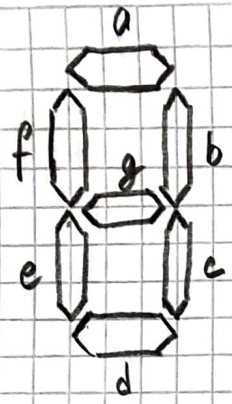
Kamil Coban

2018080060



Digit	Inputs A B C D	Outputs (Seven Segment Disp) a b c d e f g
0	0 0 0 0	1 1 1 1 1 1 0
1	0 0 0 1	0 1 1 0 0 0 0
2	0 0 1 0	1 1 0 1 1 0 1
3	0 0 1 1	1 1 1 1 0 0 1
4	0 1 0 0	0 1 1 0 0 1 1
5	0 1 0 1	1 0 1 1 0 1 1
6	0 1 1 0	1 0 1 1 1 1 1
7	0 1 1 1	1 1 1 0 0 0 0
8	1 0 0 0	1 1 1 1 1 1 1
9	1 0 0 1	1 1 1 1 0 1 1

For F_a

AB \ CD	00	01	11	10
00	1	0	1	1
01	0	1	1	1
11	X	X	X	X
10	1	1	X	X

- B'D'
- C
- BD
- A

$F_a = A + C + BD + B'D'$

For F_b

AB \ CD	00	01	11	10
00	1	1	1	1
01	1	0	1	0
11	X	X	X	X
10	1	1	X	X

- CD
- C'D'
- B'

$F_b = B' + CD + C'D'$

For F_c

AB \ CD	00	01	11	10
00	1	1	1	0
01	1	1	1	1
11	X	X	X	X
10	1	1	X	X

- D
- C'
- B

$F_c = B + C' + D$

For F_d

AB \ CD	00	01	11	10
00	1	0	1	1
01	0	1	0	1
11	X	X	X	X
10	1	1	X	X

- BC'D
- B'C
- A
- B'D'
- CD'

$F_d = A + B'C + B'D' + BC'D + CD'$

For F_e

AB \ CD	00	01	11	10
00	1	0	0	1
01	0	0	0	1
11	X	X	X	X
10	1	0	X	X

- CD'
- B'D'

$F_e = B'D' + CD'$

For F_f

AB \ CD	00	01	11	10
00	1	0	0	0
01	1	1	0	1
11	X	X	X	X
10	1	1	X	X

- A
- BD'
- C'D'
- BC'

$$F_f = A + BD' + C'D' + BC'$$

For F_g

AB \ CD	00	01	11	10
00	0	0	1	1
01	1	1	0	1
11	X	X	X	X
10	1	1	X	X

- CD'
- B'C
- BC'
- A

$$F_g = A + BC' + B'C + CD'$$