

May 2023

Saturday 13

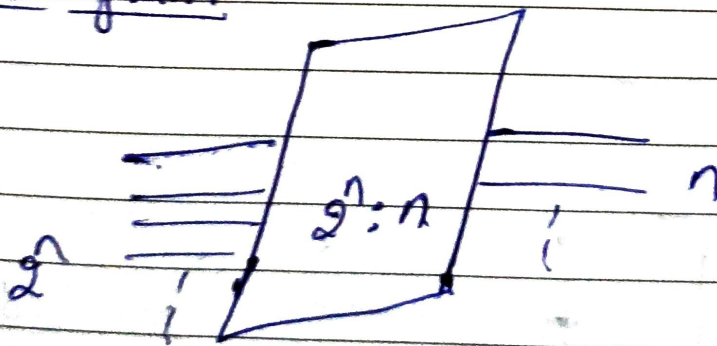
(133 - 232) Wk 20

Encoder: An Encoder is a digital combinational circuit that converts a human friendly information into a coded format for processing using machines.

$\Rightarrow$  an encoder Converts a piece of information normal form to coded form.

$\Rightarrow$  It consists of certain numbers of input and output lines, where an encoder can have maximum of  $2^n$  inputs lines &  $n$  output lines

Block diagram

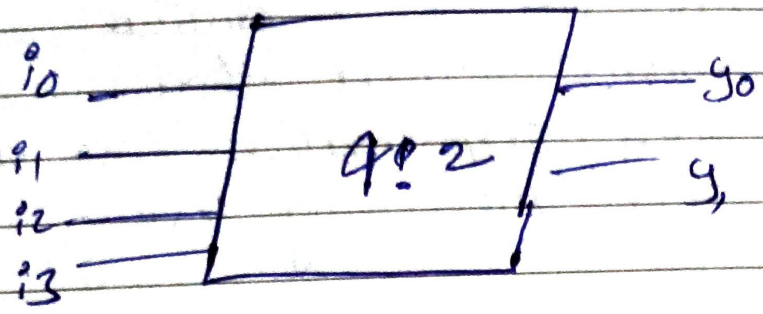


Sunday 14

4:2 Encoder

4 -  $2^2$

2 - OP lines



### 11:00 Truth table

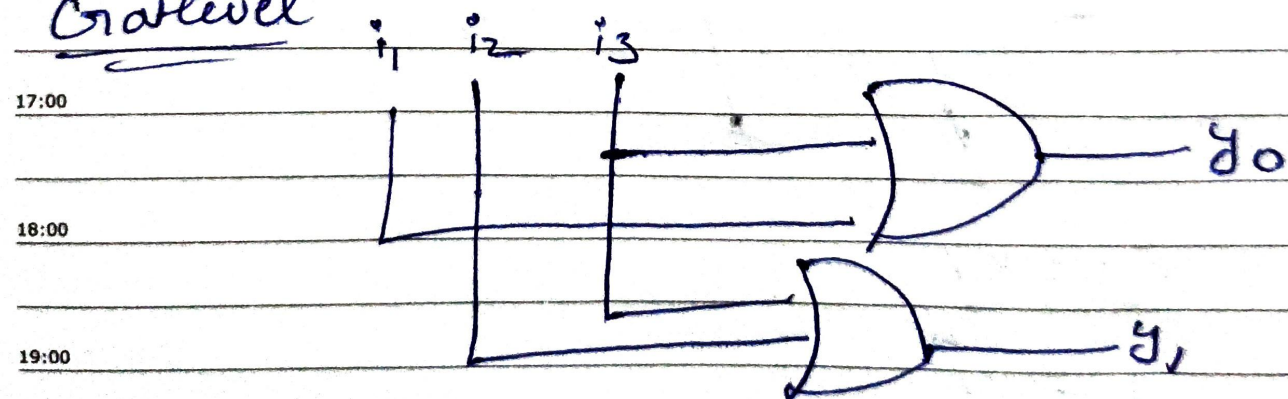
12:00	$i_3$	$i_2$	$i_1$	$i_0$	$y_0$	$y_1$
	0	0	0	1	0	0
13:00	0	0	1	0	0	1
	0	1	0	0	1	0
14:00	1	0	0	0	1	1

15:00

$$y_0 = i_1 + i_3$$

$$y_1 = i_2 + i_3$$

### 16:00 Gate level



### 19:00 Applications

Data multiplexing  
Address decoding applications