

ISTQB Foundation Sample Question Paper No. 6

1. Which of the following is a major task of test planning?

- A Determining the test approach.
- B Preparing test specifications.
- C Evaluating exit criteria and reporting.
- D Measuring and analyzing results.

2. Which of the following statements is MOST OFTEN true?

- A Source-code inspections are often used in component testing.
- B Component testing searches for defects in programs that are separately testable.
- 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.

3. In a system designed to work out the tax to be paid:

An employee has £4000 of salary tax free.

The next £1500 is taxed at 10%.

The next £28000 after that is taxed at 22%.

Any further amount is taxed at 40%.

To the nearest whole pound, which of these groups of numbers fall into three DIFFERENT

equivalence classes?

- A £4000; £5000; £5500.
- B £32001; £34000; £36500.
- C £28000; £28001; £32001.
- D £4000; £4200; £5600.

4. Which of the following will NOT be detected by static analysis?

- A Parameter type mismatches.
- B Errors in requirements.
- C Undeclared variables.
- D Uncalled functions.

5. Which of the following test activities can be automated?

- i Reviews and inspections.
- ii Metrics gathering.
- iii Test planning.
- iv Test execution.
- v Data generation.

- A i, iii, iv.
- B i, ii, iii.
- C ii, iv, v.
- D ii, iii, v.

6. Which of the following is an objective of a pilot project for the introduction of a testing tool?

- A Evaluate testers' competence to use the tool.
- B Complete the testing of a key project.
- C Assess whether the benefits will be achieved at reasonable cost.
- D Discover what the requirements for the tool are.

7. What is the MAIN purpose of a Master Test Plan?

- A To communicate how incidents will be managed.
- B To communicate how testing will be performed.
- C To produce a test schedule.
- D To produce a work breakdown structure.

8. In a REACTIVE approach to testing when would you expect the bulk of the test design work to be begun?

- A After the software or system has been produced.
- B During development.
- C As early as possible.
- D During requirements analysis.

9. What is the objective of debugging?

- i To localise a defect.
 - ii To fix a defect.
 - iii To show value.
 - iv To increase the range of testing.
- A i, iii.
 - B ii, iii, iv.
 - C ii, iv.
 - D i, ii.

10. Given the following decision table

	Rule 1	Rule 2	Rule 3	Rule 4
Conditions				
UK resident?	False	True	True	True
Age between 18 - 55?	Don't care	False	True	True
Smoker?	Don't care	Don't care	False	True
Actions				
Insure client?	False	False	True	True
Offer 10% discount?	False	False	True	False

What is the expected result for each of the following test cases?

- A.TC1: Fred is a 32 year old smoker resident in London
- B.TC3: Jean-Michel is a 65 year non-smoker resident in Paris
- A A – Insure, 10% discount, B – Insure, no discount.
- B A – Don't insure, B – Don't insure.
- C A – Insure, no discount, B – Don't insure.

D A – Insure, no discount, B – Insure with 10% discount.

11. Which of the following are valid objectives for testing?

- i. To find defects.**
- ii. To gain confidence in the level of quality.**
- iii. To identify the cause of defects.**
- iv. To prevent defects.**

- A i, ii, and iii.
- B ii, iii and iv.
- C i, ii and iv.
- D i, iii and iv.

12. The process of designing test cases consists of the following activities:

- i. Elaborate and describe test cases in detail by using test design techniques.**
- ii. Specify the order of test case execution.**
- iii. Analyse requirements and specifications to determine test conditions.**
- iv. Specify expected results.**

According to the process of identifying and designing tests, what is the correct order of these activities?

- A iii, i, iv, ii.
- B iii, iv, i, ii.
- C iii, ii, i, iv.
- D ii, iii, i, iv.

13. What is the main purpose of impact analysis for testers?

- A To determine the programming effort needed to make the changes.
- B To determine what proportion of the changes need to be tested.
- C To determine how much the planned changes will affect users.
- D To determine how the existing system may be affected by changes.

14. Which of the following requirements would be tested by a functional system test?

- A The system must be able to perform its functions for an average of 23 hours 50 mins per day.
- B The system must perform adequately for up to 30 users.
- C The system must allow a user to amend the address of a customer.
- D The system must allow 12,000 new customers per year.

15. In a system designed to work out the tax to be paid:

An employee has £4000 of salary tax free.

The next £1500 is taxed at 10%.

The next £28000 after that is taxed at 22%.

Any further amount is taxed at 40%.

