DLD ASSIGNMENT - 5

STROOTS PASS

NAME!

A INTHRA KUMAR

ROLLNO!

520220010085

SECOLEC 3XE

131897.47097

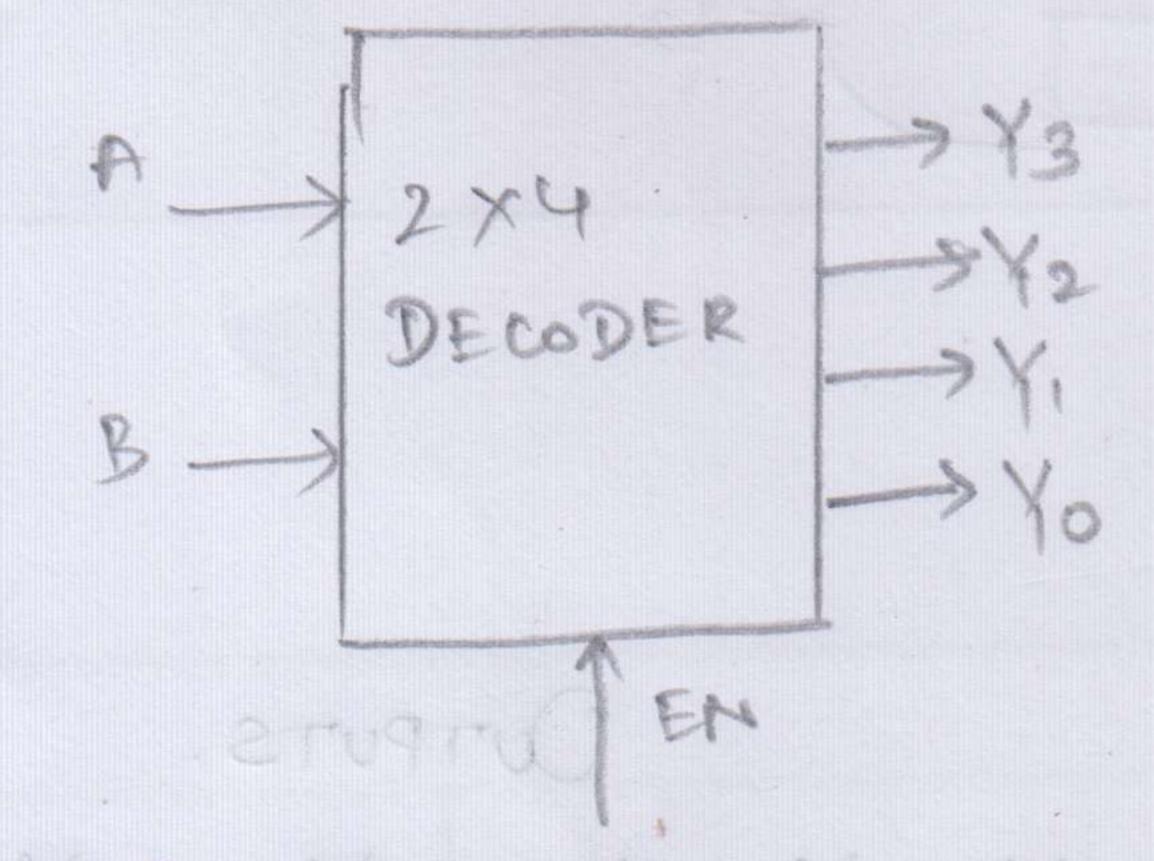
270901

Arm: Implementing decoders (2-4, 3-8, 4-16).

SOFTWARE USED:

