→ Design and Implement 2×1 MUX for the following function:

$$F = \Sigma (1,3,4,11,12,13,14,15)$$

Function Table:

A	B	C	D	F
0	0	0	0	0
0	0	0	1	1
0	0	1	0	0
0	0	1	1	1
0	1	0	0	1
0	1	0	1	0
0	1	1	0	0
0	1	1	1	0
1	0	0	0	0
1	0	0	1	0
1	0	1	0	0
1	0	1	1	1
1	1	0	0	1
1	1	0	1	1
1	1	1	0	1
1	1	1	1	1

B \ CD	00	01	11	10
0	0	1	1	0
1	1	0	0	0

$$F = B\overline{C}D + \overline{B}D$$

B \ CD	00	01	11	10
0	0	0	1	0
1	1	1	1	1

$$F = B + CD$$

B C D 1

2X1
MUX

F

A