To the nearest whole pound, which of these is a valid Boundary Value Analysis

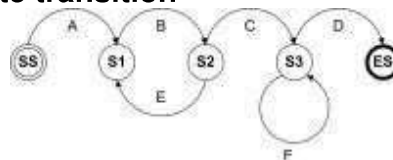
test case?

- A £28000.
- B £33501.
- C £32001.
- D £1500.

16. Which of the following defines the sequence in which tests should be executed?

- A Test plan.
- B Test procedure specification.
- C Test case specification.
- D Test design specification.

17. Given the following state transition



Which of the following series of state transitions below will provide 0-switch coverage?

- A A, B, E, B, C, F, D.
- B A, B, E, B, C, F, F.
- C A, B, E, B, C, D.
- D A, B, C, F, F, D.

18. Given the following decision table

	Rule 1	Rule 2	Rule 3	Rule
4				
Conditions				
Frequent Flyer Member	Yes	Yes	No	No
Class	Business	Economy	Business	
Economy				
Actions				
Offer upgrade to First	Yes	No	No	No
Offer upgrade to Business	N/A	Yes	N/A	No

What is the expected result for each of the following test cases?

- A. Frequent flyer member, travelling in Business class
- B. Non-member, travelling in Economy class
- A A – Don't offer any upgrade, B – Don't offer any upgrade.
- B A – Don't offer any upgrade, B – Offer upgrade to Business class.
- C A – Offer upgrade to First, B – Don't offer any upgrade.
- D A – Offer upgrade to First, B – Offer upgrade to Business class.

19. During which fundamental test process activity do we determine if MORE tests are needed?

- A Test implementation and execution.
- B Evaluating test exit criteria.
- C Test analysis and design.
- D Test planning and control.

20. What is the difference between a project risk and a product risk?

- A Project risks are potential failure areas in the software or system; product risks are risks that surround the project's capability to deliver its objectives.
- B Project risks are the risks that surround the project's capability to deliver its objectives; product risks are potential failure areas in the software or system.
- C Project risks are typically related to supplier issues, organizational factors and technical issues; product risks are typically related to skill and staff shortages.
- D Project risks are risks that delivered software will not work; product risks are typically related to supplier issues, organizational factors and technical issues.

21. Given the following specification, which of the following values for age are in the SAME equivalence partition?

**If you are less than 18, you are too young to be insured.
Between 18 and 30 inclusive, you will receive a 20% discount.
Anyone over 30 is not eligible for a discount.**

- A 17, 18, 19.
- B 29, 30, 31.
- C 18, 29, 30.
- D 17, 29, 31.

22. Considering the following pseudo-code, calculate the MINIMUM number of test cases for statement coverage, and the MINIMUM number of test cases for decision coverage respectively.

```
READ A
READ B
READ C
IF C>A THEN
IF C>B THEN
PRINT "C must be smaller than at least one number"
ELSE
```

```
PRINT "Proceed to next stage"
ENDIF
ELSE
PRINT "B can be smaller than C"
ENDIF
A 3, 3.
B 2, 3.
C 2, 4.
D 3, 2.
```

23. Which of the following is a benefit of independent testing?

- A Code cannot be released into production until independent testing is complete.
- B Testing is isolated from development.
- C Developers do not have to take as much responsibility for quality.
- D Independent testers see other and different defects, and are unbiased.

24. Which of the following tools is most likely to contain a comparator?

- A Dynamic Analysis tool.
- B Test Execution tool.
- C Static Analysis tool.
- D Security tool.

25. Given the following State Table:

A	B	C	D	E	F
SS	S1				
S1	S2				
S2	S3	S1			
S3	ES	S3			
ES					

Which of the following represents an INVALID state transition?

- A E from State S2.
- B E from State S3.
- C B from State S1.
- D F from State S3.

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

- A All document reviews involve the development team.
- B Some, but not all, development activities have corresponding test activities.
- C Each test level has test objectives specific to that level.
- D Analysis and design of tests begins as soon as development is complete.

27. Which activity in the fundamental test process includes evaluation of the testability of the requirements and system?

- A Test analysis and design.
- B Test planning and control.
- C Test closure.
- D Test implementation and execution.

28. The following statements are used to describe the basis for creating test cases using either black or white box techniques:

i information about how the software is constructed.

ii models of the system, software or components.

iii analysis of the test basis documentation.

iv analysis of the internal structure of the components.

Which combination of the statements describes the basis for black box techniques?

A ii and iii.