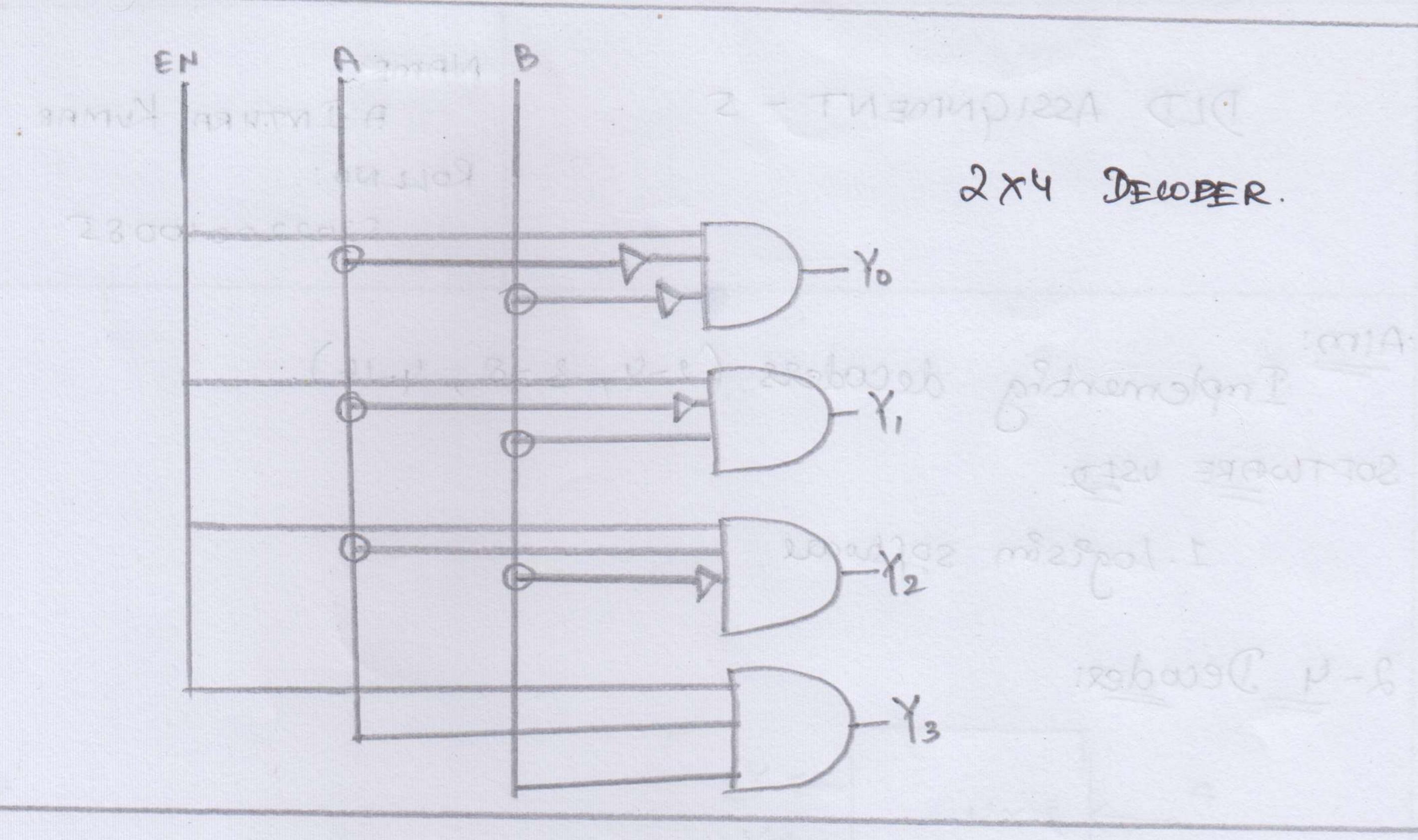
1. Logisim sefteal

1) 2-4 Decodes:



TRUTH TABLE!

1)	SPOTS		OUTPUTS						
EN	A	B	Y3	Y2	Y	Yo			
0	×	×	0	0	0	0			
1	0	0	0	0	0	1			
1	0	1	0	0	1	0			
1	1	0	0	1	0	0			
1	1	1	1	0	0	0			



2) 3×8 DECODER
TRUTH TABLE!

	OUTPUTS.											
EN	A	B	C	Yo	Y,	Y2	Y3	Yy	Y5	Y6	Y7.	
0	×	*	*	0	0	0	0	0	0	0	0	
1	0	0	0	1	0	0	0	0	0	0	0	
1	0	0	1	0	1	0	0	0	0	0	0	
1	0	1	0	0	0	1	0	.0	0	0	0	
1	0	1	1	0	0	0	1	0	0	0	0	
1	1	0	0	0	0	0	0	1	0	0	0	
1	1	0	1	0	0	0	0	0	1	0	0	
1	1	1	0	0	0	0	0	0	0	1	0	
										0		

EXPRESSIONS!

Yoz EN. A. B. C Y1 = EN. A. B. C Y2 = EN. A. B. C Y3 = EN. A. B. C Y3 = EN. A. B. C

Y4 = EN. A. B. C.

