

ISTQB Foundation Sample Question Paper

Source: Indian public Trial exams on web pages connected to this:

<http://istqbsamplepaper.n18.in/>

This paper has been heavily updated and corrected with respect to the Indian original, in order to conform to the ISTQB syllabus and examination guidelines.

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1 When the end-users see a deviation from the specified or expected behavior, how is this called?

- a) an error
- b) a fault
- c) a failure
- d) a defect
- e) a mistake

2 Regression testing should be performed:

- i) every week
 - ii) after the software has changed
 - iii) as often as possible
 - iv) when the environment has changed
 - v) when the project manager decides
- a) i and ii are true, iii - v are false
 - b) ii, iii and iv are true, i and v are false
 - c) ii and iv are true, i, iii and v are false
 - d) ii is true, all others are false
 - e) all of the above are true

3 Which of the following is NOT contained in a test plan according to the IEEE 829 standard?

- a) test items
- b) test deliverables
- c) testing tasks
- d) test environment
- e) test specification

4 Testing should be stopped when:

- a) all the planned tests have been run
- b) time has run out
- c) all faults have been fixed correctly
- d) both a) and c)
- e) it depends on the risks for the system being tested

5 Order numbers on a stock control system can range between 10000 and 99999 inclusive. Which of the following inputs might be a result of designing tests for only valid equivalence classes and valid boundaries?

- a) 1000, 5000, 99999
- b) 9999, 50000, 100000
- c) 10000, 50000, 99999
- d) 10000, 99999
- e) 9999, 10000, 50000, 99999, 10000

6 Consider the following statements about early test design:

- i. early test design can prevent fault multiplication
- ii. faults found during early test design are more expensive to fix
- iii. early test design can find faults
- iv. early test design can cause changes to the requirements
- v. early test design takes more effort than late test design

- a) i, iii and iv are true. ii and v are false
- b) iii is true. i, ii, iv and v are false
- c) iii and iv are true. i, ii and v are false
- d) i, iii, iv and v are true, ii is false
- e) i and iii are true, ii, iv and v are false

7 Non-functional system testing includes:

- a) testing to see where the system does not function properly
- b) testing quality attributes of the system including performance and usability
- c) testing a system feature using only the software required for that action
- d) testing a system feature using only the software required for that function
- e) testing for functions that should not exist

8 Which of the following is NOT part of configuration management?

- a) status accounting of configuration items
- b) auditing conformance to ISO9001
- c) identification of test versions
- d) recording of changes to documentation over time
- e) controlled library access

9 Which of the following is the main purpose of the integration strategy for low-level integration testing (component integration testing)?

- a) to ensure that all small modules are tested adequately
- b) to ensure that the system interfaces correctly to other systems and networks
- c) to specify which modules to combine when and how many at once
- d) to ensure that the integration testing can be performed by a small team
- e) to specify how the software should be divided into modules

10 What is the purpose of test completion criteria in a test plan?

- a) to know when a specific test has finished its execution
- b) to ensure that the test case specification is complete
- c) to set the criteria used in generating test inputs
- d) to know when test planning is complete
- e) to plan when to stop testing

11 Consider the following statements

- i. an incident may be closed without being fixed
- ii. incidents may not be raised against documentation
- iii. the final stage of incident tracking is repairing
- iv. the incident record does not include information on test environments
- v. incidents should be raised when someone other than the author of the software performs the test

- a) ii and v are true, i, iii and iv are false
- b) i and v are true, ii, iii and iv are false
- c) i, iv and v are true, ii and iii are false
- d) i and ii are true, iii, iv and v are false
- e) i is true, ii, iii, iv and v are false

12 Given the following code, what is true about the minimum number of test cases required for 100% statement and branch coverage:

```
Read P
Read Q
IF P+Q > 100 THEN
    Print "Sum is large"
ENDIF
If P > 50 THEN
    Print "P is large"
ENDIF
```

- a) 1 test for statement coverage, 3 for branch coverage
- b) 1 test for statement coverage, 2 for branch coverage
- c) 1 test for statement coverage, 1 for branch coverage
- d) 2 tests for statement coverage, 3 for branch coverage
- e) 2 tests for statement coverage, 2 for branch coverage

13 Given the following specification:

A clock shall display the time 00:00 when a battery is inserted.

There are two buttons that can be pressed. The clock shall work this way:

When the clock displays the time and the left button is pressed, the hours-field shall blink. The right button is then used to advance the hours.

When the left button is pressed again, the minutes-field shall blink. The right button is then used to advance the minutes.

When the left button is pressed again, nothing shall blink and the clock shall display the time.

When the time is displayed, the right button shall have no visible function.

