Chapter 2 Question Distribution

Certified Tester Foundation Level question distribution					
Chapter 2		**Learning Objectives (LO) - Öğrenme Amaçları**	**Unit - Ünite**	**Number of Questions per LO**	**Açıklama**
1	FL-2.1.2	Identify reasons why **software development lifecycle models must be adapted** to the **context of project** and **product characteristics**	Software Development Lifecycle Models	Exactly ONE question based on either of these LOs is required.	Bu konuların herhangi birinden 1 tane soru gelecek
	FL-2.3.2	Recognize that **functional, non-functional**, and **white-box tests** occur **at any test level**	Test Types		
4	FL-2.1.1	Explain the **relationships** between **software development activities** and **test activities** in the software development lifecycle	Software Development Lifecycle Models	Exactly FOUR questions based on this set of 6 LOs are required. Each question must cover a DIFFERENT LO	Bu 6 konudan (veya LO) 4 tane soru gelecek. Yani diğer 2 konudan o sınavda soru gelmeyecek. Her soru farklı bir konu başlığını (LO) kapsamak zorunda.
	FL-2.2.1	**Compare** the **different test levels** from the perspective of objectives, test basis, test objects, typical defects and failures, and approaches and responsibilities	Test Levels		
	FL-2.3.1	**Compare functional, non-functional, and white-box testing**	Test Types		
	FL-2.3.3	Compare the **purposes** of **confirmation testing** and **regression testing**	Test Types		
	FL-2.4.1	Summarize **triggers for maintenance testing**	Maintenance Testing		
	FL-2.4.2	Describe the role of **impact analysis** in maintenance testing	Maintenance Testing		
5 Soru					

NOT: Bilgiler official/resmi dokümandan alınmıştır. / Dokümanda yer alan "Learning Objectives-Öğrenme Amaçları-Hedefleri" kavramı, tablonun bazı hücrelerinde "konu" şeklinde kullanılmıştır. / Kırmızı renkli konulardan bir adet soru gelmesi beklenmektedir. /

DİKKAT!

Sorular cevaplanırken bazı hususlara dikkat etmek gerekmektedir.

Öncelikle soru cümlelerinde geçen ifadeler dikkatle okunmalı ve altı çizilmelidir.

Örneğin, "***main, the most, the highest, the best, prior, mostly, generally vd***" ifadeler hem soruya yaklaşımımızı hem de çözüm seçeneklerini etkilemektedir.

Sınavda diğer şıklara göre daha "***doğru, etkin, önemli, üstün***" olan şık işaretlenmelidir.

Bu tür sorularda soruda yer alan 4 adet şıkkın 3 adedi kişiyi yanıltabilecek bazı kelime/kavramlar içermektedir. Ancak bu cevapların bir yerinde tutarsızlıklar olacaktır. Adaydan istenen şıklar arasında bir sıralama (***öncelik/önemlilik/sağladığı katkı/kronolojik açısından***) yapmasıdır.

Ayrıca genelleme yapan, aşırı dışlayan veya kesinlik ifade eden kelimelere dikkat edilmelidir. Bu nedenle şıklarda yer alan "**always**, ***all, never, every, prove***" gibi ifadelere şüpheyle yaklaşmakta fayda vardır.

Genel olarak "***help, can, reduce, minimize, probability***" gibi ifadeler Syllabus ile daha uyumlu bir mantık taşımaktadır.

2.1. Software Development Lifecycle Models

2.1.1 Software Development and Software Testing
2.1.2 Software Development Lifecycle Models in Context

QUESTION-1

Which of the following statements about **software development models** is most accurate?
A. The V model is always the best choice of software development model for any project
B. The agile development model is usually most appropriate for short projects
C. The choice of software development model depends on product and project characteristics
D. The V model is the most appropriate development model for simple products

Answer: C

Explanation:

QUESTION-2

Agile development can be classified as which life cycle model?

A. Agile development is not related to any life cycle model
B. RAD
C. V model
D. Iterative and Incremental

Answer: D

Explanation:

QUESTION-3

Which of the following characteristics of **good testing** apply to any software development life cycle model?
A. Acceptance testing is always the final test level to be applied.
B. All test levels are planned and completed for each developed feature.
C. Testers are involved as soon as the first piece of code can be executed.
D. For every development activity there is a corresponding testing activity.

