

Lab – 6

ECN – 252

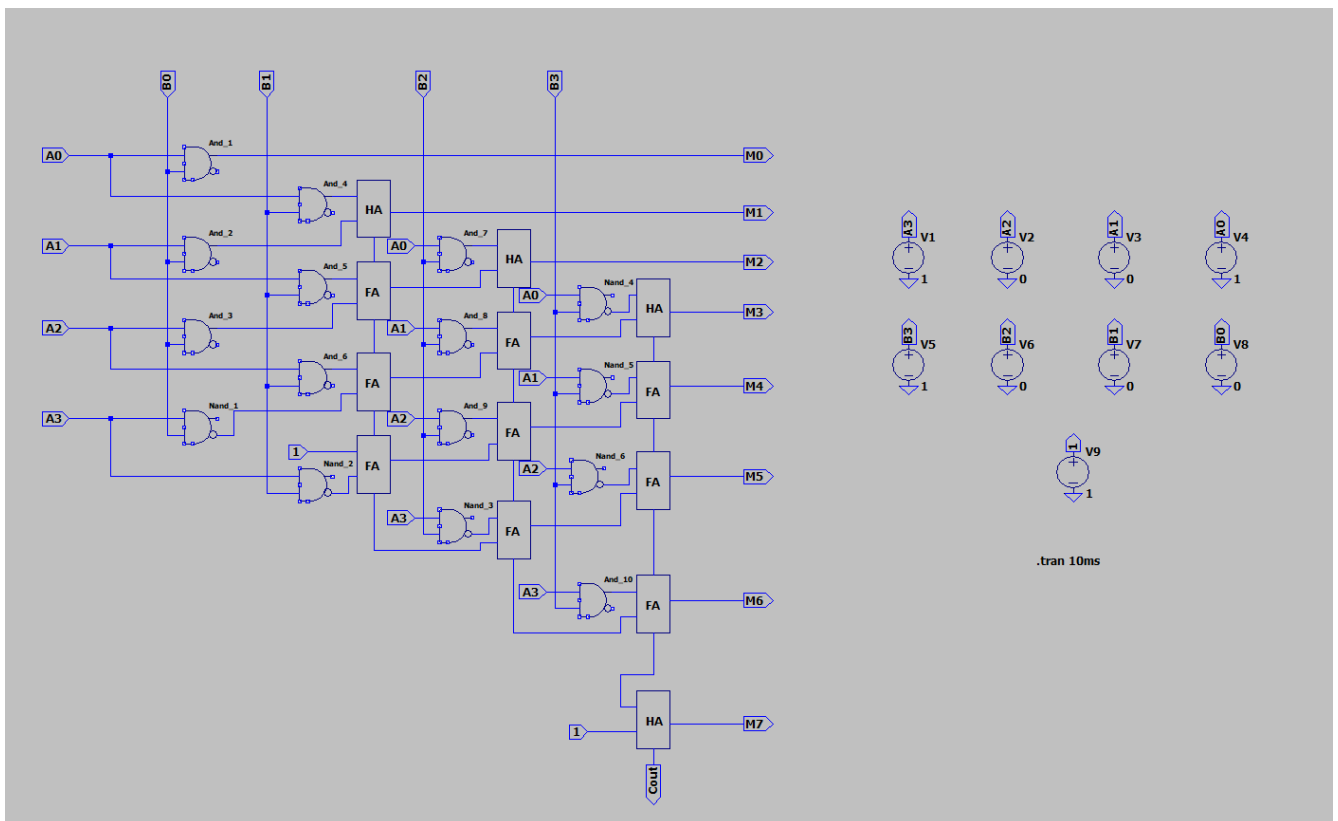
19114001 | Abhinav Saini

Part 1 :