Y5 = EN. A. B. C.

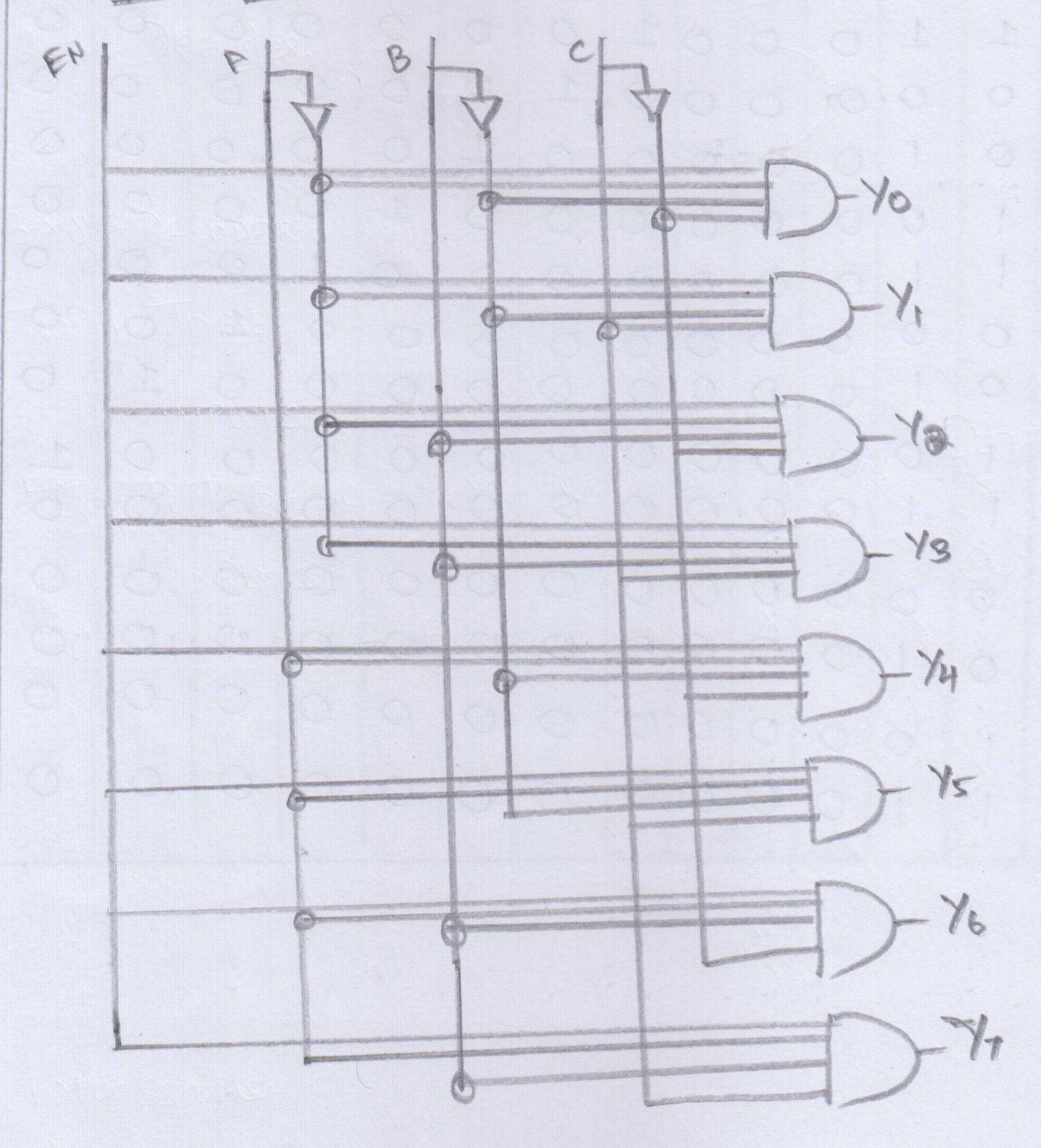
Y6 = EN. A. B. C.

Y7 = EN. A. B. C.

Y7 = EN. A. B. C.

HAREQUEUM BUNCH

3×8 DECODER!



3) 4 X16 DECODERS!

