Software Testing - ISTQB Certified Tester Foundation Level (755)

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Completed on	Friday, 6 May 2022, 11:03 PM
Time taken	27 mins 22 secs
Marks	37.00/40.00
Grade	**92.50** out of 100.00

Question **1**

Correct

Mark 1.00 out of 1.00

Which of the following are the typical defects found by static analysis tools?

a. Variables that are never used
b. Security vulnerabilities
c. Poor performance
d. Unreachable code
e. Business processes not followed

Select one:

- ○ c, d and e are true; a and b are false

- ● a, b and d are true; c and e are false ✔

- ○ b, c and d are true; a and e are false

- ○ a is true; b, c, d and e are false

> Your answer is correct.
>
> The correct answer is: a, b and d are true; c and e are false

Correct

Mark 1.00 out of 1.00

Which of the following are characteristics of good testing in any life cycle model?

a. Every development activity has a corresponding test activity

b. Testers review development documents early

c. There are separate levels for component and system integration testing

d. Each test level has objectives specific to that level

e. Each test level is based on the same test basis

Select one:

○ a, d and e

○ b, c and e

◉ a, b and d ✔

○ a, c and d

Your answer is correct.

The correct answer is: a, b and d

Correct

Mark 1.00 out of 1.00

Which of the following statements are true in relation to component testing?

a. Stubs may be used

b. May cover resource behavior (e.g. memory leaks)

c. Tests the interactions between software components

d. Defects are typically fixed without formally managing these defects

Select one:

◉ a. a, b and d ✔

○ b. a, b and c

○ c. a, c and d

○ d. b, c and d

Your answer is correct.

The correct answer is: a, b and d

A system specification states that a particular field should accept alphabetical characters in either upper or lower case.

Which of the following test cases is from an INVALID equivalence partition?

Select one:

- a. Feeds
- b. FEEDS
- c. fEEDs
- ⦿ d. F33ds ✔

> Your answer is correct.
>
> The correct answer is: F33ds

Which of the following statements is GENERALLY true of testing?
a. Testing can show the presence of defects
b. Testing reduces the probability of uncovered defects
c. Testing can show that a previously present defect has been removed
d. Testing can prove that software is defect free

Select one:

- a. b, c and d
- ⦿ b. a, b and c ✔
- c. a, c and d
- d. a, b and d

> Your answer is correct.
>
> The correct answer is: a, b and c

Question **6**

Correct

Mark 1.00 out of 1.00

Which ADDITIONAL test level could be introduced into a standard V-model after system testing?

Select one:

- a. System Integration Testing ✔
- b. Component Integration Testing
- c. Acceptance Testing
- d. Regression Testing

Your answer is correct.

The correct answer is: System Integration Testing

Question **7**

Correct

Mark 1.00 out of 1.00

Which statement BEST describes the role of testing?

Select one:

- a. Testing shows that the software is error free
- b. Testing ensures that the right version of code is delivered
- c. Testing can be used to assess quality ✔
- d. Testing improves quality in itself

Your answer is correct.

The correct answer is: Testing can be used to assess quality

Which tasks would USUALLY be performed by a test leader and which by the tester?

a. Adapt planning based on test results
b. Create test specifications
c. Plan tests
d. Write or review a test strategy

Select one:

- a. a and d by the test leader; b and c by the tester

- b. a, c and d by the test leader; b by the tester ✔

- c. c and d by the test leader; a and b by the tester

- d. a and b by the test leader; c and d by the tester

Your answer is correct.

The correct answer is: a, c and d by the test leader; b by the tester

When in the life cycle should testing activities start?

Select one:

- a. After the requirements have been reviewed

- b. After the test environment is ready

- c. As early as possible ✔

- d. Once the code is available to test

Your answer is correct.

The correct answer is: As early as possible

Which one of the following is a characteristic of good testing in any life cycle model?

Select one:
- ⦿ a. Testers should begin to review documents as soon as drafts are available   ✔
- ○ b. Each test level has the same test objective
- ○ c. Test design can only begin when development is complete
- ○ d. There should be more testing activities than development activities

> Your answer is correct.
>
> The correct answer is: Testers should begin to review documents as soon as drafts are available

During which activity of the Fundamental Test Process do you review the test basis?

