भारतीय प्रौद्योगिकी संस्थान हैदराबाद
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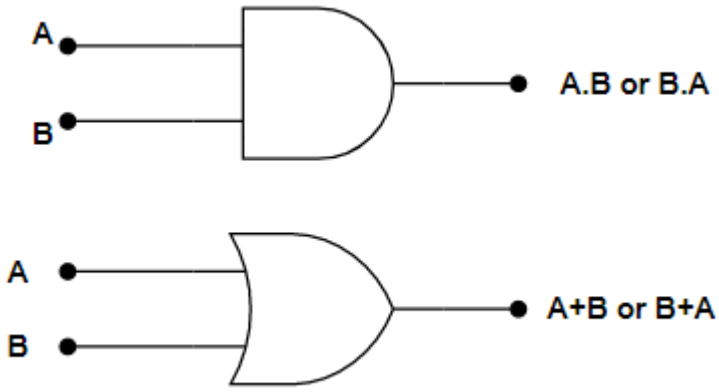
Fig. 1. Caption



ASSIGNMENT-1
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PROBLEM STATEMENT:

state and Prove Commutative Law
The definition of commutative law states that when we add or multiply two numbers then the resultant value remains the same, even if we change the position of the two numbers. Or we can say, the order in which we add or multiply any two real numbers does not change the result.

sollution:

Components:

S.No	Component	Number
1	Arduino	1
2	Bread Board	1
3	Jumer Wires(M-M)	3

Procedure:

1) First make the 2,3 digital pins of arduino as input pins and declare the 13 pin as output pin.
2)Write the given logic in code and upload in to the arduino.

Truthtable: A+B=B+A

A	B	A+B	B+A
0	0	0	0
0	1	1	1
1	0	1	1
1	1	1	1

Truthtable: A.B=B.A

A	B	AB	BA
0	0	0	0
0	1	0	0
1	0	0	0
1	1	1	1

link
:https://github.com/Dsrinivas-sudo?tab=repositories
include¡Ardunio.h¿
int a;
int b;
int f;
int g;
int h;
int i;
void setup()
pinMode(2,INPUT);
pinMode(3,INPUT);
pinMode(13,OUTPUT);
pinMode(5,OUTPUT);
pinMode(6,OUTPUT);
pinMode(7,OUTPUT);
void loop()
a=digitalRead(2)
b=digitalRead(3)
f=a——b;

```
g=b——a;
h=ab;
i=ba;
digitalWrite(13,f);
digitalWrite(5,g);
digitalWrite(6,h);
digitalWrite(7,i);
```

Conclusion:

Hence have implemented the Absorption law of boolean algebra in arduino and verified the outputs