OMKAR . GUJJA.

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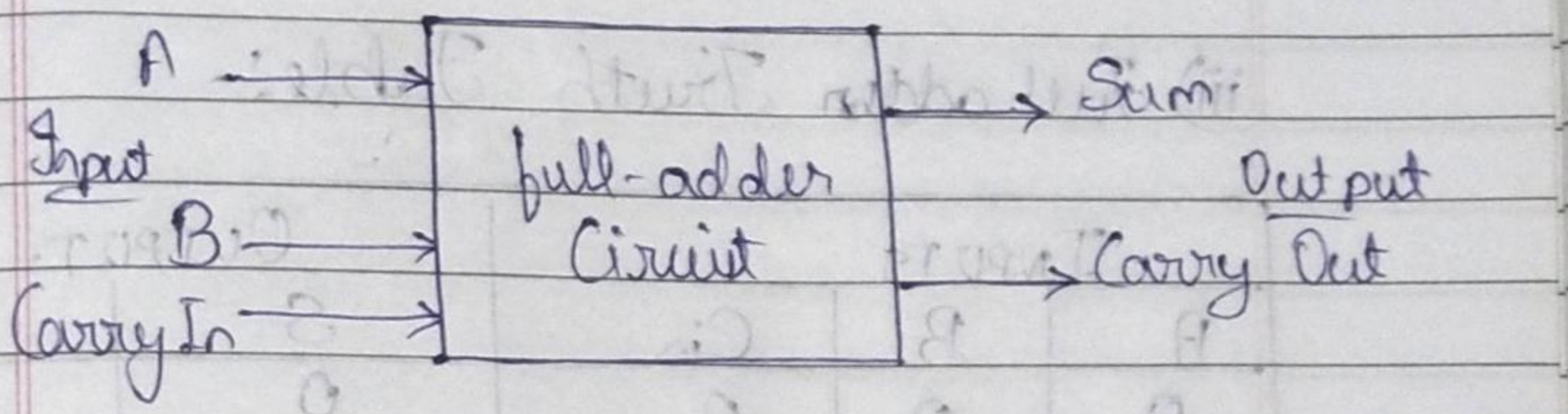
Part - A. Exp - 3

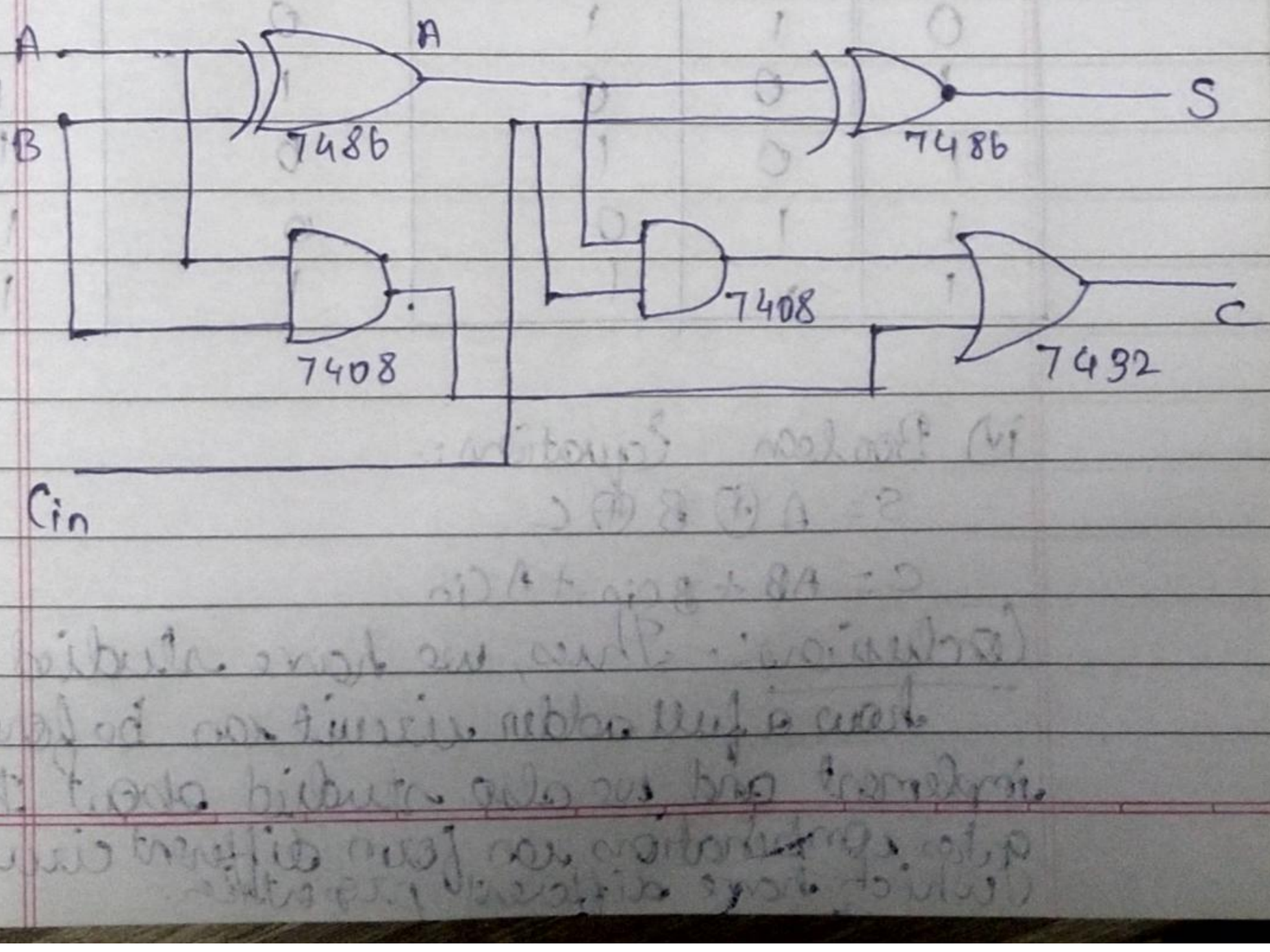
Aim:- To study ~~the~~ about implementation of full adder circuit using gates.

