

# English trial exam questions for foundation level

## Chapter 1

### 1.1 (K1) Which of these is NOT part of test planning

- a) Identifying how the project plan restricts testing of the software
- b) Identifying software interacting with the software under test
- c) Designing configuration settings and test input data
- d) Identifying test conditions, i.e. what to test

### 1.2 (K2) Which of the following statements is correct?

- a) To find few or no problems guarantees quality.
- b) To find and correct defects does not help if the whole system does not fulfill the customer needs.
- c) Testing can prove that the product contains no faults.
- d) Running the same tests over and over again will sooner or later find new faults.

### 1.3 (K2) Your test finds no problems. Which of the following conclusions can safely be drawn?

- a) The product contains no faults.
- b) The product is not well enough tested.
- c) A conclusion needs more information.
- d) Test coverage was low.

### 1.4 (K1) This question may have more than one correct answer. What is the name of something that is incorrect in software?

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

### 1.5 (K1) Which statement is true?

- a) A fault causes a bug which may cause a failure

- b) A mistake causes an error which will cause failures during run time
- c) An error causes a fault which may cause failures during run time
- d) An error causes a problem which can cause defects during run time

**1.6 (K1) Which of the following descriptions represents the fundamental test process?**

- a) Master test planning, Level test planning, Test specification and preparation, test execution and logging, Test completion
- b) Test Planning and control, Test analysis and design, Test implementation and execution, Evaluating exit criteria and reporting, Test closure activities
- c) Test Planning, Test specification, Test design and preparation, Test execution and logging, Evaluating exit criteria and reporting, Test closure activities
- d) Strategic and detailed test planning, Test analysis and design, Test implementation, Test execution and control, Evaluating exit criteria and reporting, Test closure activities

**1.7 (K2) What is the purpose of test exit or completion criteria in the test plan?**

- a) To know when the 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 plan and later decide when to stop testing

## Chapter 2

### 2.1 (K1) What is the meaning of the term “negative test”?

- a) An unsuccessful test case
- b) An unsuccessful introduction of a new system
- c) A test aimed at showing that the system does not work
- d) A test case checking the user understanding in difficult situations

### 2.2 (K1) Which of the following statements is wrong?

- a) The component test must be executed by developers.
- b) The component test may be executed by testers.
- c) The component test may require special developer know-how.
- d) The component test is an early test level.

### 2.3 (K1) Which of the following tasks is **NOT** part of system testing?

- a) Testing functionality seen by end users
- b) Testing interaction between components
- c) Testing performance of the system
- d) Testing system security

### 2.4 (K1) Which of the following is **NOT** part of acceptance testing?

- a) Integration testing
- b) Performance, load and stress testing
- c) Requirements-based testing
- d) Security testing

### 2.5 (K1) Who should have the main responsibility for acceptance testing?

- a) The operations group
- b) The customer
- c) The programmers
- d) Usage specialists

### 2.6 (K2) What is the main difference between system testing and acceptance testing?

- a) System testing concentrates on functional testing, while acceptance testing concentrates on nonfunctional testing.
- b) Acceptance testing is a regression test for the changes implemented during system testing.
- c) System testing is done against the developers' interpretation of the requirements, acceptance testing against customer understanding.
- d) System testing is done on the development platform, while acceptance testing is done on the customer platform.

## Chapter 3

### 3.1 (K1) What is the main task for a manager concerning reviews?

- a) To make sure reviews take place and that the participants have time to prepare and attend.
- b) To check that the participants prepare well enough during individual preparation for a review.
- c) To check that the documents fulfill the previously agreed upon rules and standards.
- d) To choose the moderator to lead the review and follow up moderator performance and training.

### 3.2 (K1) What is the main difference between a formal technical review and an inspection?

- a) Inspections are used for documents while technical reviews are used for code.
- b) Technical reviews are less formal and can therefore have longer meetings.
- c) Inspections are only used within the development group. Technical reviews may include a wider audience, including the customer.
- d) Inspections need a trained moderator and use of checklist; in technical reviews both are optional.

### 3.3 (K1) What is the main goal with static analysis?

- a) Early detection of faults before test execution.
- b) Early detection of non-functional defects, such as performance issues.
- c) Testing of code in debugging mode before integration.
- d) Testing of a previously defined state in state transition testing.

