

Green University of Bangladesh

Department of Computer Science and Engineering

Lab report-01

Course Title: Digital Logic Design Lab

Course code: CSE-204

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Tittle: Verification of Basic logic gates (OR and NOT Gate)

Objectives:

- i. To study the operations of basic logic gates
- ii. To verify the truth table of basic logic gates

Apparatus Required:

1. IC 7408,7432 ,7404,7400,7402 and 7486

Equipment:

- 1. Power supply
- 2. Bread Board.

Theory:

OR get:

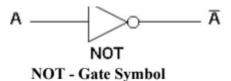
The OR gate is an electronic circuit that gives a high output (1) if one or more of its inputs are high. A plus (+) is used to show the OR operation. The logic symbol and its expression of OR Gate are shown in Fig. The IC 74LS32 is a two in put OR Gate IC it consists of 4-OR gates. The IC has 14 pins as shown in Fig. The truth table of OR Gate is as shown in table.



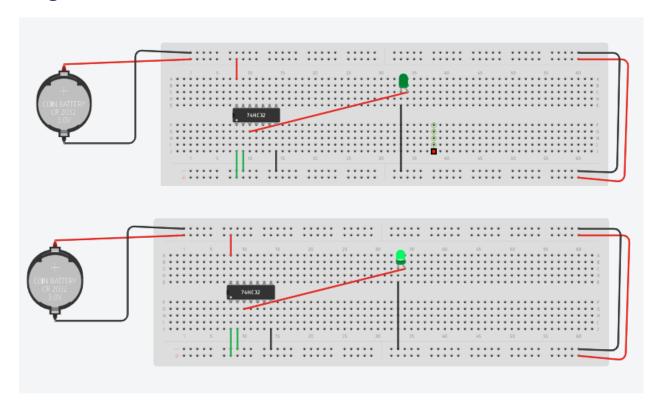
Not Get:

When input variable A is low the output of a NOT gate is High. The logic symbol of NOT Gate is shown in Fig .The IC 74LS04 is a single input NOT Gate IC and it consists of 6-NOT gates. The IC has 14 pins constructed in Dual in Line package(DIP) as shown in Fig. The truth table of

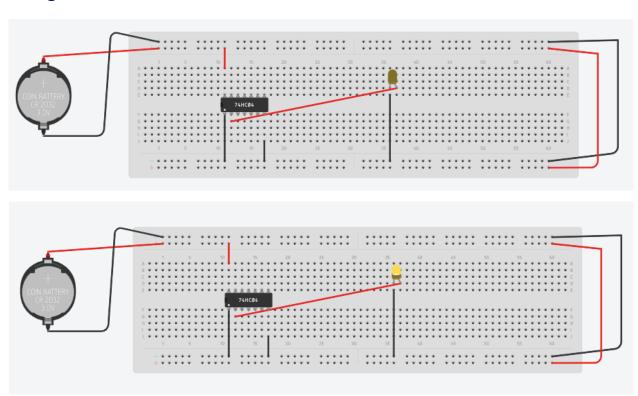
NOT Gate is as shown in Fig.



OR get:



NOT get:



Dicussion: For logic gates we have applied proper grounding for IC's .We have used a straight lead probe to insert into the breadboard .We have inserted the components into the breadboard firmly .We didn't touch the pins of IC's while power on also didn't bend the pins of IC's