B ii and iv.

C i and iv.

D i and iii.

29. What is typically the MOST important reason to use risk to drive testing efforts?

A Because testing everything is not feasible.

B Because risk-based testing is the most efficient approach to finding bugs.

C Because risk-based testing is the most effective way to show value.

D Because software is inherently risky.

30. Which of the following defines the scope of maintenance testing?

A The coverage of the current regression pack.

B The size and risk of any change(s) to the system.

C The time since the last change was made to the system.

D Defects found at the last regression test run.

31. Which is the MOST important advantage of independence in testing?

A An independent tester may find defects more quickly than the person who wrote the software.

B An independent tester may be more focused on showing how the software works than the person who wrote the software.

C An independent tester may be more effective and efficient because they are less familiar with the software

than the person who wrote it.

D An independent tester may be more effective at finding defects missed by the person who wrote the software.

32. For testing, which of the options below best represents the main concerns of Configuration Management?

i. All items of testware are identified and version controlled;

ii. All items of testware are used in the final acceptance test;

- iii. All items of testware are stored in a common repository;
 - iv. All items of testware are tracked for change;
 - v. All items of testware are assigned to a responsible owner;
 - vi. All items of testware are related to each other and to development items.
- A i, iv, vi.
B ii, iii, v.
C i, iii, iv.
D iv, v, vi.

33. Which of the following would be a valid measure of test progress?

- A Number of undetected defects.
- B Total number of defects in the product.
- C Number of test cases not yet executed.
- D Effort required to fix all defects.

34. Which of following statements is true? Select ALL correct options

Regression testing should be performed:

- i once a month
- ii when a defect has been fixed
- iii when the test environment has changed
- iv when the software has changed

- A ii and iv.
B ii, iii and iv.
C i, ii and iii.
D i and iii.

35. In which of the following orders would the phases of a formal review usually occur?

- A Planning, preparation, kick off, meeting, rework, follow up.
- B Kick off, planning, preparation, meeting, rework, follow up.
- C Preparation, planning, kick off, meeting, rework, follow up.
- D Planning, kick off, preparation, meeting, rework, follow up.

36. Which of the following are valid objectives for incident reports?

- i. Provide developers and other parties with feedback about the problem to enable identification, isolation and correction as necessary.
- ii. Provide ideas for test process improvement.
- iii. Provide a vehicle for assessing tester competence.
- iv. Provide testers with a means of tracking the quality of the system under test.

- A i, ii, iii.
B i, ii, iv.
C i, iii, iv.
D ii, iii, iv.

37. Consider the following techniques. Which are static and which are dynamic techniques?

i. Equivalence Partitioning.

ii. Use Case Testing.

iii. Data Flow Analysis.

iv. Exploratory Testing.

v. Decision Testing.

vi. Inspections. A i-iv are static, v-vi are dynamic.

B iii and vi are static, i, ii, iv and v are dynamic.

C ii, iii and vi are static, i, iv and v are dynamic.

D vi is static, i-v are dynamic.

38. Why are static testing and dynamic testing described as complementary?

A Because they share the aim of identifying defects and find the same types of defect.

B Because they have different aims and differ in the types of defect they find.

C Because they have different aims but find the same types of defect.

D Because they share the aim of identifying defects but differ in the types of defect they find.

39. Which of the following are disadvantages of capturing tests by recording the actions of a manual tester?

i The script may be unstable when unexpected events occur.

ii Data for a number of similar tests is automatically stored separately from the script.

iii Expected results must be added to the captured script.

iv The captured script documents the exact inputs entered by the tester.

v When replaying a captured test, the tester may need to debug the script if it doesn't play

correctly. A i, iii, iv, v.

B ii, iv and v.

C i, ii and iv.

D i and v.

40. Which of the following is determined by the level of product risk identified?

A Extent of testing.

B Scope for the use of test automation.

C Size of the test team.

D Requirement for regression testing.

Answers

1. A

2. B

3. D

4. B

5. C

6. C

7. B

8. A

- 9. D
- 10. C
- 11. C
- 12. A
- 13. D
- 14. C
- 15. B
- 16. B
- 17. A
- 18. C
- 19. B
- 20. B
- 21. C
- 22. A
- 23. D
- 24. B
- 25. B
- 26. C
- 27. A
- 28. A
- 29. A
- 30. B
- 31. D
- 32. A
- 33. C
- 34. B
- 35. D
- 36. B
- 37. B
- 38. D
- 39. A
- 40. A