



### Swedish Software Testing Board (SSTB) International Software Testing Qualifications Board (ISTQB)

# Acceptance Testing Certificate in Software Testing Version 2019

## Examination Questions 2023-01-06

Time allowed: 1:00 (For non-native English speakers 1:15)

There are 40 questions, each question 1 point You need 26 points or more to pass

You must follow directives given to you by the invigilator during the whole exam

Mark your answers in the provided answer sheet. Try to answer all 40 questions. Select one option per question if nothing else indicated. Erase any answer you decide to change and mark your new chosen answer clearly.

You are not allowed to keep the questionnaire, other documents or notes. All papers must be handed back to the invigilator at the end of the exam.

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1. Assume you are testing functionality of the interface of an elevator.

One of the requirements is that the elevator can work only if the total weight of the passengers does not exceed 200 kg. The elevator can reach the following floors: Ground Floor, 1st floor and 2nd floor. You want to create an acceptance test using the Gherkin language. You can use the following phrases for this purpose:

- i) the total weight of passengers is greater than 200 kg
- ii) the elevator is on the Ground Floor
- iii) a button '1st floor' was pressed
- iv) the elevator goes to the 1st floor
- v) a passenger standing at the 2nd floor calls the elevator
- vi) a message 'too many passengers' is displayed on the screen

Which of the following statements correctly matches constructs of Given/When/Then with a relevant phrase to create a correct test case for the given requirement?

- a) GIVEN ii) WHEN v) AND vi) THEN i)
- b) GIVEN ii) WHEN iv) THEN v)
- c) GIVEN ii) WHEN i) THEN vi)
- d) GIVEN iii) WHEN ii) THEN iv)

Please select exactly 1 option

- 2. Which of the following activities is most likely performed by the business analyst as part of defect analysis?
  - a) Check, whether other paths in the business process model perform as intended
  - Assess the impact of corrective actions on other parts of the system's implementation
  - c) Analyze the function that failed step by step to identify the cause of the defect
  - d) Identify the requirements / user stories that are not satisfied





### 3. Which one of the following statements describes an exploratory test charter BEST?

- a) The test charter is elaborated during the testing session according to test execution results
- b) Indicating that the tester should take the role of a novice user can be part of an exploratory test charter
- c) Acceptance testers use the exploratory test charter during the testing session to define the test oracle
- d) Each exploratory test charter is based on a previously defined list of activities that would be interesting to test

Please select exactly 1 option

### 4. Which one of the following statements describes correctly how acceptance testing may be augmented with other test techniques or approaches?

- a) In a priority-based testing approach, prioritization of acceptance tests depends on identified product risks
- b) In a model-based testing approach, acceptance tests are generated from graphical or textual models
- c) In a black-box testing approach, acceptance test scenarios follow the implemented sequence of function calls in the code
- d) In a risk-based testing approach, acceptance criteria are derived from the tester's experience and intuition

Please select exactly 1 option

### 5. Which one of the following sentences describes <u>BEST</u> a major advantage when business analysts and testers review the acceptance criteria together?

- a) A joint review ensures that non-functional quality criteria are considered
- b) The review of acceptance criteria helps to verify that acceptance test cases cover business processes, business rules and business risks
- c) The review of acceptance criteria is a good practice to improve the quality of test reports
- d) A shared vision between the business analyst and the tester on acceptance criteria facilitates the design of acceptance test cases





### 6. Which one of the following combinations of given perspective and statement matches BEST?

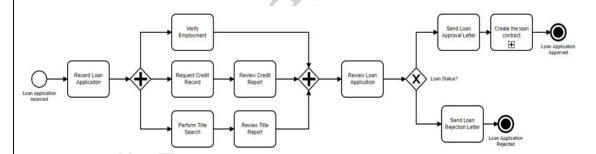
- a) From a technical perspective, the number of concurrent user and the types of transactions performed are major elements
- b) From a business perspective, computing power and architecture are major parameters for fine-tuning the system
- c) From a user perspective, missing feedback from the system when processing a request, it is a problem
- d) From a business perspective, the choice of performance test tools strongly depends on the applied test techniques

Please select exactly 1 option

#### 7. Assume you would like to create a model describing a loan request process in a bank.

The loan request process starts when the customer submits a loan application. The bank then reviews the application. Regardless of whether the loan request is approved or not, a letter is sent to inform the customer of the decision. If the request is approved, the loan contract is created.

