

IDE Assignment

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Abstract—state any one Absorption law of boolean algebra and verify it using truth table

Truth Table

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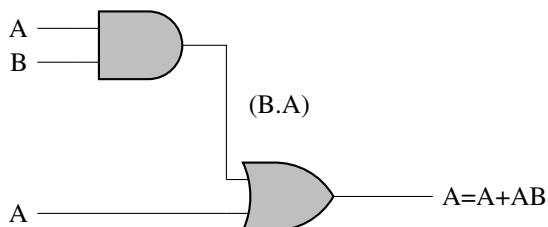
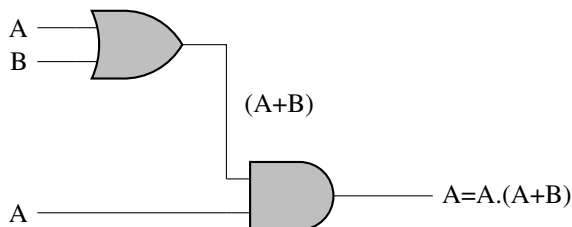
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I. COMPONENTS

Component	Value	Count
Arduino	UNO	1
Seven Segment display	1	
Resistor	220 Ohm	1
Jumper wires	-	as required

II. ABSORPTION LAW

Absorptive Law – This law allows for the reduction of a difficult statement to a simpler one by absorbing phrases that are similar in structure. $A + (A.B) = (A.1) + (A.B) = A(1 + B) = A$ (OR Absorption Law) $A(A + B) = (A + 0)A = A$ (AND Absorption Law) $A(A + B) = A + (0.B) = A$



$$A + A.B = A$$

A	B	A.B	(A + A.B)
0	0	0	0
0	1	0	0
1	0	0	1
1	1	1	1

$$A.(A + B) = A$$

A	B	A + B	A.(A + B)
0	0	0	0
0	1	1	0
1	0	1	1
1	1	1	1

III. PROCEDURE:

- 1) First make the 2,3 digital pins of arduino as input pins and 4,5 pins as output pins.
- 2) Write the given logic in code and upload in to the arduino.
- 3) Connect the output pin i.e pin 13 of arduino to the one of the input of 7447 IC and the remaining input pins are connected to ground.
- 4) Connect the outputs of IC 7447 to the corresponding pins of seven segment display.
- 5) The out put will be displayed in display either 1 or 0 corresponds to truth table.

- 1) `svn co https://github.com/NareshGavvala/fwc`
- 2) `cd ide_assignment`
- 3) `pio run`
- 4) `pio run -t upload`

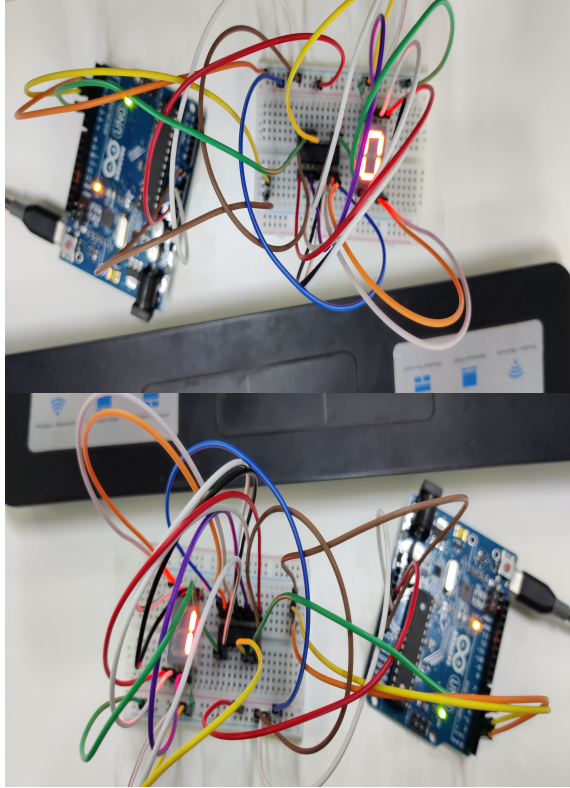


Fig. 1. Result