CSE 260 Lab Report

Experiment Name : Familiarization of Fundamental Logic Gates.

Submitted by :

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Section : 01

Date : 30/11/2021

Experiment Name : Familiarization of fundamental logic Gates.

Objective :

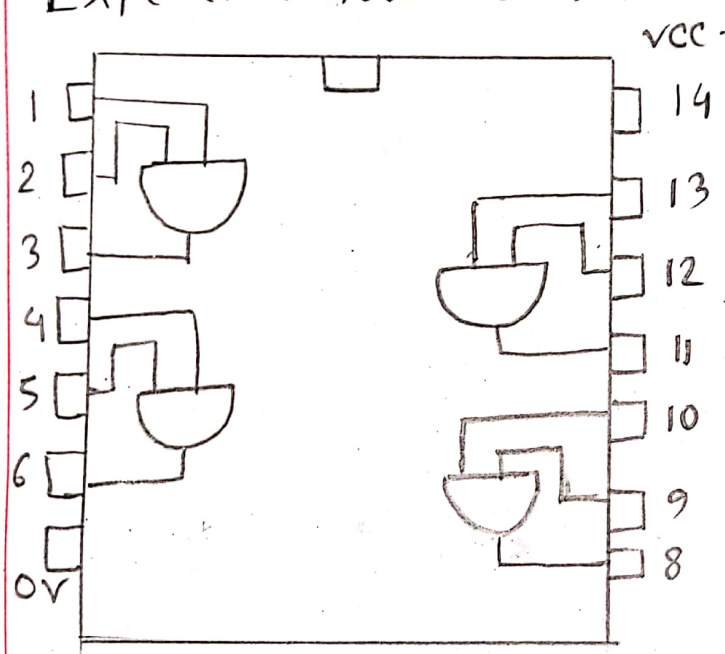
1. To get familiarized with fundamental logic gates and demonstrate the input - output relationship of 2-input AND (IC-7408), OR (IC-7432) and NOT (IC-7404) gates by constructing their truth tables.

2. To get familiarized with other logic gates like NAND (IC-7400), NOR (IC-7402), XOR (IC-7486) and XNOR (IC-74266).

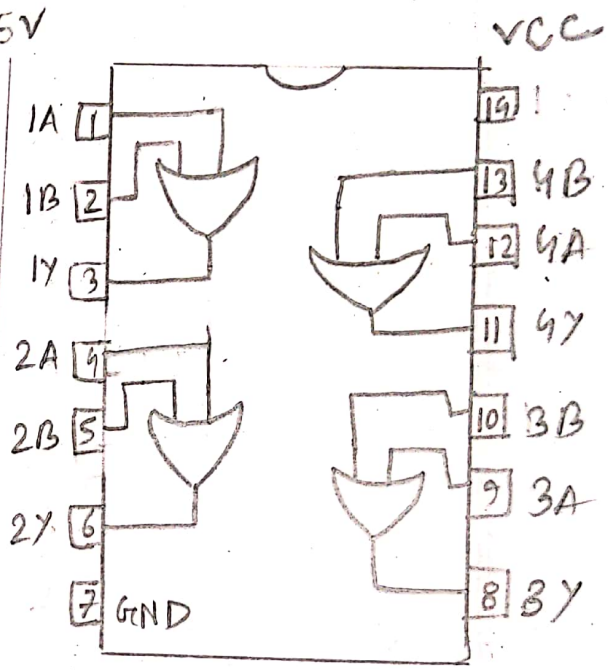
Required components :

