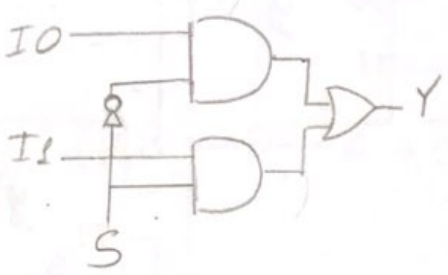
Guião 7 'Porta I

1

S	I0	I1	Y
0	0	0	0
0	0	1	0
0	1	0	1
0	1	1	1
1	0	0	0
1	0	1	1
1	1	0	0
1	1	1	1

$Y = (\bar{S} + I0) \cdot (S + I1)$

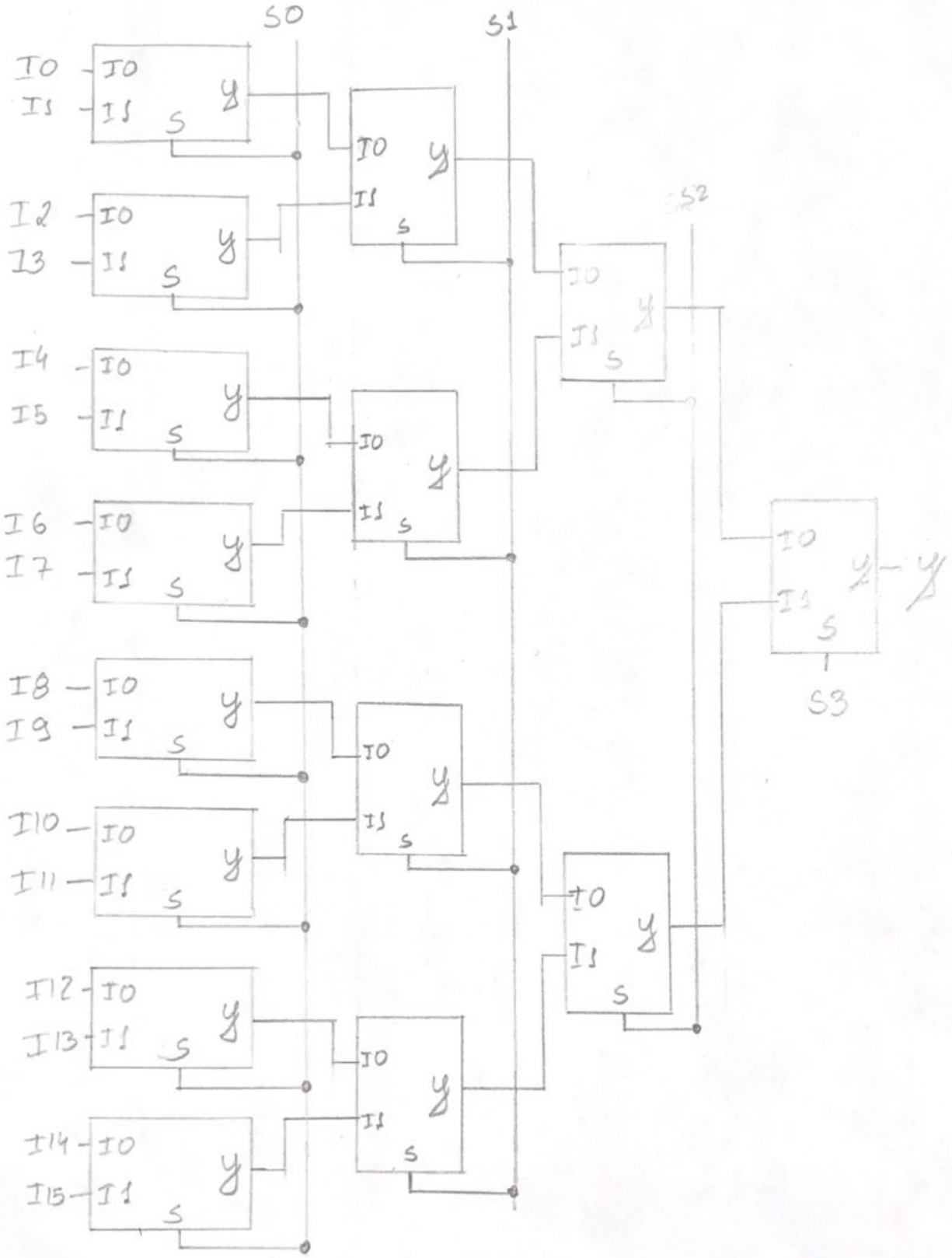


S	y
0	I0
1	I1

5

S3	S2	S1	S0	y
0	0	0	0	I0
0	0	0	1	I1
0	0	1	0	I2
0	0	1	1	I3
0	1	0	0	I4
0	1	0	1	I5
0	1	1	0	I6
0	1	1	1	I7
1	0	0	0	I8
1	0	0	1	I9
1	0	1	0	I10
1	0	1	1	I11
1	1	0	0	I12
1	1	0	1	I13
1	1	1	0	I14
1	1	1	1	I15

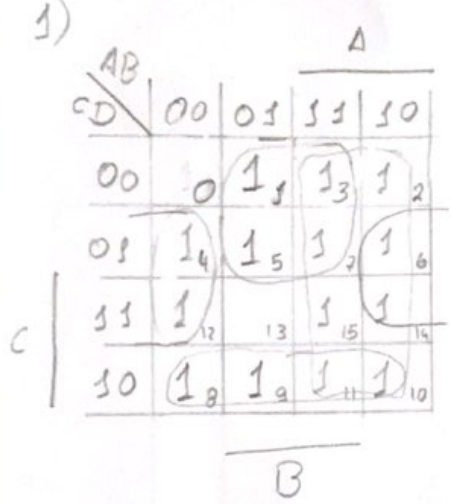
$2^4 = 16$, o sinal S vai ter 4 bits


S0
S1
S2
S3
I0
I1
I2