### 3.4 (K1) What is the main purpose of reviews?

- a) They help build good social relationships in the development team
- b) They reduce the need for documentation and test documentation
- c) They make it possible to find solutions for technical problems
- d) They reduce costs by reducing the number of faults before test execution

### 3.5 (K2) Which characteristics belong together?

- 1) Inspection
- 2) Informal review
- 3) Walkthrough
- 4) Technical review

- A) Requires use of a trained moderator
- B) Is normally led by the author
- C) Can be used to train people
- D) Can be used to find consensus about a solution

- (a) 1 – B and C and D, 2 – C, 3 – B, 4 - A
- (b) 1 – A, 3 – B, 3 – C, 4 – D
- (c) 1 and 4 – A, 2 – B, 3 – B and C and D
- (d) 1 – D, 2 – B, 3 – C, 4 - A

## Chapter 4

### 4.1 (K3) This program code is given

```
IF (table > 0)
    THEN do something
END IF
```

How many test cases do you need at least for 100% statement coverage and 100% branch coverage?

- a) 1 - 2
- b) 2 - 2
- c) 2 - 4
- d) 4 - 1000

### 4.2 (K3) For this program: How many test cases do you need for 100% decision coverage?

```
I := 1;
IF (condition A)
    Then ...
    Else ...
END IF
IF (condition B)
    Then ...
END IF
```

- a) 1
- b) 2
- c) 4
- d) 5

**4.3 (K3) A field on the screen shall be filled in with a text with a length of up to 10 characters.**

**Which result is a correct equivalence partition?**

- a) Invalid classes =no value given, longer than 11 characters.  
Valid classes = value given, length between 1 and 10 characters.
- b) Invalid classes =no value given, longer than 10 characters.  
Valid classes = value given, length between 1 and 10 characters.
- c) Invalid classes =no value given, longer than 10 characters, other characters than a to z.  
Valid classes = value given, length between 1 and 10 characters, only characters from a to z.
- d) Invalid classes =no value given, longer than 10 characters.  
Valid classes = value given, length between 1 and 10 characters, characters covering a to z and A to Z.

**4.4 (K3) This pseudo code is given:**

```
Integer a;  
If (a > 1 AND a < 50)  
    Then ...  
End if
```

Which of the following collections of test input values is the correct result of a boundary value analysis?

- a) 0, 1, 2, 50, 51
- b) 1, 2, 49, 50
- c) -1, 0, 1, 2, 49, 50, 51
- d) -32767, -1, 0, 1, 49, 50, 51, +32768

**4.5 (K3) For the former program, which of the following test data collections covers every equivalence class of a typical equivalence partition for this program?**

- a) 0, 10, 50
- b) 1, 2, 40
- c) 0, 1, 50
- d) -1, 1, 99

**4.6 (K1) What is the source of black box tests?**

- a) a specification
- b) the code
- c) a structural model of the system
- d) the algorithm

**4.7 (K2) When is error guessing best used?**

- a) As a first approach to deriving test cases
- b) After more formal techniques have been applied
- c) When only inexperienced testers are available
- d) After the system has been used for some time
- e) Only if the project is under severe time pressure
- f) Always, because it is the same as the best method: Exploratory testing

**4.8 (K1) What is an equivalence class?**

- a) An input or output range of values such that each value in the range becomes a test case
- b) An input or output range of values such that its boundary values become test cases
- c) An input or output range of values such that only one value in the range becomes a test case
- d) A set of test cases to test classes in object oriented programs

**4.9 (K1) What is a valid boundary (as the opposite of an invalid boundary)?**

- a) The maximum or minimum value a program can accept
- b) A value just greater than the maximum acceptable value
- c) Any value identified by boundary value analysis
- d) The value zero

**4.10 (K1) Which of the following test design method collections contains ONLY white box methods?**

- a) Error guessing, boundary value coverage, code inspection
- b) Code coverage, design inspection, walkthrough
- c) Condition coverage, statement coverage, path coverage
- d) Path coverage, error guessing, state transition coverage

