

## **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
<b>Conditions</b>				
<b>UK resident?</b>	False	True	True	True
<b>Age between 18 - 55?</b>	Don't care	False	True	True
<b>Smoker?</b>	Don't care	Don't care	False	True
<b>Actions</b>				
<b>Insure client?</b>	False	False	True	True
<b>Offer 10% discount?</b>	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**

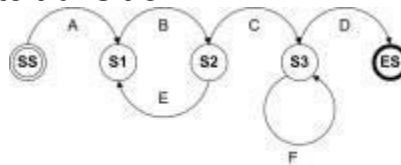
test case?

- 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