FULL SUBTRACTOR

**EXP.NO: 24**

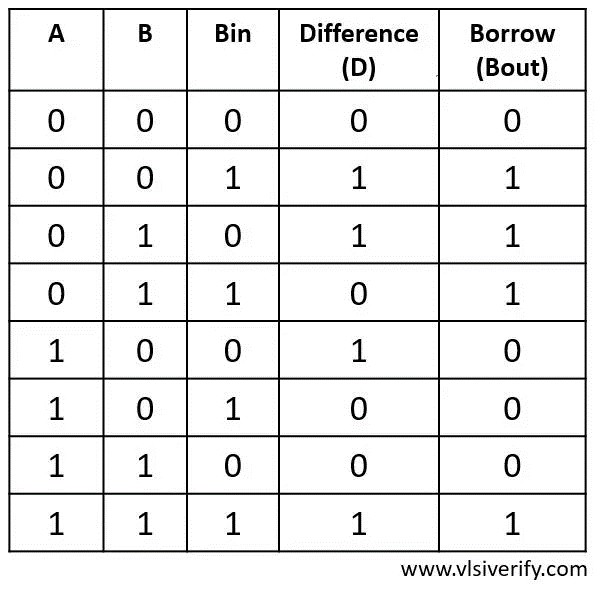
**AIM:**

To design and implement the full subtractor using Logisim simulator.

**PROCEDURE:**

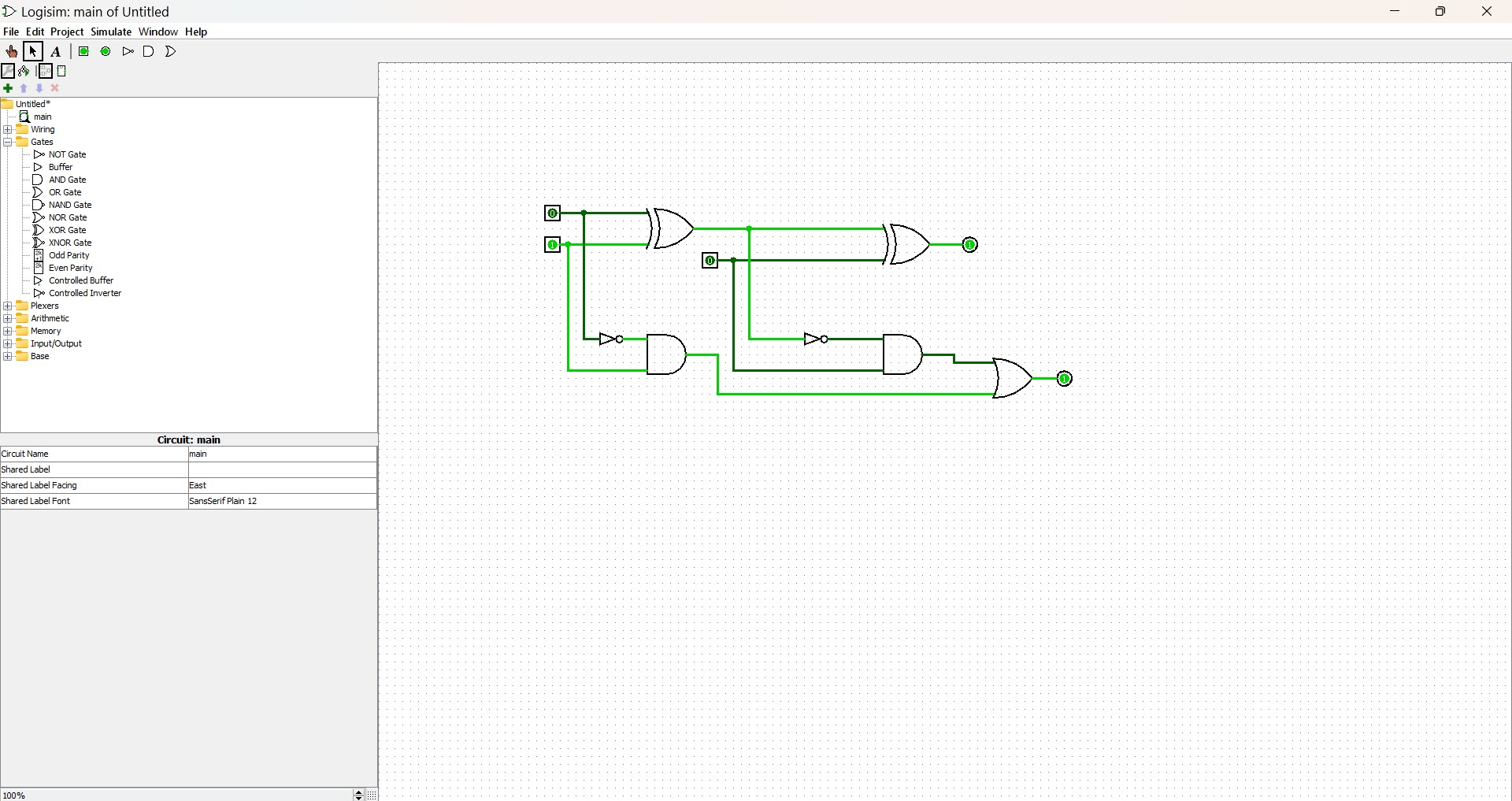
1)      Pick and place the necessary gates.   
2)      Insert 3 inputs into the canvas.   
3)      Connect the inputs to the XOR gate, AND gate and OR gate.  
4)      Insert 2 outputs into the canvas.  
5)      Make the connections using the connecting wires.  
6)      Verify the truth table.

**TRUTH TABLE:**



Diff=(A ⊕ B) ⊕ 'Borrowing'  
  
Borrow=A'.B + (A ⊕ B)'

**OUTPUT:**



**RESULT:**

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