**LAB REPORT 7**

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**ROLL NO:- 2023114001**

**1.OBJECTIVE: To Make a Memory unit using basic Gates**.

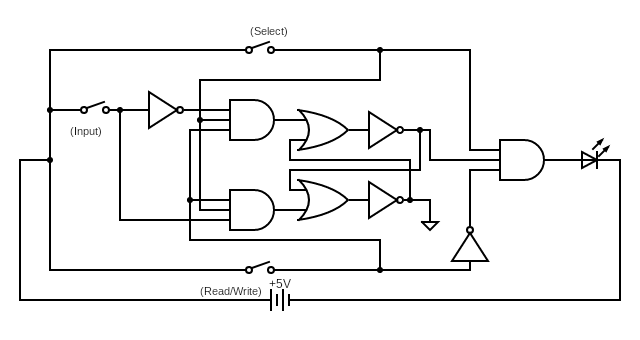
**ELCTRONIC COMPONENTS REQUIRED -**

1. 3-Input AND Gate IC(74HC11)
2. OR Gate(7432) and Not Gate(74HC04){In LAB}

Or, NOR Gate(74HC02){In TinkerCAD}

1. Digital Circuit

**PROCEDURE:**

1. Test the ICs, LED Lights and Switches.
2. Connect ICs with GND, Power.
3. ­­­­­­­Connect the circuit as given in reference circuit. 
4. Check the output with Combination.

Conclusion:

|  |  |  |  |
| --- | --- | --- | --- |
| Select | Read/Write | Input | Output |
| 0 | X | X | 0 |
| 1 | 1 | 0 | 0 |
| 1 | 0 | X | 0 |
| 1 | 1 | 1 | 0 |
| 1 | 0 | X | 1 |

1. When Select Line is 0, The Output was always 0.
2. When Select Line is 1,
3. If Read/Write is 0 i.e. Read, It reads the previous input assigned by Write, Latched input.
4. If Read/Write is 1 i.e. Write, It writes the input assigned in memory through Latching.

**LINK FOR TINKERCAD SIMULATION :**

[**https://www.tinkercad.com/things/fOKh71KqMS4-memorybomb/editel?sharecode=EO\_4NM3RodMskeuEOpK-L0xciWsu4Ip11kXTKk34oTQ**](https://www.tinkercad.com/things/fOKh71KqMS4-memorybomb/editel?sharecode=EO_4NM3RodMskeuEOpK-L0xciWsu4Ip11kXTKk34oTQ)

**TINKERCARD :**

A circuit board with wires

Description automatically generated

LAB:

A green circuit board with many wires

Description automatically generated

A green electronic board with wires and switches

Description automatically generatedA green electronic board with wires and switches

Description automatically generatedA green circuit board with wires and switches

Description automatically generatedA green circuit board with wires and a white board

Description automatically generatedA green board with wires and switches

Description automatically generated