I3
I4
I5
I6
I7
I8
I9
I10
I11
I12
I13
I14
I15
IO
I1
S
y

Parte II

$$f(A,B,C,D) = A + \overline{C} \times D + B \times \overline{D} + \overline{B} \times D + \overline{B} \times C$$

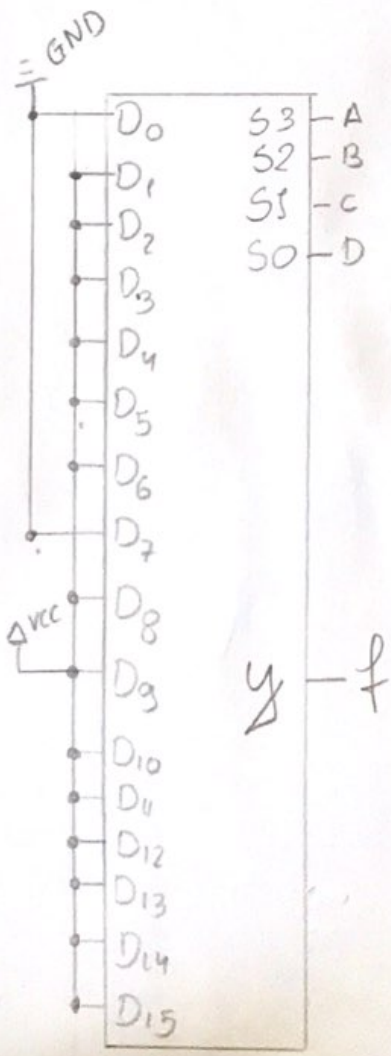
1)



$$f(A,B,C,D) = A + \overline{C}B + D\overline{B} + C\overline{D}$$

2)

$$f(A,B,C,D) = \sum_m (1,2,3,4,5,6,7,8,9,10,11,12,14,15)$$



A	B	C	D	f
0	0	0	0	0
0	0	0	1	1
0	0	1	0	1
0	0	1	1	1
0	1	0	0	1
0	1	0	1	1
0	1	1	0	1
0	1	1	1	0
1	0	0	0	1
1	0	0	1	1
1	0	1	0	1
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