Select one:
- ○ a. Test planning and control
- ○ b. Evaluating exit criteria and reporting
- ⦿ c. Test analysis and design   ✔
- ○ d. Test implementation and execution

> Your answer is correct.
>
> The correct answer is: Test analysis and design

Question **12**

Correct

Mark 1.00 out of 1.00

Which one of the following statements about approaches to test estimation is true?

Select one:

- ● a. A metrics-based approach is based on data gathered from previous projects; an expert-based approach uses the knowledge of the owner of the tasks or experts ✔

- ○ b. A metrics-based approach is based on creating a work-breakdown structure first; an expert-based approach is based on input from estimation experts

- ○ c. A metrics-based approach is based on an analysis of the specification documents; an expert-based approach is based on the opinion of the most experienced tester in the organization

- ○ d. A metrics-based approach is based on data gathered from previous projects; an expert-based approach is based on a work-breakdown structure

Your answer is correct.

The correct answer is: A metrics-based approach is based on data gathered from previous projects; an expert-based approach uses the knowledge of the owner of the tasks or experts

Question **13**

Incorrect

Mark 0.00 out of 1.00

Which ordering of the list below gives increasing levels of test independence?

a. Tests designed by a fellow-member of the design team
b. Tests designed by a different group within the organization
c. Tests designed by the code author
d. Tests designed by different organization

Select one:

- ● a. c, a, d, b ✖

- ○ b. d, b, a, c

- ○ c. a, c, d, b

- ○ d. c, a, b, d

Your answer is incorrect.

The correct answer is: c, a, b, d

Which of the following are structure-based techniques?

a. Decision table testing
b. Boundary value analysis
c. Statement coverage
d. Use case testing
e. Decision testing

Select one:

○ a. a and c

◉ b. c and e ✔

○ c. b and e

○ d. b and d

Your answer is correct.

The correct answer is: c and e

Pair the correct test design techniques (i to v) with the category of techniques (x, y and z):

i) Exploratory Testing
ii) Equivalence Partitioning
iii) Decision Testing
iv) Use Case Testing
v) Condition coverage

x) Specification-based
y) Structure-based
z) Experienced-based

Select one:

○ a. x = i and ii; y = iii and v; z = iv

○ b. x = i, ii and iv; y = v; z = iii

◉ c. x = ii and iv; y = iii and v; z = i ✔

○ d. x = iii and iv; y = v; z = i and ii

Your answer is correct.

The correct answer is: x = ii and iv; y = iii and v; z = i

Correct

Mark 1.00 out of 1.00

Which of the following is a MAJOR task of evaluating exit criteria and reporting?

Select one:

○ a. Evaluating testability of the requirements and system

○ b. Logging the outcome of test execution

○ c. Repeating test activities as a result of action taken for each discrepancy

◉ d. Writing a test summary report for stakeholders ✔

> Your answer is correct.
>
> The correct answer is: Writing a test summary report for stakeholders

Correct

Mark 1.00 out of 1.00

The digital rainbow Thermometer uses 7 colours to show the ambient temperature. Each colour spans a range of just 5, with an operating minimum and maximum of minus 5 and 30.

Which of the following values is LEAST likely to have been identified when applying the boundary value test design technique?

Select one:

◉ a. 8 ✔

○ b. 15

○ c. 0

○ d. 30

> Your answer is correct.
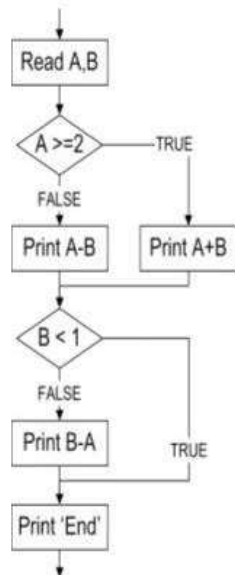>
> The correct answer is: 8

Given the following flow chart diagram:

What is the minimum number of test cases required for 100% statement coverage and 100% decision coverage, respectively?

Select one:

○ a. Statement Coverage = 2, Decision Coverage = 3.

○ b. Statement Coverage = 1, Decision Coverage = 3.