1. Logicprobe (output)
2. Logicstate (input)
3. And gate
4. OR gate
5. Not gate
6. NOR gate
7. XOR gate

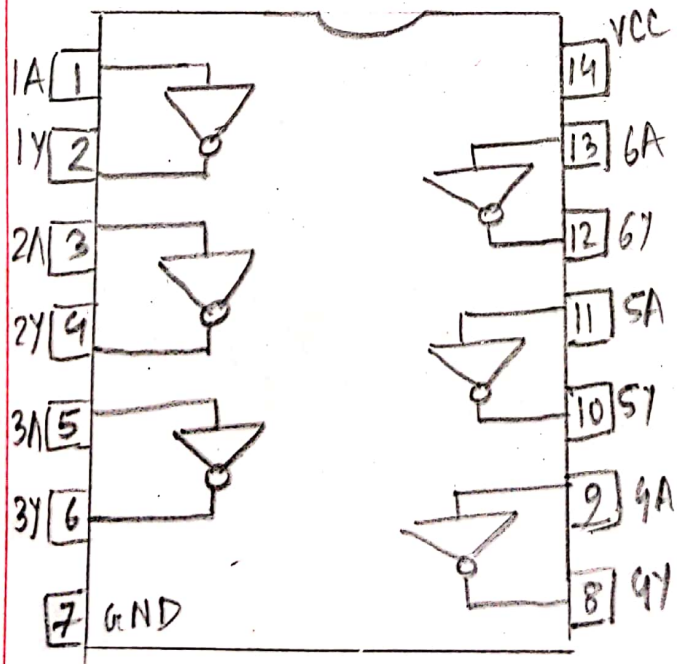
Experimental setup:



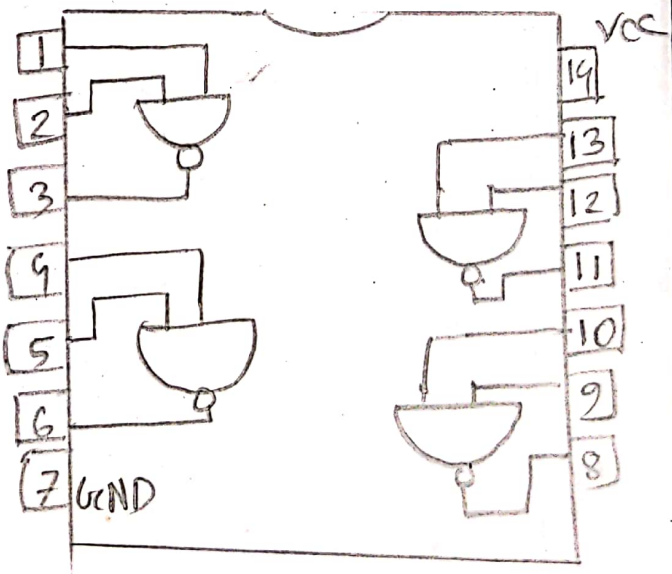
Pin- 7408 (AND Gate)



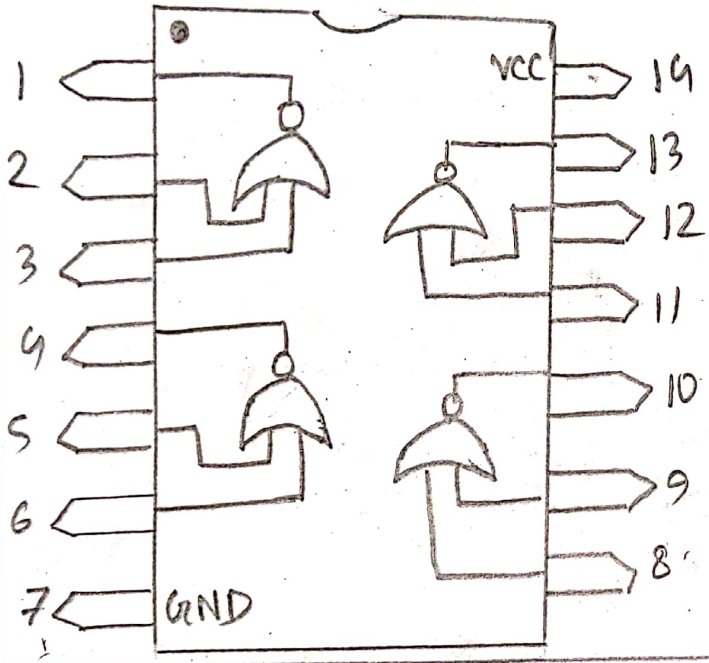
Pin 7432 (OR Gate)



