

## **FULL SUBTRACTOR**

**EXP.NO: 24**

### **AIM:**

To design and implement the full subtractor using Logisim simulator.

### **PROCEDURE:**

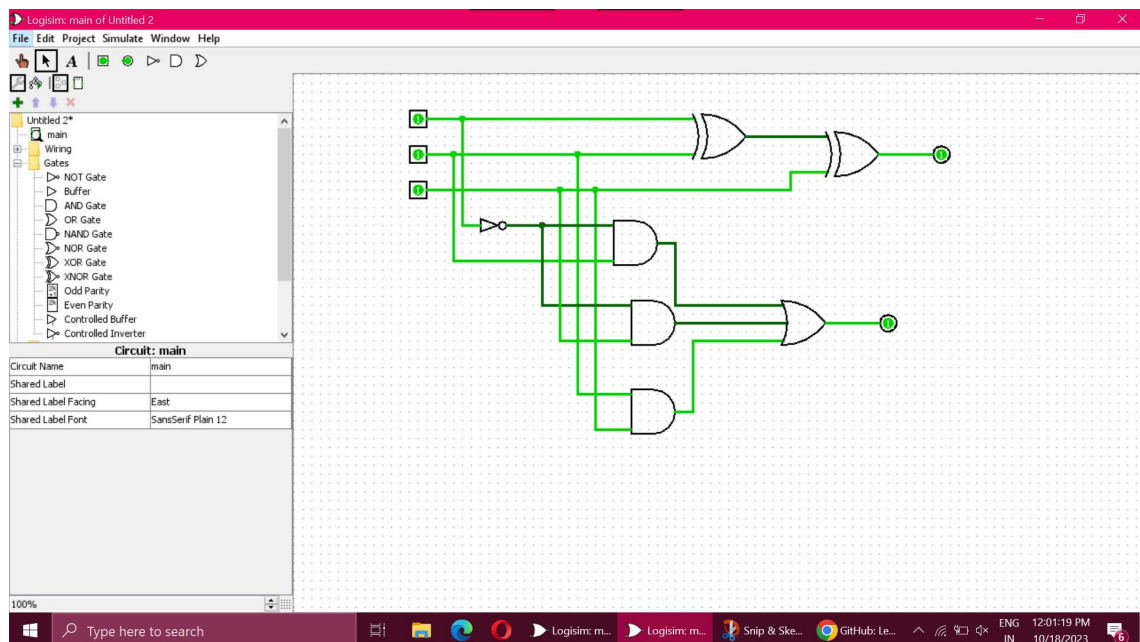
- 1) Pick and place the necessary gates.
- 2) Insert 3 inputs into the canvas.
- 3) Connect the inputs to the XOR gate, AND gate and OR gate.
- 4) Insert 2 outputs into the canvas.
- 5) Make the connections using the connecting wires.
- 6) Verify the truth table.

### **TRUTH TABLE:**

$$\text{Diff} = (A \oplus B) \oplus \text{'Borrowin'}$$

$$\text{Borrow} = A'.B + (A \oplus B)'$$

## OUTPUT



**RESULT:**

Thus

full subtractor has been designed and implemented successfully using logisim simulator.