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 <u>wrong</u>?

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 <u>main task</u> 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 <u>main difference</u> 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 <u>main goal</u> 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 <u>main purpose</u> 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 <u>shall</u> 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 <u>valid</u> boundary (as the opposite of an <u>invalid</u> 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 <u>valid drawback(s)</u> 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 loose 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 <u>tester</u> 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 <u>project risks</u> 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 <u>product risks</u> 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

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 <u>correct</u>?

    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 <u>correct</u>?

    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 <u>correct</u>?

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) Edsgar 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