

Name :- ANKIT RAWAT

Roll No :- 24

Student Id :- 21711100

MID TERM PRACTICAL

CO & CA

Ankit

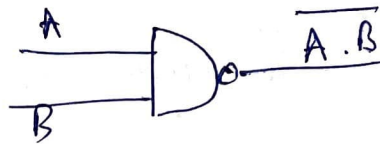
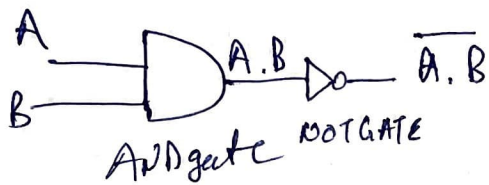
Name:- Ankit Raut 24 21711100 Ans.

A NAND gate is a logic gate that produces a low output (0) only if all its inputs are true, and high output (1) otherwise. Hence the NAND gate is the inverse of an AND gate, and its circuit is produced by connecting an AND gate to a NOT gate. Just like an AND gate, a NAND gate may have any number of input probes but only one output probe.

The NAND gate performs the logical NAND operation. NAND gates are known as universal gates (along with NOR gates), which means they are a type of logic gate which can implement any boolean function without the need to use any other gate type.

Name :- Ankit Kumar 24 21711100 Ankit

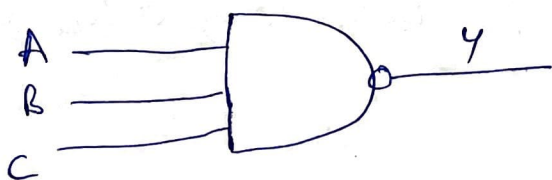
Basic logical construction of NAND gate :-



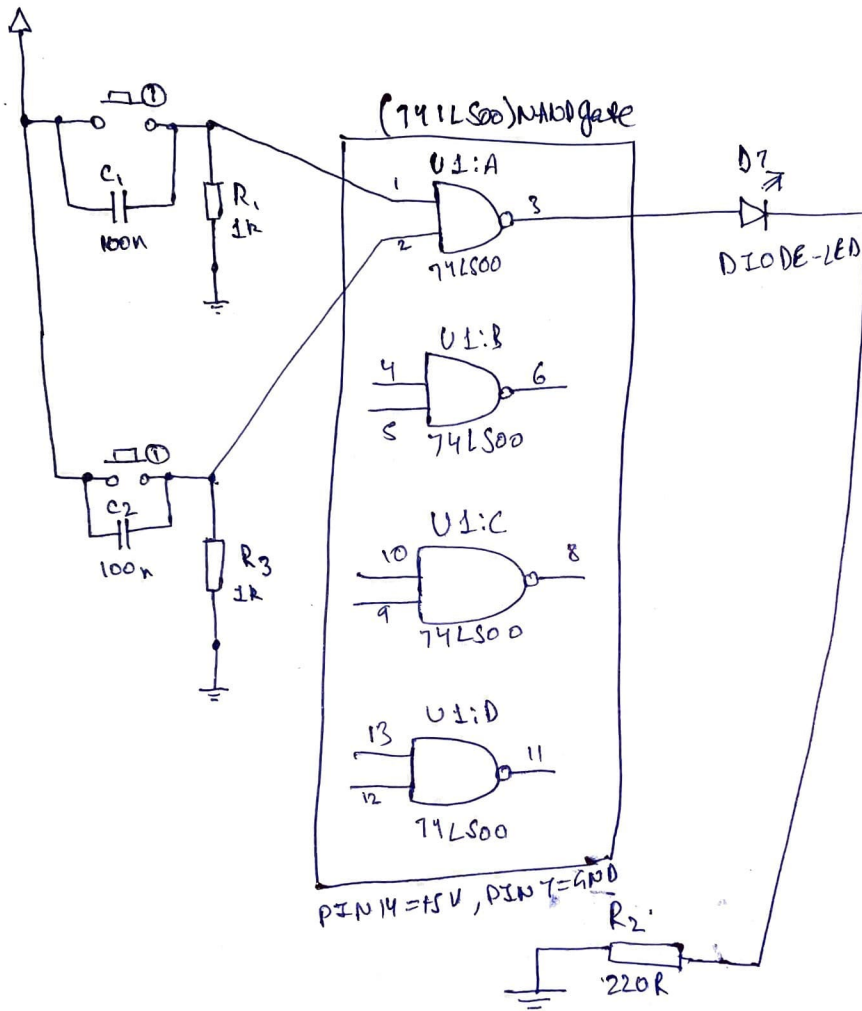
NAND gate truth table :-

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

3 input NAND gate



Name:- Ankit Kumar 24 21711100 Ankit



↑
Circuit Diagram of NAND gate