Winter_25_Quiz_3 - Results

Attempt 1 of 1

Written Jan 28, 2025 7:57 PM - Jan 28, 2025 8:22 PM

Attempt Score	**11.5 / 20 - 57.5 %**
Overall Grade (Highest Attempt)	**11.5 / 20 - 57.5 %**

Question 1

Using the following table obtain F:

A	B	C	F
0	0	0	0
0	0	1	0
0	1	0	1
0	1	1	1
1	0	0	0
1	0	1	0
1	1	0	1
1	1	1	1

1) A'B'C+A'B'C'+AB'C'+AB'C

✓ 2) ABC'+ABC+A'BC+A'BC'

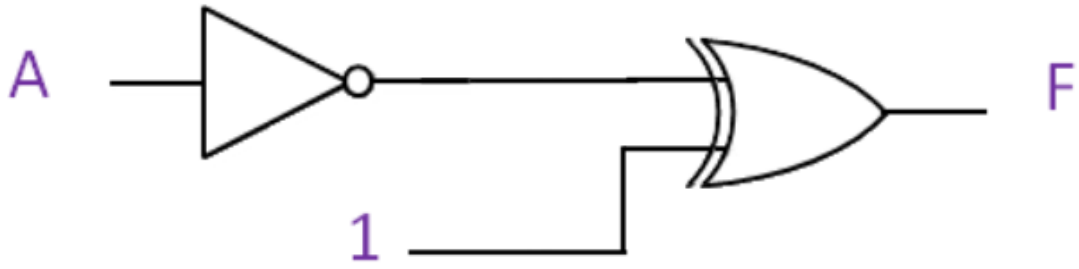
3) A'BC'+A'BC+AB'C'+ABC

4)

A'B'C'+A'B'C+AB'C'+AB'C'

Question 2

What is the value of F = ?



0

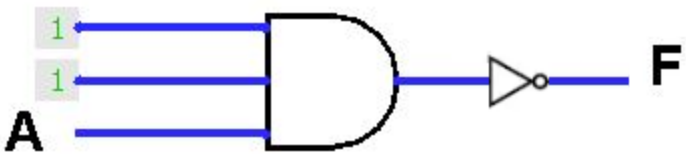
1

A

A'

Question 3

Using the following circuit the value of F is :



1) A

2) A'

3) 1

4) 0

Question 4

If the number of Boolean variables is 3 then the number of Boolean functions can be built using these variables is equal to :

1) 512

✔ 2) 256

3) 8

4) 16

Question 5

Using Boolean identities, reduce the given Boolean expression:

F(X, Y, Z) = X′Y + YZ′ + YZ + XY′Z′

X′Y + YZ′ + YZ + XY′Z′
YZ′ + YZ + X′Y +XY′Z′
Y(Z′ + Z) + X′Y +XY′Z′
Y(1)+ X′Y +XY′Z′
Y(1+ X′) +XY′Z′
Y(1) +XY′Z′
Y +XY′Z′

The correct answer is not displayed for Written Response type questions.

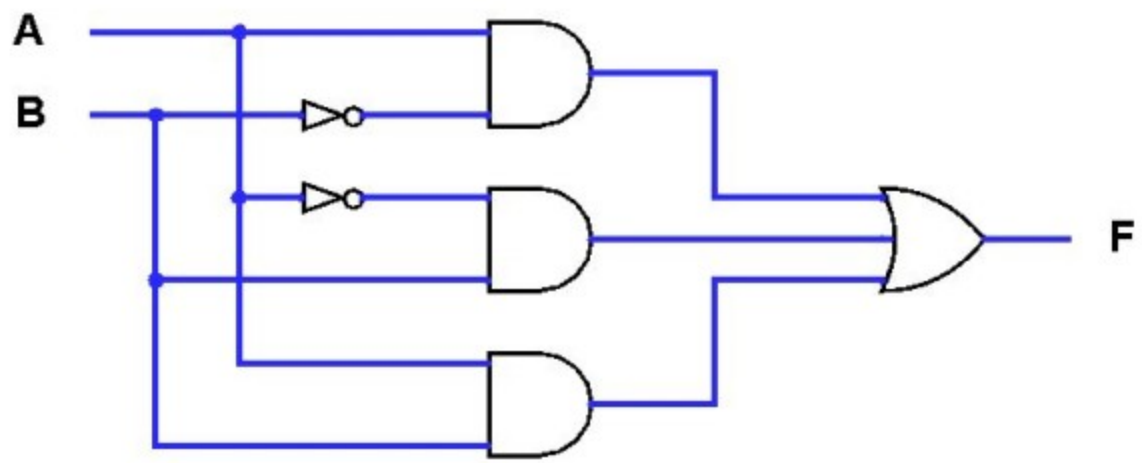
Hide question 5 feedback

Feedback

X′Y + YZ′ + YZ + XY′Z′
Y(X′ + Z′ + Z) + XY′Z′
Y + XY′Z′
(Y+Y')(Y+XZ')
Y+XZ'

Question 6

Considering the following circuit what is the value of F if A = 0 and B = 1



✔ 1) F = 1

2) F = 0

Question 7

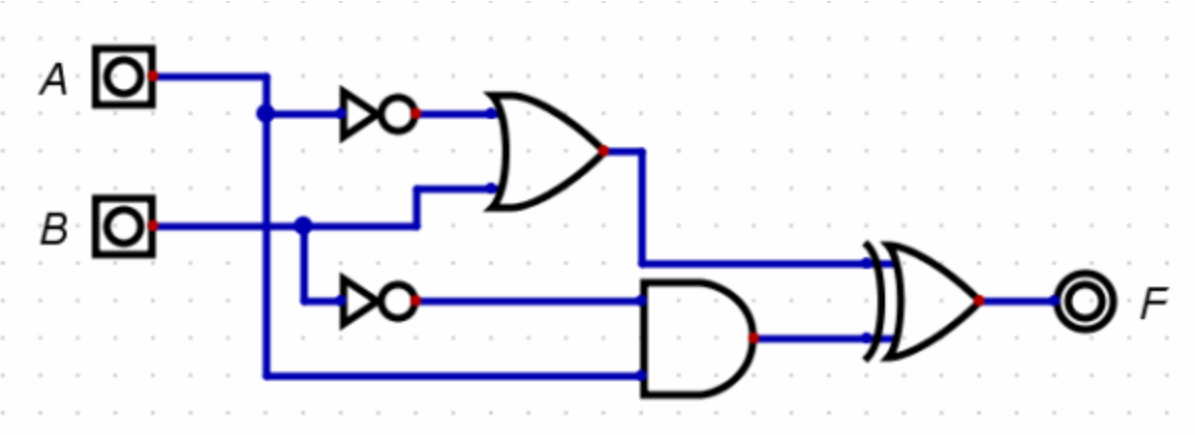
There are ___8___ ✖ **(16)** Minterms for 4 variables (A, B, C, D)

Question 8

Write the Boolean expression equivalent to the following logic circuit:

+ (OR)

⊕ (XOR)



✔ 1) 1

2) AB'+ A'+ B

3) A⊕B

Question 9

Simplify F = A'B+AB'+B'

1) A+B'

➡ 2) A'+B'

✖ 3) A'+B

4) A+B

Question 10

F = (A + A')'+ AA'

After simplification, F = ?

1) 1

2) A'

3) A

4) 0

Done