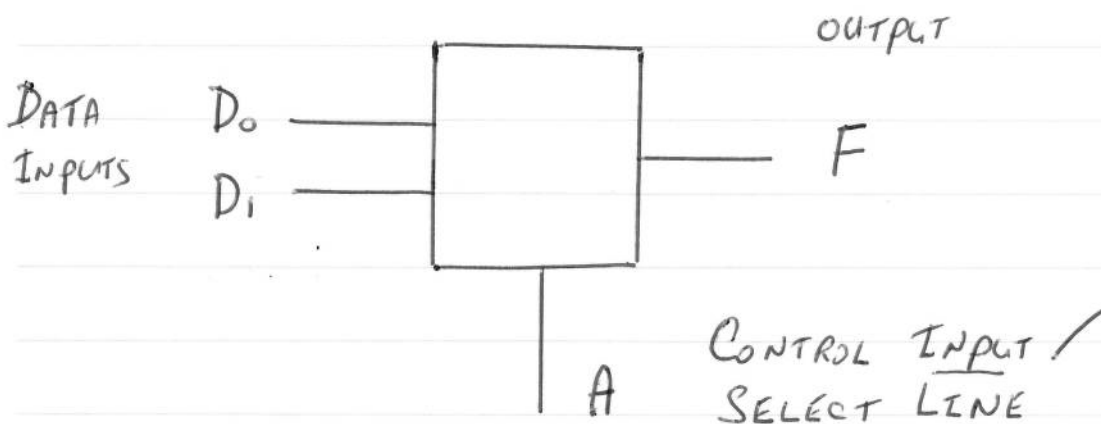


①

MULTIPLEXERS

2 X 1 MULTIPLEXER



FUNCTION TABLE

A	F
0	D_0
1	D_1

WHEN $A=0$, LINE F WILL HAVE AS ITS OUTPUT WHATEVER IS COMING IN ON LINE D_0

WHEN $A=1$, LINE F " " " " " " " " " " D_1

(2)