Apparatus:- Bread board, connecting wires, IC7408, IC7486, IC7432, IC7400

Theory:- (1) A circuit called a full adder takes the carry - in value into account.



i) Full adder basic gates diagram:-



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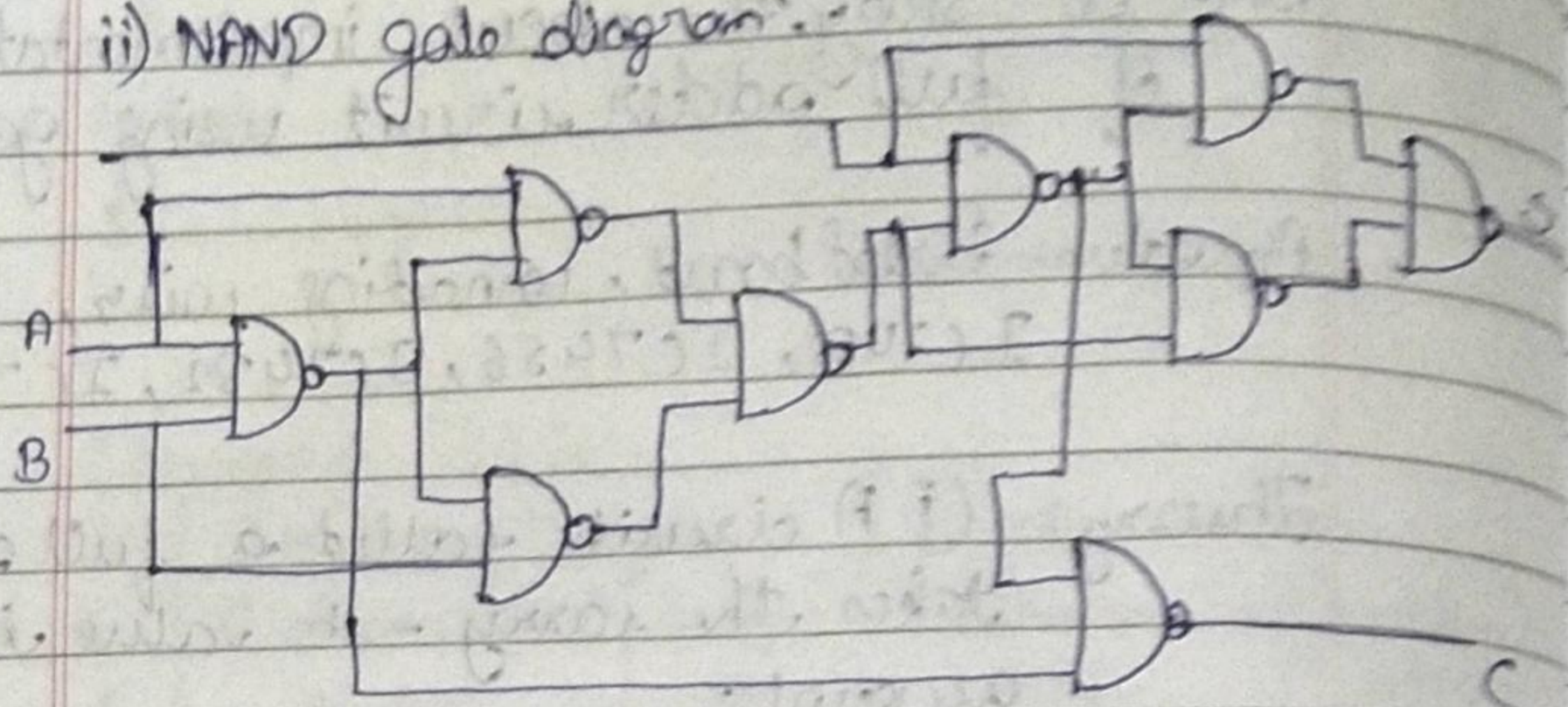
ii) NAND gate diagram:-



iii) Full adder Truth Table:-

INPUTS			OUTPUT	
A	B	Cin	S	C
0	0	0	0	0
0	0	1	1	0
0	1	0	1	0
0	1	1	0	1
1	0	0	1	0
1	0	1	0	1
1	1	0	0	1
1	1	1	1	1

iv) Boolean Equations:-

$S = A \oplus B \oplus C$

$C = AB + BC_{in} + AC_{in}$

Conclusions:- Thus, we have studied about how a full adder circuit can be formed and implement and we also studied about that gates combinations can form different circuits. which have different properties.