

Su	Mo	Tu	We	Th	Fr	Sa
•	•	•	•	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	•

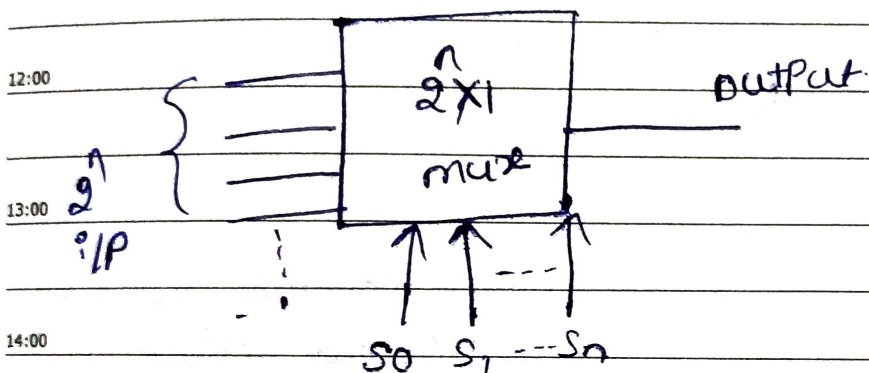
08:00 Multiplexer :

09:00 It selects one input from multiple data inputs and forwards the selected input to a single output

10:00

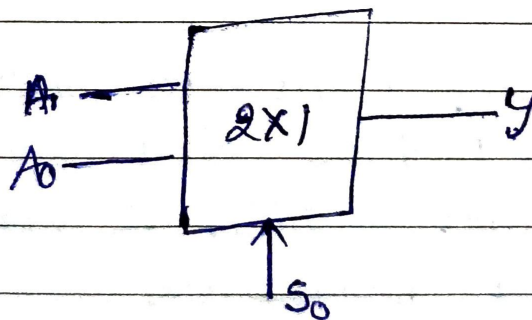
→ mux has 2^n input lines and a single output line & n selection lines

11:00



15:00 MUX(2:1)

16:00



18:00 Truth table : inputs output

	S_0	Y
19:00	0	A_0
	1	A_1

Eve.

$$Y = \overline{S_0} A_0 + S_0 A_1$$

May 2023

12 Friday

(132 - 233) Wk 20

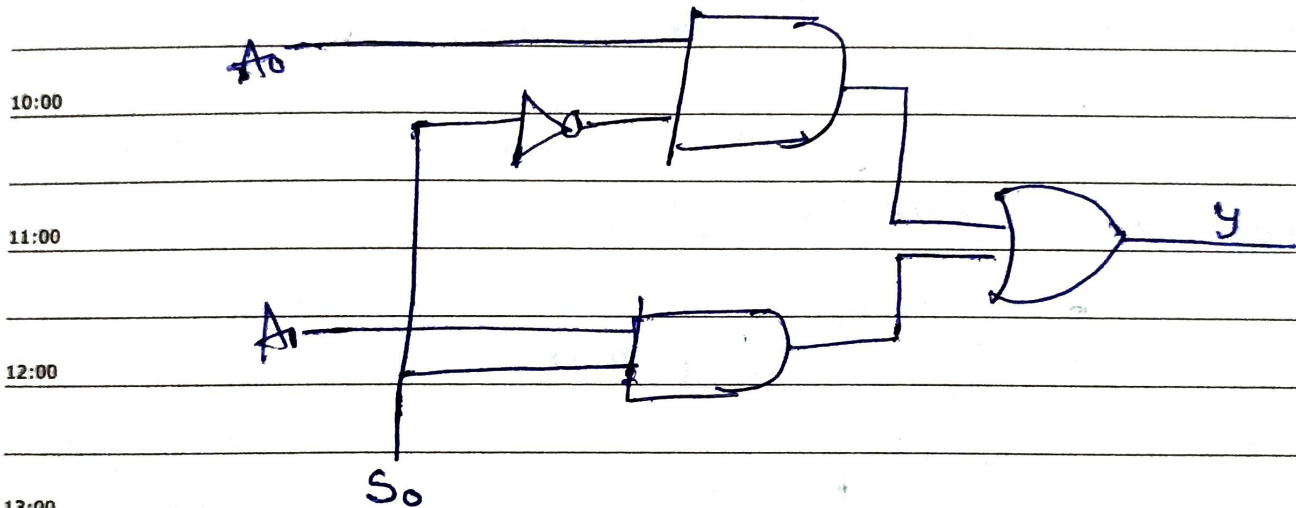
May 4

Su	Mo	Tu	We	Th	Fr	Sa
•	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	•	•	•

08:00

Gate-level (MUX 2:1):

09:00



10:00

11:00

12:00

13:00

these Multiplexers are also known as
→ "N-to-1 Selectors", parallel to Serial
Converters, many to one circuits.

15:00

→ They are mainly used to increase the
amount of data that can be sent
over a network within a certain amount
of time and Bandwidth.

16:00

17:00

18:00

19:00