You have drawn the following business process model using BPMN 2.0.



Which one of the following sentences is true with respect to this process model?

- a) Creating the loan contract is defined as a sub-process
- b) Performing title search and requesting credit report are sequential tasks
- c) Verifying employment is not done when the loan status is rejected
- d) A review credit report is optional when reviewing the loan application





#### 8. How does ISTQB CTFL test activities relate to the IQBBA FL business analysis and requirements engineering activities?

- a) The IQBBA solution evaluation phase precedes the ISTQB test implementation and test execution activities
- b) Business analysts who follow the IQBBA requirements engineering process will not be involved in designing test cases
- c) Business analysts and tester must decide, whether they follow the IQBBA or ISTQB lifecycle processes, because they exclude each other
- d) Test analysis and test design activities may result in changes of acceptance criteria

Please select exactly 1 option

#### 9. How are beta testing and acceptance testing related?

- a) Beta testing is a synonym for acceptance testing used in specific application domains
- b) Beta testing allows the product to be tested in realistic business configurations and contexts
- c) Beta testing is a systematic approach to acceptance testing and provides measurable coverage of the user stories
- d) Beta testing should include predefined acceptance test scenarios based on acceptance criteria

Please select exactly 1 option

### 10. Your company wants to establish a new human resources management application.

As tester, you propose to use an ATDD approach and to use business process models for test case design.

Which of the following statements is the **LEAST** meaningful argument for this approach?

- a) The process models will help testers to understand the use cases to be tested
- b) Testers will be able to show test coverage directly within the graphical representation of business processes
- c) As business process models will be updated to maintain the tests, they will be a living documentation of the product
- d) Business process models will make it easier to detect defects in the application code





#### 11. Which one of the following statements regarding acceptance criteria is true?

- a) Testers should not be involved in writing acceptance criteria to make sure that the test is independent
- b) Acceptance criteria are specific to agile frameworks where they correspond to functional requirements
- c) In acceptance test-driven development (ATDD), acceptance criteria replace acceptance tests
- d) Acceptance criteria specify what shall be tested to verify that a requirement or user story has been implemented correctly

Please select exactly 1 option

### 12. The standard ISO 25010 defines a quality in use model with characteristics and sub characteristics.

Which one of the following is a characteristic of quality in use according to this standard?

- a) Compatibility
- b) Usability
- c) Portability
- d) Efficiency

Please select exactly 1 option

#### 13. Which one of the following scenarios characterizes UX task analysis **BEST**?

- a) External conditions are considered as input for subsequent design steps
- b) Inspirations from similar sectors are sought to identify successful solutions
- c) Use cases are analyzed and represented through business process models
- d) Users are qualified depending on their physical and intellectual characteristics



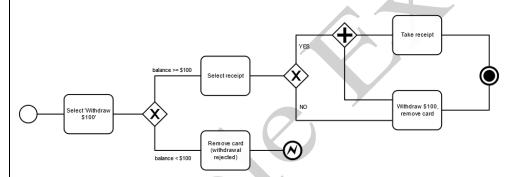


#### 14. Which one of the following statements regarding ATDD / BDD is true?

- a) In both Acceptance-Test Driven Development (ATDD) and Behavior-Driven Development (BDD), acceptance test cases are written by a test automation engineer as test automation code
- b) In both Acceptance-Test Driven Development (ATDD) and Behavior-Driven Development (BDD), test cases provide examples of product use
- c) Behavior-Driven Development (BDD) considers acceptance test design as an activity to be handled by the test team after requirements have been finalized
- d) In Acceptance-Test Driven Development (ATDD), test cases are written prior to the acceptance criteria

Please select exactly 1 option

### 15. As an acceptance tester you want to test the \$100 withdrawal process described by the following BPMN model.



You would like to achieve decision coverage. Consider the following test cases:

Test 1: balance = \$100, receipt = YES

Test 2: balance = \$99

Test 3: balance = \$120, receipt = NO Test 4: balance = \$2500, receipt = YES

Which of the following is the minimal set of test cases allowing to achieve full decision coverage?

- a) Test 1, Test 2, Test 3
- b) Test 2, Test 3
- c) Test 1, Test 2, Test 4
- d) Test 1, Test 2





16. As a tester you participate in the project of a decision support system for granting a loan.

You are asked to review the acceptance criteria for the following requirement: REQ 3.28. The automated system records critical credit application data (CCAD) needed to support application screening.

Assume that it is well known what kind of data CCAD are.

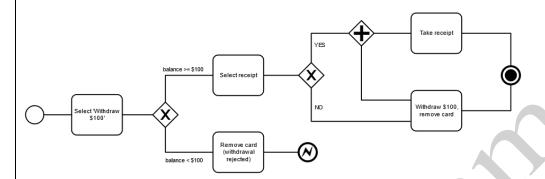
Which of the following would be the **BEST** example of an acceptance criterion for this requirement?

- a) The CCAD are stored in the MySQL relational database after each successful data entry procedure
- b) The process for collecting CCAD meets corporate usability guidelines
- c) The CCAD is not recorded if it is incomplete, and a message is displayed
- d) The CCAD record process is quick and reversible





17. As an acceptance tester you want to test the \$100 withdrawal process described by the following Business Process Model and Notation (BPMN) model.



You would like to achieve the following coverage criterion "execute all possible process tasks". Consider the following test cases:

Test 1: balance = \$100, receipt = YES

Test 2: balance = \$120, receipt = NO

Test 3: balance = \$85

Test 4: balance = \$20, receipt = YES

Which of the following is the minimal set of test cases allowing to achieve required coverage?

- a) Test 2, Test 4
- b) Test 1, Test 2, Test 3
- c) Test 1, Test 3
- d) Test 1, Test 2, Test 4





#### 18. Suppose you are testing a new professional exam support system.

As input the system takes two grades from two exams. For each exam the possible grade is 0 or 1 point. As output the system returns a single string – the decision about the entitlements: if the total score is 2, the candidate receives full entitlements. If the total score is 1, she receives partial entitlements. If the total score is 0, the candidate fails and receives no entitlements.

Which of the following is the correct Decision Model and Notation (DMN) model for this situation?

#### Model 1

	Inp	Outputs	
Rule	Exam #1	Exam #2	Entitlements
1	0	0	no
2	0	1	partial
3	1	0	partial
4	1	1	full

#### Model 2

exam result	Entitlements	
0	no	
1	partial	
2	full	

#### Model 3

	Inpu	ıts	Outputs		
	Exam	Exam	No	Partial	Full
u	#1	#2	entitlements	entitlements	entitlements
1	0	0	YES	NO	NO
2	0	1	NO	YES	NO
3	1	0	NO	YES	NO
4	1	1	NO	NO	YES

#### Model 4

rule	Exam #1	Exam #2	Result	Output
1	e1	e2	e1+e2	0: no 1: partial 2: full

- a) Model 1
- b) Model 3
- c) Model 2
- d) Model 4





#### 19. Which of the following statements regarding defects is MOST correct?

- a) The tester should analyze the potential impact of a defect on system usage, before communicating it to the business analyst
- b) Regular meetings between business analysts and testers are necessary to report discrepancies between actual and expected outcome
- c) If the defect turns out to be a bug, the tester writes a defect report and sends it to the business analyst for further investigation
- d) Testers should provide accurate information regarding the difference between the expected test result and the actual result

Please select exactly 1 option

#### 20. Which one of the following statements defines beta testing **BEST**?

- a) Beta testers discover defects in the product that escaped during the development process
- b) Beta testing takes place early in the development process to acquire feedback from the market
- c) Beta testing is performed by developers at the customer's location
- d) During beta testing, genuine users define the acceptance criteria for various realistic configurations

Please select exactly 1 option

### 21. Which one of the following statements describes the collaboration between business analysts and testers BEST?

- a) Once the requirements and acceptance criteria have been defined, business analysts are no longer involved in testing activities
- b) Business analysts usually cannot review acceptance tests because they do not understand the technical details
- c) Business analysts collaborate on test planning and risk analysis to ensure that further on, appropriate test cases are developed and prioritized
- d) Testers participate in identifying business needs of stakeholders to better understand the business needs and related requirements





#### 22. Which one of the following test techniques fits accepting testing purposes BEST?

- a) Defect-based test design
- b) Equivalence partitioning
- c) Input validation
- d) Static code analysis

Please select exactly 1 option

### 23. Which of the following information is most likely part of an acceptance test summary report?

- a) Information to evaluate the level of risk for product release
- b) Test strategy and test design methods
- c) Test procedure information
- d) Technical details on defect fixes

Please select exactly 1 option

### 24. Which of the following techniques is most likely applied to ensure the quality of acceptance testing activities?

- a) Checklist-based verification of requirements to ensure their completeness and quality
- b) Eye tracking to verify the feasibility of previously defined user acceptance tests
- c) Verification of the traceability between user stories and test cases to make sure it is up to date
- d) Review of the source code to ensure traceability of user stories to system components

Please select exactly 1 option

### 25. Which one of the following statements regarding the graphical representation of business processes is true?

- Using decision tables in BPMN allows defining test conditions corresponding to the business rules under test
- b) For acceptance testing, graphical business process models should focus on the user workflows to be tested
- c) Graphical representations of business processes must describe the complete workflow in detail, including alternative and error scenarios
- d) Business processes should be described graphically using the DMN standard and completed with decision tables





### 26. Which one of the following statements regarding the quality of requirements is MOST correct?

- a) Testers may complete unclear requirements by assumptions, as long as they discuss those assumptions with at least one stakeholder
- b) INVEST is a technique that ensure the quality of user stories or requirements, thus replacing regular reviews
- c) In Agile development lifecycle models, requirements engineering becomes less important due to the product owner role
- d) Vague or ambiguous requirements may lead to misunderstandings both during implementation and testing

Please select exactly 1 option

### 27. Which of the following explains <u>BEST</u> how business process and business rule modeling can be used for ATDD?

- a) In an ATDD approach, business process/rule models must be created before the project starts
- b) In an ATDD approach, testers use business process and business rule models to generate acceptance tests
- c) In an ATDD approach, business process models replace acceptance criteria
- d) In an ATDD approach, process models are created for initial test design but are not maintained afterwards

Please select exactly 1 option

### 28. Which one of the following acceptance criteria relates to security requirements?

- a) The system's response time shall not exceed 3 seconds
- b) The graphical user interface shall comply with corporate style guides
- c) Normal users shall have restricted access to private data
- d) The system shall be web-based





29. You are leading a brand-new project team whose members are coming from all over the organization and have no former experience in working together.

You need to build a common vision and team spirit.

What workshop would fit **BEST?** 

- a) You invite the team members and ask them to design their own (team-wise) emblem representing their values, beliefs, goals, tasks together than a common motto
- b) You ask every member in turn to write down three things he/she likes and dislikes in the organization and to post them on a wall. A volunteer is then chosen to read randomly some posts that are then discussed with the group
- c) You invite every member in turn to describe his/her experience and his/her major achievements in the organization or in their former job
- d) You draw a staircase with 11 steps, each of them representing a major milestone of the project. The bottom of the stairs corresponds to the first day of the project and the upper step means that the project is released. You locate the present situation in the top of the stairs. The team is asked to identify and discuss the major steps downwards

Please select exactly 1 option

#### 30. Given the following attributes:

- i. Commercializability
- ii. Functional suitability
- iii. Viability
- iv. Reliability
- v. Security
- vi. Cognitive ability
- vii. Maintainability

Which one of the following answers contains quality attributes that are **MOST** relevant for acceptance testing?

- a) ii, v and vi
- b) iv, v and vii
- c) iii, iv and v
- d) i, ii and vi





#### 31. Which of the following is the <u>BEST</u> example of a Gherkin-style test for a webbased banking application?

 a) GIVEN I have \$5000 on my personal account X and \$600 on my personal account Y

WHEN I transfer \$500 from Y to X
THEN I should have balance \$4500 on X and balance \$1100 on Y

b) GIVEN I have \$5000 on my personal account X AND I have \$200 on my personal account Y WHEN I transfer \$1000 from X to Y THEN I should have balance \$4000 on my personal account X AND I should have balance \$1200 on my personal account Y

c) GIVEN I have \$5000 on my personal account X
 WHEN I have \$600 on my personal account Y
 THEN I have \$5600 in total on my personal accounts X and Y

d) GIVEN I have \$5000 on my personal account X

AND I have \$200 on my personal account Y

WHEN I click 'Make transfer' button

AND I enter '3000' into 'Amount' field

AND I enter 'X' into 'From which account' field

AND I enter 'Y' into 'To which account' field

AND I click 'Confirm transaction' button

THEN I should have balance \$2000 on my personal account X AND I should have balance \$3200 on my personal account Y

