Chapter 4 Question Distribution

Certified Tester Foundation Level question distribution					
Chapter 4		**Learning Objectives (LO) - Öğrenme Amaçları**	**Unit - Ünite**	**Number of Questions per LO**	**Açıklama**
1	Keywords	----	----	Exactly ONE question based on the definition of a keyword from Chapter 4	**Anahtar kelimelerden** 1 tane tanım sorusu gelecek
5	FL-4.1.1	Explain the characteristics, commonalities, and differences between black-box test techniques, white-box test techniques, and experience-based test techniques	Categories of Test Techniques	Exactly FIVE questions based on this set of 8 LOs are required. Each question must cover a DIFFERENT LO. NOTE: Including ONE question for FL-4.2.5 is optional but encouraged.	Bu 8 konudan (veya LO) 5 tane soru gelecek. Yani diğer 3 konudan o sınavda soru gelmeyecek. Her soru farklı bir konu başlığını (LO) kapsamak zorunda. Bu 5 sorudan 1 tanesi 4.2.5.'ten gelebilir
	FL-4.2.5	Explain how to derive test cases from a use case	Black-box Test Techniques		
	FL-4.3.1	Explain statement coverage	White-box Test Techniques		
	FL-4.3.2	Explain decision coverage	White-box Test Techniques		
	FL-4.3.3	Explain the value of statement and decision coverage	White-box Test Techniques		
	FL-4.4.1	Explain error guessing	Experience-based Test Techniques		
	FL-4.4.2	Explain exploratory testing	Experience-based Test Techniques		
	FL-4.4.3	Explain checklist-based testing	Experience-based Test Techniques		
5	FL-4.2.1	Apply equivalence partitioning to derive test cases from given requirements	Black-box Test Techniques	Exactly FIVE questions based on this set of 4 LOs are required. There shall be ONE question based on EACH of these LOs. (i.e., each question must cover a DIFFERENT LO.) The fifth question shall be based on EITHER FL-4.2.1 OR FL-4.2.2	Bu 4 konudan (veya LO) 5 tane soru gelecek. Her konudan 1 soru gelecek 5. soru 4.2.1 veya 4.2.2'den gelecek Her soru farklı bir konu başlığını (LO) kapsamak zorunda.
	FL-4.2.2	Apply boundary value analysis to derive test cases from given requirements	Black-box Test Techniques		
	FL-4.2.3	Apply decision table testing to derive test cases from given requirements	Black-box Test Techniques		
	FL-4.2.4	Apply state transition testing to derive test cases from given requirements	Black-box Test Techniques		
11 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.

NOT::: Black-Box tekniği olan "Decision Table" ile White-Box tekniği olan "Decision Testing and Decision Coverage" farklı test teknikleri. Karıştırmayalım. Dikkat

4.1- Categories of Test Techniques

4.1.1 Choosing Test Techniques
4.1.2 Categories of Test Techniques and Their Characteristics

QUESTION-1

Which of the following are the most important factors to be taken into account when selecting test techniques?

(i) Tools available.

(ii) Regulatory standards.

(iii) Experience of the development team.

(iv) Knowledge of the test team.

The need to maintain levels of capability in each technique.

A. (i) and (ii)

B. (ii) and (iv)

C. (iii) and (iv)

D. (i) and (v)

Answer: B

Explanation:

Answer (i) looks temptingly right, and the availability of tools might make the use of a technique more or less attractive, but it would not be decisive in the way that regulatory standards and tester knowledge are.

Answer (iii) is irrelevant because testing should be independent of development anyway, but it could tempt someone who is unsure about the relationship between development and testing.

Answer (v) is a factor in managing the test team, and experience would need to be maintained, but this should not influence the selection of techniques for a live project.

4.2- Black-box Test Techniques

4.2.1 Equivalence Partitioning
4.2.2 Boundary Value Analysis
4.2.3 Decision Table Testing
4.2.4 State Transition Testing
4.2.5 Use Case Testing

QUESTION-2

What is the main purpose of use case testing?

A. To identify defects in process flows related to typical use of the system.

B. To identify defects in the connections between components.

C. To identify defects in the system related to extreme scenarios.

D. To identify defects in the system related to the use of unapproved programming practices.

Answer: A

Explanation:

Answer (B) relates to integration testing; answer (C) could relate to boundary value analysis or performance testing, but use cases exercise typical process flows rather than extreme examples; answer (D) relates to static analysis.

QUESTION-3

A system is designed to accept values of examination marks as follows:

Fail: 0–39 inclusive

Pass: 40–59 inclusive

Merit: 60–79 inclusive

Distinction: 80–100 inclusive

In which of the following sets of values are all values in different equivalence partitions?

A. 25, 40, 60, 75

B. 0, 45, 79, 87

C. 35, 40, 59, 69

D. 25, 39, 60, 81

Answer: B

Explanation:

Bu soru bir Black-box tekniği olan Equivalence Partitioning ile ilgilidir. (Syllabus s.58)
0-100 arası notlar 4 parçaya (partitions) ayrılmış.
0-39 arası (39 dahil) Fail (Kaldı)
40-59 arası (59 dahil) Pass (Geçti)
60-79 arası (79 dahil) Merit (Merit-Liyakat derecesi ile geçti)
80-100 arası (100 dahil) Distinciton (Üstün başarı derecesi ile geçti) olarak kodlanmış.
Soruda, şıklardan hangisinin bu dört parçadan da notları içerdiği sorulmuş.
NOT: Bu tür sorularda mutlaka şekil/tablo çizilmesi önerilir.

0--------------------39	40-------------------59	60-------------------79	80------------------100

B şıkkında, 0 (Fail), 45 (Pass), 79 (Merit), 87 (Distinction) notları verilmiş. Yani B şıkkındaki notlar, dört farklı parçaya (partition) ait notlardır.

QUESTION-4

A washing machine has **three** temperature **bands** for different kinds of fabrics: fragile fabrics are washed at temperatures between 15 and 30 degrees Celsius; normal fabrics are washed at temperatures between 31 and 60 degrees Celsius; heavily soiled and tough fabrics are washed at temperatures between 61 and 100 degrees Celsius.

Which of the following contains only values that are in different equivalence partitions?

A. 15, 30, 60

B. 20, 35, 60

C. 25, 45, 75

D. 12, 35, 55

Answer: C

Explanation:

Answer (A) includes two values from the lower partition, answer (B) contains two values from the second partition, answer (D) contains one value that is invalid (out of range).

Bu soru bir Black-box tekniği olan Equivalence Partitioning ile ilgilidir. (Syllabus s.58)

15 ^{c} -------------------------30 ^{c}	31 ^{c} -------------------------60 ^{c}	61 ^{c} -------------------------100^c

Makinenin üç farklı sıcaklık parçasına/bölümüne ait sıcaklık değerlerini içeren şık hangisidir diye sorulmuş.
Cevap C şıkkıdır.

QUESTION-5

An input field takes the year of birth between 1900 and 2004. The boundary values for testing this field are:

A. 0,1900,2004,2005

B. 1900, 2004

C. 1899,1900,2004,2005

D. 1899, 1900, 1901,2003,2004,2005

Answer: C

Explanation:

Bu soru bir Black-box tekniği olan Boundary Value Analysis (BVA) ile ilgilidir. (Syllabus s.58)

1900 ile 2004 yıları arasında doğan kişiler için sınır değer analizi yapılması isteniyor.
NOT: Bu tür sorularda 2 veya 3 sınır değer diye sorulursa cevabımız farklı olacaktır. Örneğin, 2 değer denilirse cevabımız alt sınır için 1899 (invalid), 1900 (valid) ve üst sınır için 2004 (valid), 2005 (invalid) olacaktır.
Ancak 3 sınır değer sorulursa, alt sınır için 1899, 1900, 1901 ve üst sınır için 2003, 2004, 2005 olacaktı.
Soruda herhangi birşey denilmediği için 2 sınır değer (bir valid ve bir invalid) alınacaktır.
Cevap ise C şıkkıdır.

-sonsuz------------0------1899	1900----------------------2004	2005------------------ **+sonsuz**
invalid	valid	invalid

QUESTION-6

Boundary value testing:

A. Is the same as equivalence partitioning tests

B. Test boundary conditions on, below and above the edges of input and output equivalence classes

C. Tests combinations of input circumstances

D. Is used in white box testing strategy

Answer: B

Explanation:

Bu soru bir Black-box tekniği olan Boundary Value Analysis (BVA) ile ilgilidir. (Syllabus s.58)
Sınır değer analizi, eşit parçalara bölünmüş olan girdi ve çıktıların sınır değerlerinin (valid-invalid) test edilmesidir.

QUESTION-7

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:

A, B ve C şıkları White-box ile ilgilidir. Black-box tekniğinde, component veya systemin iç yapısı ile ilgilenilmez. Sorularda "structure-yapı" kelimesi geçtiği anda aklımıza White-box test tekniği gelmelidir.

QUESTION-8

Pair the correct test design techniques (i to v) with the category of techniques (x, y and z):

i)Exploratory Testing

ii)Equivalence Partitioning

iii)Decision Testing

iv)Use Case Testing

v)Condition coverage

x) Specification-based

y)Structure-based

z)Experience-based

A. x =i and ii; y = iii and v; z = iv.

B. x =i, ii and iv; y = v; z = iii

C. x = ii and iv; y = iii and v; z = i.

D. x = iii andiv; y = v; z = i and ii.

Answer: C

Explanation
Bu soru üç test tekniğini de ilgilendirdiği için her bölümde sorulmuştur.
(x) Black-box=Behavioral Test tekniğidir. Aynı zamanda "Specification-based" olarak da bilinir.
(y) White-box=Structure-based test tekniğidir.
(z) Experience-based test teknikleri ise adı üzerinde tecrübe merkezli test teknikleridir.
ii ve iv, Black-box test tekniğidir (x).
iii ve v, White-box test tekniğidir (y).
i ise experience-based test tekniğidir (z).

QUESTION-9

Which of the following test design techniques is not a black box technique?

A. Equivalence partitioning

B. State transition testing

C. Boundary value analysis

D. Statement coverage

Answer: D

Explanation:

D şıkkı White-box test tekniğidir.

Diğerleri ise Black-box test tekniğidir.

QUESTION-10

Equivalence Partitioning is best defined as:

A. An analysis technique that divides inputs into groups that are expected to exhibit similar behaviors.

B. Applying to time-related data classes only.

C. A form of white-box testing.

D. A method to reduce test coverage.

Answer: A

Explanation:

QUESTION-11

What is decision table testing?

A. It's a testing design technique based in the internal software structure.

B. It's a static test design technique.

C. It's a testing design technique to verify decisions.

D. It's a testing design technique based in the system requirements.

Answer: D

Explanation:

"Combinatorial test techniques are useful for testing <u>the implementation of system requirements</u> that specify how different combinations of conditions result in different outcomes. One approach to such testing is decision table testing. (Syllabus s.59)"

QUESTION-12

Which of the following statements about use-case testing are most accurate?

(i)In a use-case diagram an actor represents a type of user.

(ii)Use-cases are the most common test basis for component testing.

(iii)A use-case describes interactions between actors.

(iv)An actor is always a human user that interacts with the system.

(v)Test cases can be based on use-case scenarios.

(vi)Use-case testing will often identify gaps not found by testing individual components.

**A.** ii, iii, iv, v

B. i, iii, v, vi

C. i, ii, iv, v

D. iii, iv, v, vi

Answer: B

"Tests can be derived from use cases, which are a specific way of designing interactions with software items, incorporating requirements for the software functions represented by the use cases. Use cases are associated with actors (human users, external hardware, or other components or systems) and subjects (the component or system to which the use case is applied). Syllabus s.60"

QUESTION-13

Refer to the exhibit
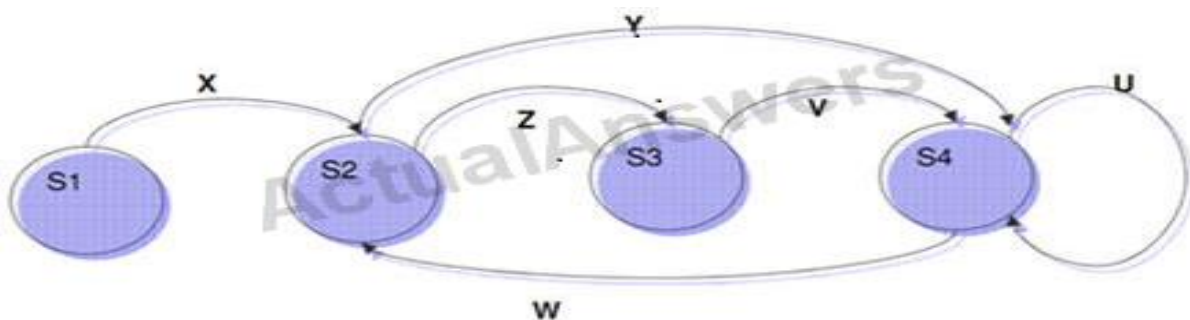
Given the following State Transition diagram, match the test cases below with the relevant set of state transitions.

(i)X-Z-V-W

(ii)W-Y-U-U

A. (i) = S1 – S2 – S3 – S4 – S2 and (ii) = S4 – S2 – S4 – S4 – S4

B. (i) = S1 – S2 – S3 – S4 – S4 and (ii) = S2 –S4 – S4 – S4 – S2

C. (i) = S2 – S3 – S4 – S2 – S2 and (ii) = S4 – S2 – S4 – S4 – S4

D. (i) = S2 – S3 – S4 - S4 – S2 and (ii) = S2 –S3 – S4 –S4 – S4

Answer: A

Explanation:

QUESTION-14

A system calculates the amount of customs duty to be paid:

_ No duty is paid on goods value up to, and including, $2,000.

_ The next $8,000 is taxed at 10%.

_ The next $20,000 after that is taxed at 12%.

_ Any further amount after that is taxed at 17%.

To the nearest $, which of these groups of numbers fall into three DIFFERENT equivalence classes?

A. $20,000 $20,001 $30,001

B. $2,000 $2,001 $10,000

C. $2,000 $8,000 $20,000

D. $1,500 $2,000 $10,000

Answer: C

Explanation:

0--------------2,000$	2,001$------10,000$	10,001$----30,000$	30,001$--- + Sonsuz
NO Tax	10% Tax	12% Tax	17% Tax

Bu soru bir Black-box tekniği olan Equivalence Partitioning ile ilgilidir. (Syllabus s.58)

QUESTION-15

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

_ An employee has $4,000 of salary tax free.

_ The next $1,500 is taxed at 10%.

_ The next $28,000 after that is taxed at 22%.

_ Any further amount is taxed at 40%.

Which of these is a valid Boundary Value Analysis test case?

A. $28,000

B. $1,500

C. $33,501

D. $5,000

Answer: C

Explanation:

0---------------4,000$	4,001$------5,500$	5,501$------33,500$	33,501$--- + Sonsuz
NO Tax	10% Tax	22% Tax	40% Tax

Bu soru bir Black-box tekniği olan Equivalence Partitioning ile ilgilidir. (Syllabus s.58)

QUESTION-16

What type of test design technique is the most effective in testing screen-dialog flows?

A. Use case testing

B. Boundary value testing

C. Statement testing and coverage

D. State transition testing

Answer: D

Explanation:

"State transition testing is used for menu-based applications and is widely used within the embedded software industry. The technique is also suitable for modeling a business scenario having specific states or for testing screen navigation. The concept of a state is abstract – it may represent a few lines of code or an entire business process. Syllabus s.60"

A dialog consists of a number of interactions between a user and the system, using one or more screens. Dialog flow diagramming is a technique used to document the nature and sequence of this interaction.

QUESTION-17

Refer to the exhibit

The following test cases need to be run, but time is limited, and it is possible that not all will be completed before the end of the test window

#	Description	Priority	Note
a	Re-test defect no 52	Low	Re-test
b	Ability to amend transaction type	High	
c	Re-test defect no 26	High	Re-test
d	Run regression test script	Medium	Regression
e	Print monthly sales figures	Medium	
f	Add special invoice to previous month	Low	
g	Reprint selected previous sales figures	High	Must be run after item e
h	Account administrator able to amend any previous month's sales figures	Low	
i	Print year-to-date figures	Medium	

The first activity is to run any re-tests, followed by the regression test script. Users have supplied their priority order to tests.

Which of the following gives an appropriate test execution schedule, taking account of the prioritisation and other constraints?

A. b, c, g, d, e, i, a, f, h

B. a, c, d, b, g, e, i, f, h

C. c, a, d, b, e, g, i, h, f

D. d, c, a, e, b, g, i, f, h

Answer: C

Explanation:

Önce re-test'ler yapılacak.
c'nin önceliği daha yüksek (priority) olduğu için **c** ile başlanır. Sonra **a** yapılır. (C şıkkı doğrudur)
Ayrıca, **g**'nin açıklamasında **e**'den sonra yapılacağı belirtilmiş. Bu şartı sağlayan sadece C ve D şıkları var. Fakat **b**'nin önceliği (priority) yüksek olduğu için önce yapılması gerekir. Bu nedenle D şıkkı doğru cevap olamaz.

QUESTION-18

The Cambrian Pullman Express has special ticketing requirements represented by the partial **decision table** below.

Refer to the exhibit

Conditions	Rule 1	Rule 2	Rule 3	Rule 4	Rule 5	Rule 6
First Class ticket	Y	N	N	N	Y	N
Std Class Flexible ticket	N	Y	N	N	N	Y
Std Class Day Return	N	N	Y	N	N	N
Std Class Super Saver	N	N	N	Y	N	N
Railcard holder	N	N	N	N	Y	Y
Actions						
OK to travel	Y	N	N	N	Y	N
Eligible for upgrade	N	Y	N	N	N	Y
Concessionary fare	N	N	N	N	Y	Y

Carol has a student railcard and is travelling on a Flexible Standard Class ticket.

James has a senior railcard and is travelling on a Super Saver ticket.

Which of the options represents the correct actions for these two test cases?

A. Carol is eligible to upgrade; James cannot use the service

B. Carol is OK to travel; James is eligible for an upgrade

C. Carol and James are both eligible to upgrade

D. Carol is OK to travel; James cannot use the service

Answer: A

Explanation:

Carol, student railcard'ı olduğu için 5 ve 6. kurallara uymaktadır. Ayrıca Flexible Standard Class bileti olduğundan dolayı 2. veya 6. kural uygulanacaktır. Sonuçta Carol için 6.kural uygulanacaktır. (2.kural railcard sahiplerine uygulanmaz)
James, senior railcard'ı olduğu için 5 ve 6. kurallara uymaktadır. Ancak Super Saver bileti olduğundan dolayı bu kurallardan faydalanamamaktadır.

QUESTION-19

Before an <u>invoice</u> can be created, an <u>account</u> is required. Before an account can be set up, an account <u>user</u> is required (in order to set up the account). The software is delivered with a master user only, who can only create other types of users. The following test cases have been written to test the high-level structure of the software

a.Create an invoice

b.Amend an invoice

c.Process an invoice (send to customer)

d.Delete an invoice

e.Create an account

f.Create an account user

g.Amend an account user

h.Delete an account user

i.Amend an account

j.Delete an account

Which of the following test procedures would enable all tests to be run?

A. f, g, a, c, b, d, e, i, j, h

B. e, i, a, c, b, d, f, g, h, j

C. e, i, f, g, a, c, b, d, h, j

D. f, g, e, i, a, b, c, d, j, h
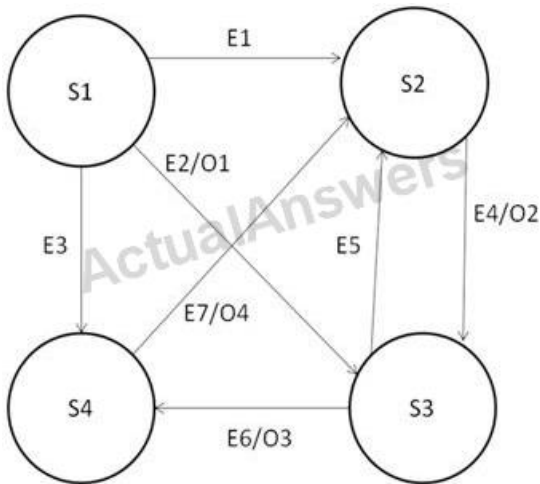
Answer: D

Explanation:

Amend: İyileştirmek, düzeltmek.
Önce master hesap kullanıcı tanımlanacak, sonra hesap kullanıcı, daha sonra hesap açılacak.

QUESTION-20

A test case starts at S1 and triggers 4 events in sequence: E1, E4, E5, E7. What will be the finishing state and the output(s) from the test case?

Refer to the exhibit

A. S2 and O4

B. S4 and O2

C. S4 and O4

D. S2 and O2

Answer: D

Explanation:

Given the following state table:

	On	Off	Channel 1	Channel 2	Channel >2	Stby
Standby	Live	N	N	N	N	N
Live	N	Standby	Display Channel 1	Display Channel 2	N	Standby
Display Channel 1	N	N	N	Display Channel 2	Live	Standby
Display Channel 2	N	N	Display Channel 1	N	Live	Standby ActualTests

Which of the following represents an INVALID transition (N)?

A. Off from Display Channel 1

B. Channel 2 from Display Channel 1

C. Stby from Live

D. Channel 2 from Live

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Answer: A

Explanation:

The digital rainbow Thermometer uses 7 colours to show the ambient temperature. Each colour spans a range of just 5, with an operating minimum and maximum of minus 5^C and 30^C. Which of the following values is LEAST likely to have been identified when applying the boundary value test design technique?

A. $+30^C$

B. 0^C

C. $+8^C$

D. $+15^C$

Answer: C

Explanation:

-5,---------0	+1,--------5	6,--------10	11-------15	16-------20	21-------25	26-------30

A system specification states that a particular field should accept alphabetical characters in either upper or lower case. Which of the following test cases is from an INVALID equivalence partition?

A. Feeds

B. F33ds

C. FEEDS

D. fEEDs

Answer: B

Explanation:

Which of the following is a specification-based (Black-box) test technique?

A. Use Case Testing

B. Error Guessing.

C. Condition coverage

D. Statement Testing.

Answer: A

Explanation:

Test procedure ID	Business Severity (1 = High 2 = Medium 3 = Low)	Dependencies on other test procedures	Other dependencies
P	1	Cannot start until R has completed	
Q	1	None	Regression Testing only
R	2	None	None
S	2	None	None
T	3		Delivery of the code for this part of system is running very late ActualTests
U	3	None	None

The above table shows 6 test procedures (P to U) that must now be entered into a test execution schedule. Business severity is regarded as the most important element in determining the sequence of the test procedures, but other dependencies must also be taken into consideration.

Regression testing can only be run once all other tests have completed.

Which of the following represents the MOST effective sequence for the test execution Schedule (where the first entry in the sequence is the first procedure to be run, the second entry is the second to be run and so on)?

A. Q, P, S, R, U, T.

B. R, S, U, P, Q, T.

C. R, P, S, U, T, Q.

D. P, Q, R, S, U, T

Answer: C

Explanation:

QUESTION-26

A wholesaler sells printer cartridges. The minimum order quantity is 5. There is a 20% discount for orders of 100 or more printer cartridges. You have been asked to prepare test cases using various values for the number of printer cartridges ordered. Which of the following groups contain three test inputs that would be generated using Boundary Value Analysis?

A. 5, 6, 20

B. 4, 5, 80

C. 4, 5, 99

D. 1, 20, 100

Answer: C

Explanation:

-Sonsuz ----------------------4	5----------------------------99	100------- + Sonsuz
Invalid	Valid (No discount)	Valid (20% discount)

QUESTION-27

A candidate sits an exam with 40 questions. To pass, the candidate must answer at least 25 questions correctly. To gain a distinction, a mark of 32 or above must be achieved. Which of these groups of exam scores would fall into three different equivalence classes?

A. 32, 36, 40

B. 0, 27, 36

C. 0, 24, 32

D. 25, 32, 40

Answer: B

Explanation:

0-----------------------------24	25--------------------------31	32----------------------------40
Failed (Invalid)	Pass (Valid)	Pass with Distinction (Valid)

QUESTION-28

Consider the following state table:

	A	B	C	D
S1	S2/R1	S3/R2	S1/N	S4/R6
S2	S2/N	S2/N	S3/R3	S4/R4
S3	S4/R5	S2/R3	S2/R6	S2/N
S4	S4/N	S4/N	S2/N	S1/R7

Which of the following would result in a change of state to S2 with an action of R6?

A. From state S1, input A

B. From state S2, input B

C. From state S3, input C

D. From state S4, input D

Answer: C

Explanation:

Süreç R6 işlemi ve S2 durumu ile bitecek. Bunu hangi şıktaki işlemler verir diye sorulmuş.
S3 ve C işlemleri S2/R6 sonucunu verir.

QUESTION-29

Given the following decision table:

	Rule 1	Rule 2	Rule 3	Rule 4
Conditions				
Frequent Flyer	Gold	Gold	Silver	Silver
Class	Business	Economy	Business	Economy
Actions				
Free Upgrade	First	Business	No	Business
Discounted Upgrade	N/A	First	First	ActualTests

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

P) Gold frequent flyer, travelling in Economy class.

Q) Silver frequent flyer, travelling in Business class.

A. P. Offer free upgrade to Business and discounted upgrade to First. Q. Offer discounted upgrade to first

B. P. Offer free upgrade to Business but cannot upgrade to First. Q. Offer discounted upgrade to first

C. P. Offer free upgrade to First. Q. Cannot upgrade to First

D. P. Offer discounted upgrade to First. Q. Offer free upgrade to First

Answer: A

Explanation:

18

P için rule 2 uygulanacak. Q için rule 3 uygulanacak.

QUESTION-30

Which statement is a valid explanation as to why black-box test design techniques can be useful?

A. They can help to derive test data based on analysis of the requirement specification

B. They can help derive test cases based on analysis of a component code structure

C. They can help to derive test conditions based on analysis of a system internal structure

D. They can help to reduce testing costs

Answer: A

Explanation:

QUESTION-31

Which of the following statements about black box and white box techniques is correct?

A. Decision Testing, Equivalence Partitioning and Condition Coverage are all black box techniques

B. Decision Table Testing, State Transition and Use Case Testing are all black box techniques

C. Decision Testing, Equivalence Partitioning and Statement Testing are all white box techniques

D. Boundary Value Analysis, State Transition and Statement Testing are all white box techniques

Answer: B

Explanation:

QUESTION-32- Sorunlu/Eksik soru

Arrive-and-Go airline wants to clarify its baggage handling policy, whilst maximising revenues, and will introduce the following tariffs for all baggage per individual customer (weights are rounded up to the nearest 0.1Kg):

The first 2Kg will be carried free of charge. The next 10 Kg will be carried for a flat charge of 0. An additional 15Kg will be charged a total charge of 7.

Luggage over this amount will be charged at ? per Kg, up to a maximum of 150Kg per person. No passenger may take more that 150Kg with them. Which of the following would constitute boundary values for baggage weights in the price calculation?

QUESTION-33

An automated air-conditioner is programmed to turn its heating unit on when the temperature falls below 17 and to turn its refrigeration unit on when the temperature exceeds 26. The air-conditioner is designed to operate at temperatures between -10 and +40. Given the above specification, which of the following sets of values shows that the equivalence partition test design technique has been used correctly?

A. -11, -1, 18, 27, 51

B. -11, -1, 12, 18, 27, 51

C. -1, 18, 51

D. -1, 12, 18, 27

Answer: A

Explanation:

- Sonsuz--- -11ᶜ	-10ᶜ--0--- +17 ᶜ	+18 ᶜ ----- +26 ᶜ	+27 ᶜ------- +40 ᶜ	+41 ᶜ--- + Sonsuz

QUESTION-34

Given the following decision table:

	Rule 1	Rule 2	Rule 3	Rule 4
Conditions				
Existing medical condition	Yes	No	No	No
Smoker	Don't care	Yes	No	No
Skiing	Don't care	Don't care	No	Yes
Actions				
Insure	No	Yes	Yes	Yes
Offer Discount	Not applicable	No	15%	10%

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

* Joe is a smoker who will be skiing and has an existing medical condition.

* Sue is a non-smoker who does not ski and does not have an existing medical condition.

A. Insure Joe offering no discount, insure Sue offering no discount

B. Insure Joe, offering a 10% discount and insure Sue offering a 10% discount

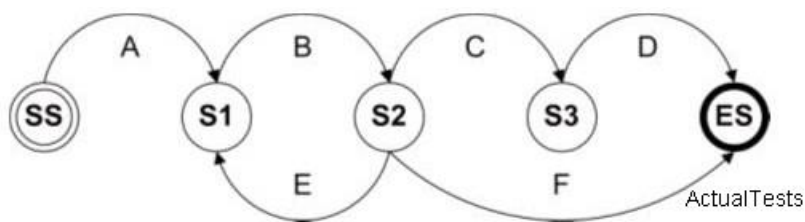C. Do not insure Joe and insure Sue offering no discount

D. Do not insure Joe and insure Sue offering a 15% discount

Answer: D

Explanation:

QUESTION-35

Given the following state transition diagram:

Which of the test cases below will cover the following series of state transitions?

SS S1 S2 S1 S2 ES

A. A, B, E, B, F

B. A, B, C, D

C. A, B, E, B, C, D

D. A, B, F

Answer: A

Explanation:

4.3- White-box Test Techniques

4.3.1 Statement Testing and Coverage
4.3.2 Decision Testing and Coverage
4.3.3 The Value of Statement and Decision Testing

QUESTION-36

Which of the following is a structure-based (white-box) technique?

A. Decision table testing

B. State transition testing

C. Statement testing

D. Boundary value analysis

Answer: C

Explanation:

All other options are specification-based (black-box) techniques, and the main distracter is answer (A) because decision table testing could be confused with decision testing.

QUESTION-37

Consider the following pseudo code:

1 Begin

2 Read Time

3 If Time < 12 Then

4 Print(Time, "am")

5 Endif

6 If Time > 12 Then

7 Print(Time 12, "pm")

8 Endif

9 If Time = 12 Then

10 Print (Time, "noon")

11 Endif

12 End

How many test cases are needed to achieve 100 per cent decision coverage?

A. 1

B. 2

C. 3

D. 4

Answer: C

Explanation:

The three decisions are in sequence and the conditions are all mutually exclusive (if any one is true the others must be false). Hence a test case that makes the first decision true will make the second and third decisions false and so on.

So test case 1 (say Time = 6) would exercise the path True, False, False, test case 2 (say Time = 15) would exercise the path False, True, False. Test case 3 would have to be Time = 12. This combination achieves 100 per cent decision coverage because each decision has been exercised through its true and its false outcomes.

QUESTION-38-----???

Consider the following pseudo code:

1 Begin

2 Read Time

3 If Time < 12 Then

4 Print(Time, "am")

5 Endif

6 If Time > 12 Then

7 Print(Time 12, "pm")

8 Endif

9 If Time = 12 Then

10 Print (Time, "noon")

11 Endif

12 End

If the test cases Time = 11 and Time = 15 were input, what level of decision coverage would be achieved?

A. 100% or 6/6

B. 50% or 3/6

C. 67% or 4/6

D. 83% or 5/6

Answer: D

Explanation:

Test case 1 exercises the decision outcomes True, False, False

Test case 2 exercises the decision outcomes False, True, False

This leaves the True outcome of decision 3 not exercised.

Of the 6 possible decision outcomes, 5 have been exercised, so the decision coverage is 5/6 (about 83%).

QUESTION-39

Which of the following describes structure-based (white-box) test case design techniques?

A. Test cases are derived systematically from models of the system.

B. Test cases are derived systematically from the tester's experience.

C. Test cases are derived systematically from the delivered code.

D. Test cases are derived from the developers' experience.

Answer: C

Explanation:

Answer (A) relates to specification-based testing, answer (B) relates to experience-based testing and answer (D) could relate either to debugging or to experience-based techniques.

QUESTION-40

Statement Coverage will not check for the following:

A. Missing Statements

B. Unused Branches

C. Dead Code

D. Unused Statement

Answer: A

Explanation:

QUESTION-41

Pair the correct test design techniques (i to v) with the category of techniques (x, y and z):

i)Exploratory Testing

ii)Equivalence Partitioning

iii)Decision Testing

iv)Use Case Testing

v)Condition coverage

x) Specification-based

y)Structure-based

z)Experienced-based

A. x =i and ii; y = iii and v; z = iv.

B. x =i, ii and iv; y = v; z = iii

C. x = ii andiv; y = iii and v; z = i.

D. x = iii andiv; y = v; z = i and ii.

Answer: C

Explanation
Bu soru üç test tekniğini de ilgilendirdiği için her bölümde sorulmuştur.

Consider the following pseudo code

1. Begin

2. Read Gender

3. __Print "Dear"

4. If Gender = 'female'

5. Print ("Ms")

6. Else

7. __Print ("Mr")

8. Endif

9. End

How many test cases are needed to achieve 100 per cent decision coverage?

A. 1

B. 2

C. 3

D. 4

Answer: B

Explanation:

Consider the following pseudo code:

1. Begin

2. Input X, Y

3. If X > Y

4. __Print (X, 'is greater than', Y)

5. Else

6. __Print (Y, is greater than or equal to', X)

7. EndIf

8. End

What is the minimum number of test cases required to guarantee both 100% statement coverage and 100% decision coverage?

A. Statement coverage = 3, Decision coverage = 3

B. Statement coverage = 2, Decision coverage = 2

C. Statement coverage = 1, Decision coverage = 2

D. Statement coverage = 2, Decision coverage = 1

Answer: B

Explanation:

QUESTION-44

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-45

Which of the following test design techniques is classified as a structure-based (white box) technique?

A. Exploratory testing

B. Decision table testing

C. State transition testing

D. Statement testing

Answer: D
Explanation:

The flow graph below shows the logic of a program for which 100% statement coverage and 100% decision coverage is required on exit from component testing.
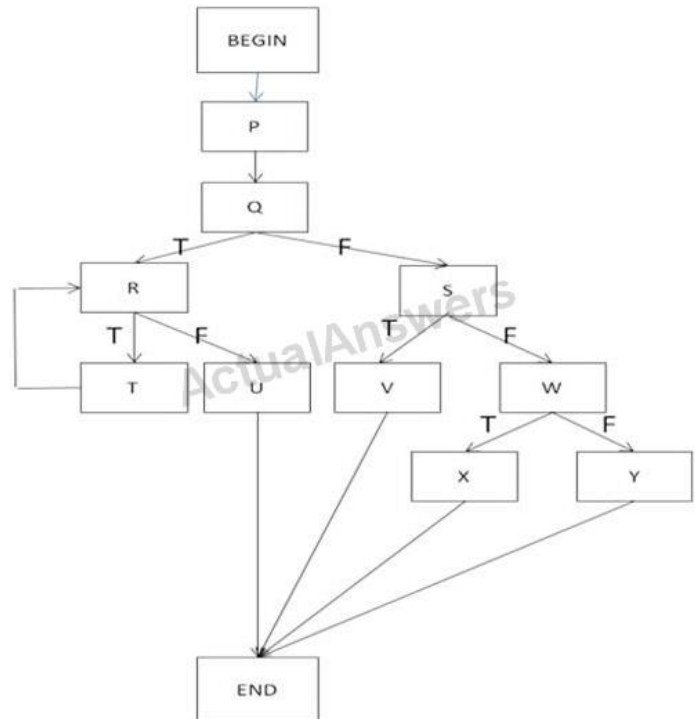
The following test cases have been run:

Test Case 1 covering path P,Q,R,U

Test Case 2 covering path P,Q,S,V

Test Case 3 covering path P,Q,S,W,X

Test case 4 covering path P,Q,S,W,Y

A. Statement coverage is 100%; decision coverage is 100%

B. Statement coverage is less than 100%; decision coverage is 100%.

C. Statement coverage is 100%; decision coverage is less than 100%

D. Statement coverage and decision coverage are both less than 100%

Answer: D

Explanation:

Which of the following test cases will ensure that the statement 'Print 'Hold'' is exercised?
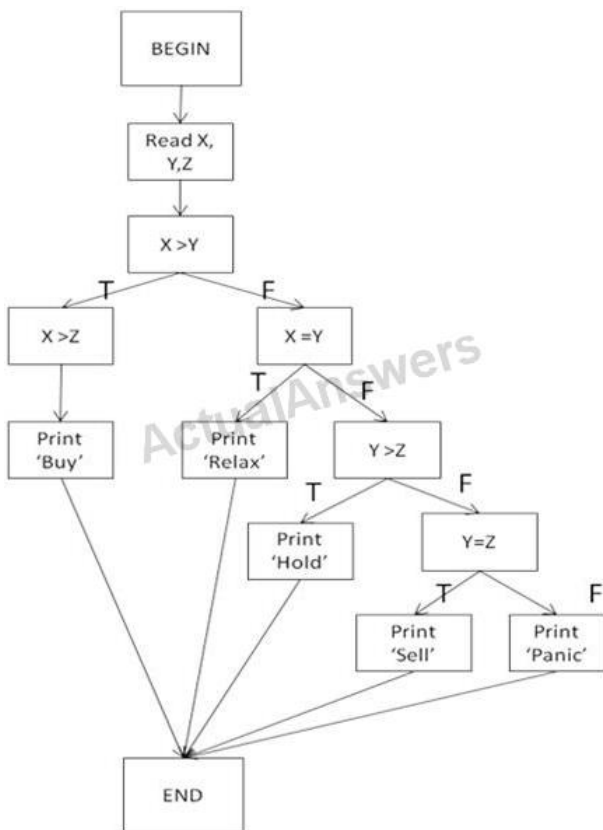
A. X=2, Y=2, Z=2

B. X=2, Y=3, Z=4

C. X=2, Y=4, Z=3

D. X=4, Y=3, Z=2

Answer: C

Explanation:

X, Y'den küçük ve Y de Z'den büyüktür.

Which of the test cases below will exercise both outcomes from decision 2?

Refer to the exhibit
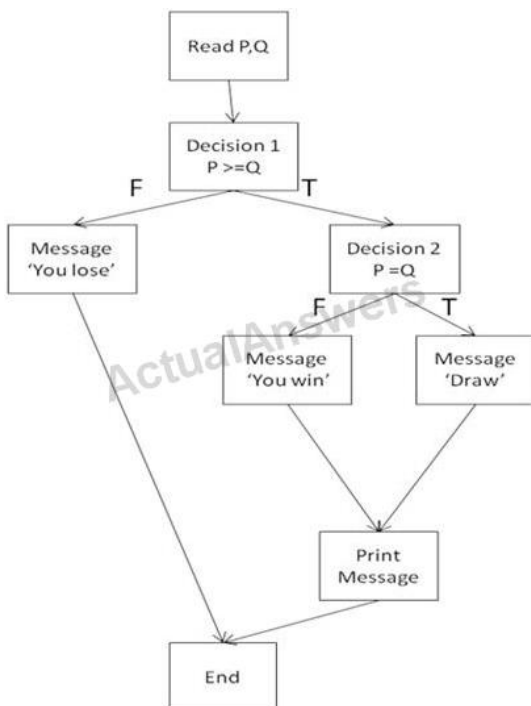
A. P = 24, Q = 20, P=24, Q=25

B. P = 36, Q = 36, P=37, Q=35

C. P = 42, Q = 43, P=42, Q=42

D. P = 37, Q = 36, P=35, Q=36

Answer: B

Explanation:

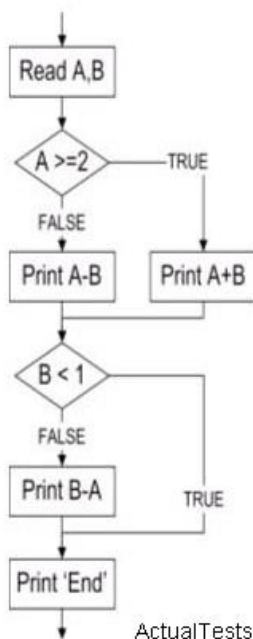Which of the following test case design techniques is white box (structure-based)?

A. Use case testing

B. State transition testing

C. Decision testing

D. Equivalence partitioning

Answer: C

Explanation:

QUESTION-50

Given the following flow chart diagram:

What is the minimum number of test cases required for 100% statement coverage and 100% decision coverage, respectively?

A. Statement Coverage = 1, Decision Coverage = 3.

B. Statement Coverage = 2, Decision Coverage = 3.

C. Statement Coverage = 2, Decision Coverage = 2.

D. Statement Coverage = 3, Decision Coverage = 3

Answer: C

Explanation:

QUESTION-51

Which of the following are structure-based techniques?

a) Decision table testing

b) Boundary value analysis

c) Multiple condition coverage

d) Use case testing

e) Decision testing

A. a and c.

B. b and d.

C. b and e.

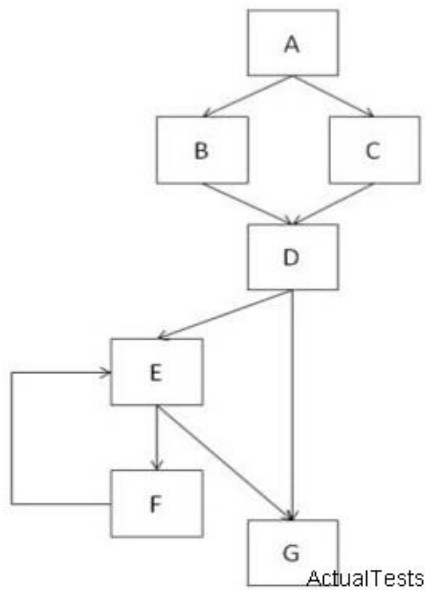D. c and e.

Answer: D

Explanation:

QUESTION-52

The flow graph below shows the logic of a program for which 100% statement coverage and 100% decision coverage is required on exit from component testing.

ActualTests

The following test cases have been run:

* Test Case 1 covering path A, B, D, G

* Test Case 2 covering path A, B, D, E, F, E, F, E, F, E, G

* Test Case 3 covering path A, C, D, E, F, E, G

Which of the following statements related to coverage is correct?

A. Statement coverage is 100%; decision coverage is 100%.

B. Statement coverage is less than 100%; decision coverage is 100%.

C. Statement coverage is 100%; decision coverage is less than 100%.

D.Statement coverage and decision coverage are both less than 100%.

Answer: A

Explanation:

QUESTION-53

You have designed test cases to provide 100% statement and 100% decision coverage for the following

```
if width > length then
        biggest_dimension = width
else
        biggest_dimension = length
end_if
```

The following has been added to the bottom of the code fragment above.

```
print "Biggest dimension is" & biggest_dimension.
print "Width: " & width print "Length: " & length.          ActualTests
```

How many MORE test cases are required?

A. One more test case will be required for 100 % decision coverage

B. Two more test cases will be required for 100 % statement coverage, one of which will be used to provide 100% decision coverage

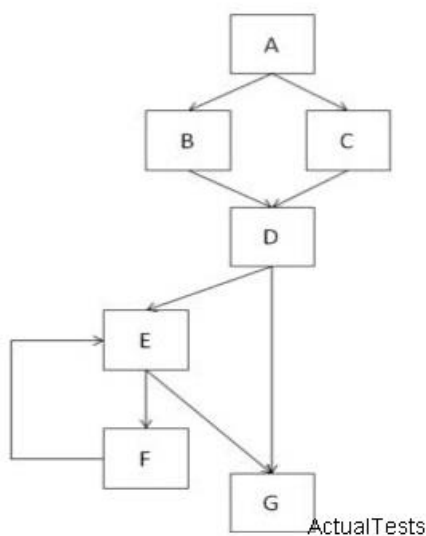C. None, existing test cases can be used

D. One more test case will be required for 100% statement coverage

Answer: C

Explanation:

QUESTION-54

The flow graph below shows the logic of a program for which 100% statement coverage and 100% decision coverage is required on exit from component testing.

ActualTests

The following test case has been run:

Test Case 1 covering path A, B, D, G

Which of the following ADDITIONAL test cases would need to be written to provide the required coverage?

A. Test Case 2 covering path A, C, D, E, F, E, G

B. Test Case 3 covering path A, B, D, E, G

C. Test Case 4 covering path A, C, D, E,GC.Test Case 4 covering path A, C, D, E, G

D. Test Case 5 covering path A, C, D, G

E. Test Case 5 covering path A, C, D, G

Answer: A

Explanation:

QUESTION-55

Which of the following are white-box test design techniques?

a) Decision table testing.

b) Decision coverage.

c) Boundary value analysis.

d) Error guessing.

e) Statement testing.

A. a and e

B. b and d

C. b and e

D. e and d

Answer: C

Explanation:

QUESTION-56

Which of the following statements about black box and white box techniques is correct?

A. Decision Testing, Equivalence Partitioning and Condition Coverage are all black box techniques

B. Decision Table Testing, State Transition and Use Case Testing are all black box techniques

C. Decision Testing, Equivalence Partitioning and Statement Testing are all white box techniques

D. Boundary Value Analysis, State Transition and Statement Testing are all white box techniques

Answer: B

Explanation:

QUESTION-57

Which two of the following are attributes of structural testing?

a) It is based on testing features described in a functional specification.

b) It can include statement and decision testing.

c) It can be carried out at all levels of testing.

d) It can include debugging.

A. a and b

B. a and d

C. b and d

D. b and c

Answer: D

Explanation:

QUESTION-58

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:

QUESTION-59

A system requires 100% decision coverage at component testing for all modules. The following module has been tested with a single test case.
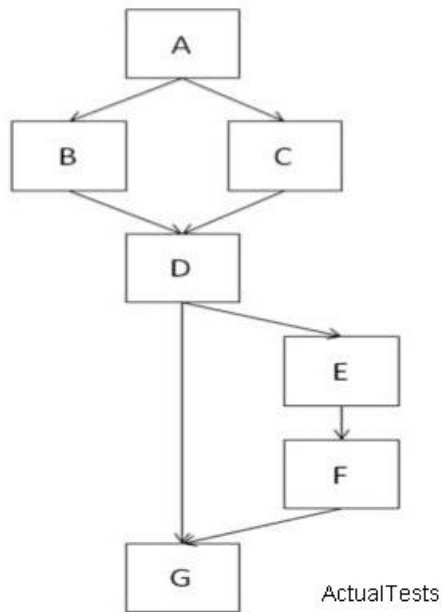
The test case follows the path A, B, D, E, F, G. What level of decision coverage has been achieved?

A. 100%

B. 50%

C. 75%C.75%

D. 90% D.90%

Answer: B

Explanation:

4.4- Experience-based Test Techniques

4.4.1 Error Guessing
4.4.2 Exploratory Testing
4.4.3 Checklist-based Testing

QUESTION-60

"Experience based" test design techniques, typically...

A. Use decision tables to generate the Boolean test conditions to be executed.

B. Identify the structure of the system or software at the component, integration or system level.

C. Use the skill, intuition and experience of the tester to derive the test cases, using error guessing and exploratory testing.

D. Establish traceability from test conditions back to the specifications and requirements.

Answer: C

Explanation:

QUESTION-61

From the following list, which of the following apply to experience-based techniques?

a.Test cases are derived from a model of the problem to be solved or the software

b.Test cases are derived from the knowledge of the testers

c.The knowledge of testers, developers and users is used to drive testing

d.The internal structure of the code is used to derive test cases

A. a and b.

B. c and d.

C. a and d.

D. b and c.

Answer: D

Explanation:

Which of the following statements describe why error guessing is a useful test design technique?

a) It can help derive test cases based on analysis of specification documents.

b) It can identify tests not easily captured by formal techniques.

c) It can make good use of tester experience and available defect data.

d) It is a cheaper alternative to more formal test design techniques.

A. a and b

B. b and c

C. c and d

D. a and c

Answer: B

Explanation

 Which of the following statements describe why experience-based test design techniques are useful?

a) They can help derive test cases based on analysis of specification documents.

b) They can identify tests not easily captured by formal techniques.

c) They make good use of tester knowledge, intuition and experience.

d) They are an effective alternative to formal test design techniques.

A. a and b.

B. b and d

C. c and d

D. b and c.

Answer: D

Explanation

Which of the following describes structure-based (white-box) test case design techniques?

A. Test cases are derived systematically from models of the system.

B. Test cases are derived systematically from the tester's experience.

C. Test cases are derived systematically from the delivered code.

D. Test cases are derived from the developers' experience.

Answer: C

Explanation:

Answer (A) relates to specification-based testing, answer (B) relates to experience-based testing and answer (D) could relate either to debugging or to experience-based techniques.

QUESTION-65

Which of the following statements describe why exploratory testing is a useful test design technique?

a) It can help derive test cases based on the internal structure of systems.

b) It is useful when there are limited specification documents available.

c) It is useful when there testing is constrained due to time pressures.

d) It is a cheaper alternative to more formal test design techniques.

A. b and c

B. a and c

C. b and d

D. c and d

Answer: A

Explanation

QUESTION-66

A simple gaming system has been specified as a set of use cases. It has been tested by the supplier and is now ready for user acceptance testing. The system is assessed as low risk and there is pressure to release the software into the market as soon as possible. Which of the following test techniques would be most appropriate for this testing?

A. State transition testing and decision testing

B. Equivalence partitioning and statement testing

C. Use case testing and exploratory testing

D. Decision table testing and exploratory testing

Answer: C

Explanation

QUESTION-67

Pair the correct test design techniques (i to v) with the category of techniques (x, y and z):

i)Exploratory Testing

ii)Equivalence Partitioning

iii)Decision Testing

iv)Use Case Testing

v)Condition coverage

x) Specification-based

y)Structure-based

z)Experienced-based

A. x =i and ii; y = iii and v; z = iv.

B. x =i, ii and iv; y = v; z = iii

C. x = ii andiv; y = iii and v; z = i.

D. x = iii andiv; y = v; z = i and ii.

Answer: C

Explanation
Bu soru üç test tekniğini de ilgilendirdiği için her bölümde sorulmuştur.