Answer: D
Explanation:

QUESTION-4

What is important to do when working with software development models?
A. To adapt the models to the context of project and product characteristics.
B. To choose the waterfall model because it is the first and best proven model.
C. To start with the V-model and then move to either iterative or incremental models.
D. To only change the organization to fit the model and not vice versa.

Answer: A
Explanation:

QUESTION-5

Which of the following are examples of iterative development models?

(i) V-model
(ii) Rational Unified Process:
(iii) Waterfall model
(iv) Spiral (or prototyping)

A. (i) and (ii)
B. (ii) and (iii)
C. (ii) and (iv)
D. (iii) and (iv)

Answer: C
Explanation:

V-Model ve Waterfall modeli, sequential modellerdir.

QUESTION-6

Which of the following is **true** about the V-model?

A. It has the same steps as the waterfall model for software development.
B. It is referred to as a cyclical model for software development.
C. It enables the production of a working version of the system as early as possible.
D. It enables test planning to start as early as possible.

Answer: D
Explanation:

"Unlike the Waterfall model, the V-model integrates the test process throughout the development process, implementing the principle of early testing." Syllabus s.28

QUESTION-7

Which of the following statements are true?

(i) For every development activity there is a corresponding testing activity.
(ii) Each test level has the same test objectives.
(iii) The analysis and design of tests for a given test level should begin after the corresponding development activity.
(iv)Testers should be involved in reviewing documents as soon as drafts are available in the development life cycle.

A. (i) and (ii)
B. (iii) and (iv)
C. (ii) and (iii)
D. (i) and (iv)

Answer: D
Explanation:
Option (ii) is incorrect: each test level has a different objective.
Option (iii) is also incorrect: test analysis and design should start once the documentation has been completed.

QUESTION-8

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

A. System Integration Testing
B. Acceptance Testing
C. Regression Testing
D. Component Integration Testing

Answer: A
Explanation:

QUESTION-9

Which option BEST describes objectives for test levels within a life cycle model?

A. Objectives should be generic for any test level
B. Objectives are the same for each test level
C. Each test level has objectives specific to that level
D. Each test level must have different objectives

Answer: C
Explanation:

2.2.Test Levels

2.2.1 Component Testing
2.2.2 Integration Testing
2.2.3 System Testing
2.2.4 Acceptance Testing

QUESTION-10

Which of the following approaches is/are used in Integration tests?

A. Both functional and structural
B. Usability
C. Functional only
D. Structural only

Answer: A

Explanation:

QUESTION-11

Component testing may include:
A. Sociability testing.
B. User acceptance testing.
C. Beta testing.
D. The use of stubs and drivers.

Answer: D

Explanation:

"Component testing is often done in isolation from the rest of the system, depending on the software development lifecycle model and the system, which may require mock objects, service virtualization, harnesses, ***stubs****, and* ***drivers****."* Syllabus s.31.

QUESTION-12

System Testing is:

A. Used to search for defects in software modules that are separately testable.

B. The responsibility of the users of a system.
C. Concerned with the behavior of a whole system/product as defined by the scope of a development project.
D. Triggered by modifications, migration or retirement of the software system.

Answer: C

Explanation:

QUESTION-13

What is the difference between **system integration testing** and **acceptance testing**?

A. System integration testing is testing non-functional requirements. Acceptance testing concentrates on the functionality of the system
B. System integration testing is executed by the testers. Acceptance testing is done by the customer
C. System integration testing verifies that a system interfaces correctly with other systems. Acceptance testing verifies compliance to requirements
D. System integration testing verifies compliance to requirements Acceptance testing verifies correct interaction with other systems existing in the user's environment

Answer: B

Explanation:

"*Component integration testing is often the responsibility of developers. System integration testing is generally the responsibility of testers. Ideally, testers performing system integration testing should understand the system architecture and should have influenced integration planning*." Syllabus s.34.

