

MID-TERM PRACTICAL

①

Computer Organisation & Architecture

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Course - MCA (1-B)

Ans ① -

NAND GATE

The NAND gate or "NotAND" gate is the combination of two basic logic gates, the AND gate and the NOT gate connected in series

working -
- The output of a NAND gate is high when either of the inputs is high or if both the inputs are low, In other words, the output is always high and goes low only when both inputs are high

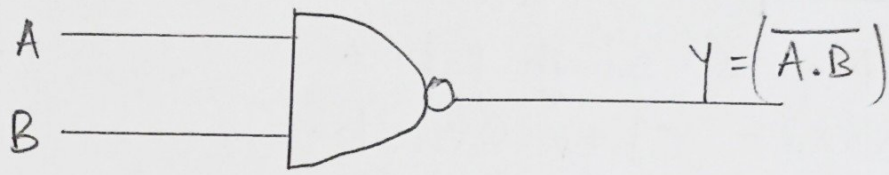
- The NAND function is given by Boolean expression

$$Y = \overline{A \cdot B}$$

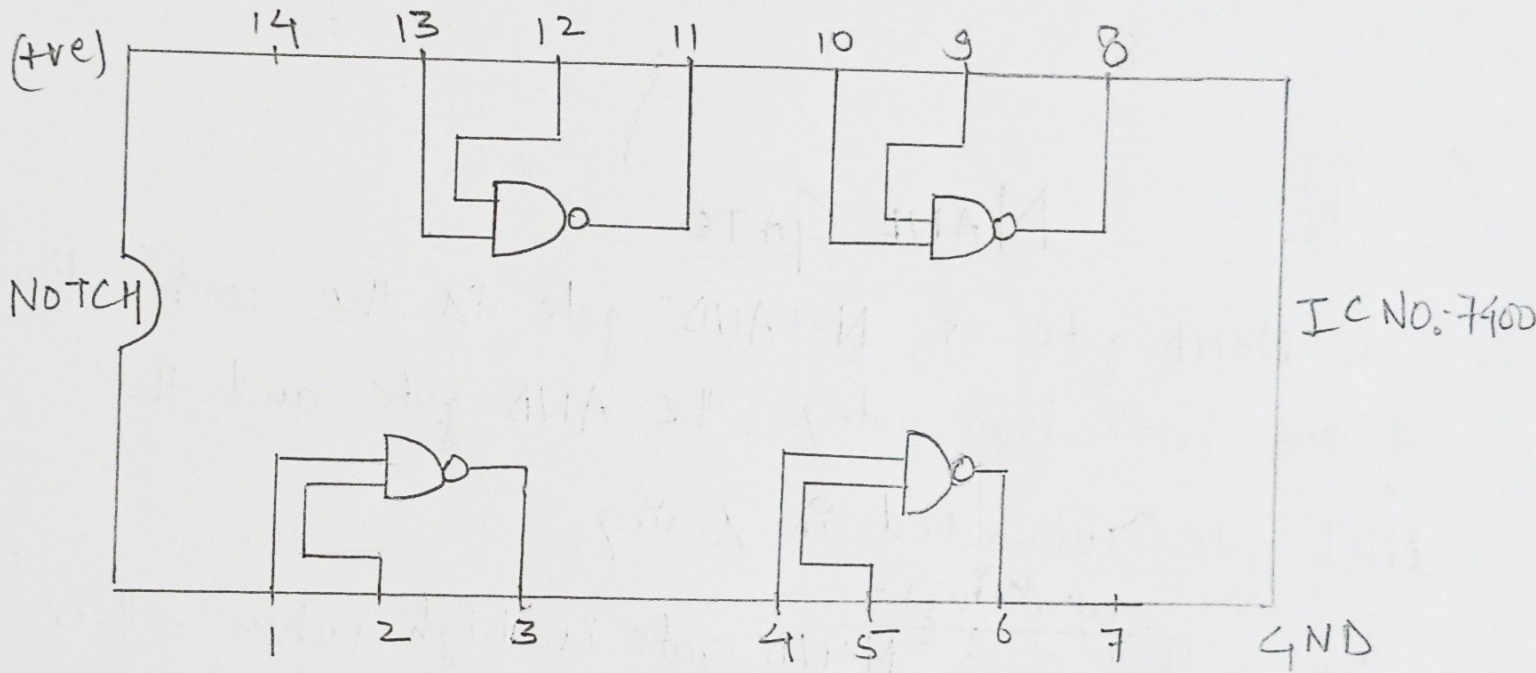
- NAND gate is the inverter of AND gate

Logic diagram -

(2)



I-C Diagram -



TRUTH TABLE -

INPUT		OUTPUT
A	B	$Y = \overline{A.B}$
0	0	1
0	1	1
1	0	1
1	1	0