assist in organizing user stories and epics into specific categories or modules. This categorization is crucial for planning development and testing activities.
Therefore, option D accurately reflects the benefit of using storyboards in analyzing user stories and epics.

QUESTION 33
If you are targeting your testing for a particular group of users with particular defined characteristics, what requirements engineering technique would be most helpful when designing your tests?

A. Storyboards
B. Story mapping
C. Personas
D. Use cases

Correct Answer: C
Section:
Explanation:
Personas are a requirements engineering technique that involves creating detailed profiles of fictional users representing different user types within a targeted demographic. These profiles include specific characteristics, behaviors, goals, and challenges of the user group.
Targeting Specific User Groups: Personas help in understanding the needs and expectations of particular user groups with defined characteristics. This understanding is essential for designing tests that are relevant and effective for those users.
Designing Relevant Tests: By utilizing personas, testers can create scenarios and test cases that reflect real-world usage by the targeted user group, ensuring that the software meets their specific needs and provides a positive user experience.
Therefore, option C, Personas, is the most helpful technique when designing tests for a particular group of users with defined characteristics.

QUESTION 34
You want to get information from a large set of users to help define acceptance criteria for a set of stories. You want to use questions with predefined answers and allow the user to select the best answer from that set. What type of elicitation technique would be most efficient to use?

A. Quantitative questionnaires
B. Qualitative questionnaires
C. Quantitative interviews
D. Qualitative interviews

Correct Answer: A
Section:
Explanation:
Understanding the Scenario:
The requirement is to collect structured feedback from a large user base.
The method should allow users to select predefined answers, making the process scalable and results analyzable.
Why Quantitative Questionnaires?
Quantitative questionnaires are structured tools with predefined answers, ideal for efficiently gathering measurable data from a large group.
The results can be statistically analyzed to identify trends and commonalities, aiding in defining clear acceptance criteria.
Eliminating Other Options:
B . Qualitative Questionnaires: These involve open-ended responses, which are harder to standardize and analyze, especially for large user groups.
C . Quantitative Interviews: These require individual interaction, making them less efficient for engaging large groups.
D . Qualitative Interviews: These are exploratory and subjective, not suitable for structured data collection or defining clear criteria.
Aligned with ISTQB Advanced Agile Technical Tester objectives, which recommend using structured elicitation methods like quantitative questionnaires for large-scale feedback.

QUESTION 35
Using your knowledge of requirements engineering, which of the following activities would assist the team the most in determining which stories they should commit to in the first sprint?

A. Create personas for a Business Traveler, a Vacationer, and a Senior Citizen
B. Develop a user story map for this segment of the application

C. Consult with a Usability Expert on the set of colors and fonts to use for this screen
D. Create a state transition diagram and other UML artifacts

Correct Answer: B
Section:
Explanation:
Understanding the Objective:
The team needs to prioritize and select user stories for the first sprint.
A tool or technique that aligns stories with user value and development goals is essential.
Why User Story Mapping?
Definition: User story mapping visually organizes user stories according to workflows and business value.
Purpose: It helps teams:
Break down epics into smaller stories.
Prioritize stories based on importance and dependencies.
Focus on delivering incremental value in each sprint.
Eliminating Other Options:
A . Create Personas: Personas provide insights into target users but do not directly aid in sprint planning or story prioritization.
C . Consult with a Usability Expert: This addresses specific design concerns, which are not relevant for sprint planning.
D . Create UML Artifacts: Diagrams like state transitions are more relevant for system design and architecture, not backlog refinement or sprint commitment.
Aligned with ISTQB Advanced Agile Technical Tester syllabus, which emphasizes the use of user story mapping for prioritizing and planning work in Agile projects.

QUESTION 36
For the story ''Make a call from the mobile app to the backend system'' associated with the epic ''View Frequent Flyer Miles and Status,' which of the following story acceptance criteria is in most need of refinement?