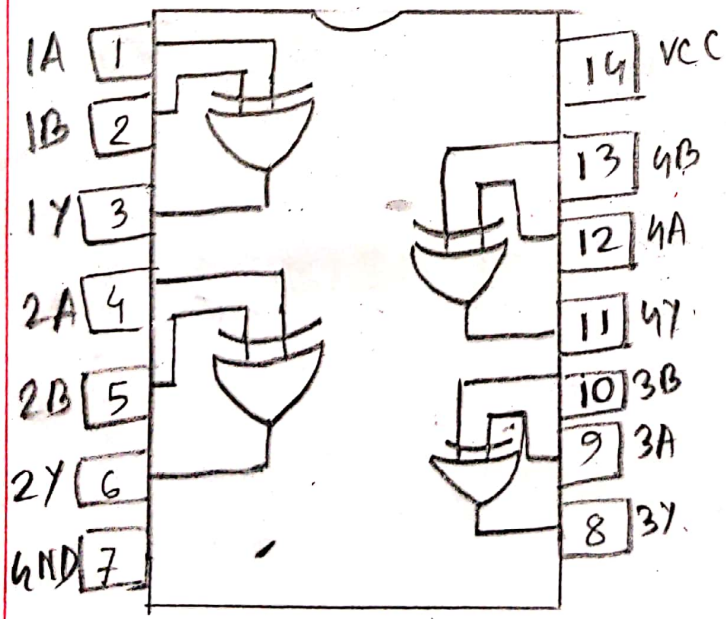
Pin 7404 (NOT Gate)



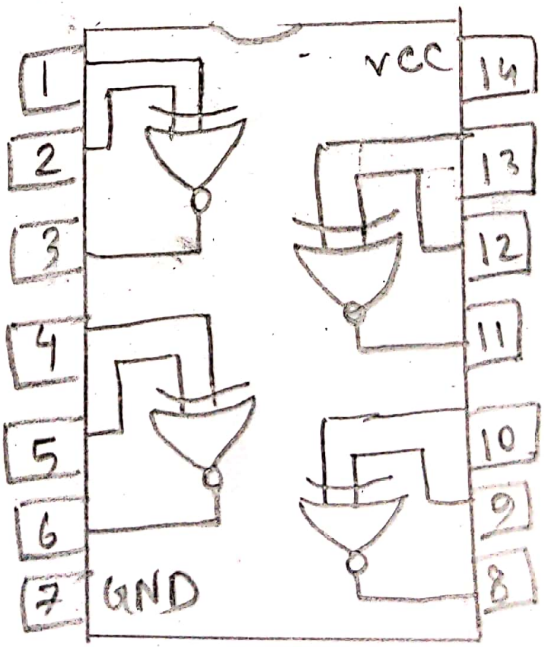
Pin 7400 (NAND Gate)



Pin layout of 7402 (NOR Gate)



Pin layout of 7486
XOR Gate



Pin layout of
74266 (X-NOR Gate)

Results (Truth Table):

1. AND Gate (IC-7408):

A	B	output
0	0	0
0	1	0
1	0	0
1	1	1

2. OR Gate (IC-7432):

A	B	output
0	0	0
0	1	1
1	0	1
1	1	1

3. Not Gate (IC-7404) :

Input	Output
0	1
1	0

4. NAND Gate (IC-7400) :

A	B	Output
0	0	1
0	1	1
1	0	1
1	1	0

5. NOR Gate (IC-7402) :

A	B	Output
0	0	1
0	1	0
1	0	0
1	1	0

6. XOR Gate (IC-7486) :

A	B	Output
0	0	0
0	1	1
1	0	1
1	1	0

7. XNOR Gate (IC-74266) :

A	B	Output
0	0	1
0	1	0
1	0	0
1	1	1

Discussions : In our CSE 260 lab report 1, we have learnt the basic use of the software protius. In this process of getting familiarized with fundamental logic gates I was able to see proof of the truth tables of logic gates that we have learnt before. I was able to see results of diffrent combinations in diffrent logic gates. In addition, I did not face any problems in this project. Protius seemed a very facinating software to me.