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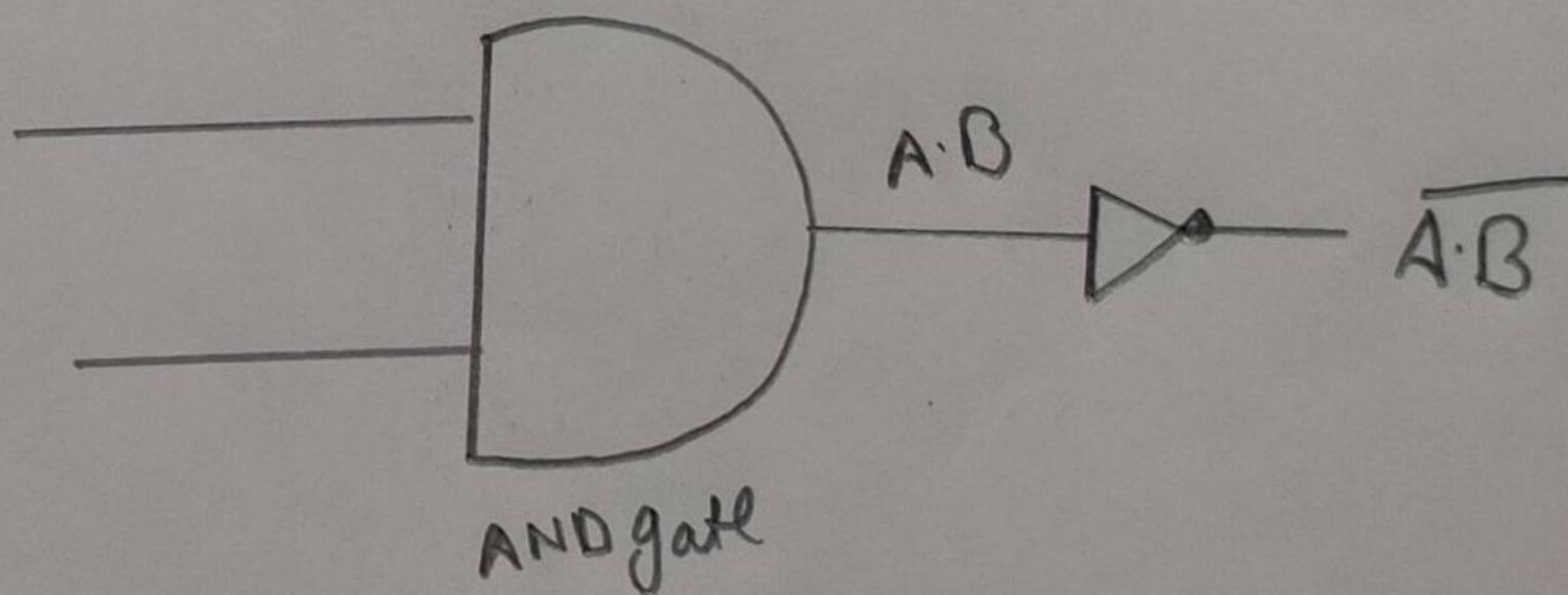
Sec  $\Rightarrow$  B

Q1

A Nand gate is a logic gate that produces a low output only if all its inputs are true and high output (i) the NAND gate is the inverse of an AND gate, and its circuit is produced by connecting an AND gate to a NOT gate.

The NAND gate performs the logical NAND operation. The NAND gates are known as universal gates.

$\Rightarrow$  logical construction of the NAND gate.



NAND Gate.



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### NAND gate truth table

Inputs		output
A	B	$X = \overline{A \cdot B}$
0	0	1
0	1	1
1	0	1
1	1	0

Working of NAND gate.

The NAND gate 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. A low (0) output results only if all the inputs to the gate are High (1)