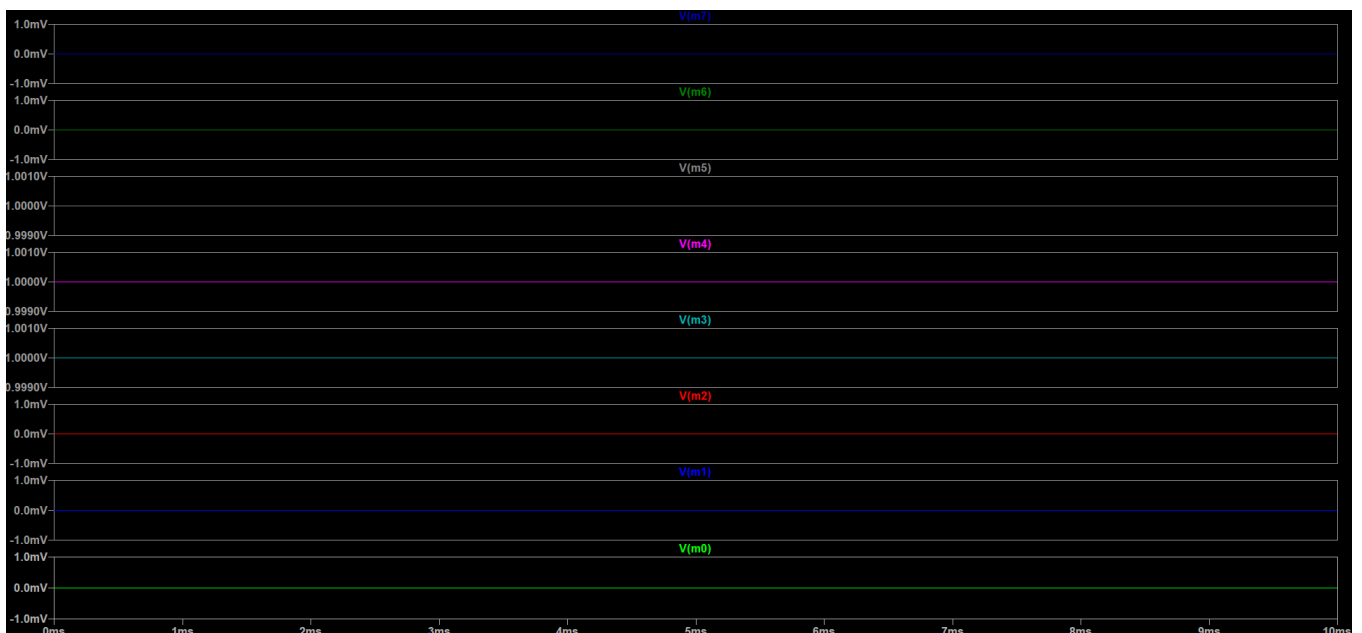
Signed Multiplier (CSE |Set 2)

