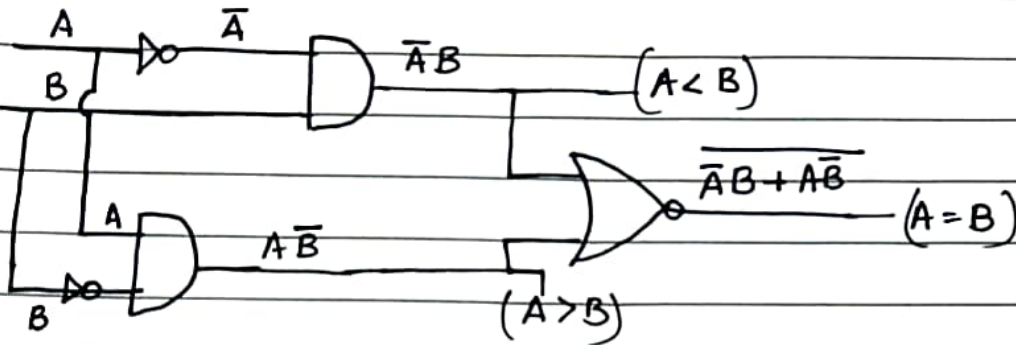


Exp - 4 1-bit 4-bit (Comparator)

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30/8/21

1 bit comparator (Part I)



A	B	$A < B$	$A = B$	$A > B$
0	0	0	1	0
0	1	1	0	0
1	0	0	0	1
1	1	0	1	0

4 bit comparator (Part II)



Truth table -

A ₃	A ₂	A ₁	A ₀	B ₃	B ₂	B ₁	B ₀	A > B	A < B	A = B
1	1	0	0	1	0	1	0	1	0	0
0	0	0	0	0	0	0	0	0	0	1
1	1	1	1	1	1	1	1	0	0	1
1	1	1	1	0	0	0	0	1	0	0
0	0	0	0	1	1	1	1	0	1	0
0	0	1	1	0	1	0	1	0	1	0
1	0	0	0	0	0	0	1	1	0	0
0	0	0	1	1	0	0	0	0	1	0
1	0	1	0	1	0	1	0	0	0	1
1	1	0	1	0	0	1	1	1	0	0