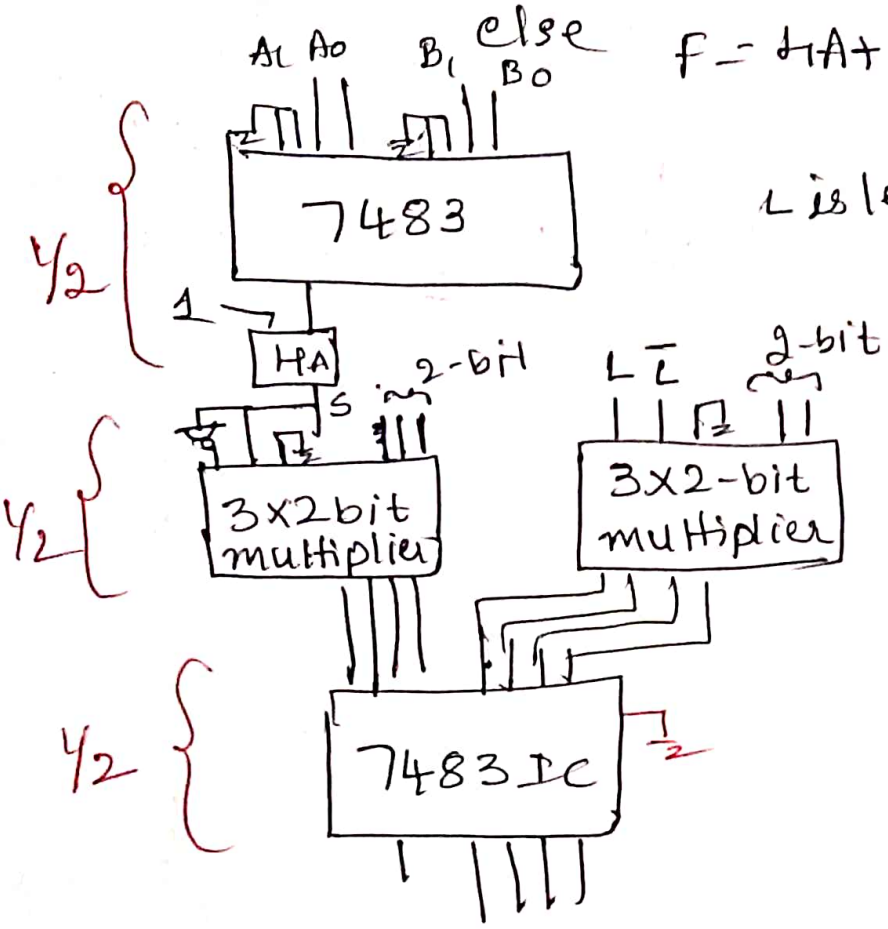
Ex 3-01: If $A<B$ $F = 2A + 4B$

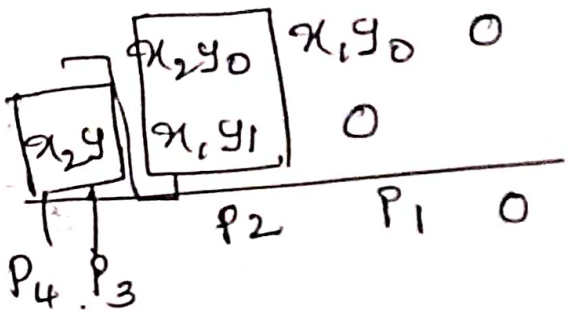
else $F = 4A + 2B$



L is less than

3 bit x 2-bit

$x_2x_1x_0 \times y_1y_0$



HA as AND gate: 1/2M

Multiplier osim } 1M

HA

Set 3 Y_2 Y_3, Y_1, Y_0 1/2M

Excess-3	5211 (self complementary)
0011	0000
0100	0001
0101	0011
0110	0101
0111	0111
1000	1000
1001	1011
1010	1100
1011	1110
1100	1111

$Y_3 = \Sigma m(8, 9, 10, 11, 12)$

$Y_2 = \Sigma m(6, 7, 10, 11, 12)$

$Y_1 = \Sigma m(5, 7, 9, 11, 12)$

$Y_0 = \Sigma m(4, 5, 6, 7, 12)$