

### Homework # 3 21707346 Barış Karapelit

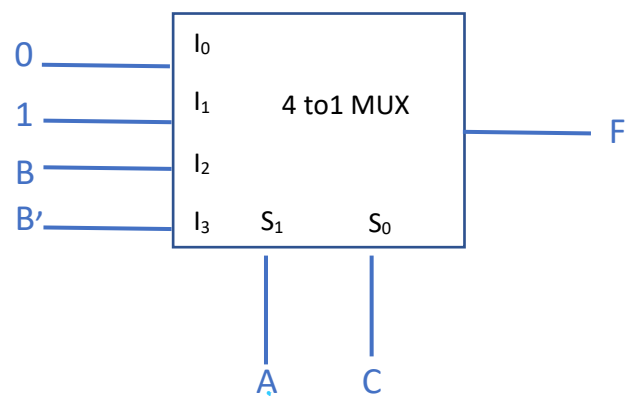
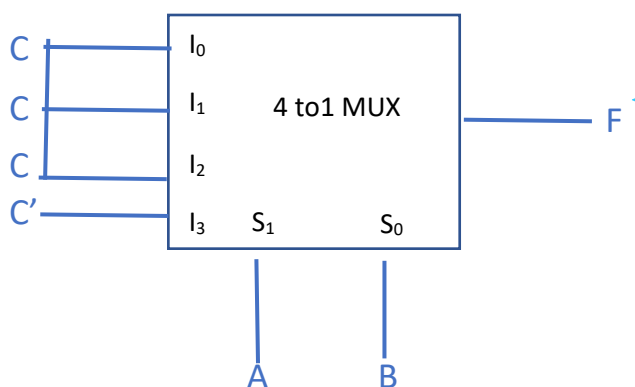
Implement the function  $F(A,B,C) = \sum(1,3,5,6)$  with 4 to 1 MUX.

a)Using Truth table

	A	B	C	F(A,B,C)
M <sub>0</sub>	0	0	0	0
M <sub>1</sub>	0	0	1	1
M <sub>2</sub>	0	1	0	0
M <sub>3</sub>	0	1	1	1
M <sub>4</sub>	1	0	0	0
M <sub>5</sub>	1	0	1	1
M <sub>6</sub>	1	1	0	1
M <sub>7</sub>	1	1	1	0

A	B	F in font of C
0	0	C
0	1	C
1	0	C
1	1	C'

A	C	F font of B
0	0	0
0	1	1
1	0	B
1	1	B'



b) Using implement table

	A	B	C	F(A,B,C)
M <sub>0</sub>	0	0	0	0
M <sub>1</sub>	0	0	1	1
M <sub>2</sub>	0	1	0	0
M <sub>3</sub>	0	1	1	1
M <sub>4</sub>	1	0	0	0
M <sub>5</sub>	1	0	1	1
M <sub>6</sub>	1	1	0	1
M <sub>7</sub>	1	1	1	0

	A'B'	A'B	AB'	AB
	I <sub>0</sub>	I <sub>1</sub>	I <sub>2</sub>	I <sub>3</sub>
C'	0	2	4	6
C	1	3	5	7
	C	C	C	C'

	A'C'	A'C	AC'	AC
	I <sub>0</sub>	I <sub>1</sub>	I <sub>2</sub>	I <sub>3</sub>
B'	0	1	4	5
B	2	3	6	7
	0	1	B	B'

