Date: / /

Day: M T W T F S

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Roll no 20P-0640

Lab Manual # 5

Objective:

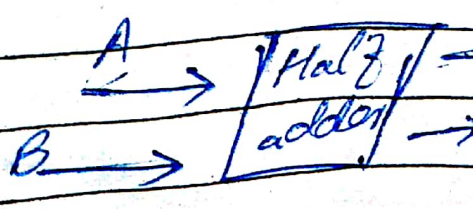
In this lab we study about adders, Half adder, full adder and how to make a full adder from a half adder.

Adder:

Adder is conditional circuit which add binary numbers

Half adder:

In half adder we use input two binary two digits and output two binary digit in the form submit using bit



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Truth Table

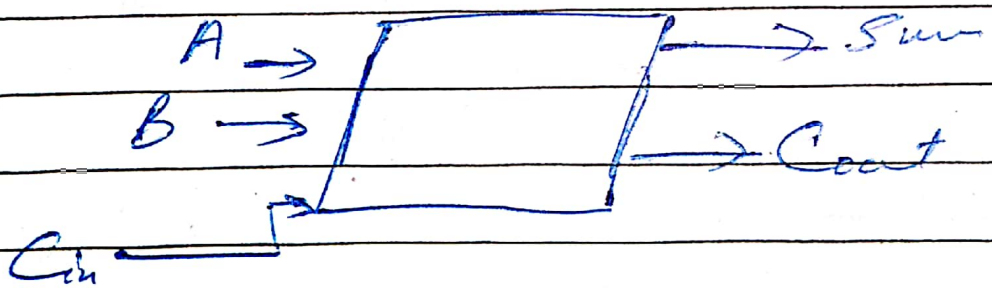
Input		Output	
A	B	S	C
0	0	0	0
0	1	1	0
1	0	1	0
1	1	0	1

$Sum = A \oplus B \Rightarrow A' \cdot B + A \cdot B'$

$carry = A \cdot B$

Full adder

It accepts two input and one carry input and produce a Sum output and an output carry.



$Sum = A \oplus B \oplus C$

$Carry = A \cdot B + (A \oplus B) C_{in}$

Date: __/__/____ Day: M T W T F S

Conclusion:

In this lab we learned what is half adder & about full adder & how to make full adder by adding two half adder