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Subject - CO mid term practical exam.

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Course - MCA

Section - A

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Ans 1 - NAND GATE - In digital electronics, a NAND gate (NOT-AND) is a logic gate which produces an output which is false only if all its inputs are true; thus its output is complement to that of an AND gate.

The NAND gate is significant because any boolean function can be implemented by using a combination of NAND gates. This property is called Functional Completeness.

NAND gate using circuit diagram.

Apparatus required - the logic NAND gate IC, power supply, hook up wires and breadboard.

theory - the logic gate is generally classed as a 'UNIVERSAL GATE' because it is one of the most used logic gate type. All gates can be implemented by NAND gate.

Rajeev

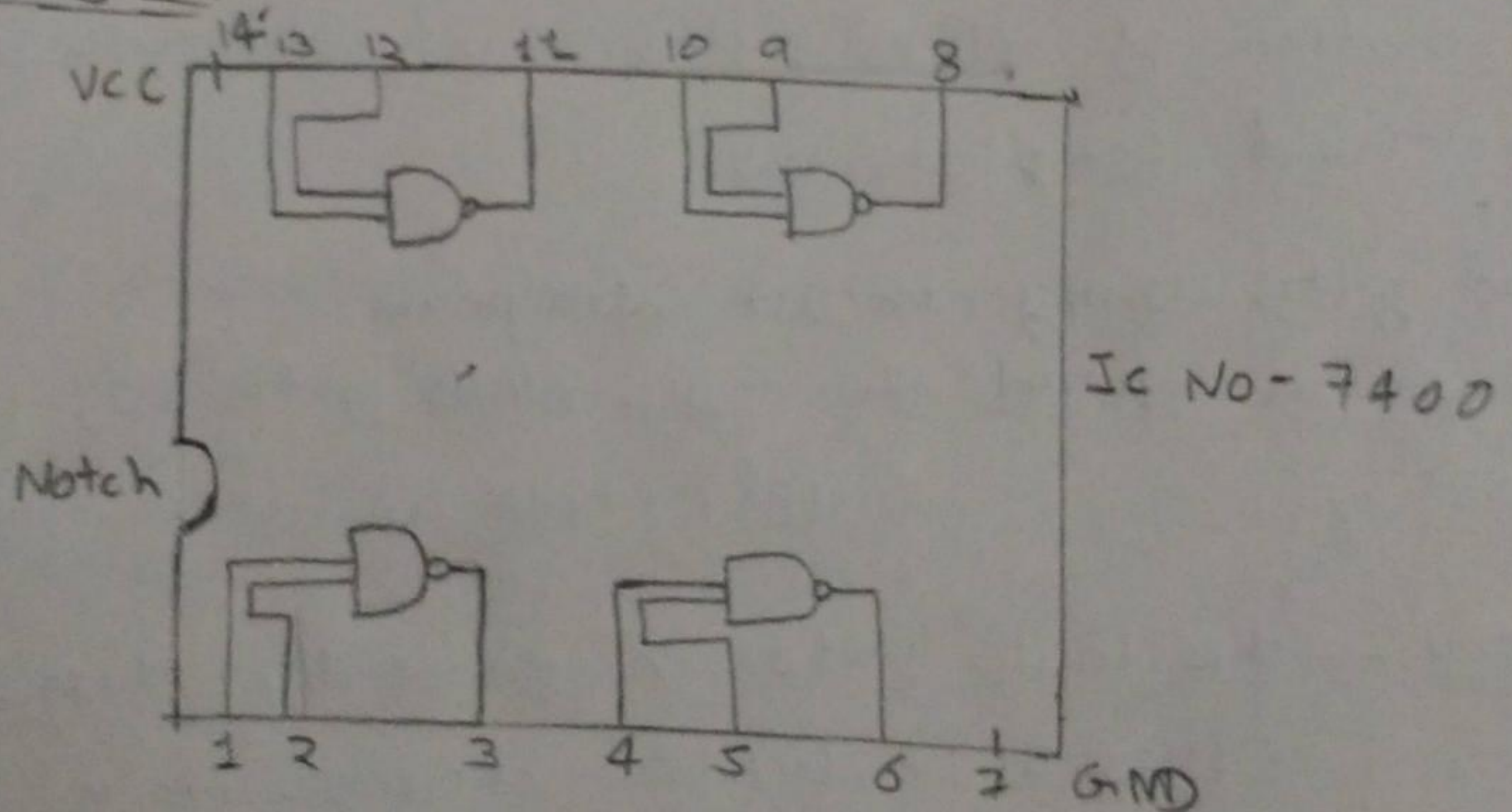


③  
Boolean expression is  $C = \overline{A \cdot B}$  the NAND gate has an output low (0) only when all inputs are high (1). it is the inverter of AND gate.

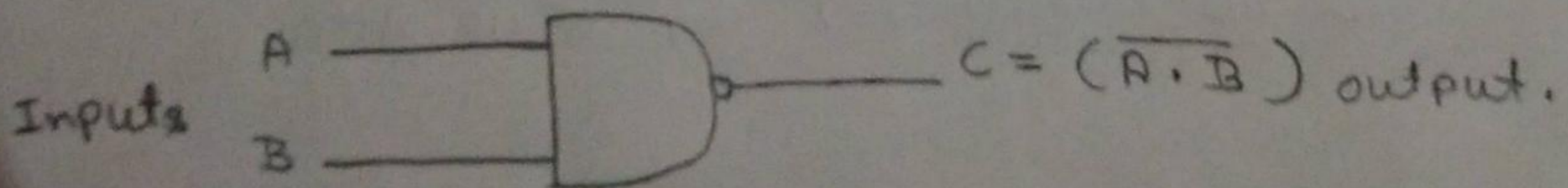
Truth table -

Input		Output
A	B	$C = (\overline{A \cdot B})$
0	0	1
0	1	1
1	0	1
1	1	0

circuit diagram -



logic diagram -



Kaavev