The University of Azad Jammu and Kashmir, Muzaffarabad

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Course Name	Computer Architecture and Logic Design
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Roll No	2024-SE-38
Lab No	04

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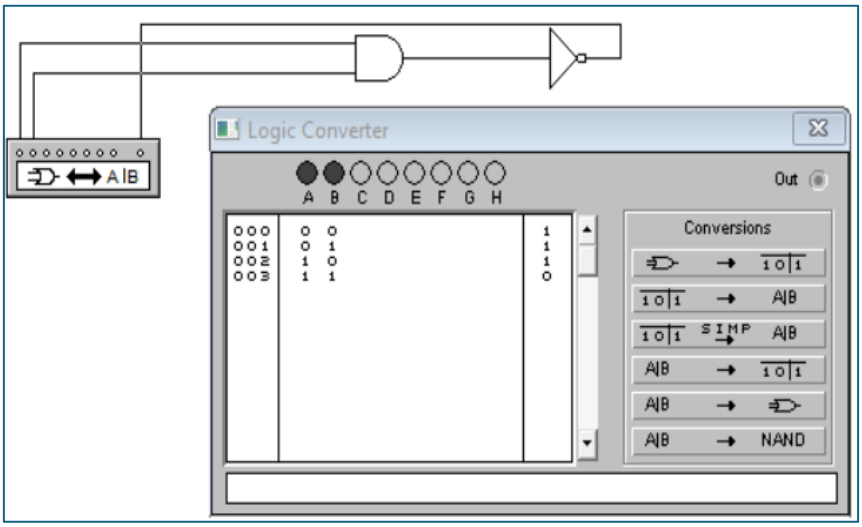
DE Morgan's law

Procedure:

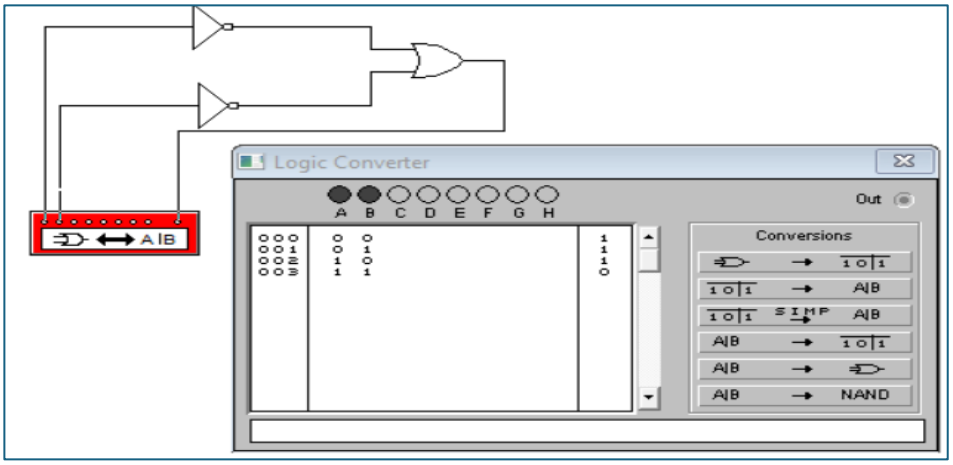
1. At first construct the circuits shown in Boolean laws.
2. Check if the laws are valid. Give truth tables for each law.
3. Apply various combinations of inputs as shown in the truth table and observe the conditions of LEDs.

$(A + B)' = (AB)'$……(i)

$(AB)' = A' + B'$……...(ii)

