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Course MCA 1st D.

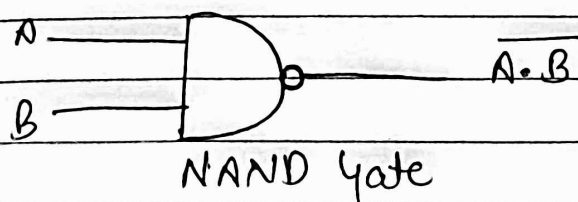
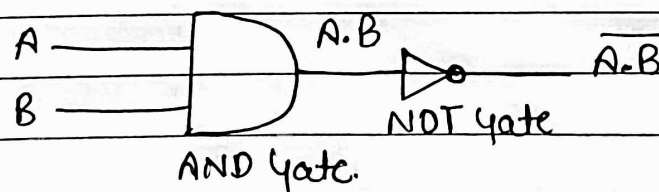
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Subject - Computer organisation and architecture.

① NAND Gate.

~~Nand~~ NAND gate ("not AND gate") is a logic gate that produces a low output (0) only if its inputs are true and has high output (1) otherwise. NAND gate is inverse of an AND gate.

The basic logical construction of the NAND gate is shown below (you can see it is an AND gate followed by a NOT gate).

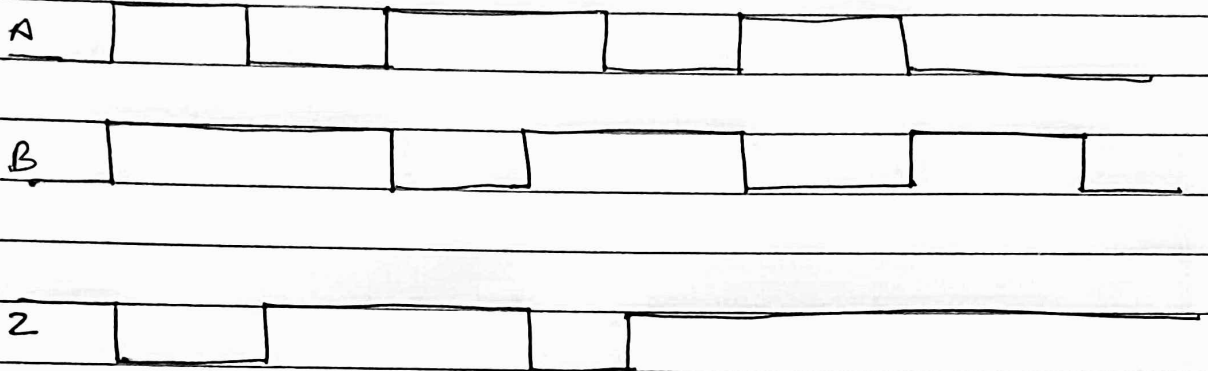


NAND is classed as a "Universal" gate since it is one of the most commonly used logic gate types.

By connecting the NAND gate together in various combinations the three basic gate types of AND, OR and NOT function can

be formed.

> Pulse operation of the NAND gate is shown below.



> Truth table of NAND gate.

Truth table of a 2 input NAND gate can be represented as:

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