○ c. Statement Coverage = 3, Decision Coverage = 3

⊙ d. Statement Coverage = 2, Decision Coverage = 2. ✔

Your answer is correct.

The correct answer is: Statement Coverage = 2, Decision Coverage = 2.

Question **19**
Correct
Mark 1.00 out of 1.00

In which activity of the Fundamental Test Process is the test environment set up?

Select one:

○ a. Test analysis and design

◉ b. Test implementation and execution ✔

○ c. Test planning and control

○ d. Evaluating exit criteria and reporting

Your answer is correct.

The correct answer is: Test implementation and execution

Question **20**
Correct
Mark 1.00 out of 1.00

Which of the following statements about black box and white box techniques is correct?

Select one:

◉ a. Decision Table Testing, State Transition and Use Case Testing are all black box techniques ✔

○ b. Decision Testing, Equivalence Partitioning and Condition Coverage are all black box techniques

○ c. Decision Testing, Equivalence Partitioning and Statement Testing are all white box techniques

○ d. Boundary Value Analysis, State Transition and Statement Testing are all white box techniques

Your answer is correct.

The correct answer is: Decision Table Testing, State Transition and Use Case Testing are all black box techniques

Question **21**

Correct

Mark 1.00 out of 1.00

Which of the following are characteristic of test management tools?

a) They support traceability of tests to source documents
b) They provide an interface to test execution tools
c) They help to enforce coding standards
d) They manipulate databases and files to set up test data

Select one:

- a. b and c
- ● b. a and b ✔
- c. a and c
- d. b and d

Your answer is correct.

The correct answer is: a and b

Question **22**

Correct

Mark 1.00 out of 1.00

How is the scope of maintenance testing assessed?

Select one:

- a. Scope is related to the number of system users affected by the change
- ● b. Scope is related to the risk, size of the changes and size of the system under test ✔
- c. Scope is defined by the size and type of system being changed
- d. Scope is defined by the size and type of system being changed

Your answer is correct.

The correct answer is: Scope is related to the risk, size of the changes and size of the system under test

Correct

Mark 1.00 out of 1.00

A system under development contains complex calculations and decision logic, and it is assessed as high risk because of the relative inexperience of the development team in the application domain.

Which of the following would be the MOST appropriate choice of test design technique for component testing?

Select one:

- ○ a. Statement testing

- ○ b. Equivalence partitioning

- ⦿ c. Decision testing ✔

- ○ d. State transition testing

Your answer is correct.

The correct answer is: Decision testing

Correct

Mark 1.00 out of 1.00

Which of the following is an example of a product risk?

Select one:
- ○ a. Problems in defining the right requirements

- ⦿ b. Software that does not perform its intended functions ✔

- ○ c. Skill and staff shortages

- ○ d. Failure of a third party

Your answer is correct.

The correct answer is: Software that does not perform its intended functions

Correct

Mark 1.00 out of 1.00

Given the following sample of pseudo code:

01 Input number of male tigers
02 Input number of female tigers
03 If male tiger > 0 and female tiger > 0 then
04 Input Do you want to breed (Yes / No)
05 If breed = No?
06 Print Keep male and female tigers apart
07 End if
08 End If

Which of the following test cases will ensure that statement 6 is executed?

Select one:

- ● a.   male tiger = 1, female tiger = 1, breed = no   ✔
- ○ b.   male tiger = 1, female tiger = 0, breed = no
- ○ c.   male tiger = 1, female tiger = 1, breed = yes
- ○ d.   male tiger = 1, female tiger = 2, breed = yes

Your answer is correct.

The correct answer is: male tiger = 1, female tiger = 1, breed = no

Correct

Mark 1.00 out of 1.00

Which of the following BEST describes a data-driven approach to the use of test execution tools?

Select one:

- ○ a.   Manipulation of databases and files to create test data
- ○ b.   Monitoring response times when the system contains a specified amount of data
- ○ c.   Recording test scripts and playing them back
- ● d.   Using a generic script that reads test input data from a file   ✔

Your answer is correct.

The correct answer is: Using a generic script that reads test input data from a file

Correct

Mark 1.00 out of 1.00

Which statement about combinations of inputs and preconditions is true for a large system?