TRUTH TABLE:

EN A B C D Yo Y, Y2 Y3 Y4 Y5 Y6 Y4 Y8 Y9 0 x x x x 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 1 0 0 0 0				PUTS.	DUTP	(INPUTS					
	Yio	Y9	1/8	Y	Y6	Y5	Yy	43	Y2	Y,	Yo	D	e	B	A	EN	
	0	0	0	0	0	0	0	0	0	0	0	*	*	*	×	0	
1 0 0 1 0 0 0 1 0 0 0 0 0 0 0 1 0 0 1 1 0 0 0 1 0 0 0 0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	
100100000000000000000000000000000000000	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	
1010000010000	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	
	0	0	0	0	0	0	0	1	0	0	0	1	1	10	0	1	
	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	
101000001000	0	0	0	0	0	1	0	0	0	0	0	1	0	1	0	1	
10010000000000													1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2				
10111000000000	0	0	0	1	0	0	. 0	0	0	0	0	1	1	1	0	1	
1100000000000000	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	
1 10010000001	0	1	0	0	0	0	0	0	0	0	0	1	0	0	1	1	
1 1010000000000	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	
1 0 1 10000000000	0	0	0	0	0	0	0	0	0	0	0	1	11	0	1	1	
1100000000000	0	0	0	0	0	0	0	0	0	0	0	0	0			1	
100000000	0	0	0	0	0	0	0	0	0	0	m	1				1	
1 10000000000	0	0	0	0	0	0	0	0	0	0	0	-	1				
1,1000000000	0	0	0	0	0	0	0	0	0	0	0					1	
1											-					1	

1214 G122 399X -

YII	Y12	Yiz	YIH	Y15.
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	0
	1	0	0	0
0	0	1	0	0
0	0	0	1	0
0		0	0	1.
0	0			

EXPRESSIONS:

YO = EN.A'.B'.C'.D'

YI = EN.A'.B'.C'.D'

YS = EN.A'.B'.C'.D'

YY = EN.A'.B.C'.D'

YY = EN.A'.B.C'.D'

YS = EN.A'.B.C'.D'

Y8 = EN.A.B.C.D'

Y9 = EN.A.B.C.D

Y10 = EN.A.B.C.D'

Y11 = EN.A.B.C.D'

Y12 = EN.A.B.C.D'

Y13 = EN.A.B.C.D'

Y14 = EN.A.B.C.D'

Y15 = EN.A.B.C.D'

Y15 = EN.A.B.C.D'

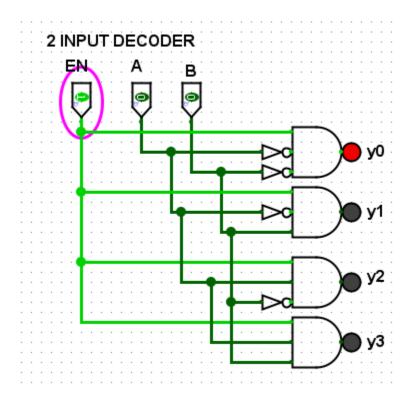
Y15 = EN.A.B.C.D'

Conclusion:
The Devoders are executed in Logisim software and verified with touth table.

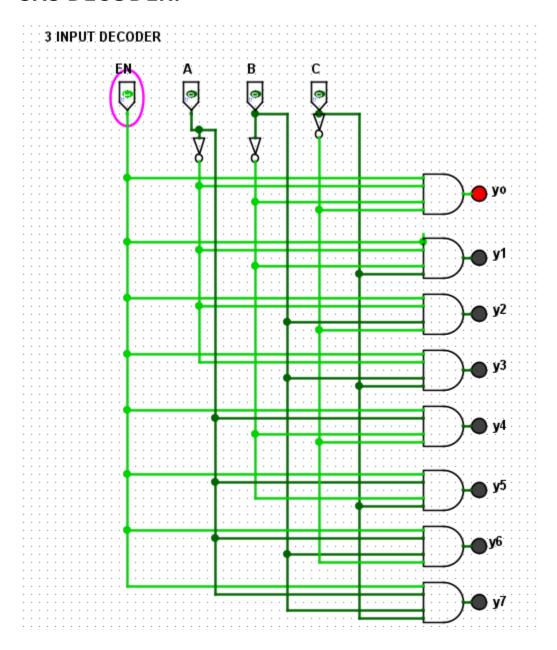
12010122307X3

APPENDIX:

2x4 DECODER:



3X8 DECODER:



4X16 DECODER:

