Assignment # 2

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Q1

$F(A, B) = \Sigma(0, 1, 2, 3)$ Solve

	$\bar{B}$	B
$\bar{A}$	1 (0)	1 (1)
A	1 (2)	1 (3)

$F(a, b) = 1$

Q2.

$\overline{(\overline{A+B})} + \bar{C}$ Simplify

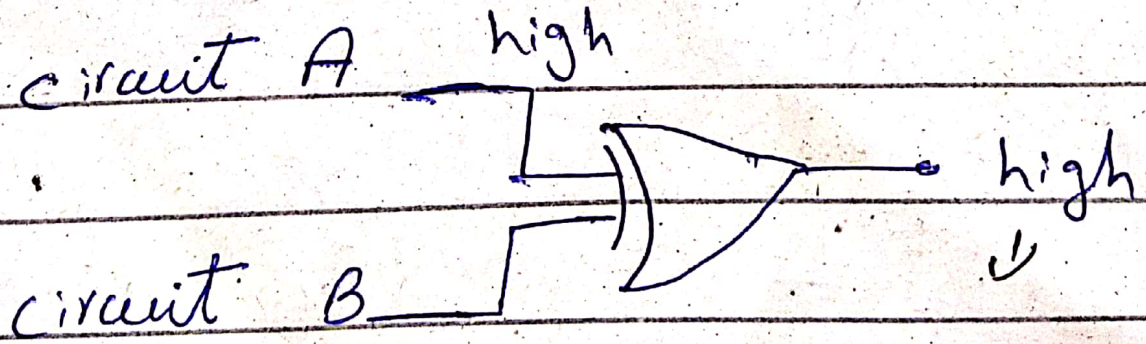
i) $(\overline{A+B}) \cdot \bar{C}$

ii) $(A+B) \cdot C$

Q3

Solution.

Circuit is connected to inputs of XOR gate. Failure in one of the ~~inputs~~ of circuit produces different output and causes input of XOR to be at opposite level. This condition produces high output and indicates failure in one of circuits



Q4

How NOR is equal to -ive AND?

NOR gate can be used for an AND operation that requires to inputs to produce high output. This aspect of NOR operation is called Negative-AND.

Truth tables

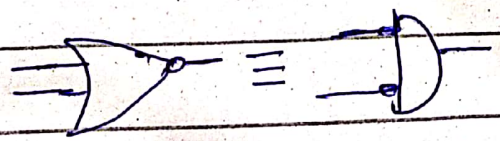
NOR

A	B	X
0	0	1
0	1	0
1	0	0
1	1	0

AND

A	B	X
0	0	0
0	1	0
1	0	0
1	1	1

But, when the NOT is applied to inputs of AND gate it behaves like NOR gate



NOR -ive AND.

-ive AND

A	B	X
0	0	1
0	1	0
1	0	0
1	1	0