QUESTION-14

Which of the following accurately defines **the integration testing test level**? [K2]

A. **Test basis** includes software and system design, test objects include interfaces, and **tests concentrate on** the interactions between different parts of a system
B. **Test basis** includes component requirements, test objects include database modules, and **tests concentrate on** the behaviour of the system as a whole.
C. **Test basis** includes business processes, test objects include system configuration and configuration data, and **tests concentrate on** establishing confidence in the system
D. **Test basis** includes use cases, test objects include user procedures and **tests concentrate on** a high level model of system behaviour

Answer: A

Explanation:

QUESTION-15

Which of the following is in the correct order (typically) for test levels?

A. Component testing, integration testing, system testing, acceptance testing.
B. System testing, component testing, acceptance testing, maintenance testing.
C. Acceptance testing, system testing, maintenance testing, component testing.
D. Component testing, maintenance testing, system testing, acceptance testing.

Answer: A
Explanation:

QUESTION-16

Which of the following statements are TRUE?

A. Regression testing and acceptance testing are the same.
B. Regression tests show if all defects have been resolved.
C. Regression tests are typically well-suited for test automation.
D. Regression tests are performed to find out if code changes have introduced or uncovered defects.
E. Regression tests should be performed in integration testing.

A. A, C and D and E are true; B is false.
B. A, C and E are true; B and D are false.
C. C and D are true; A, B and E are false.
D. B and E are true; A, C and D are false.

Answer: C
Explanation:

QUESTION-17

Which of the following comparisons of **component testing** and **system testing** are TRUE?

A. Component testing verifies the functioning of software modules, program objects, and classes that are separately testable, whereas system testing verifies interfaces between components and interactions with different parts of the system.
B. Test cases for component testing are usually derived from component specifications, design specifications, or data models, whereas test cases for system testing are usually derived from requirement specifications, functional specifications or use cases.
C. Component testing focuses on functional characteristics, whereas system testing focuses on functional and non-functional characteristics.

D. Component testing is the responsibility of the technical testers, whereas system testing typically is the responsibility of the users of the system.

Answer: B
Explanation:

QUESTION-18

A top-down development strategy affects which level of testing most?
A. Component testing
B. Integration testing
C. System testing
D. User acceptance testing

Answer: B
Explanation:

The development strategy will affect the component testing (option (A)), in so far as it cannot be tested unless it has been built. Options (C) and (D) require the system to have been delivered; at these points the development strategy followed is not important to the tester. Option (B) needs knowledge of the development strategy in order to determine the order in which components will be integrated and tested.

QUESTION-19

To test a function, the programmer has to write a _____, which calls the function to be tested and passes it test data:

A. Stub
B. Driver
C. Proxy
D. None of the above

Answer: B
Explanation:
Stub ve driver, component test esnasında developer tarafından teste yardımcı olması için kullanılmaktadır.

QUESTION-20

Acceptance test cases are based on what?

A. Requirements
B. Design
C. Code
D. Decision table

Answer: A
Explanation:

QUESTION-21

Component testing may include:

A. Sociability testing.
B. User acceptance testing.
C. Beta testing.
D. The use of stubs and drivers.

Answer: D
Explanation:

QUESTION-22

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

A. System Integration Testing
B. Acceptance Testing
C. Regression Testing
D. Component Integration Testing

Answer: A
Explanation:

QUESTION-23

Which of the following would be appropriate test objectives for **user acceptance testing** of the first release of a new software product aimed at a general market and built using Agile methods?

a) To identify as many defects as possible
b) To maximize code coverage
c) To ensure the product works as expected
d) To assess the overall quality of the product
e) To determine the reliability of the product

A. b and c
B. a and d
C. b and e
D. c and d

Answer: D

Explanation:

e-Reliability, maintanence testing için geçerli

2.3.Test Types

2.3.1 Functional Testing
2.3.2 Non-functional Testing
2.3.3 White-box Testing
2.3.4 Change-related Testing
2.3.5 Test Types and Test Levels

QUESTION-24

Functional and **structural tests** are alternative test types that may be used separately or together at which test level?
A. At the component test level only
B. At all test levels
C. At integration testing and system testing levels only
D. At all levels from integration testing to acceptance testing

Answer: B

Explanation:

QUESTION-25

When can functional and structural testing BOTH be applied?