Select one:

○ a.   It is easy to test them all in a short time

○ b.   It is essential to test them all in order to do good testing

○ c.   It is not possible to test any of them

◉ d.   It is not practically possible to test them all   ✔

Your answer is correct.

The correct answer is: It is not practically possible to test them all

Question 28

Correct

Mark 1.00 out of 1.00

Given the following state table:

	On	Off	Channel 1	Channel 2	Channel >2	Stby
Standby	Live	N	N	N	N	N
Live	N	Standby	Display Channel 1	Display Channel 2	N	Standby
Display Channel 1	N	N	N	Display Channel 2	Live	Standby
Display Channel 2	N	N	Display Channel 1	N	Live	Standby

Which of the following represents an INVALID transition (N)?

Select one:

○ a.   Channel 2 from Display Channel 1?

◉ b.   Off from Display Channel 1?   ✔

○ c.   Channel 2 from Live?

○ d.   Stby from Live?

Your answer is correct.

The correct answer is: Off from Display Channel 1?

Which of the following is a purpose of the review kick off activity?

Select one:

   a.   Select the personnel group

   b.   Document results

   c.   Define entry and exit criteria

  ⊙ d.   Explain the objectives   ✔

> Your answer is correct.
>
> The correct answer is: Explain the objectives

Given the following decision table:

	Rule 1	Rule 2	Rule 3	Rule 4
Conditions				
Age	<21 yrs	21 - 29 yrs	30 – 50yrs	>50 yrs
Insurance Class	A	A or B	B, C or D	C or D
Actions				
Premium	£100	£90	£70	£70
Excess	£2,500	£2,500	£500	£1,000

Which of the following test cases and expected results is VALID?

Select one:

   a.   43 year old in insurance class C Premium is £70 and excess is £1,000

   b.   31 year old in insurance class B Premium is £70 and excess is £2,500

  ⊙ c.   23 year old in insurance class A Premium is £90 and excess is £2,500   ✔

   d.   51 year old in insurance class C Premium is £70 and excess is £500
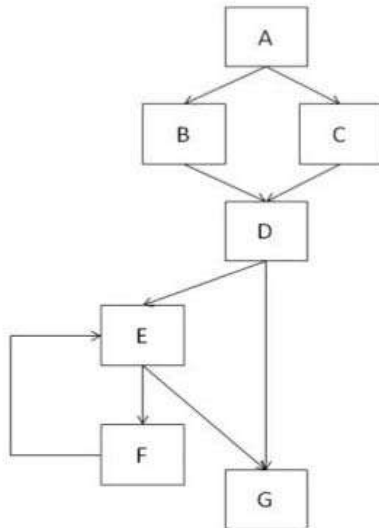
> Your answer is correct.
>
> The correct answer is: 23 year old in insurance class A Premium is £90 and excess is £2,500

The flow graph below shows the logic of a program for which 100% statement coverage and 100% decision coverage is required on exit from component testing.

The following test cases have been run:
* Test Case 1 covering path A, B, D, G
* Test Case 2 covering path A, B, D, E, F, E, F, E, F, E, G
* Test Case 3 covering path A, C, D, E, F, E, G

Which of the following statements related to coverage is correct?

Select one:

○   a.   Statement coverage and decision coverage are both less than 100%

○   b.   Statement coverage is less than 100%; decision coverage is 100%

○   c.   Statement coverage is 100%; decision coverage is less than 100%

⊙   d.   Statement coverage is 100%; decision coverage is 100%   ✔

Your answer is correct.

The correct answer is: Statement coverage is 100%; decision coverage is 100%

Four testers have each submitted an incident report in which each reported a problem with the User log-on process. User log-on is a critical component of the system. The table below describes the four defect reports submitted.

Tester ID	Incident description	Inputs/Expected and Actual results	Business Priority (1 high 2 medium 3 Low)
Tester 1	User log-on validation error	Entered User id of J SMITH and password of ABC01 but got an error message	1
Tester 2	Log-on does not meet requirement	Inputs: Entered valid user id and password Expected result - Main menu screen to be displayed Actual result: Error saying incorrect password	2
Tester 3	Log-on Password validation error	Inputs: User id = J SMITH, password = ABC01 Expected result - Main menu screen Actual result: Error message EM008 'Invalid password' This test has worked many times before	2
Tester 4	Password validation error	Inputs: User id = J SMITH, password = ABC01 Expected result - Main menu screen Actual result: EM008 'Invalid password' N.B the same inputs worked yesterday, before code release 1.2 was delivered	1

Which Tester has reported the incident MOST effectively, considering the information and priority they have supplied?