Which of the following is a valid test giving 100% transition coverage?

- a) Insert the battery, press the right button, press the right button, press the left button, press the left button
- b) Insert the battery, press the right button, press the left button, press the right button, press the left button, press the right button, press the left button
- c) Insert the battery, press the right button, press the right button, press the right button, press the left button, press the left button
- d) Insert the battery, press the right button, press the right button, press the left button, press the left button, press the right button, press the right button
- e) Insert the battery, press the left button, press the right button, press the left button, press the left button, press the right button, press the left button

- b) 1 test for statement coverage, 2 for branch coverage
- c) 1 test for statement coverage. 3 for branch coverage
- d) 2 tests for statement coverage, 2 for branch coverage
- e) 2 tests for statement coverage, 3 for branch coverage

14 Given the following code, which alternative is true?

```

IF A > B
    THEN
        C = A - B
    ELSE
        C = A + B
ENDIF
Read D
IF C equals D
    THEN
        Print "SOMETHING IS WRONG HERE"
ENDIF

```

How many test cases would be needed for achieving 100% of certain coverage criteria?

- a) 1 test for statement coverage, 3 for branch coverage
- b) 2 tests for statement coverage, 2 for branch coverage
- c) 2 tests for statement coverage. 3 for branch coverage
- d) 3 tests for statement coverage, 3 for branch coverage
- e) 3 tests for statement coverage, 2 for branch coverage

15 Consider the following instruction:

Pick up and read the newspaper

Look at what is on television

If there is a program that you are interested in watching then switch the television on and watch the program

Otherwise

Continue reading the newspaper.

If there is a crossword in the newspaper then try to complete the crossword.

How many test cases would be needed for achieving 100% of certain coverage criteria (SC = statement coverage, DC = decision coverage)?

- a) SC = 1 and DC = 1
- b) SC = 1 and DC = 2
- c) SC = 1 and DC = 3
- d) SC = 2 and DC = 2
- e) SC = 2 and DC = 3

16 The place to start if you want a (new) test tool is:

- a) Attend a tool exhibition
- b) Invite a vendor to give a demo
- c) Analyse your needs and requirements
- d) Find out what your budget would be for the tool
- e) Search the internet for open source tools

17 When a new testing tool is purchased, it should be used first by:

- a) A small team to establish the best way to use the tool
- b) Everyone who may eventually have some use for the tool
- c) The independent testing team
- d) The managers to see what projects it should be used in
- e) The vendor contractor to write the initial test scripts

18 What can static analysis NOT find?

- a) The use of a variable before it has been defined
- b) Unreachable (“dead”) code
- c) Whether the value stored in a variable is correct
- d) The re-definition of a variable before it has been used
- e) Table boundary violations

19 Which of the following is NOT a black box technique?

- a) Equivalence partitioning
- b) State transition testing
- c) Decision coverage
- d) Syntax testing
- e) Boundary value analysis

20 What is true about Beta testing?

- a) Performed by customers at their own site
- b) Performed by customers at their software developer’s site
- c) Performed by an independent test team
- d) Useful to test specially developed software
- e) Performed as early as possible in the lifecycle

21 Given the following types of tool, which tools would typically be used by developers and which by an independent test team?

- i. static analysis tool
- ii. performance testing tool
- iii. test management tool
- iv. dynamic analysis tool
- v. test execution tool
- vi. test data preparation tool

- a) developers would typically use i, iv and vi; test team ii, iii and v
- b) developers would typically use i and iv; test team ii, iii, v and vi
- c) developers would typically use i, ii, iii and iv; test team v and vi
- d) developers would typically use ii, iv and vi; test team i, ii and v
- e) developers would typically use i, iii, iv and v; test team ii and vi

22 What is the main focus of acceptance testing?

- a) finding faults in the system
- b) ensuring that the system is acceptable to all users
- c) testing the system with other systems
- d) testing from a business perspective
- e) testing by an independent test team

23 Which of the following statements about test design methods is true?

- a) Black box design techniques all have an associated coverage measurement technique
- b) Not all white box design techniques have an associated coverage measurement technique
- c) Cyclomatic complexity is a test measurement technique
- d) 100% black box test coverage implies 100% statement coverage
- e) Using systematic test design methods, it is possible to achieve 100% decision coverage for every module.

