Dept. of Computer Science &Engineering

Course Code: CSE-2324

Course Title : Digital Logic Design Lab

Submitted by:

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Submitted to:

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SUBMISSION: *05-09-21*

Experiment No: 03

Experiment Name : Design circuit to verify DE morgan's law for two variable using only nand and nor gate

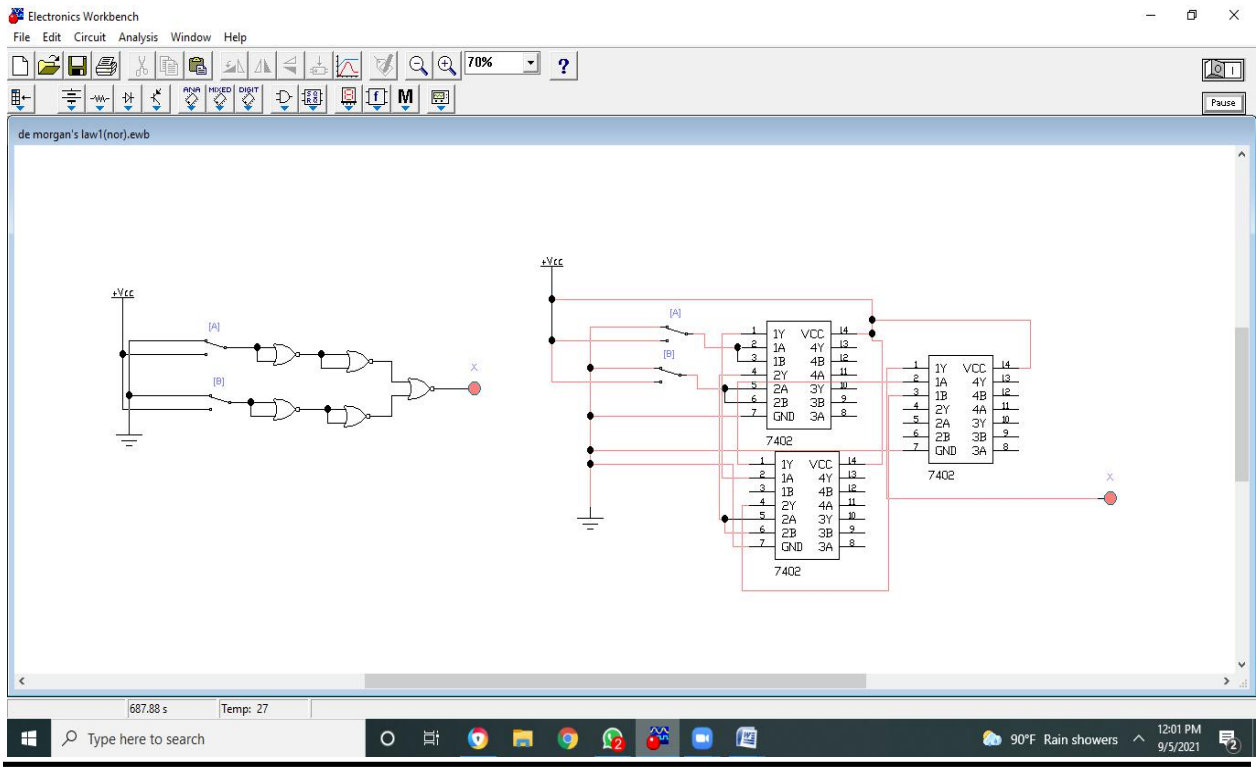
Required tools:

➢ NOR 7402, NAND 7400
➢ Wires
➢ LED
➢ Electronic Workbench Software
➢Switches
➢Voltage
➢Ground

NOR Turth Table:

A(Input)	*B(Input)*	*A'*	*B'*	(A+B)' (OUTPUT)	(A'*B') (OUTPUT)
0	*0*	*1*	*1*	*1*	*1*
0	*1*	*1*	*0*	*0*	*0*
1	*0*	*0*	*1*	*0*	*0*
1	*1*	*0*	*0*	*0*	*0*

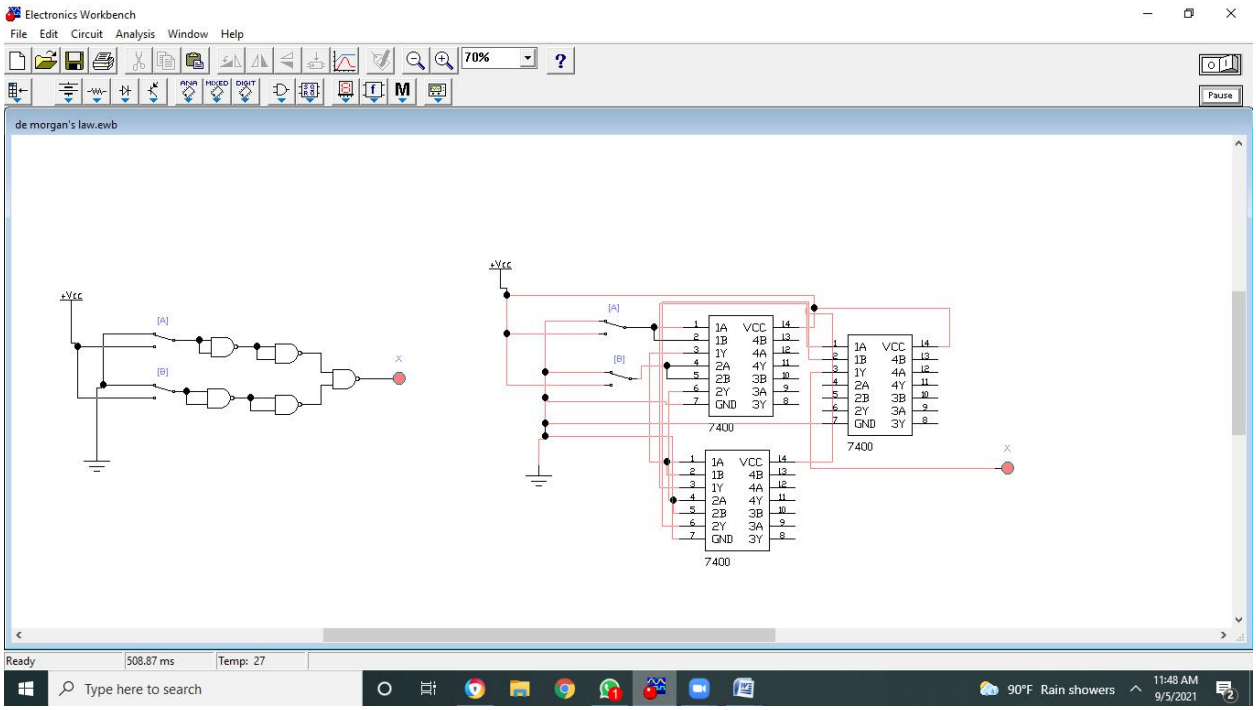
Logic Circuit: IC level diagram:



NAND Turth Table:

A(Input)	*B(Input)*	*A'*	*B'*	(A*B)' (OUTPUT)	(A'+B') (OUTPUT)
0	*0*	*1*	*1*	*1*	*1*
0	*1*	*1*	*0*	*1*	*1*
1	*0*	*0*	*1*	*1*	*1*
1	*1*	*0*	*0*	*0*	*0*

Logic Circuit: IC level diagram:



Result Discussion:

The experiments are verified and it show the appropriate results for the fundamental logic circuit.

Any problem arises:

No.

What Have I Learnt:

I have learn some how simple inputs of ones and zeros can be used to store information for output.