A. The backend system must respond to the mobile app within 3 seconds
B. The communication between the two systems must be secure
C. The mobile app must detect when the phone does not have Internet connectivity and display a warning message
D. The payload delivered by the backend system must use JSON formatting

Correct Answer: B
Section:
Explanation:
Understanding Refinement Needs in Acceptance Criteria:
Well-defined acceptance criteria must be clear, measurable, and testable.
Criteria that lack specificity or are too broad need refinement to ensure they can be implemented and tested effectively.
Analyzing the Options:
A: 'The backend system must respond to the mobile app within 3 seconds' is clear, measurable, and testable.
C: 'The mobile app must detect when the phone does not have Internet connectivity and display a warning message' is actionable and measurable.
D: 'The payload delivered by the backend system must use JSON formatting' is specific and testable.
B: 'The communication between the two systems must be secure' lacks details. Security requirements should specify the protocols or methods (e.g., TLS encryption) to make the acceptance criteria clear and actionable.
Aligned with ISTQB Agile Technical Tester principles emphasizing clear, testable acceptance criteria for Agile stories.

QUESTION 37
What is the characteristic of a unit test that makes it ''atomic''?

A. If it is run with the same conditions, it will get the same result each time
B. It tests the details of the code, including verifying all the possible areas of data handling
C. It tests only the targeted piece of functionality

D. It runs very fast, allowing many tests to be run quickly

Correct Answer: C
Section:
Explanation:
Definition of 'Atomic' in Unit Testing:
An atomic test focuses on a single, isolated piece of functionality.
This ensures clarity and simplicity in verifying the behavior of that specific functionality.
Analyzing the Options:
A: Describes a deterministic test, not an atomic one.
B: Atomic tests do not verify all details but rather focus on a specific area.
D: Speed is a desirable characteristic but does not define atomicity.
C: Testing only the targeted functionality aligns with the definition of atomicity.
Aligned with ISTQB Agile Technical Tester objectives regarding unit test properties like scope and focus.

QUESTION 38
What is the characteristic of a unit test that makes it ''deterministic''?

A. If it is run with the same conditions, it will get the same result each time
B. It tests the details of the code, including verifying all the possible areas of data handling
C. It tests only the targeted piece of functionality
D. It runs very fast, allowing many tests to be run quickly

Correct Answer: A
Section:
Explanation:
Definition of 'Deterministic' in Unit Testing:
A deterministic test produces consistent results when executed under the same conditions.
Analyzing the Options:
A: Correctly describes deterministic behavior.
B: Refers to test coverage, not determinism.
C: Refers to atomicity, not determinism.
D: Speed is unrelated to determinism.
Aligned with ISTQB Agile Technical Tester syllabus emphasizing the need for tests to be consistent and predictable.

QUESTION 39
Which of the following is a primary goal for refactoring test cases?

A. To ensure they adequately test the product's potentially changed functionality
B. To detect and remove defects from the code being tested
C. To increase the usability of the test cases with the goal of later using them for UAT
D. To reduce the details and ensure the test case is only targeting high-level functionality

Correct Answer: A
Section:
Explanation:
Goals of Test Case Refactoring:
Refactoring aims to improve the quality of test cases while ensuring they continue to validate the product's functionality, especially after changes.
Analyzing the Options:

A: Ensuring the test cases adequately test the product aligns with the purpose of refactoring.
B: Detecting defects is a testing goal, not a specific purpose of refactoring.
C: Refactoring focuses on improving clarity and maintainability, not on UAT usability.
D: Reducing detail is not a primary objective; retaining adequate coverage is crucial.
Consistent with ISTQB Agile Technical Tester syllabus focusing on maintaining test coverage and functionality after refactoring.

QUESTION 40
**You have received this BDD test:
Given that a customer enters the correct PIN
When they request to make a withdrawal
And they have enough money in their account
Then they will receive the money
And a receipt
Which of the following is the user story that best fits this BDD test?**

A. As a customer I want to deposit money into my account So that I can collect interest
B. As an ATM I want to provide services to my customer So they will be happy
C. As a customer I want to withdraw money from my account So that I can buy a present
D. As a bank teller I want customers to use the ATM So that I don't have to deal with them

Correct Answer: C
Section:
Explanation:
Aligning the BDD Test with the User Story:
The BDD test specifies a withdrawal operation, including entering a PIN, checking account balance, dispensing cash, and providing a receipt.
The user story must describe the behavior and motivation of a customer performing this action.
Analyzing Options:
A: Describes a deposit operation, which does not align with the BDD test.
B: Too vague and describes the ATM's role, not the customer's perspective.
C: Correctly matches the behavior and motivation of the withdrawal process.
D: Focuses on the bank teller, which is irrelevant to the BDD test.
Aligned with ISTQB principles emphasizing the importance of user stories that closely match BDD test scenarios.