**4.11 (K1) Which of the following is typically tested using use case testing?**

- a) User errors and the resulting problem messages
- b) Exceptions, special and wrong inputs
- c) The states and state transitions of the system
- d) The process flow through the system

**4.12 (K2) How many test cases can be generated as a maximum from a specification having four conditions, using decision table testing?**

- a) 4
- b) 32
- c) 15
- d) 16

**4.13 (K2) The following specification is given:**

**A railway has four different kinds of accommodation with different ticket prices: Hard seat, soft seat, hard sleeper, and soft sleeper. For hard sleeper, there are different prices for lower, middle and upper berth. For soft sleeper, there is a different price for lower and upper berth. For sleeping accommodation, different prices apply for non-air-condition and air-condition. For soft sleeper, a higher price applies for compartments with own bathroom. High-speed trains exist, but have only hard and soft seat, and they have another price than “normal” trains.**

**How many different valid combinations of inputs exist for computing the price?**

- a) 12
- b) 16
- c) 18
- d) 36

## Chapter 5

**5.1 (K1) Which of the following options shows valid drawback(s) of independent testing?**

- 1) Independent testers need extra education and always cost more resources.
  - 2) Developer and independent testing will overlap and waste resources.
  - 3) Developers may lose the sense of responsibility and independent testers may turn into a bottleneck.
  - 4) Independent testers will turn into a bottleneck and introduce problems in incident management.
  - 5) Independent testing may be more expensive and may test wrong things, because of misunderstandings.
- (a) 1 through 4 are correct, 5 is wrong  
(b) 2 and 5 are correct, the others are wrong  
(c) 3 and 5 are correct, the others are wrong  
(d) 1 and 3 are correct, the others are wrong

**5.2 (K1) Which of the following alternatives describes BEST the task partition between test manager and tester?**

- a) The test manager plans, monitors and controls the testing activities, while the tester designs and executes tests.
- b) The test manager plans, organizes and controls the testing activities, while the tester specifies, prioritizes and executes tests.
- c) The test manager plans testing activities and chooses the standards to be followed, while the tester chooses the tools and controls their use.
- d) The test manager plans and organizes the testing and specifies the test cases, while the tester prioritizes and executes the tests.
- e) The test manager reviews test specifications and test cases. The tester writes them.

**5.3 (K1) Which of the following alternatives are typical tester tasks (as opposed to test manager)?**

- a) Set up configuration management of testware; Review tests developed by others.
- b) Plan and initiate the specification, preparation, implementation and execution of tests and monitor and control the execution.
- c) Decide what should be automated, to what degree, and how.

- d) Prepare and acquire test data; Review tests developed by others.

**5.4 (K2) Which of the following alternatives are typical project risks to be considered by the test manager?**

- a) Potential failure areas in the software or system.
- b) Supplier problems, organizational factors and the quality of design, code and tests.
- c) Delays and especially complex areas in the delivered product.
- d) Low quality of requirements, design, code and tests, as well as failure-prone areas in the delivered product.

**5.5 (K2) Which of the following alternatives are typical product risks to be considered by the test manager?**

- a) Problems in defining the right requirements; potential failure areas in the software or system.
- b) Political problems and delays in especially complex areas in the product.
- c) Failure-prone software delivered; the potential harm to the user; poor product characteristics.
- d) Low quality of requirements, design, code and tests, as well as error-prone areas.

**5.6 (K2) Consider the truth of the following statements about product risks:**

- 1) Product risks are used to decide what to test early.
  - 2) Product risks are used to decide about the tool support for the test.
  - 3) Product risks are used to decide the extent of testing.
  - 4) Product risks are used to determine how much testing to do.
  - 5) Product risks are used to determine the test techniques to be used.
- 
- a) 1, 3 & 4 are true, 2 & 5 are false
  - b) 1, 2, & 4 are true, 3 & 5 are false
  - c) 1, 3, 4 & 5 are true, 2 is false
  - d) 4, & 5 are true, 1, 2 & 3 are false

**5.7 (K1) The following is the content of an incident report. What is missing (and most important)?**

**Date of issue, issuing organization, approvals and status.**  
**Scope, severity and priority of the incident.**  
**Reference to the test case that failed.**

- a) Title
- b) Problem number
- c) Author
- d) Screen shots or system logs

**5.8 (K1) Which of the following is a root cause of a defect?**

- a) Insufficient time was allowed to implement according to requirements.
- b) A calculation was incorrect, giving the wrong result value.
- c) The calculation result of square roots was 10% too low.
- d) A test was erroneously marked as passed when the actual result did not match the expected result.