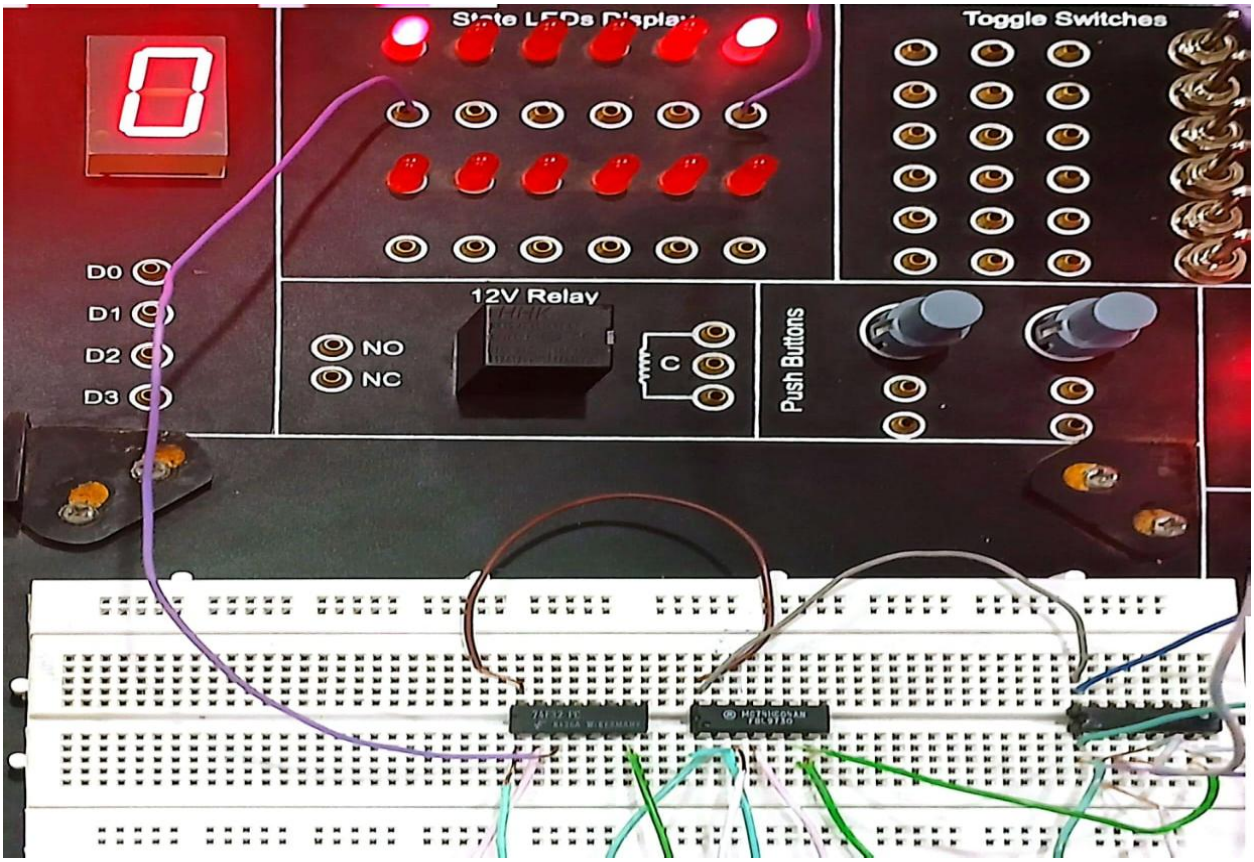


. ….is equivalent to …



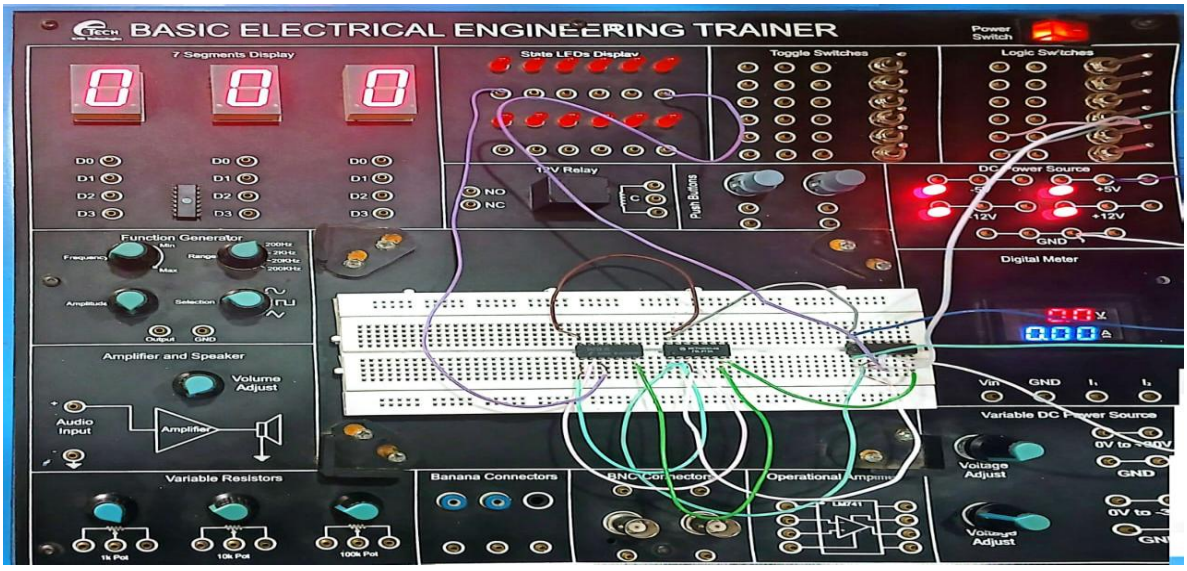
$$(AB)' = A' + B'$$

$$(1 * 0)' = 1' + 0'$$



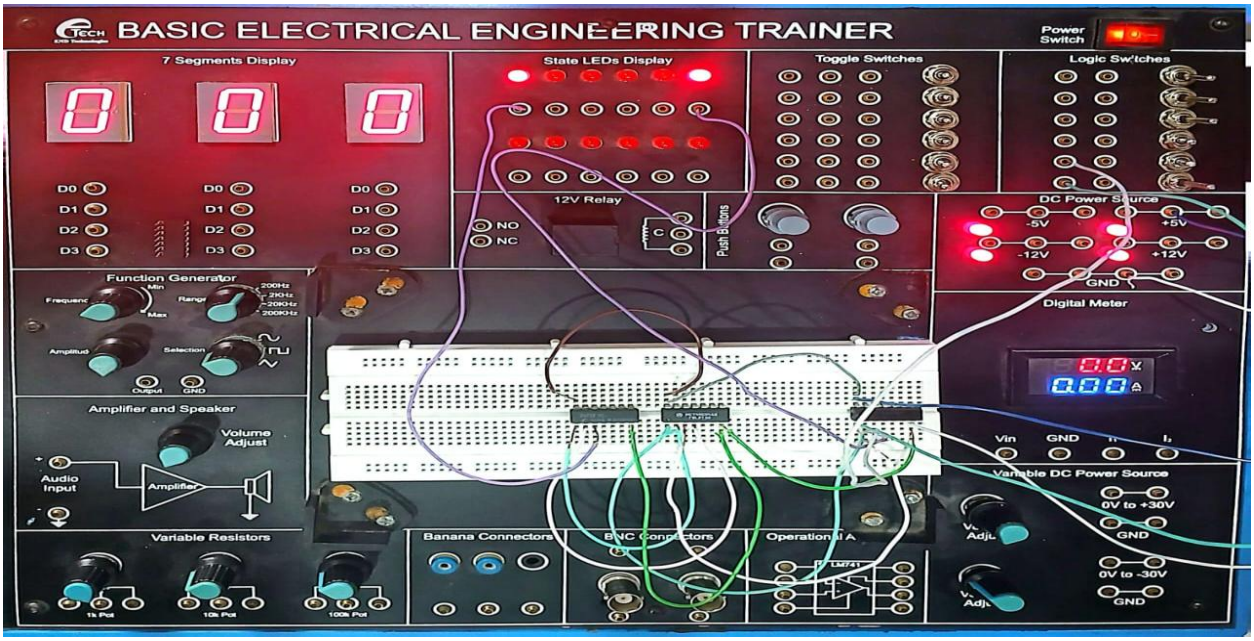
$$(A + B)' = (AB)'$$

$$(1 + 1)' = 1' * 0'$$



$(AB)' = A' + B'$

$(0 * 1)' = 0' + 1'$


BASIC ELECTRICAL ENGINEERING TRAINER
Power Switch
7 Segments Display
State LEDs Display
Toggle Switches
Logic Switches
12V Relay
Push Buttons
DC Power Source
Function Generator
Digital Meter
Amplifier and Speaker
Volume Adjust
Audio Input
Amplifier
Variable Resistors
Banana Connectors
Operational Amplifier
Variable DC Power Source
0V to +30V
0V to -30V
GND