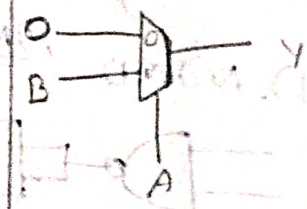
AND

A	B	Y
0	0	0
0	1	0
1	0	0
1	1	1

$Y = A.B$

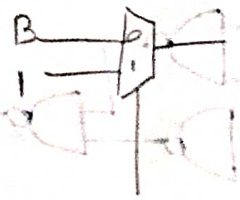


$y = A'0 + AB$
$= AB$

OR

A	B	Y
0	0	0
0	1	1
1	0	1
1	1	1

$Y = A + B$

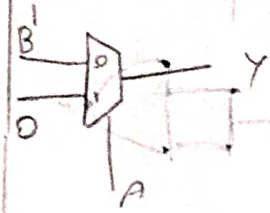


$Y = A'B + A$
$= A + B$

NOR

A	B	Y
0	0	1
0	1	0
1	0	0
1	1	0

$Y = \overline{A+B}$

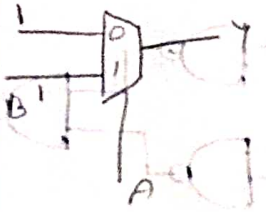


$Y = A'B' + A.0$
$= A'B'$
$= (\overline{A+B})$

NAND

A	B	Y
0	0	1
0	1	1
1	0	1
1	1	0

$Y = \overline{AB}$

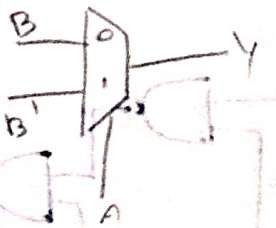


$y = A' + AB'$
$= A' + B'$
$= \overline{AB}$

XOR

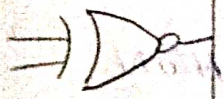
A	B	Y
0	0	0
0	1	1
1	0	1
1	1	0

$Y = \bar{A}B + A\bar{B}$
$= A \oplus B$



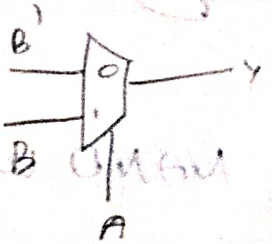
$Y = A'B$
$+ AB'$
$= A \oplus B$

XNOR



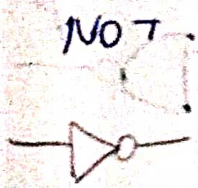
A	B	Y
0	0	1
0	1	0
1	0	0
1	1	1

$Y = \bar{A}\bar{B} + AB$
$= A \odot B$



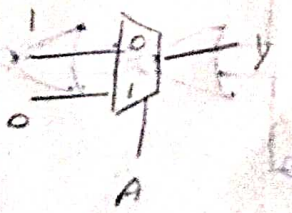
$V = A'B' + AB$
$= A \odot B$

NOT



A	Y
0	1
1	0

$Y = \bar{A}$



$Y = A' + A0$
$= A'$