24 Which of the following statements is WRONG?

- a) Inspection is the most formal review process
- b) Inspections should be led by a trained leader
- c) Managers can perform inspections on management documents
- d) Inspection is appropriate even when there are no written documents
- e) Inspection compares document contents with predecessor (source) documents

25 A typical commercial test execution tool would be able to perform all of the following EXCEPT which one?

- a) Generating expected outputs
- b) Replaying inputs according to a programmed script
- c) Comparison of expected outcomes with actual outcomes
- d) Recording detailed test inputs
- e) Reading test values from a data file

- 26** The difference between re-testing and regression testing is
- a) Re-testing is running a failed test again after the program has been corrected; regression testing looks for unexpected side effects
 - b) Re-testing looks for unexpected side effects; regression testing is repeating failed tests
 - c) Re-testing is done after faults are fixed; regression testing is done earlier
 - d) Re-testing uses different environments; regression testing uses the same environment as the test before
 - e) Developers do re-testing; regression testing is done by independent testers

27 Which one is true? Expected results are:

- a) Only important in system testing
- b) Only used in component testing
- c) Never specified in advance
- d) Most useful when specified in advance
- e) Derived from the code

28 Test managers should NOT:

- a) report on deviations from the project plan
- b) sign the system off for release
- c) re-allocate resource to meet original plans
- d) raise incidents on faults that they have found
- e) provide information for risk analysis and quality improvement

29 Unreachable (“dead”) code can NOT be found using:

- a) Code reviews
- b) Code inspections
- c) A coverage tool
- d) A test management tool
- e) A static analysis tool

30 What is the name of a tool that supports traceability, recording of incidents and scheduling of testing tasks?

- a) A dynamic analysis tool
- b) A test execution tool
- c) A debugging tool
- d) A test management tool
- e) A configuration management tool

31 What information need not be included in a test incident report?

- a) How to fix the fault
- b) How to reproduce the fault
- c) Test environment details
- d) Severity, priority
- e) The actual and expected outcomes

32 Which expression best matches the following characteristics or reviews?

1. led by author
2. undocumented
3. no management participation
4. led by a trained moderator or leader
5. uses entry and exit criteria

- s) inspection
- t) peer review
- u) informal review
- v) walkthrough

- a) s = 4, t = 3, u = 2 and 5, v = 1
- b) s = 4 and 5, t = 3, u = 2, v = 1
- c) s = 1 and 5, t = 3, u = 2, v = 4
- d) s = 5, t = 4, u = 3, v = 1 and 2
- e) s = 4 and 5, t = 1, u = 2, v = 3

33 Which of the following is NOT part of acceptance testing?

- a) Business process-based testing
- b) Performance, load and stress testing
- c) Requirements-based testing
- d) Usability testing
- e) Top-down integration testing

34 What statement about expected outcomes is WRONG?

- a) Expected outcomes are defined by the software's behavior
- b) Expected outcomes are derived from a specification, not from the code
- c) Expected outcomes include outputs to a screen and changes to files and databases
- d) Expected outcomes should be predicted before a test is run
- e) Expected outcomes may include timing constraints such as response times

35 The average cost of fixing a fault:

- a) Is not important
- b) Increases as we move the product towards live use
- c) Decreases as we move the product towards live use
- d) Is more expensive if found in requirements than functional design?
- e) Can never be determined

36 Which of the following is NOT included in the Test Plan document of the Test Documentation Standard?

- a) Test items (i.e. software versions)
- b) What is not to be tested
- c) Test environments
- d) Quality plans
- e) Schedules and deadlines

37 Could reviews or inspections be considered part of testing?

- a) No, because they apply to development documentation
- b) No, because they are normally applied before testing
- c) No, because they do not apply to the test documentation
- d) Yes, because both help detect faults and improve quality
- e) Yes, because testing includes all non-constructive activities

38 Which of the following is not part of performance testing?

- a) Measuring response time
- b) Measuring transaction rates
- c) Recovery testing
- d) Simulating many users
- e) Generating many transactions

39 Error guessing is best used

- a) As the first approach to deriving test cases
- b) After more formal techniques have been applied
- c) By inexperienced testers
- d) After the system has gone live
- e) Only by end users

40 Which one of the following are non-functional testing methods?

- a. System testing
- b. Usability testing
- c. Performance testing
- d. Test coverage measurement
- e. Both b and c

The correct answers are listed here.

- 1 C
- 2 C
- 3 E
- 4 E
- 5 C
- 6 A
- 7 B
- 8 B
- 9 C
- 10 E
- 11 B
- 12 B
- 13 B
- 14 B
- 15 E
- 16 C
- 17 A
- 18 C
- 19 C
- 20 A
- 21 B
- 22 D
- 23 A
- 24 D
- 25 A
- 26 A
- 27 D
- 28 B
- 29 D
- 30 D
- 31 A
- 32 B
- 33 E
- 34 A
- 35 B
- 36 D
- 37 D
- 38 C
- 39 B
- 40 E