Simulare test AC

1)

Inputs				outputs	
I_3	I_2	I_1	I_0	O_1	O_0
0	0	0	0	0	0
0	0	0	1	1	1
0	0	1	0	1	0
0	0	1	1	0	1
0	1	0	0	0	0
0	1	0	1	1	1
0	1	1	0	1	0
0	1	1	1	0	1
1	0	0	0	0	0
1	0	0	1	1	1
1	0	1	0	1	0
1	0	1	1	0	1
1	1	0	0	0	0
1	1	0	1	1	1
1	1	1	0	1	0
1	1	1	1	0	1

Pentru O_3:

I_3I_2 \ I_1I_0	00	01	11	10
00	0	0	0	0
01	0	1	1	1
11	x	x	x	x
10	1	1	x	x

$$O_3 = I_3 + \bar{I}_2 I_0 + I_2 I_1$$

Pentru O_2:

I_3I_2 \ I_1I_0	00	01	11	10
00	0	1	1	1
01	1	0	0	0
11	x	x	x	x
10	0	1	x	x

$$O_2 = \bar{I}_2 I_0 + I_2 \bar{I}_1 \bar{I}_0 + \bar{I}_2 I_1$$

Pentru O_1:

I_1I_0 \ I_3I_2	00	01	11	10
00	0	1	0	1
01	0	1	0	1
11	x	x	x	x
10	0	1	x	x

$$O_1 = \overline{I}_1 I_0 + I_1 \overline{I}_0 = I_1 \oplus I_0$$

Pentru O_0:

I_1I_0 \ I_3I_2	00	01	11	10
00	0	1	1	0
01	0	1	1	0
11	x	x	x	x
10	0	1	x	x

$$O_0 = I_3$$

2)

D_3	D_2	D_1	D_0	O_3	O_2	O_1	O_0
0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	0
0	0	1	0	0	0	0	1
0	0	1	1	0	0	0	1
0	1	0	0	0	0	1	0
0	1	0	1	0	0	1	0
0	1	1	0	0	0	1	1
0	1	1	1	0	0	1	1
1	0	0	0	0	1	0	0
1	0	0	1	0	1	0	0
1	0	1	0	0	1	0	1
1	0	1	1	0	1	0	1
1	1	0	0	0	1	1	0
1	1	0	1	0	1	1	0
1	1	1	0	0	1	1	1
1	1	1	1	0	1	1	1

$\Rightarrow O = i >> 2;$

3)