A. System and Component test levels only
B. All 'Development' test levels, i.e. those before Acceptance testing
C. Component and Component integration test levels only
D. All test levels

Answer: D

Explanation:

QUESTION-26

To which of the following test levels regression testing be applied?
I. Component Testing
II. Integration Testing
III. System Testing
IV. Acceptance Testing

A. II, III, IV
B. I, II

C. I, II, III
D. I, II, III, IV

Answer: C

Explanation:

QUESTION-27

What is the ideal number of regression test cycles?

A. As many as time and budget allow
B. 2
C. 1
D. Until the quality requirements are met

Answer: A

Explanation:

QUESTION-28

Once a bug is fixed, it should be retested. What is the term used to define this type of testing?

A. Reliability Testing
B. Confirmation Testing
C. Maintainability Testing
D. Regression Testing

Answer: B

Explanation:

QUESTION-29

Which of the following best describes the **Black-Box** technique?

A. It uses decision coverage for completeness.
B. It ensures all possible branches in the code are tested.
C. It is based on the internal structure of the system.
D. It can be done without reference to the internal structure of the component or system.

Answer: D

Explanation:

Black-box testing, 4. Ünitede daha geniş ele alınacaktır. Ancak Syllabus'ın bu bölümünde bazı yerlerde Black-box test tekniğine atıf yapıldığı için bu soru bu bölüme alınmıştır.

QUESTION-30

What is the difference between **system integration testing** and **acceptance testing**?

A. System integration testing is testing non-functional requirements. Acceptance testing concentrates on the functionality of the system
B. System integration testing is executed by the testers. Acceptance testing is done by the customer
C. System integration testing verifies that a system interfaces correctly with other systems. Acceptance testing verifies compliance to requirements
D. System integration testing verifies compliance to requirements Acceptance testing verifies correct interaction with other systems existing in the user's environment

Answer: B

Explanation:

"*Component integration testing is often the responsibility of developers. System integration testing is generally the responsibility of testers. Ideally, testers performing system integration testing should understand the system architecture and should have influenced integration planning*." Syllabus s.34.

Bu soru hem 2.2. Test Levels ile ilgili hem de 2.3. Test Types ile ilgili olduğu için her iki bölüme de alınmıştır.

QUESTION-31

By whom and where is the **Beta Testing** normally performed?

A. By customers or potential customers at their own locations
B. By an independent test team at the developing organization's location
C. At the developing organization's site, but not by the developing team
D. By customers or potential customers at the developing organization's site

Answer: A

Explanation:

QUESTION-32

A Software was re-deployed because the backend database was changed from one vendor to another. The Test Manager decided to perform some functional tests on the redeployed system.

This is an example of test of which test type?
A. Regression tests
B. Non-functional tests
C. Structural tests
D. Component tests

Answer: A

Explanation:

QUESTION-33

Which of the following is a **White-Box testing** design characteristic?

A. To be based on specifications
B. To be based on an analysis of the test basis documentation
C. To be based on an analysis of the structure of the component or system
D. To include both functional and non-functional testing

Answer: C

Explanation:

QUESTION-34

Which pair of definitions is correct?

A. **Regression testing** is checking that the reported defect has been fixed; **retesting** is testing that there are no additional problems in previously tested software.
B. **Regression testing** is checking there are no additional problems in previously tested software; **retesting** enables developers to isolate the problem.
C. **Regression testing** involves running all tests that have been run before; **retesting** runs new tests.
D. **Regression testing** is checking that there are no additional problems in previously tested software, **retesting** is demonstrating that the reported defect has been fixed.

Answer: D

Explanation:

QUESTION-35

Which of the following statements are TRUE?

A. Regression testing and acceptance testing are the same.
B. Regression tests show if all defects have been resolved.
C. Regression tests are typically well-suited for test automation.
D. Regression tests are performed to find out if code changes have introduced or uncovered defects.
E. Regression tests should be performed in integration testing.

A. A, C and D and E are true; B is false.
B. A, C and E are true; B and D are false.
C. C and D are true; A, B and E are false.
D. B and E are true; A, C and D are false.

