

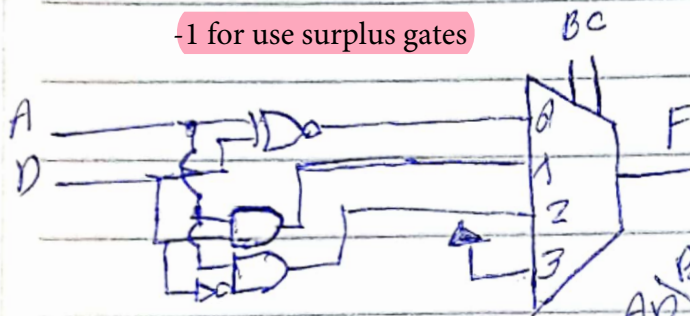
+5

AD CB

AD \ CB	00	01	11	10
00	1	0	1	0
01	0	0	0	1
11	1	1	1	1
10	0	0	1	0

$$F(C, B, A, D) = CB + CAD + \bar{B}AD + B A \bar{D} + C \bar{B} A \bar{D}$$

-1 for use surplus gates

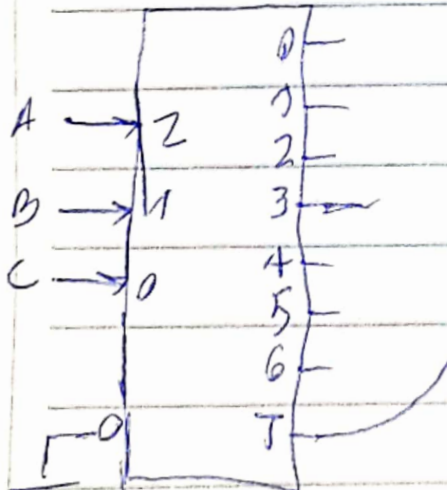


+9

BC AD

BC \ AD	00	01	10	11
00	1	0	0	1
01	0	0	0	1
10	0	0	1	1
11	1	1	0	1

$$F(A, B, C, D) = \sum m(0, 1, 2, 3, 4, 5, 6, 7)$$



-10