

ISTQB Certified Tester Advanced Level - Test Analyst (Syllabus 2019)

iSQI CTAL-TA Syll2019

Version Demo

Total Demo Questions: 11

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QUESTION NO: 1

What is the MOST important reason why test conditions should be understandable by business stakeholders?

- A. They should be able to review the test conditions and provide feedback to the Test Analyst
- B. They should be able to use them as a basis for designing test cases.
- C. They should be able to use them to establish traceability to requirements
- D. Test documentation should always be understandable by all stakeholders.

ANSWER: A

Explanation:

They should be able to review the test conditions and provide feedback to the Test Analyst. Test conditions identify testable aspects of a component or system, such as functions, quality characteristics, business rules, or user scenarios. Because business stakeholders understand the intended business outcomes, operational context, and priorities, their review is an essential means of validating that the proposed conditions cover what matters to the business.

Making conditions understandable enables stakeholders to confirm that important workflows, rules, risks, and acceptance expectations have been represented before detailed test cases are designed and executed. Their feedback can reveal omissions, ambiguities, incorrect assumptions, or a mismatch between the planned test scope and the actual business need. This supports early defect prevention and helps the Test Analyst establish a suitable, risk-aware basis for subsequent test analysis and design. The ISTQB Test Analyst syllabus describes collaboration with business stakeholders when analyzing the test basis and communicating test conditions, so that testing remains aligned with stakeholder needs. See the [ISTQB Advanced Level Test Analyst certification page](#) and the [ISTQB glossary definition of test condition](#).

QUESTION NO: 2

Consider the following requirement:

The system shall allow cash advances of at least 200 Euros for all supported credit cards The following credit cards are supported- American Express, Diners, VISA, Mastercard and Eurocard.

The requirement has been identified as business critical.

The following test conditions have been derived:

1. The system shall allow cash advances of at least 200 Euros
2. It shall support American Express, Diners, VISA, Mastercard and Eurocard.

Assume you are following a risk-based testing strategy, where likelihood and impact are both assessed on a five-point scale ranging from very low to

very high The requirement R1 was identified as a risk item during the quality risk analysis process. In total 20 risk items were identified during this process

Assume that technical project stakeholders have assessed the likelihood of the requirement R1 risk item at a medium level Given only the information above, which of the following statements is true?

- A. The test cases associated with requirement R1 shall be run first in the test execution period
- B. The test cases associated with requirement R1 must be run towards the middle of the test execution period.
- C. A large number of test cases should be designed for requirement R1, based on impact
- D. The risk impact for requirement R1 should be categorized as high or very high

ANSWER: D

Explanation:

The risk impact for requirement R1 should be categorized as high or very high. In risk-based testing, impact expresses the potential harm if a product risk materializes; it is assessed separately from likelihood. The requirement is explicitly identified as business critical, which is strong evidence that failing to provide the specified cash advance capability, or failing to support a required card type, could cause significant business consequences. Such consequences can include disruption to a core customer service, financial loss, contractual or regulatory exposure, and damage to the organization's reputation. These are characteristics of the upper end of a five-level impact scale.

The stated medium likelihood is still important when the team combines likelihood and impact to determine the overall risk level and prioritize test activities. However, it does not reduce the inherent consequence of a failure in a business-critical requirement. Similarly, the fact that twenty risk items were identified does not, by itself, establish this item's relative execution order or a required number of tests. The available evidence directly supports assigning a high or very high impact classification. ISTQB describes risk-based testing as using product-risk analysis to guide the test effort; see the [ISTQB Glossary definition of risk-based testing](#) and the [ISTQB Test Analyst certification syllabus resources](#).

QUESTION NO: 3

You are working on an Agile project to develop an ATM application and have been given the following story to review:

User Story #105, "Query balance and withdraw", Priority = 2, Version 1.0

Note: This story can only be implemented after the implementation of the following stories:

#101, "Login"

#102, "Verify valid account"

The user must be able to query the balance of his account and withdraw an amount of money not to exceed \$200 or his balance, whichever is less. The query results must return within three seconds.

The user must receive their cash and receipt within five seconds of completing the request.

Acceptance Criteria: The user queries his account and receives a correct response within three seconds. The user requests a valid withdrawal and receives his money and receipt within five seconds.

Which of the following is a problem that should be noted during a review of this story?

- A. The acceptance criteria are not clearly defined and testable
- B. The priority of this story is not stated
- C. Dependencies between this story and others are not clearly defined
- D. The story contains more than one item of functionality

ANSWER: D

Explanation:

The story contains more than one item of functionality is correct because the stated user story combines two separately valuable user capabilities: obtaining an account balance and making a cash withdrawal. Each capability has its own behavior, quality requirement, and acceptance criterion. Balance enquiry requires the system to retrieve and display accurate account information within three seconds, whereas withdrawal requires validation of the requested amount against both the account balance and the \$200 limit, followed by dispensing cash and producing a receipt within five seconds. These functions can be independently understood, estimated, implemented, and tested, so combining them makes the story broader than necessary.

During a Test Analyst review, identifying such excessive scope supports clearer test conditions and more focused acceptance testing. Splitting the work into a balance-enquiry story and a withdrawal story would allow each item to have a concise objective and unambiguous, independently verifiable acceptance criteria. It also permits either capability to be prioritized and delivered separately when that provides earlier business value. This is consistent with the Agile preference for small user stories and with the INVEST guideline that stories should be small enough to support effective planning and delivery. See the [ISTQB Advanced Level Test Analyst certification page](#) and Atlassian's [guidance on user stories](#).

QUESTION NO: 4

A desktop accounting application is required to run on both Windows and macOS. The application must be installable on each platform and must produce the same financial calculations for the same input data.

Which software quality characteristic is MOST directly addressed by testing the application on both operating systems?

- A. Portability
- B. Interoperability
- C. Usability
- D. Security

ANSWER: A

Explanation:

Portability is the quality characteristic concerned with the degree to which a system can be transferred from one hardware, software, or other operational environment to another. Testing on Windows and macOS assesses whether the application can be installed and operated successfully in its intended target environments. Checking equivalent calculation results further helps confirm that platform differences do not affect the intended behaviour.

Portability includes such concerns as adaptability and installability in specified environments. See the [ISO/IEC 25010 product quality model](#).

QUESTION NO: 5

Which of the following appropriate tasks for the Test Analyst is performed during the test analysis phase?

- A. Review test estimates
- B. Examine the test basis
- C. Create a test execution schedule
- D. Evaluate status against exit criteria

ANSWER: B

Explanation:

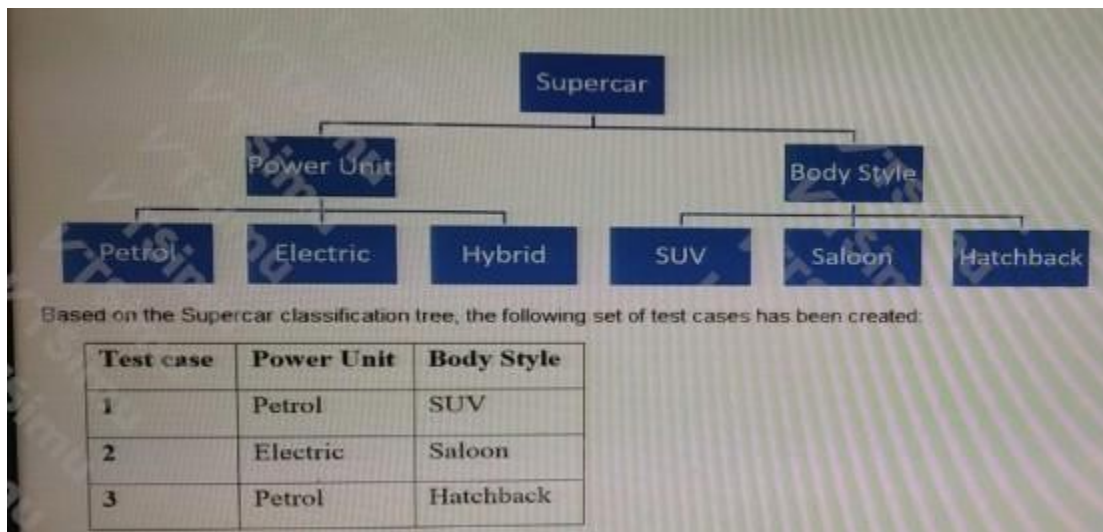
Examine the test basis is performed during test analysis because the Test Analyst must first study the available sources of testable information before deriving test conditions and designing tests. The test basis can include requirements specifications, user stories, business-process descriptions, architecture and design documentation, interface specifications, risk information, standards, and relevant regulatory material. Examining these sources establishes what the product is intended to do, the quality characteristics that require attention, the constraints affecting testing, and any ambiguities or omissions that need clarification with stakeholders.

This analysis provides the foundation for identifying and prioritizing test conditions, maintaining traceability from requirements to testware, and selecting suitable test techniques later in the test design work. It is therefore a core Test Analyst activity: the analyst interprets the test basis from the user, business, and functional-quality perspectives to determine what must be tested and at what level of detail. ISTQB defines test analysis as analyzing the test basis to identify testable features and associated test conditions; see the [ISTQB Glossary definition of test analysis](#). The Test Analyst role and its emphasis on analysis of the test basis are also described in the [ISTQB Advanced Level Test Analyst certification information](#).

QUESTION NO: 6

Supercar.

Supercar is an online vehicle sales website specializing in a single manufacturer's Sports Utility Vehicles (SUVs) and saloons. A vehicle has two key elements, power unit and body style. The manufacturer offers three choices of power unit: petrol, electric and hybrid. There are 3 main body styles: Saloon, Hatchback and SUV. SUVs are available only as petrol and electric options. Hybrid is available for Hatchback only. The website will allow an order to be processed if the chosen vehicle configuration is in stock, otherwise a message will be displayed asking the user to try again later. Based on the specification, the following classification tree has been developed:



Which test case is needed to complete the test set and achieve minimum class coverage?

- A. Power Unit: Hybrid Body Style: Saloon
- B. Power Unit: Electric Body Style: Hatchback
- C. Power Unit: Petrol Body Style: Saloon
- D. Power Unit: Hybrid Body Style: Hatchback

ANSWER: D

Explanation:

Power Unit: Hybrid Body Style: Hatchback is needed because it selects the Hybrid class for the power-unit classification together with the only body-style class that the specification permits for that power unit. Minimum class coverage for a classification-tree test set requires that every relevant class in each classification is exercised at least once by a valid test case. The existing selections shown in the classification tree already cover the applicable petrol and electric classes and the relevant saloon, hatchback, and SUV body-style classes. Adding the valid Hybrid/Hatchback configuration therefore covers the outstanding Hybrid class while respecting the stated dependency between the classifications.

This is a useful example of the Test Analyst's application of classification-tree testing: identify meaningful input partitions, identify constraints between them, and choose combinations that meet the selected coverage criterion without creating an impossible product configuration. The resulting test is about exercising the permitted configuration decision; stock availability can then determine whether the expected outcome is order processing or the retry-later message. ISTQB describes the Test Analyst role and its test-design focus at [ISTQB Certified Tester Advanced Level Test Analyst](#). The classification-tree method is also documented by the [Systematic Testing classification-tree method overview](#).

QUESTION NO: 7

You are testing an ATM based on the following use

ATM start screen is showing

1. The user inserts card

2. The user types in PIN
- 3 The user selects cash with receipt'
4. The user selects €50
5. The user selects no further service' Expected results
 - The ATM provides €50 to the user
 - The ATM returns the card and balance slip
 - The ATM clears the screen
 - The ATM returns to start menu

You are asked to review this use case.

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What is the most important information that is missing from this use case?

- A. Nothing has been defined for expected response times.
- B. The use case should also include alternative behaviour.
- C. More test cases are needed to achieve the minimum acceptable level of coverage.
- D. Expected results not clearly defined

ANSWER: B

Explanation:

The use case should also include alternative behaviour. A use case is intended to describe the interaction between an actor and a system in pursuit of a goal, including not only the successful, basic flow but also relevant alternative and exception flows. The stated sequence specifies one successful cash-withdrawal scenario: a valid card and PIN are assumed, sufficient funds are available, the selected amount can be dispensed, and the receipt/card-return process completes normally. That is useful as a main success scenario, but it does not provide enough behavioral information to derive tests for realistic ATM outcomes.

For this ATM, the review should identify alternative behavior such as an unreadable or expired card, an incorrect PIN and retry limit, a cancelled transaction, insufficient account funds, a daily withdrawal-limit breach, unavailable cash, a dispenser fault, or a receipt-printer issue. Each relevant flow should define the system response, including messages, account effects, whether the card is retained or returned, and the state to which the ATM returns. Capturing these paths makes requirements testable and supports systematic test design from use cases. ISTQB's Test Analyst certification scope includes analyzing requirements and designing tests from behavioral models; see the [ISTQB Test Analyst certification page](#) and the [ISTQB glossary entry for "use case"](#).

QUESTION NO: 8

A PIN entry component of an ATM system has been developed using the following state table:

	Insert Card	Enter Pin	Valid Pin	Invalid Pin
S1) Start State	S2	-	-	-
S2) Wait for PIN	-	S3	-	-
S3) 1st try	-	-	S6	S4
S4) 2nd try	-	-	S6	S5
S5) 3rd try	-	-	S6	S7
S6) Access account	-	-	-	-
S7) Eat card	-	-	-	-

Using the state transition test technique, how many 0-switch test cases are needed to achieve 100% 0-switch coverage?

- A. 4
- B. 7
- C. 8
- D. 28

ANSWER: D

Explanation:

28 is correct because 0-switch coverage in state transition testing is transition coverage: every valid individual transition specified by the state model must be exercised at least once. A “switch” is a transition between states, so 0-switch coverage considers one transition at a time, without requiring a particular sequence of two or more consecutive transitions. The supplied state table contains 28 valid state/input-to-next-state entries. Therefore, a test set needs one test case for each of those specified transitions to provide 100% 0-switch coverage, resulting in 28 test cases.

This coverage level is useful for checking that the component responds correctly to each event in every applicable current state, including its specified next state and associated behavior. The Test Analyst syllabus describes state transition testing as a black-box technique for testing the behavior of systems that move between states in response to events, and defines 0-switch coverage in terms of covering all valid transitions. See the [ISTQB Advanced Level Test Analyst certification page](#) and the [ISTQB glossary entry for state transition testing](#).

QUESTION NO: 9

You are testing an ATM based on the following use

ATM start screen is showing

1. The user inserts card
2. The user types in PIN
- 3 The user selects cash with receipt'
4. The user selects â,¬50
5. The user selects no further service' Expected results
 - The ATM provides â,¬50 to the user
 - The ATM returns the card and balance slip
 - The ATM clears the screen
 - The ATM returns to start menu

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What is the most important information that is missing from this use case?

- A. Nothing has been defined for expected response times.
- B. The use case should also include alternative behaviour.
- C. More test cases are needed to achieve the minimum acceptable level of coverage.
- D. Expected results not clearly defined

ANSWER: B

Explanation:

The use case should also include alternative behaviour. The described interaction specifies one successful, end-to-end withdrawal flow: a customer inserts a card, enters a PIN, requests cash and a receipt, selects an amount, and ends the session. This is the basic flow of the use case, but it is not sufficient to describe the system's required behaviour at the decision points and failure points that occur during a real ATM transaction.

For use case testing, a Test Analyst derives tests not only from the basic flow but also from alternative flows and exception flows. Those flows define the expected observable system behaviour when the normal sequence cannot continue or takes a different valid route. In an ATM, these behaviours may include handling an unreadable or retained card, an invalid PIN and retry limit, insufficient account funds, an amount that cannot be dispensed, cancellation by the customer, unavailable cash, or a communication failure with the bank. Specifying these paths makes the requirements testable and supports coverage of the different use case scenarios.

This aligns with the Test Analyst syllabus treatment of use case testing, in which test cases are derived from basic, alternative, and exception flows. See the [ISTQB Certified Tester Advanced Level Test Analyst certification page](#) and the [ISTQB glossary](#) for the associated testing terminology.

QUESTION NO: 10

Which of the following activities should normally occur during test analysis?

- A. Determining the execution order of test cases
- B. Reporting test cases executed versus test cases planned
- C. Developing test procedures
- D. Identifying test conditions

ANSWER: D

Explanation:

Identifying test conditions normally occurs during test analysis because this activity translates the test basis into concrete, testable items. The test basis can include requirements, user stories, architecture and design information, interface specifications, risk information, and applicable standards. By analyzing those sources, the test analyst identifies the aspects that need to be verified, such as functions, quality characteristics, business rules, data combinations, interfaces, or system behaviors. These test conditions establish the scope of testing and provide the foundation for selecting suitable test techniques and designing test cases later in the test process. They also support traceability from the test basis to the tests and help make coverage measurable. The ISTQB glossary defines a test condition as a testable aspect of a component or system identified as a basis for testing, which aligns directly with the purpose of test analysis. This is also consistent with the Advanced Level Test Analyst role, where analysis of the test basis and specification of appropriate test conditions are core responsibilities. See the [ISTQB Glossary definition of test condition](#) and the [ISTQB Test Analyst certification page](#).

QUESTION NO: 11

Which of the following software development lifecycle models requires the earliest involvement from the Test Analyst?

- A. V-model
- B. Embedded iterative model
- C. Agile development model
- D. Maintenance lifecycle

ANSWER: A

Explanation:

The **V-model** requires the Test Analyst's involvement at the earliest point because testing activities are planned in parallel with the corresponding development activities, rather than being deferred until executable software is available. As requirements are elicited and specified, the Test Analyst can review them for testability, ambiguity, completeness, consistency, and measurable acceptance criteria. This early work also provides the test basis for defining acceptance-test conditions and for beginning test planning, including identifying test data, environments, risks, and traceability needs.

The model explicitly links the specification and design activities on the left side of the lifecycle to test levels on the right side. Consequently, requirements work is directly associated with acceptance testing, while higher-level design is associated with system testing. The Test Analyst therefore contributes while requirements and designs can still be improved, helping prevent defects from being built into later lifecycle products. This reflects the ISTQB principle of early testing: starting test activities early reduces the cost and impact of defects and supports a shared understanding of quality expectations. The ISTQB Test Analyst certification overview is available at [ISTQB Certified Tester Advanced Level—Test Analyst](#); the broader early-testing principle is described in the [ISTQB Certified Tester Foundation Level](#) materials.