

# **ISTQB Certified Tester**

## **Foundation Level**

### **Sample Exam 1**

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American Software Testing Qualifications Board

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#1 When test cases are designed early in the lifecycle, verifying the test basis via the test design, which common test objective is being achieved?

- a. Gaining confidence
- b. Finding defects
- c. Preventing defects
- d. Providing information for decision making

#2 When following the fundamental test process, when should the test control activity take place?

- a. During the planning activities
- b. During the implementation and execution activities
- c. During the monitoring activities
- d. During all the activities

#3 Designing and prioritizing high level test cases occurs during which activity in the fundamental test process?

- a. Test planning
- b. Test analysis and design
- c. Test implementation and execution
- d. Evaluating exit criteria

#4 Which of the following is the lowest level of independence?

- a. Tests are designed by the person who wrote the code
- b. Tests are designed by a developer other than the one who wrote the code
- c. Tests are designed by an independent test team
- d. Tests are designed by an outsourced test team

#5 Which of the following is a correct statement?

- a. A developer makes a mistake which causes a defect that may be seen as a failure during dynamic testing
- b. A developer makes an error which results in a failure that may be seen as a fault when the software is executed
- c. A developer has a failure which results in a defect that may be seen as a mistake during dynamic testing
- d. A developer makes a mistake which causes a bug that may be seen as a defect when the software is executed

#6 Which of the following is an example of debugging?

- a. A tester finds a defect and reports it
- b. A tester retests a fix from the developer and finds a regression
- c. A developer finds and fixes a defect
- d. A developer performs unit testing

- #7 Which of the following is a true statement about exhaustive testing?
- a. It is a form of stress testing
  - b. It is not feasible except in the case of trivial software
  - c. It is commonly done with test automation
  - d. It is normally the responsibility of the developer during unit testing
- #8 When should the testers start reviewing project documents?
- a. When they have been baselined and approved
  - b. After the first revision
  - c. As soon as a draft is available
  - d. When the developers have started coding
- #9 Which of the following is most correct regarding when functional tests may be executed?
- a. Unit and integration
  - b. Integration and system
  - c. System and acceptance
  - d. All levels
- #10 Which of the following is most correct regarding when non-functional tests may be executed?
- a. Unit and integration
  - b. Integration and system
  - c. System and acceptance
  - d. All levels
- #11 Which of the following is the correct list of the triggers for maintenance testing?
- a. A component in production is modified, migrated or retired
  - b. A fix has been received for a product that is in development
  - c. A regression has been discovered in a set of fixes just received from the developer
  - d. A new requirement has been received for the software that is currently under test that may result in an architectural change
- #12 In a V-model lifecycle, what should testers be doing when the design documents are available?
- a. Preparing unit test code
  - b. Preparing functional and non-functional test cases
  - c. Reviewing the high-level requirements documents
  - d. Preparing system acceptance tests

- #13 Usability testing is an example of which type of testing?
- a. Functional
  - b. Non-functional
  - c. Structural
  - d. Change-related
- #14 In a formal review, which role is normally responsible for documenting all the open issues?
- a. The moderator
  - b. The author
  - c. The scribe
  - d. The manager
- #15 Which of the following is a type of issue that is best found in static analysis?
- a. An inaccurate formula
  - b. A memory leak
  - c. A piece of dead code
  - d. A problem with the code not matching the requirements
- #16 Which testing technique would be most effective in determining and improving the maintainability of the code (assuming developers fix what is found)?
- a. Peer reviews
  - b. Static analysis
  - c. Dynamic testing
  - d. Unit testing
- #17 If test cases are derived from looking at the code, what type of test design technique is being used?
- a. Black-box
  - b. White-box
  - c. Specification-based
  - d. Behavior-based
- #18 Which document specifies the inputs and outputs for a test?
- a. Test design specification
  - b. Test case specification
  - c. Test procedure specification
  - d. Test plan