- 7 = $(1001)_2$, - 8 = $(1000)_2$ **Output** 56 = $(00111000)_2$

Schematic



Simulation

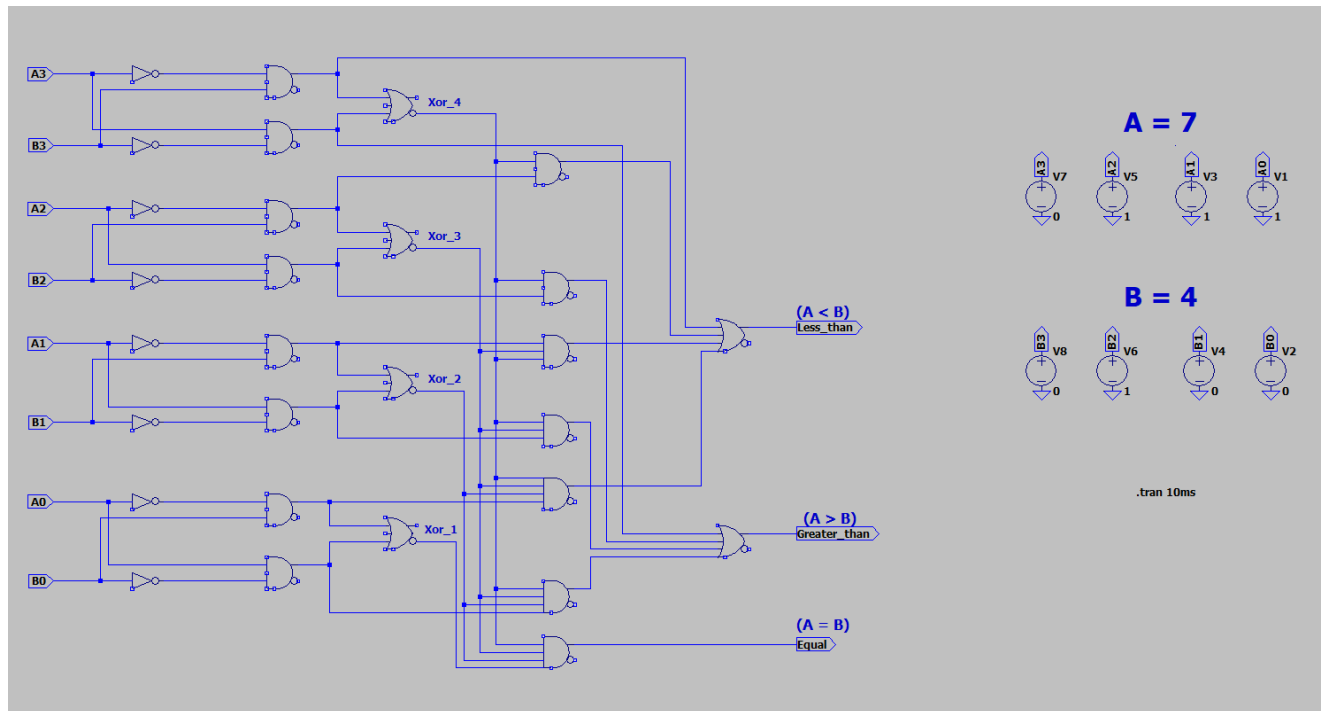


Part 2 :

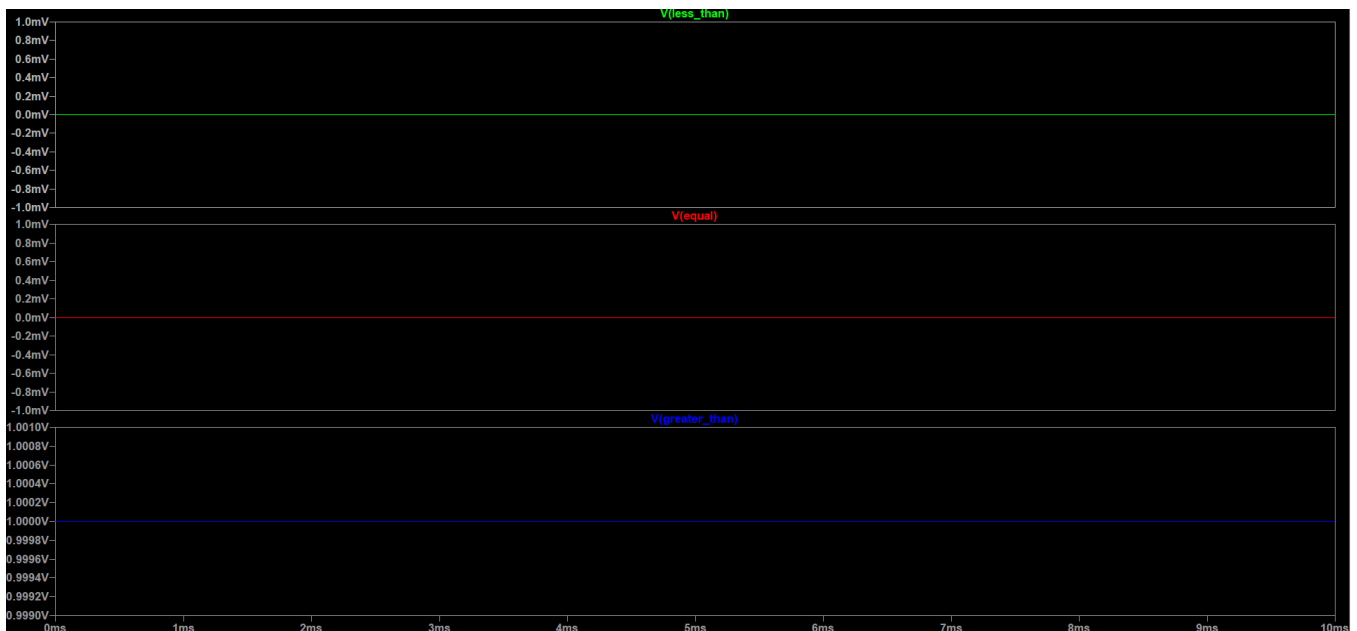
4 – bit comparator

Number A = 7 , B = 4 . $7 > 4$.

Schematic



Simulation



This 4-bit comparator will not work for signed integers (2's complement form.)

To make it work Most Significant Bits (MSBs) of both the numbers need to be flipped to make it work for signed integers.