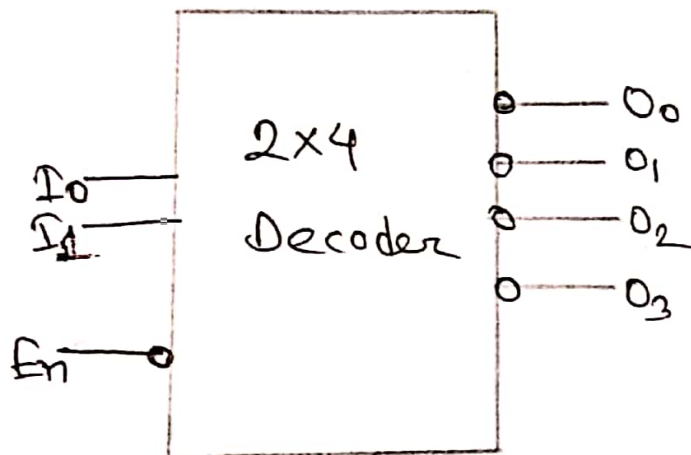Name: Adri Saha
ID: 2019-1-60-024
Section: 04

1. Draw the logic circuit for a 2-to-4-lines decoder with active-low outputs and active LOW enable inputs.
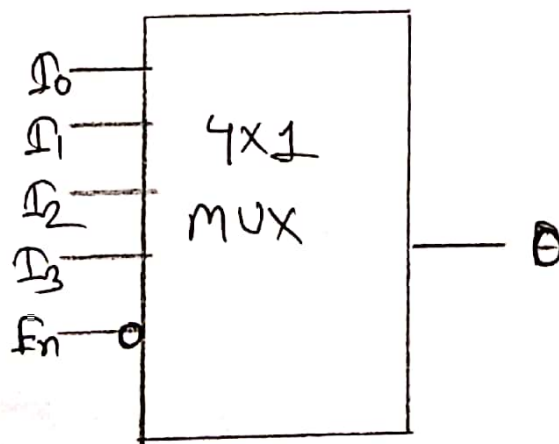

2. Truth table:

En	I_0	I_1	O_3	O_2	O_1	O_0
0	0	0	1	1	1	0
0	0	1	1	1	0	1
0	1	0	1	0	1	1
0	1	1	0	1	1	1
1	X	X	1	1	1	1

Pre-lab Report - 6   Name: Adri Saha
                      ID: 2019-1-60-024

1. Write the truth table of a 4 to 1 line multiplexer with active Low enable input.

Ans: Here, selection pins, $S = \log_2(4) = 2$ (S_0, S_1)

En	S_1	S_0	O
0	0	0	I_0
0	0	1	I_1
0	1	0	I_2
0	1	1	I_3
1	X	X	0

2. Logic Diagram:

logic diagram of 4-to-1 line Multiplexer