Please select exactly 1 option

#### 32. Which tool fits the mentioned acceptance test activities BEST?

- a) Business process management tools for modeling business processes and rules
- b) Test management and automation tools for business process model-based acceptance test generation
- c) Model-based testing tools for managing incidents
- d) Requirements management tools for managing acceptance test execution campaigns





#### 33. What is considered as good practice regarding business process modeling?

- Keeping all model element in one diagram considerably improves the readability of BMPN models
- b) Links to requirements or risks should be well separated from the workflow description
- c) Business analysts should finalize their process models before showing them to acceptance testers
- d) BPMN diagrams and DMN tables should include information such as traceability to user stories

Please select exactly 1 option

#### 34. The project team is currently facing a difficult situation.

It originates from their difficulty in envisioning the future and the necessary steps to reach it together with a certain loss of motivation due to a strong feeling of stagnation.

You try to unlock the situation by proposing a workshop. Which one would fit the best?

- a) You draw a staircase with 11 steps, each of them representing a major milestone of the project. The bottom of the stairs corresponds to the first day of the project and the upper step means that the project is released. You locate the present situation in the middle of the stairs. The team is asked to identify and discuss the major steps down and up.
- b) You organize a day out with challenging physical exercises practiced in teams followed by an afterwork dinner and drink. After all, nothing is best for motivation than hard times together, strong common objectives and a promise of good time.
- c) You ask two volunteers to play a part in front of the team. One will try to defend the project and propose positive arguments and ways forward. The other will do the opposite. You then recapitulate the major arguments of both sides and debate them openly with the team.
- d) You visualize all remaining major milestones of the project, starting with today and ending with project release. Then, you ask the team to identify and discuss the necessary actions to move forward from the present situation and to reach the milestones.





### 35. Which of the following statements corresponds <u>BEST</u> to a UX requirement analysis activity?

- a) Security requirements are derived from usage scenarios
- b) Environmental conditions such as light conditions are obtained from a task analysis
- c) Personas are used to analyze products or solutions from competitors
- d) User profiles are used to determine different levels of business knowledge

Please select exactly 1 option

#### 36. As an acceptance tester you are analyzing the following user story for a webbased mass multiplayer role-playing game.

As an unregistered player

I want to be able to register myself by defining my e-mail, login and password in a registration form

So that I become a registered player

Consider the following propositions of the acceptance criteria:

- i. a registration form is displayed on the screen
- ii. the form is written in the Groovy language; the cursor is initially set on the 'login' field; after pushing the TAB button the cursor switches to 'password', 'repeat password', 'mail', and 'repeat mail' forms
- iii. I cannot register myself if the login I choose is used by another player
- iv. after successful registration process I am informed about it by an e-mail

Which of the above statements would you consider as well-written acceptance criteria?

- a) only i) and iii)
- b) only ii) and iv)
- c) only ii)
- d) only i), iii) and iv)

Please select exactly 1 option

#### 37. In acceptance testing an exploratory test session is conducted.

Which one of the following concepts applies **BEST**?

- a) Pair programming
- b) Planning poker
- c) Timeboxina
- d) Refactoring





#### 38. Which one of the following statements regarding performance testing is <u>MOST</u> correct?

- a) Depending on the model used to simulate the workload, performance tests are called load, stress or endurance / stability tests
- b) The performance of the system is measured in a context that reflects, as far as possible, representative operating conditions
- The performance test results serve to determine hardware and software performance requirements
- d) Performance testing aims to determine a system's robustness against malicious attacks

Please select exactly 1 option

### 39. Which one of the following usability testing techniques matches the test objective <u>BEST</u>?

- a) Log file analysis performed by usability experts identifies strong points of an interface that attract the user's attention
- b) Walkthrough and thinking aloud methods can indicate difficulties users experience with certain tasks
- c) Biometrics-based evaluation help to understand retrospectively, how users interacted with the system and to improve it
- d) Expert reviews help to understand how users interact with a system and what is more or less visible

Please select exactly 1 option

### 40. Which one of the following statements describes the relation between business goals, business needs and requirements <u>BEST</u>?

- a) Business needs address the business solution whereas business requirements define the business problem or opportunity
- b) Business goals and business needs are synonyms
- c) To derive the business needs, the business analyst first has to understand the business goals and requirements
- d) Business goals, business needs and requirements describe at different levels of abstraction, what shall be achieved





Please return this questionnaire and all your notes together with your answer sheet at the end of the examination.