Assignment 1
DEAM

Title - Verification of Boolean Algebra by using logical gates

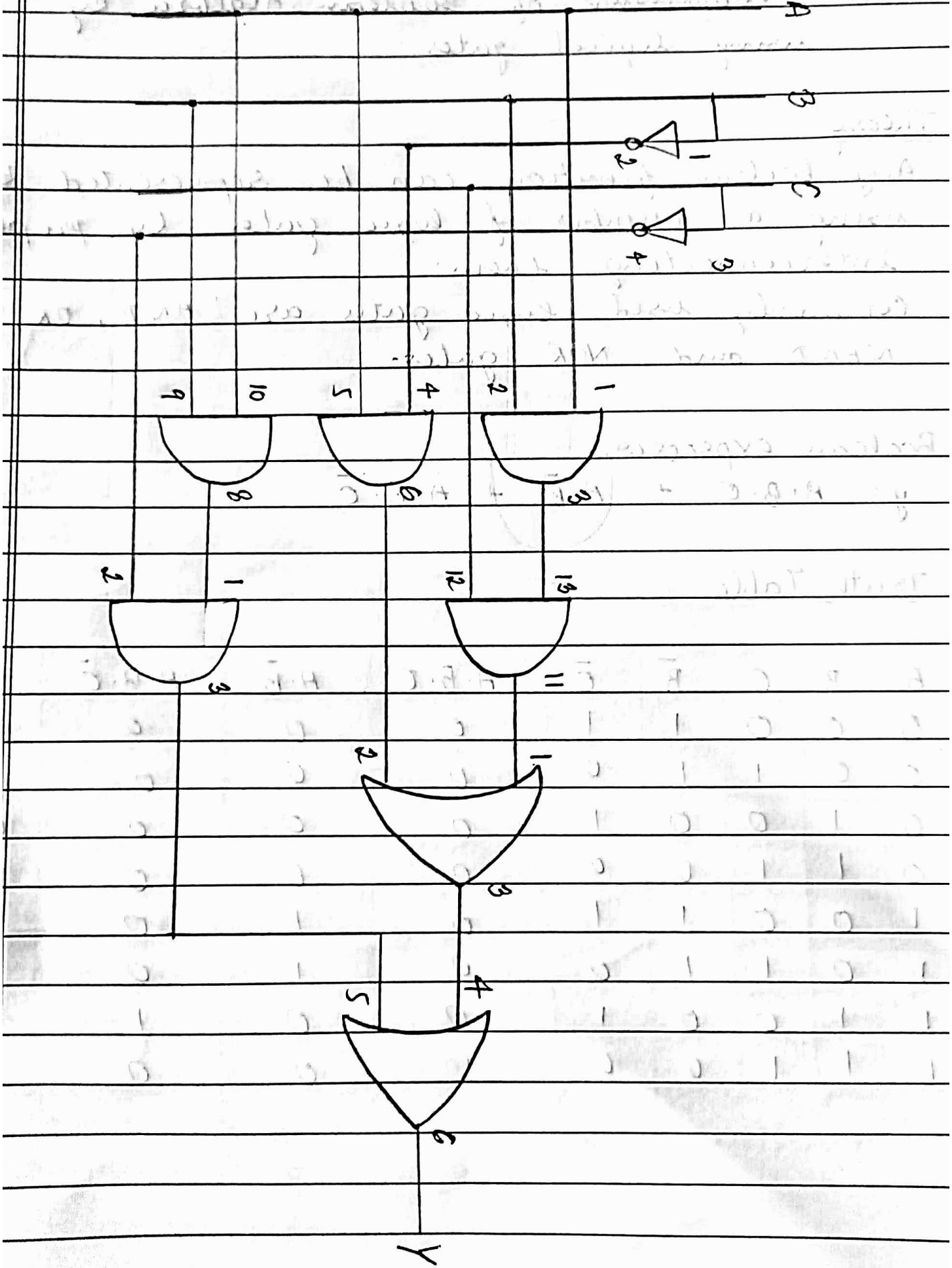
Theory
Any boolean function can be represented by using a number of logic gates by properly interconnecting them.
Commonly used logic gates are: AND, OR, NAND and NOR gates.

Boolean expression
$y = A \cdot B \cdot C + A \cdot \bar{B} + A \cdot B \cdot \bar{C}$

Truth Table

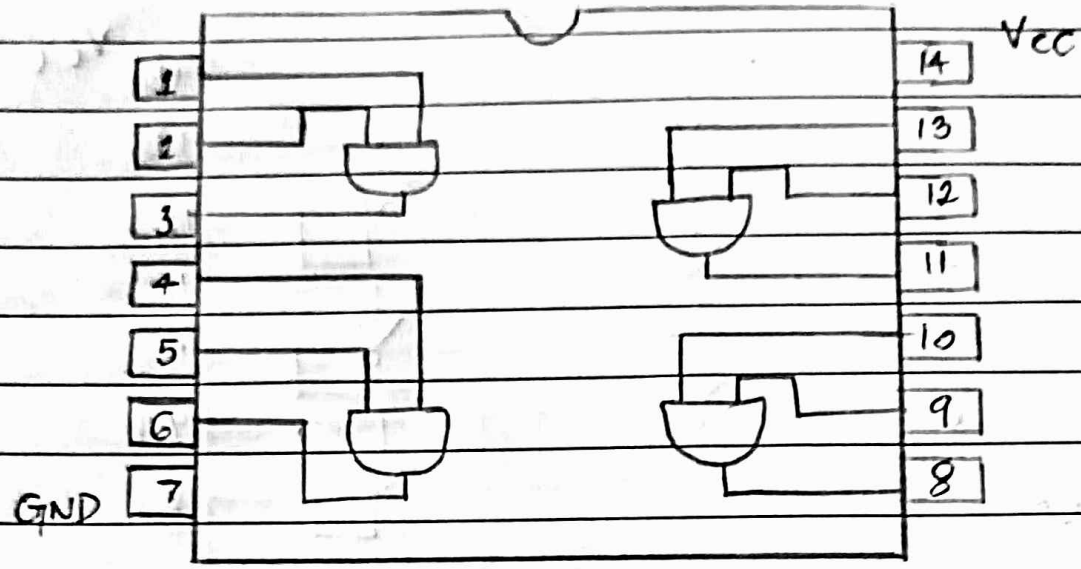
A	B	C	$\bar{B}$	$\bar{C}$	$A \cdot B \cdot C$	$A \cdot \bar{B}$	$A \cdot B \cdot \bar{C}$	Y
0	0	0	1	1	0	0	0	0
0	0	1	1	0	0	0	0	0
0	1	0	0	1	0	0	0	0
0	1	1	0	0	0	0	0	0
1	0	0	1	1	0	1	0	1
1	0	1	1	0	0	1	0	1
1	1	0	0	1	0	0	1	1
1	1	1	0	0	1	0	0	1

Circuit diagram

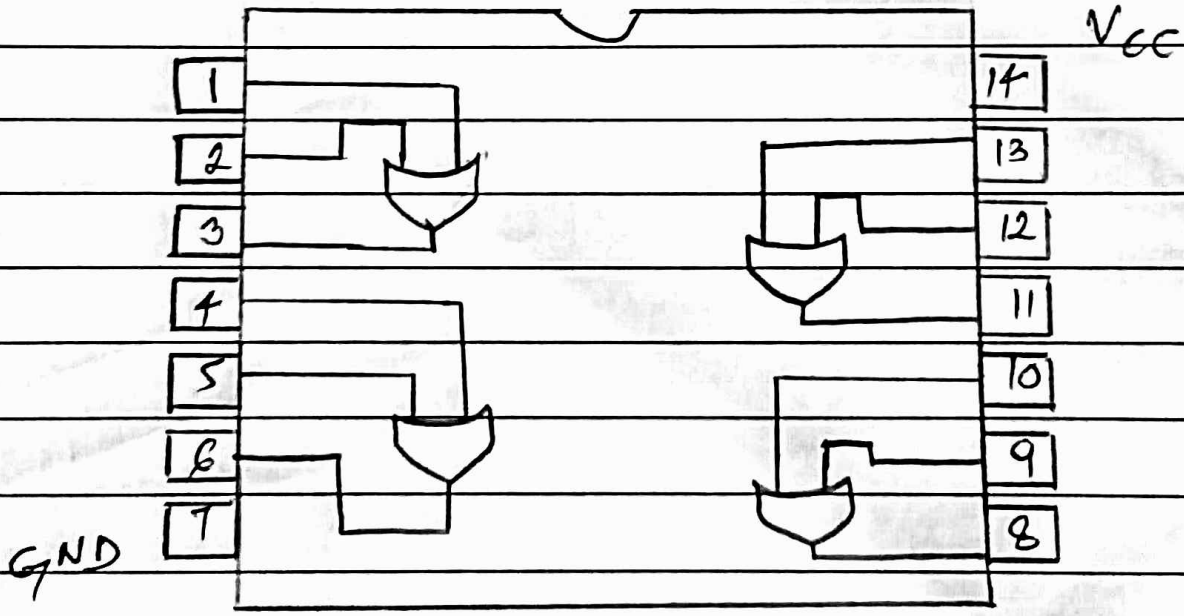


IC diagram

① AND



② OR



③ NOT