TRUTH TABLE

INPUTS

A	D _i	D _o	F
0	0	0	0
0	0	1	1
0	1	0	0
0	1	1	1
1	0	0	0
1	0	1	0
1	1	0	1
1	1	1	1

3

FUNCTION TABLE

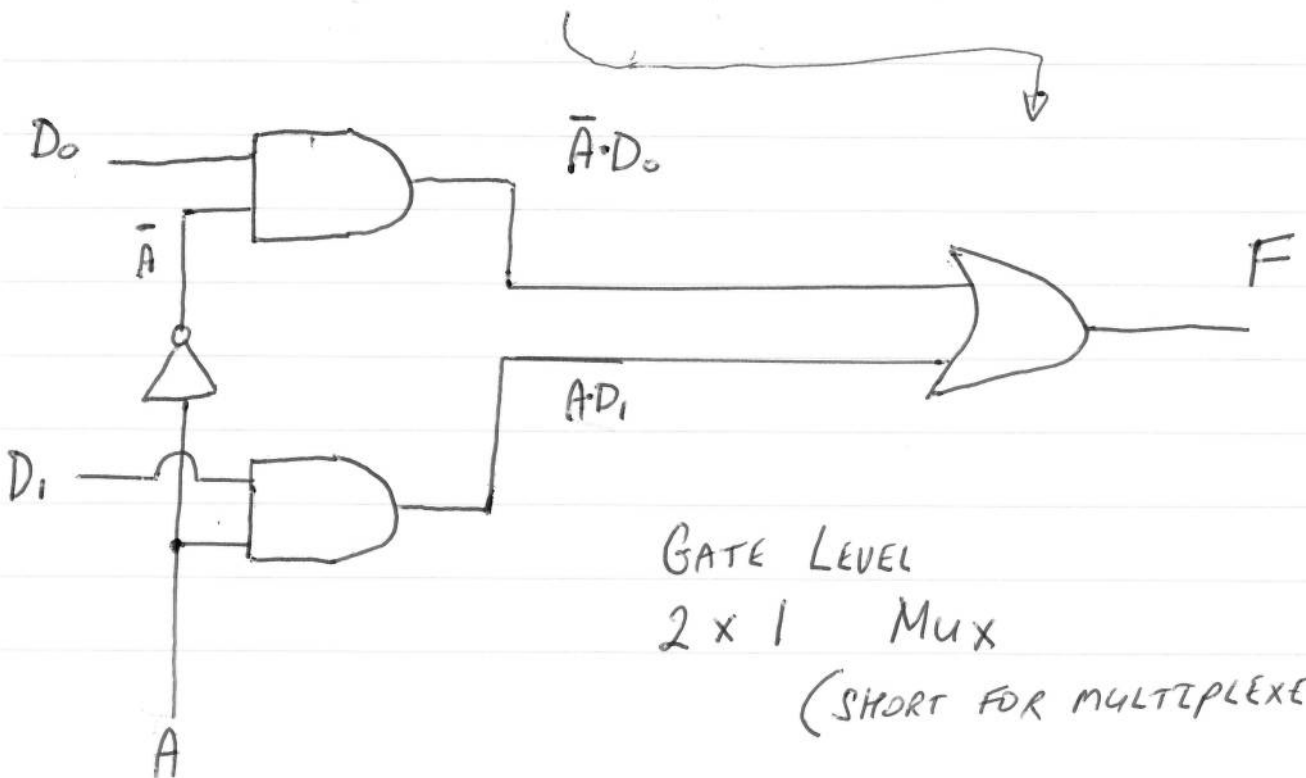
	A	F
#0	0	D_0
#1	1	D_1

SAME

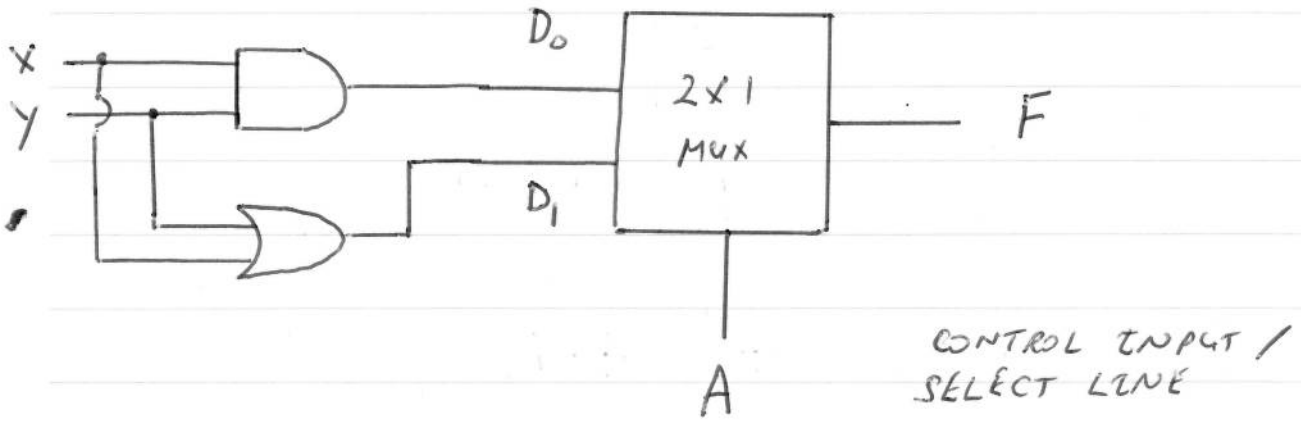
$$F = \underbrace{\bar{A} \cdot D_0}_{\text{LINE \#0}} + \underbrace{A \cdot D_1}_{\text{LINE \#1}}$$

$$F = \bar{A}D_0 + AD_1$$

$$F = \bar{A}D_0 + AD_1$$



(4)



FUNCTION TABLE

A	F
0	D_0 ← $X \cdot Y$ (<u>X AND Y</u>)
1	D_1 ← $X + Y$ (<u>X OR Y</u>)

F is either the ANDING OF X AND Y
OR the ORING OF X Y
DEPENDENT ON THE VALUE OF A .