Select one:

○ a. Tester 3

○ b. Tester 2

○ c. Tester 1

◉ d. Tester 4 ✔

Your answer is correct.

The correct answer is: Tester 4

Question **33**

Correct

Mark 1.00 out of 1.00

Which one of the following is true of Software development models?

Select one:

○ a. There must be at least four test levels for any software development model

○ b. In a Rapid Application Development (RAD) project, there are four test levels for each iteration

○ c. There are always four test levels in the V-model

◉ d. In Agile development models, the number of test levels for an iteration can vary depending on the project ✔

Your answer is correct.

The correct answer is: In Agile development models, the number of test levels for an iteration can vary depending on the project

Question **34**

Correct

Mark 1.00 out of 1.00

Which of the following activities should be performed during the selection and implementation of a testing tool?

a) Determine whether the organization existing test process needs to change
b) Conduct a proof of concept
c) Implement the selected tool on a project behind schedule to save time
d) Identify coaching and mentoring requirements for the use of the selected tool

Select one:

◉ a. a, b and d ✔

○ b. a, c and d

○ c. a, b and c

○ d. b, c and d

Your answer is correct.

The correct answer is: a, b and d

The following code segment contains a potential "divide by 0" error.

J=50
K=1
while (N>=−10) and (N<=10) loop
M [K] = J/N
K = K + 1
N = N − 1
end loop;

Which of the following is the most effective way of detecting this error?

Select one:

○ a. Compilation of the source code

◉ b. Condition testing   ✖

○ c. Source code inspection

○ d. Boundary testing

Your answer is incorrect.

The correct answer is: Source code inspection

A test team consistently finds between 90% and 95% of the defects present in the system under test. While the test manager understands that this is a good defect-detection percentage for her test team and industry, senior management and executives remain disappointed in the test group, saying that the test team misses too many bugs. Given that the users are generally happy with the system and that the failures which have occurred have generally been low impact, which of the following testing principles is most likely to help the test manager explain to these managers and executives why some defects are likely to be missed?

Select one:

○ a. Absence-of-errors fallacy

◉ b. Exhaustive testing is impossible   ✔

○ c. Pesticide paradox
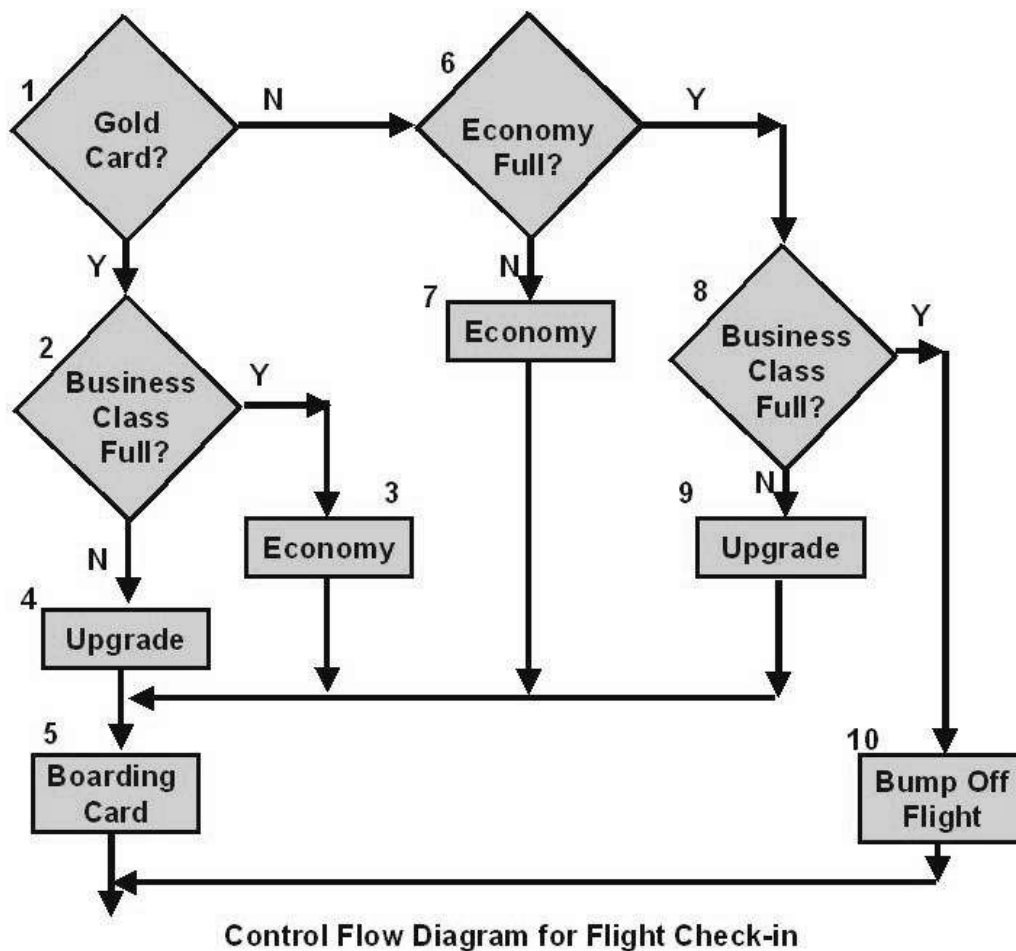
○ d. Defect clustering