Answer: C
Explanation:

QUESTION-36

Which of the following best describes the purpose of non-functional testing?

A. To measure characteristics of a system which give an indication of how the system performs its functions
B. To ensure that a system complies with the quality standards set by ISO 9126
C. To ensure that the system deals appropriately with software malfunctions
D. To measure the extent to which a system has been tested by functional testing

Answer: A
Explanation:

QUESTION-37

The difference between re-testing and regression testing is:

A. Re-testing is running a test again; regression testing looks for unexpected side effects
B. Re-testing looks for unexpected side effects; regression testing is repeating those tests
C. Re-testing is done after faults are fixed; regression testing is done earlier
D. Re-testing uses different environments, regression testing uses the same environment
E. Re-testing is done by developers, regression testing is done by independent testers

Answer: A
Explanation:

QUESTION-38

Non-functional system testing includes:
A. Testing to see where the system does not function properly
B. Testing quality attributes of the system including performance and usability
C. Testing a system feature using only the software required for that action
D. Testing a system feature using only the software required for that function
E. Testing for functions that should not exist

Answer: B
Explanation:

QUESTION-39

When a defect is detected and fixed then the software should be retested by tester to confirm that the original defect has been successfully removed. This is called:

A. Regression testing
B. Maintenance testing
C. Confirmation testing
D. None of the above

Answer: C
Explanation:

QUESTION-40

Which statement below BEST describes non-functional testing?
A. The process of testing an integrated system to verify that it meets specified requirements.
B. The process of testing to determine the compliance of a system to coding standards.
C. Testing without reference to the internal structure of a system.
D. Testing system attributes, such as usability, reliability or maintainability.

Answer: D
Explanation:

QUESTION-41

Which of the following is **not true** of regression testing?

A. It can be carried out at each stage of the life cycle.
B. It serves to demonstrate that the changed software works as intended.

C. It serves to demonstrate that software has not been unintentionally changed.
D. It is often automated.

Answer: B
Explanation:

B şıkkı confirmation testing'in tanımıdır.

QUESTION-42

Which pair of definitions is correct?
A. Regression testing is checking that the reported defect has been fixed; retesting is testing that there are no additional problems in previously tested software.
B. Regression testing is checking there are no additional problems in previously tested software; retesting enables developers to isolate the problem.
C. Regression testing involves running all tests that have been run before; retesting runs new tests.
D. Regression testing is checking that there are no additional problems in previously tested software, retesting is demonstrating that the reported defect has been fixed.

Answer: D
Explanation:
Regression testing is testing that nothing has regressed. Retesting (or confirmation testing) confirms the fix is correct by running the same test after the fix has been made. No other option has both of these as true.

QUESTION-43

Which of the following is a non-functional requirement?

A. The system will enable users to buy books.
B. The system will allow users to return books.
C. The system will ensure security of the customer details.
D. The system will allow users to search books from the system database.

Answer: C
Explanation:
The other options are functional requirements. Note that security is regarded as a non-functional requirement in this syllabus.

Bu soruda doğrudan test türü sorulmuyor, ancak bir requirement olması, onun test edilebileceği anlamına geliyor. Non-functional requirement varsa non-functional testing yapılacaktır (Ayrık bir durum yoksa). Bu nedenle soru hem "Non-functioanl reqirement nedir?" şeklinde hem de "Hangi şıktaki reqirement için non-functional testing yapılır?" şeklinde değerlendirilmeli. Sınavda her iki türde de soru gelebilir.

QUESTION-44

Functional and structural tests are alternative test types that may be used separately or together at which test level?
A. At the component test level only
B. At all test levels
C. At integration testing and system testing levels only
D. At all levels from integration testing to acceptance testing

Answer: B
Explanation:

QUESTION-45

Which of the following statements about functional testing is correct?

A. Functional test cases are derived from specifications
B. Functional test cases are derived from an examination of the code
C. Functional testing ensures error free software
D. Functional testing should be done before the Inspection process

Answer: A
Explanation:

QUESTION-46

Where may functional testing be performed?