- #19 How does a test condition relate to a test case?
- a. A test condition defines the test case
  - b. A test case tests a test condition
  - c. A test condition is the output from a test case
  - d. A test case creates test conditions
- #20 Which of the following is a good reason to use experience-based testing?
- a. You can find defects that might be missed by more formal techniques
  - b. You can test for defects that only experienced users would encounter
  - c. You can target the developer's efforts to the areas that users will be more likely to use
  - d. It is supported by strong tools and can be automated
- #21 If you are using error guessing to target your testing, which type of testing are you doing?
- a. Specification-based
  - b. Structure-based
  - c. Experience-based
  - d. Reference-based
- #22 If you are testing a module of code, how do you determine the level of decision coverage you have achieved?
- a. By taking the number of decisions you have tested and dividing that by the total number of executable statements in the module
  - b. By taking the number of decisions you have tested and dividing that by the total number of decisions in the module
  - c. By taking the number of decisions you have tested and dividing that by the total lines of code in the module
  - d. By taking the number of decision outcomes you have tested and dividing that by the total number of decision outcomes in the module

#23 You have been tasked with organizing a set of test cases into a test procedure that will indicate the order in which the test cases will be run. The order of execution is important because you are trying to test end-to-end transactions in this e-commerce book sales application, but you must also consider the priority of the test cases as some are more critical than others.

Given the test cases in this table, what would be the best order for execution to achieve both goals? (Note: 1 is the highest risk)

Test Case	Test Type	Risk Priority	Dependencies
1	Browse	2	None
2	Select	3	Browse
3	Select	2	Browse
4	Shopping Cart	1	Select
5	Shopping Cart	3	Select
6	Purchase	1	Shopping Cart
7	Refund	4	Purchase

- a. 4, 6, 1, 3, 2, 5, 7
- b. 1, 2, 5, 6, 7, 1, 3, 4, 6, 7
- c. 1, 3, 4, 6, 1, 2, 5, 6, 7
- d. 1, 3, 2, 4, 5, 6, 7

#24 You have been given the following conditions and results from those condition combinations. Given this information, using the decision table technique, what is the minimum number of test cases you would need to test these conditions?

<b>Conditions:</b>
Valid cash
Valid credit card
Valid debit card
Valid pin
Bank accepts
Valid Selection
Item in Stock
<b>Results:</b>
Reject Cash
Reject Card
Error Message
Return Cash
Refund Card
Sell Item

- a. 7
- b. 13
- c. 15
- d. 18

#25 You are testing a machine that scores exam papers and assigns grades. Based on the score achieved the grades are as follows: 1-49 = F, 50-59 = D-, 60-69 = D, 70-79 = C, 80-89 = B, 90-100=A

If you apply equivalence partitioning, how many test cases will you need to achieve minimum test coverage?

- a. 6
- b. 8
- c. 10
- d. 12

#26 You are testing a machine that scores exam papers and assigns grades. Based on the score achieved the grades are as follows: 1-49 = F, 50-59 = D-, 60-69 = D, 70-79 = C, 80-89 = B, 90-100=A

If you apply boundary value analysis, how many test cases will you need to achieve minimum test coverage?

- a. 8
- b. 10
- c. 12
- d. 14

#27 Consider the following high level program design and assume you can provide the values for today, A, B and C:

```
Start;
Do until B = C
  If today = Monday
    set A = 1
  elseif today = Wednesday
    Set A = 2
    Set B = C
  Endif;
  If B < C
    B = B + 1
  Endif;
Endloop;
End;
```

Which of the following sets of values will achieve 100% decision coverage with the least number of test cases (the order of the values is today, A, B, C)?

- a. Monday, 1, 3, 3; Monday 3, 2, 4; Wednesday, 1, 2, 3; Tuesday, 5, 4, 3
- b. Monday, 1, 2, 4; Wednesday 1, 2, 4
- c. Monday, 5, 1, 1; Tuesday, 5, 1, 2; Wednesday, 5, 1, 2
- d. Monday, 5, 3, 2; Monday, 5, 1, 1; Monday 5, 2, 3; Tuesday, 4, 4, 3; Wednesday, 1, 2, 3



#28 Given the following program fragment:

```
if day = Monday
    then statement a
else
    statement b
end if
if day = Tuesday
    then statement c
end if
```

What is the minimum number of test cases needed to achieve 100% statement coverage?

- a. 1
- b. 2
- c. 3
- d. 4

#29 Which of the following is a task that a test leader would be expected to do?

- a. Write a test strategy
- b. Set up a test environment
- c. Prepare test data
- d. Automate tests

#30 A metric that tracks the number of test cases executed is gathered during which activity in the test process?

- a. Planning
- b. Implementation
- c. Execution
- d. Reporting

#31 Which of the following is a true statement about test planning?

- a. It should be done at the beginning of the project
- b. It should be a continuous activity throughout the project
- c. It should be started during design and finished before execution
- d. It should be used as input for the test strategy

#32 If you are applying risk-based testing, which type of test approach are you using?

- a. Analytical
- b. Methodical
- c. Regulatory
- d. Model-based

- #33 What is covered in the variances section of the Test Summary Report?
- a. The variances between the weekly status reports and the final summary report
  - b. The variances between the defects found and the defects fixed
  - c. The variances between what was planned for testing and what was actually tested
  - d. The variances between the test cases executed and the total number of test cases

- #34 Which of the following is a project risk?
- a. A module that performs incorrect calculations due to a defect in a formula
  - b. A failed performance test
  - c. An issue with the interface between the system under test and a peripheral device
  - d. A problem with the development manager which is resulting in his rejecting all defect reports

#35 You have been given the following set of test cases to run. You have been instructed to run them in order by risk and to accomplish the testing as quickly as possible to provide feedback to the developers as soon as possible. Given this information, what is the best order in which to run these tests?

Test Case ID	Duration	Risk Priority	Dependency
1	30 mins	Low	6
2	10 mins	Medium	none
3	45 mins	High	1
4	30 mins	High	2
5	10 mins	Medium	4
6	15 mins	Low	2

- a. 2, 4, 5, 6, 1, 3
- b. 4, 3, 2, 5, 6, 1
- c. 2, 5, 6, 4, 1, 3
- d. 6, 1, 3, 2, 4, 5

#36 You have received the following description section in an incident report.

The report executed per the attached steps, but the data was incorrect. For example, the information in column 1 was wrong. See the attached screenshot. This report is critical to the users and they will be unable to do their jobs without this information.

What is the biggest problem with this incident report?

- a. The developer won't know how important the problem is
- b. The developer won't know how to repeat the test
- c. The developer won't be able to see what the tester is saying is wrong
- d. The developer doesn't know what the tester expected to see

#37 Which of the following is a true statement about test automation scripts that are captured using a capture/replay tool?

- a. The scripts are easy to maintain
- b. The scripts are data-driven
- c. The scripts may be unstable
- d. The scripts are created by experienced automators

#38 Which of the following is the purpose of a proof-of-concept for a new tool?

- a. To verify that the licensing cost is affordable
- b. To verify that the tool will work effectively within the current infrastructure
- c. To verify that the vendor will provide adequate support
- d. To verify that the return on investment will be sufficient

#39 Why is it important to define usage guidelines for a new tool?

- a. Because this is a proven success factor in tool deployment
- b. Because this will ensure the licensing restrictions are enforced
- c. Because management needs to understand the details of the tool usage
- d. Because this will provide the information needed for the cost/benefit analysis

#40 If a test tool is causing a probe effect, what does this mean?

- a. The outcome of the test may be influenced by the use of the tool
- b. The tool is used to continuously probe the software for defects
- c. The tool is used primarily to assist with exploratory testing
- d. The tester will require special training to be able to effectively use the tool