1. Which combination of p, q and r values will ensure 100 % statement coverage?

```
if (p = q) {
r = r + 1;
if (r < 5) {
s = 10;
}
} else if (p > q) {
s = 5;
}
```

A. p=5,q=5,r=5

p=5,q=4,r=-1

B. p=5,q=1,r=3

p=4,q=4,r=5

C. p=3,q=3,r=3

p=-1,q=-2,r=3

D. p=-1,q=-1,r=0

p= -2, q= -1,r=0

2. The test strategy that involves understanding the program logic is:

A. Equivalence partitioning

B. White box testing

C. Black box testing

D. Boundary strategy

3. For the following piece of code, how many test cases are needed to get 100% statement coverage?

Procedure XRead (Color) // Input color from user

IF (Color == "Red") THEN

Call Roses(Color)

ELSEIF (Color == "Blue") THEN

Call Violets(Color)

ELSE

PRINT "User is no Shakespeare"

SaveToDatabase(Color)

End Procedure X

A. 5

B. 3

C. 1

D. 2

4.

Using an error guessing test design technique to convert temperature (Celsi us to Fahrenheit, and Fahrenheit to Celsius), experienced testers will MOS T LIKELY use which set of test data?

A. -1, 0, 89.6 and 212

B. -40, 37.78, and 100

C. -1, 0, 1 and 37.78

D. -40, 0, 32 and 100

5. Which of the following statements about the relationship between statement coverage and decision coverage is correct?

A. 100% decision coverage is achieved if statement coverage is greater than 90%.

B. 100% statement coverage is achieved if decision coverage is greater than 90%.

C. 100% decision coverage always means 100% statement coverage.

D. 100% statement coverage always means 100% decision coverage.

6. If the temperature falls below 18 degrees, the heating is switched on. When the temperature reaches 21 degrees, the heating is switched off. What is the minimum set of test input values to cover all valid equivalence partitions?

A. 15, 19 and 25 degrees

B. 17, 18, 20 and 21 degrees

C. 18, 20 and 22 degrees

D. 16 and 26 degrees

7. Assume postal rates for 'light letters' are:

$0.25 up to 10 grams;

$0.35 up to 50 grams;

$0.45 up to 75 grams;

$0.55 up to 100 grams.

Which test inputs (in grams) would be selected using boundary value analysis?

A. 0, 9,19, 49, 50, 74, 75, 99,100

B. 10, 50, 75,100, 250, 1000

C. 0, 1,10,11, 50, 51, 75, 76,100,101

D. 25, 26, 35, 36, 45, 46, 55, 56

8. A company is going to provide their employees with a bonus which will be based on the employee′s length of service in the company. The bonus calculation will be zero if they have been with the company for less than two years, 10% of their salary for more than two but less than five years, and 25% for five to ten years, 35% for ten years or more. The interface will not allow a negative value to be input, but it will allow a zero to be input.

How many equivalence partitions are needed to test the calculation of the bonus?

A. Two equivalence partitions.

B. Three equivalence partitions.

C. Four equivalence partitions.

D. Five equivalence partitions.

9. Given the following sample of pseudo code:

01 Input number of male rabbits

02 Input number of female rabbits

03 If male rabbits > 0 and female rabbits > 0 then

04   Input Do you want to breed (Yes / No)

05   If breed = "No"

06   Print "Keep male and female rabbits apart!"

07   End if

08 End If.

Which of the following test cases will ensure that statement "06" is executed?