A. At system and acceptance testing levels only
B. At all test levels
C. At all levels above integration testing
D. At the acceptance testing level only

Answer: B
Explanation:

QUESTION-47

Which of the following best describes the purpose of non-functional testing?

A. To measure characteristics of a system which give an indication of how the system performs itsfunctions
B. To ensure that a system complies with the quality standards set by ISO 9126
C. To ensure that the system deals appropriately with software malfunctions

D. To measure the extent to which a system has been tested by functional testing

Answer: A
Explanation:

QUESTION-48

Which of the following is MOST clearly a characteristic of structure based (white-box) techniques?

A. Test cases are independent of each other
B. Test cases can be easily automated
C. Test cases are derived systematically from the delivered code
D. Test cases are derived systematically from specifications

Answer: C
Explanation:

2.4.Maintenance Testing

2.4.1 Triggers for Maintenance
2.4.2 Impact Analysis for Maintenance

QUESTION-49

Which of the following statements best characterizes **maintenance testing**? [K2]

A. Maintenance testing is triggered by changes to delivered software and uses impact analysis to minimize the amount of regression testing needed
B. Maintenance testing is triggered by changes to software under development before initial delivery and uses the test plan to determine how much regression testing to do
C. Maintenance testing is triggered by changes to the test environment and uses testing tools to perform regression testing
D. Maintenance testing is triggered by changes to the software environment and uses structural testing to ensure the changes function correctly

Answer: A
Explanation:

QUESTION-50

Under which of the following circumstances is maintenance testing required? [K1]

A. Migration of software onto a new platform
B. Testing during initial development of a replacement for an existing system
C. Purchase of a new software tool
D. Updating of a regression suite

Answer: A

Explanation:

QUESTION-51

Which of the following does NOT represent one of the three triggers for maintenance testing an operational system?

A. Data migration
B. System retirement

C. System modification
D. Introduction of a test management tool

Answer: D

Explanation:

QUESTION-52

What type of testing is important after Migration, retirement or enhancement of an existing system?

A. Regression testing
B. Operational acceptance testing
C. System Testing
D. Maintenance testing

Answer: D
Explanation:

QUESTION-53

Which of the following is an appropriate reason for maintenance testing?

A. Bugs found in the field after upgrading the operation system
B. Bugs found during system testing
C. Bugs found during unit testing
D. Bugs found during integration testing

Answer: A

Explanation:

QUESTION-54

Maintenance testing is:

A. updating tests when the software has changed
B. Testing a released system that has been changed
C. Testing by users to ensure that the system meets a business need
D. Testing to maintain business advantage

Answer: B
Explanation:

QUESTION-55

For which of the following would maintenance testing be used?

A. Correction of defects during the development phase.
B. Planned enhancements to an existing operational system.
C. Complaints about system quality during user acceptance testing.
D. Integrating functions during the development of a new system.

Answer: B
Explanation:

QUESTION-56

Which of the following statements best characterises maintenance testing?
A. Maintenance testing is triggered by changes to delivered software and uses impact analysis to minimise the amount of regression testing needed
B. Maintenance testing is triggered by changes to software under development before initial delivery and uses the test plan to determine how much regression testing to do
C. Maintenance testing is triggered by changes to the test environment and uses testing tools to perform regression testing
D. Maintenance testing is triggered by changes to the software environment and uses structural testing to ensure the changes function correctly

Answer: A
Explanation:

QUESTION-57

Under which of the following circumstances is maintenance testing required?
A. Migration of software onto a new platform
B. Testing during initial development of a replacement for an existing system
C. Purchase of a new software tool
D. Updating of a regression suite

Answer: A
Explanation:

QUESTION-58

Under what circumstances would you plan to perform maintenance testing?

a) As part of a migration of an application from one platform to another.
b) As part of a planned enhancement release.
c) When the test scripts need to be updated.
d) For data migration associated with the retirement of a system

A. a, b and c
B. b, c and d
C. a, b and d.
D. a, c and d

Answer: C
Explanation:

QUESTION-59

Retirement of software or a system would trigger which type of testing?

A. Load testing
B. Portability testing
C. Maintenance testing
D. Maintainability testing

Answer: C
Explanation: