

NAME: PARAS PASBOLA

①

DATE: 22-03-22

University Roll No: 2101140

Subject: CO
mid term

Enrollment no: PV-21010140

Course: MCA

Subject Code:

Section: A

Student id: 21711130

Answer. 1 NAND GATE : In digital electronics, a nand gate is combination of NOT-AND gate, which produces an output which is false only if all it's inputs are true.

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 & breadboard.

Theory: The logic gate is generally classed as a 'universal gate'. All gates can be implemented by nand gate.

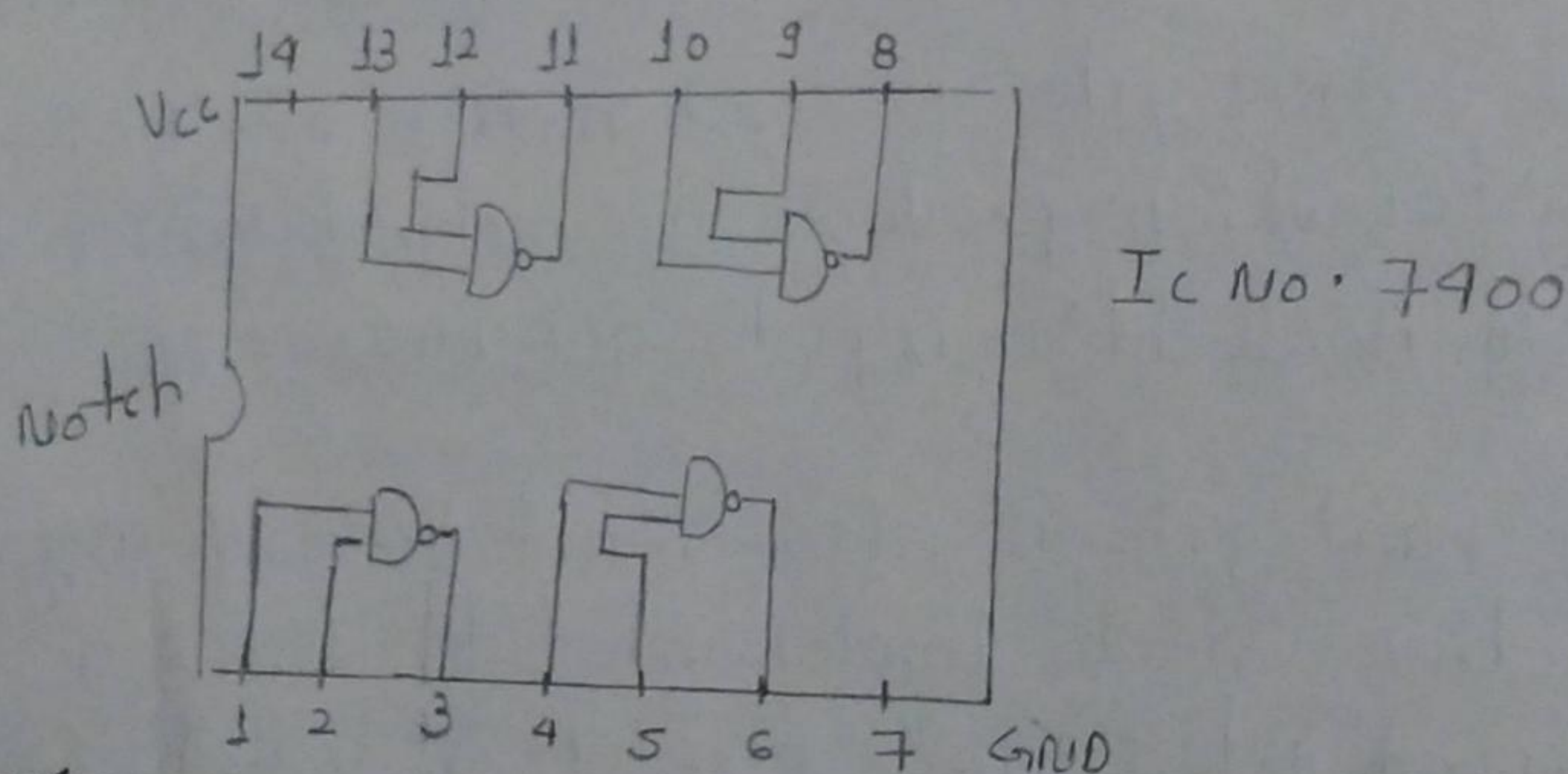
Paras

Boolean expression is $C = \overline{A \cdot B}$

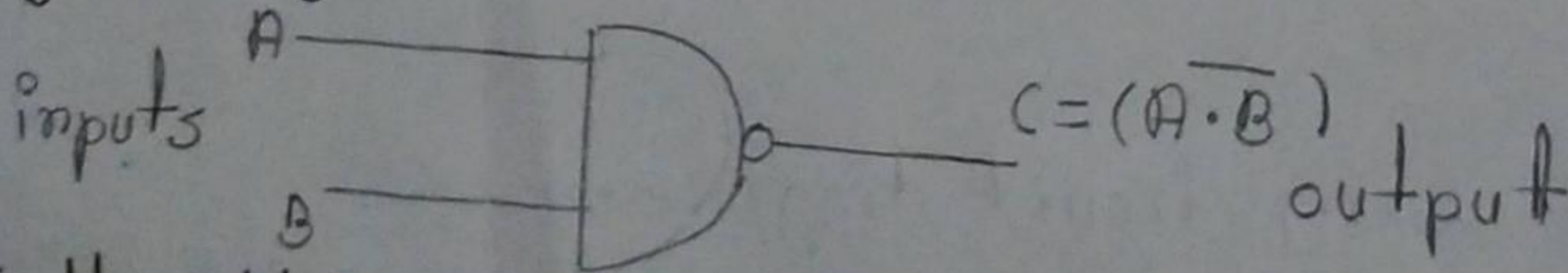
Nand gate has an output low (0) only when all its inputs are high (1).

Nand gate is also a inverse of AND gate.

Circuit diagram:



Logic diagram.



Truth Table.

input		output
A	B	$C = (\overline{A \cdot B})$
0	0	1
0	1	1
1	0	1
1	1	0

Paras