A. male rabbits = 1, female rabbits = 1, breed = "yes".

B. male rabbits = 1, female rabbits = 1, breed = "no".

C. male rabbits = 1, female rabbits = 2, breed = "yes".

D. male rabbits = 1, female rabbits = 0, breed = "no".

10. Match the test design techniques to the correct descriptions.
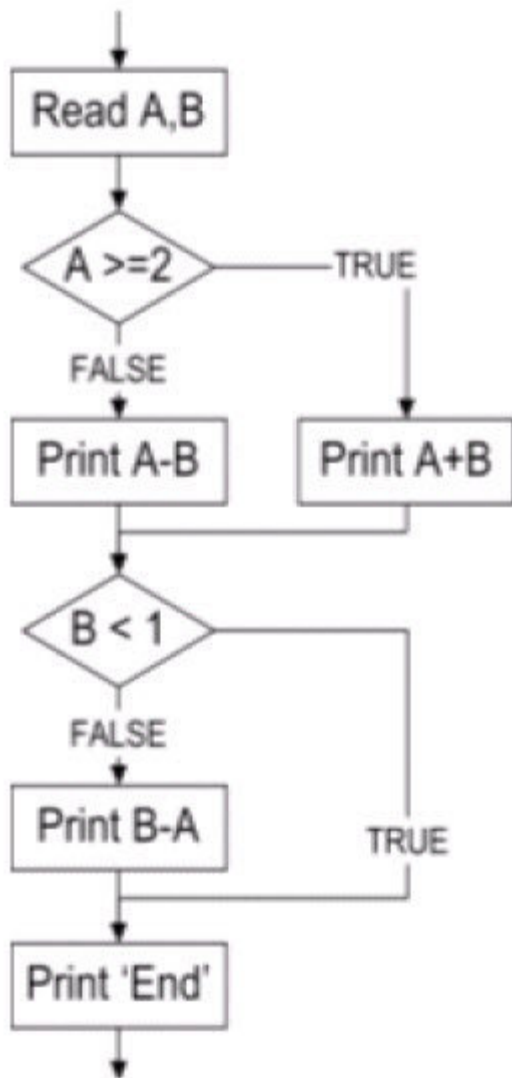
S. Black-box technique

T. White-box technique

U. Structural-based technique

V. Specification-based technique

1. Selecting test cases based on documentation

2. Ignoring the internal structure of the system

A. S1, S2, U1 and U2

B. T1, T2, U1 and U2

C. S1, S2, V1 and V2

D. T1, T2, V1 and V2

11. 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

12. 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.

13. 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.

Picture

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%.

14. 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's 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.

15. 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

16. Which of the following is a specification-based technique?

A. Use Case Testing

B. Error Guessing.

C. Condition coverage

D. Statement Testing.

17. 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

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'

18. 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 and iv; y = iii and v; z = i.

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

19. A bank application determines the creditworthiness of customers. The application uses a set of rules to determine the upper limit of the credit amount. Which of the following black-box test design techniques is best for testing the application?

A. State transition testing

B.Use case testing

C. Equivalence partitioning

D. Decision table testing

20. Given the following sample of pseudo code:

Read A, B, C;

If A > B then

Print "Primary ratio is" & A / B;

End If

If A > C then

Print "Secondary ration is" & A / C;

End If.

Which of the following test cases would achieve 100% statement coverage?

A. A = 5, B = 10 and C = 2

B. A = 10, B = 10 and C = 10

C. A = 10, B =5 and C = 2

D. A = 2, B= 5 and C = 10

21. 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's code structure

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

D. They can help to reduce testing costs

22. Given the following decision table:

	Rule 1	Rule 1	Rule 1	Rule 1
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	None

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

23. 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

24. Given the following decision table:

	Rule 1	Rule 1	Rule 1	Rule 1
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

25. 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

26. Given the following sample of pseudo code:

Input ExamScore

If ExamScore <= 75 then

Print "Candidate has failed"

Else

Print "Candidate has passed"

If ExamScore >= 120 then

Print "Candidate has achieved a distinction"

EndIf

EndIf.

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

A. 2

B. 1

C. 3

D. 4

27. Arrive-and-Go airline wants to clarify its baggage handling policy, whilst maximizing 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 $10.

 An additional 15Kg will be charged a total charge of $17.

Luggage over this amount will be charged at $5 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?

A. 0, 5.0, 10.0, 17.0

B. 2.0, 9.9, 15.0, 26.9

C. 1.9, 12.0, 14.9, 150.0

D. 2.0, 12.1, 27.0, 150.1