Your answer is correct.

The correct answer is: Exhaustive testing is impossible

If you are flying with an economy ticket, there is a possibility that you may get upgraded to business class, especially if you hold a gold card in the airline's frequent flier program. If you don't hold a gold card, there is a possibility that you will get 'bumped' off the flight if it is full and you check in late. This is shown in following Figure. Note that each box (i.e. statement) has been numbered.

Control Flow Diagram for Flight Check-in

Three tests have been run:

Test 1: Gold card holder who gets upgraded to business class
Test 2: Non-gold card holder who stays in economy
Test 3: A person who is bumped from the flight

What is the statement coverage of these three tests?

Select one:
- ◉ a. 80% ✔
- ○ b. 90%
- ○ c. 60%
- ○ d. 70%

Your answer is correct.

The correct answer is: 80%

Consider the following decision table for Car rental.

Conditions	Rule 1	Rule 2	Rule 3	Rule 4
Over 23?	F	T	T	T
Clean driving record?	Don't care	F	T	T
On business?	Don't care	Don't care	F	T
Actions				
Supply rental car?	F	F	T	T
Premium charge	F	F	F	T

Given this decision table, what is the expected result for the following test cases?
TC1: A 26-year-old on business but with violations or accidents on his driving record
TC2: A 62-year-old tourist with a clean driving record

Select one:

- ● a. TC1: Don't supply car; TC2: Supply car with no premium charge ✔

- ○ b. TC1: Don't supply car; TC2: Supply car with premium charge

- ○ c. TC1: Supply car with premium charge; TC2: Supply car with no premium charge

- ○ d. TC1: Supply car with premium charge; TC2: Don't supply car

Your answer is correct.

The correct answer is: TC1: Don't supply car; TC2: Supply car with no premium charge

Question **39**

Correct

Mark 1.00 out of 1.00

System test execution on a project is planned for eight weeks. After a week of testing, a tester suggests that the test objective stated in the test plan of 'finding as many defects as possible during system test' might be more closely met by redirecting the test effort according to which test principle?

Select one:

- ● a. Defect clustering ✔
- ○ b. Impossibility of exhaustive testing
- ○ c. The absence of errors fallacy
- ○ d. Importance of early testing

Your answer is correct.

The correct answer is: Defect clustering

Question **40**

Incorrect

Mark 0.00 out of 1.00

Which of the following statements is MOST OFTEN true?

Select one:

- ○ a. Component testing searches for defects in programs that are separately testable
- ● b. Source-code inspections are often used in component testing ✖
- ○ c. Component testing is an important part of user acceptance testing
- ○ d. Component testing aims to expose problems in the interactions between software and hardware components

Your answer is incorrect.

The correct answer is: Component testing searches for defects in programs that are separately testable