**5.9 (K2) Why is a tester dependent on configuration management?**

- a) Test execution is not allowed to proceed without the consent of the Change Control Board
- b) Configuration management assures that we know the exact version of the testware and the test object
- c) The test material needs to be checked out from the testware library
- d) Because changes in the test material need to follow configuration management procedures

**5.10 (K2) When should configuration management procedures for test material be decided upon and implemented?**

- a) This is a task for general quality assurance and agreed upon outside the individual project
- b) Before coding starts
- c) Before test execution, in order to assure that it is repeatable which version of the test object is tested
- d) During test planning

**5.11 (K2) Should the test environment be under configuration management?**

- a) Yes, because a tester may need to restore the test environment
- b) Yes, because testers need this information to install the test object for running the test
- c) No, because it is not part of the test object

Hans Schaefer 24.2.11 19:01

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| d) No, because configuration management concerns only the test object and test material.

## Chapter 6

**6.1 (K1) What of the following statements about a test harness is true?**

- a) This is another name for a test case
- b) A structured template for test specifications
- c) A tool to generate the environment and run component tests
- d) A collection of the test results for a test suite

**6.2 (K1) Which statement regarding static analysis tools is correct?**

- a) Static analysis tools can calculate metrics from the code.
- b) Static analysis tools must execute the code in order to derive metrics.
- c) Static analysis tools are best used in the system testing phase.
- d) Static analysis tools are valuable tools during regression testing.

**6.3 (K2) Why does test automation often fail?**

- (1) The automation tool does not support all features in the interface.
- (2) The test scripts are too difficult to maintain.
- (3) There are not enough tool licenses available.
- (4) Learning effort for the test tool scripting language is too high.

- a) 1 and 4 are correct, all else false
- b) 1,2 and 4 are correct, 3 is false
- c) 2 and 3 are correct, the other false
- d) 3 is correct, all else false

**6.4 (K1) Which statement regarding the success factors for the deployment of a test tool is correct?**

- a) Implementing the new tool in a Big Bang implementation will ensure success.
- b) Defining a test process in parallel with a tool deployment is recommended, if you want to achieve success.
- c) To succeed in the deployment of a new tool, it is important to provide training and coaching for new users.
- d) To succeed in the deployment of a new tool, only hard work is needed.

**6.5 (K1) Which statement regarding performance testing tools is correct?**

- a) Performance testing tools can't be used if you are testing web-applications.
- b) Performance testing tools can be used to simulate large numbers of users on the system under test.
- c) Performance testing tools are not able to simulate a load for more than 24 hours.
- d) Performance testing tools can be used to derive the complexity of the code.

**And a last question, not part of the exam:**

**41.) Who was the first to say the following sentence:  
"The three most important things in life are learning,  
learning, and learning."**

- a) Bill Gates
- b) W. I. Lenin
- c) Glenford Myers
- d) 毛泽东 (Mao Ze Dong)

**42.) Who invented the stack?**

- e) Jesus Christ (the first shall be the last...)
- f) John von Neumann
- g) Bill Gates
- h) Edsger Dijkstra

## Solution

1.1 c  
1.2 b  
1.3 c  
1.4 b, d  
1.5 c  
1.6 b  
1.7 d

2.1 c  
2.2 a  
2.3 b  
2.4 a  
2.5 b  
2.6 c

3.1 a  
3.2 d  
3.3 a  
3.4 d  
3.5 b

4.1 a  
4.2 b  
4.3 b  
4.4 b  
4.5 a  
4.6 a  
4.7 b  
4.8 c  
4.9 a  
4.10 c  
4.11 d  
4.12 d  
4.13 c

5.1 c  
5.2 a  
5.3 d  
5.4 b  
5.5 c  
5.6 c  
5.7 c  
5.8 a

5.9 b

| 5.10 d

5.11 a

6.1 c

6.2 a

6.3 b

6.4 c

6.5 b

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