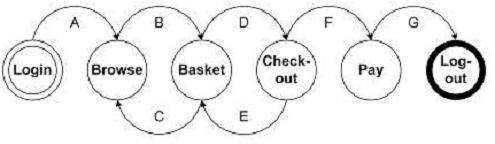
**Examples of statement coverage, branch coverage and path coverage.**  
  
Q. 1: Given the following state transition diagram Which of the following series of  
state transitions contains an INVALID transition which may indicate a fault in the system  
design?  
**Exhibit:**  
  
A. Login Browse Basket Checkout Basket Checkout Pay Logout.  
B. Login Browse Basket Checkout Pay Logout.  
C. Login Browse Basket Checkout Basket Logout.  
D. Login Browse Basket Browse Basket Checkout Pay Logout  
  
Q. 2: Given the following fragment of code, how many tests are required for 100%  
decision coverage?  
if width > length  
 then  
 biggest\_dimension = width  
 if height > width  
 then  
 biggest\_dimension = height  
 end\_if  
else  
 biggest\_dimension = length  
  
 if height > length  
 then  
 biggest\_dimension = height  
 end\_if  
end\_if

A. 3  
**B. 4**C. 2  
D. 1

Q. 3: Given the Following program  
IF X <>= Z  
THEN Statement 2;  
END  
McCabe’s Cyclomatic Complexity is :  
A. 2  
**B. 3**  
C. 4  
D. 5  
  
Q.4: How many test cases are necessary to cover all the possible sequences of  
statements(paths) for the following program fragment? Assume that the two conditions  
are independent of each other:  
if (Condition 1)  
then statement 1  
else statement 2  
fi  
if (Condition 2)  
then statement 3  
fi  
A. 2 Test Cases  
B. 3 Test Cases  
**C. 4 Test Cases**  
D. Not achievable  
  
Q. 5: Given the following:  
Switch PC on  
Start "outlook"  
IF outlook appears THEN  
Send an email  
Close outlook  
A. 1 test for statement coverage, 1 for branch coverage  
**B. 1 test for statement coverage, 2 for branch coverage**C. 1 test for statement coverage. 3 for branch coverage  
D. 2 tests for statement coverage, 2 for branch coverage  
E. 2 tests for statement coverage, 3 for branch coverage  
  
Q. 6: Given the following code, which is true:  
IF A > B THEN  
C = A – B  
ELSE  
C = A + B  
ENDIF  
Read D  
IF C = D Then  
Print "Error"  
ENDIF  
A. 1 test for statement coverage, 3 for branch coverage  
**B. 2 tests for statement coverage, 2 for branch coverage**  
C. 2 tests for statement coverage. 3 for branch coverage  
D. 3 tests for statement coverage, 3 for branch coverage  
E. 3 tests for statement coverage, 2 for branch coverage  
  
Q. 7: Consider the following:  
Pick up and read the newspaper  
Look at what is on television  
If there is a program that you are interested in watching then switch the television on  
and watch the program  
Otherwise  
Continue reading the newspaper  
If there is a crossword in the newspaper then try and complete the crossword  
A. SC = 1 and DC = 1  
B. SC = 1 and DC = 2  
C. SC = 1 and DC = 3  
D. SC = 2 and DC = 2  
**E. SC = 2 and DC = 3**  
  
Q. 8: Given the following code, which is true about the minimum number of test  
cases required for full statement and branch coverage:  
Read P  
Read Q  
IF P+Q > 100 THEN  
Print "Large"  
ENDIF  
If P > 50 THEN  
Print "P Large"  
ENDIF  
A. 1 test for statement coverage, 3 for branch coverage  
**B. 1 test for statement coverage, 2 for branch coverage**  
C. 1 test for statement coverage, 1 for branch coverage  
D. 2 tests for statement coverage, 3 for branch coverage  
E. 2 tests for statement coverage, 2 for branch coverage  
  
Q. 9: Minimum Test Required for Statement Coverage:  
Disc = 0  
Order-qty = 0  
Read Order-qty  
If Order-qty >=20 then  
Disc = 0.05  
If Order-qty >=100 then  
Disc =0.1  
End if  
End if  
A. Statement coverage is 4  
**B. Statement coverage is 1**  
C. Statement coverage is 3  
D. Statement Coverage is 2  
  
Q. 10: Minimum Tests Required for Statement Coverage and Branch Coverage:  
Read P  
Read Q  
If p+q > 100 then  
Print "Large"  
End if  
If p > 50 then  
Print "pLarge"  
End if  
A. Statement coverage is 2, Branch Coverage is 2  
B. Statement coverage is 3 and branch coverage is 2  
**C. Statement coverage is 1 and branch coverage is 2**  
D. Statement Coverage is 4 and Branch coverage is 2  
  
Q. 11: What is the smallest number of test cases required to Provide 100% branch  
coverage?  
If(x>y) x=x+1;  
else y=y+1;  
while(x>y)  
{  
y=x\*y; x=x+1;  
}  
A. 1  
**B. 2**  
C. 3  
D. 4  
  
Q. 12: If the pseudo code below were a programming language ,how many tests are  
required to achieve 100% statement coverage?  
1. If x=3 then  
2. Display\_messageX;  
3. If y=2 then  
4. Display\_messageY;  
5. Else  
6. Display\_messageZ;  
7. Else  
8. Display\_messageZ;  
A. 1  
B. 2  
**C. 3**  
D. 4  
  
Q. 13: This part of a program is given:  
WHILE (condition A) Do B  
END WHILE  
How many decisions should be tested in this code in order to achieve 100% decision  
coverage?  
**A. 2**  
B. Indefinite  
C. 1  
D. 4  
  
Q. 14: Analyze the following highly simplified procedure:  
Ask: "What type of ticket do you require, single or return?"  
IF the customer wants ‘return’  
Ask: "What rate, Standard or Cheap-day?"  
IF the customer replies ‘Cheap-day’  
Say: "That will be £11:20"  
ELSE  
Say: "That will be £19:50"  
ENDIF  
ELSE  
Say: "That will be £9:75"  
ENDIF  
Now decide the minimum number of tests that are needed to ensure that all the questions  
have been asked, all combinations have occurred and all replies given.  
**A. 3**  
B. 4  
C. 5  
D. 6