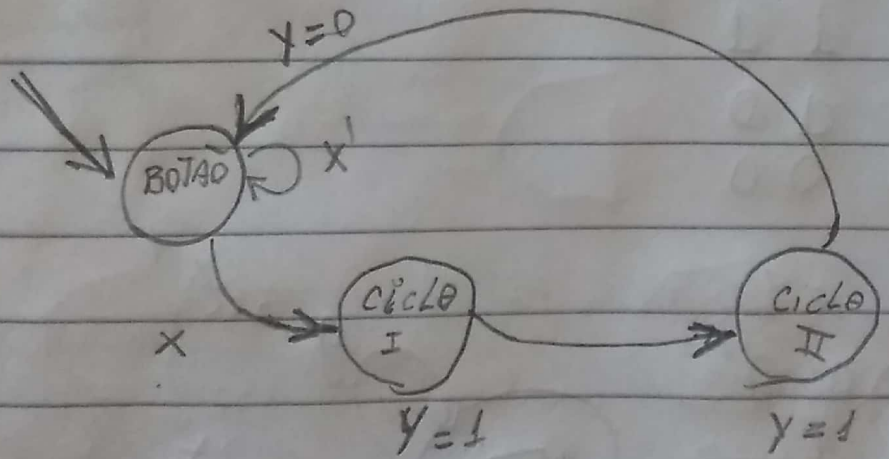
(1) - entradas: X

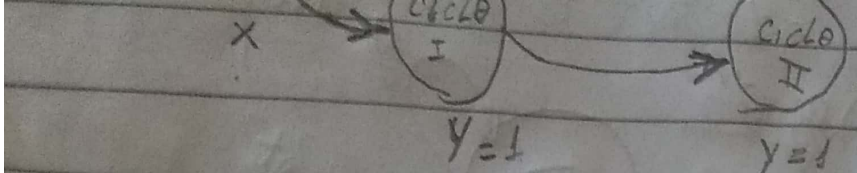
saídas: Y

- quando x mudar de 0 para 1, Y=1 por dois ciclos
- retorna para 0, mesmo que x=1 (depois dos dois ciclos)



(2) - Informações:

	S_1	S_0	
Hora atual	0	0	$S_1' S_0'$

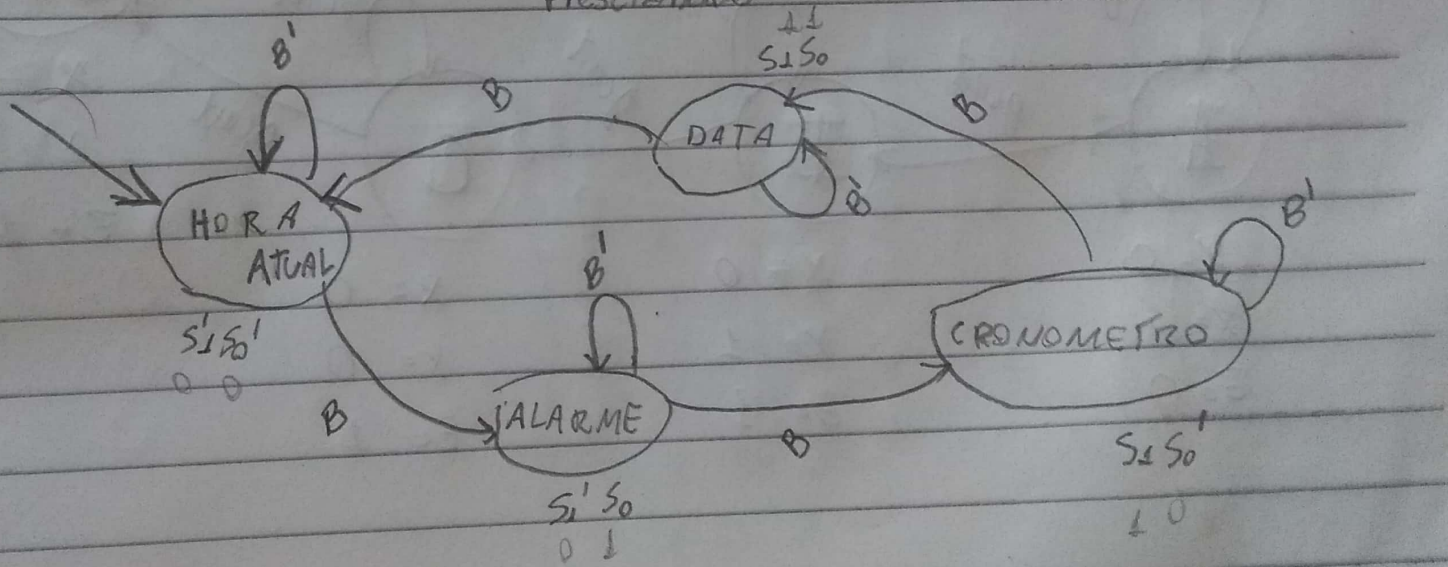


(2) - Informações:

	S_1	S_0	
Hora atual	0	0	$S_1' S_0'$
alarme	0	1	$S_1' S_0$
cronometro	1	0	$S_1 S_0'$
Data	1	1	$S_1 S_0$

- entrada : B
- saída : $S_1 S_0$

BOTÃO = proximo item é executado
↑ prescionado

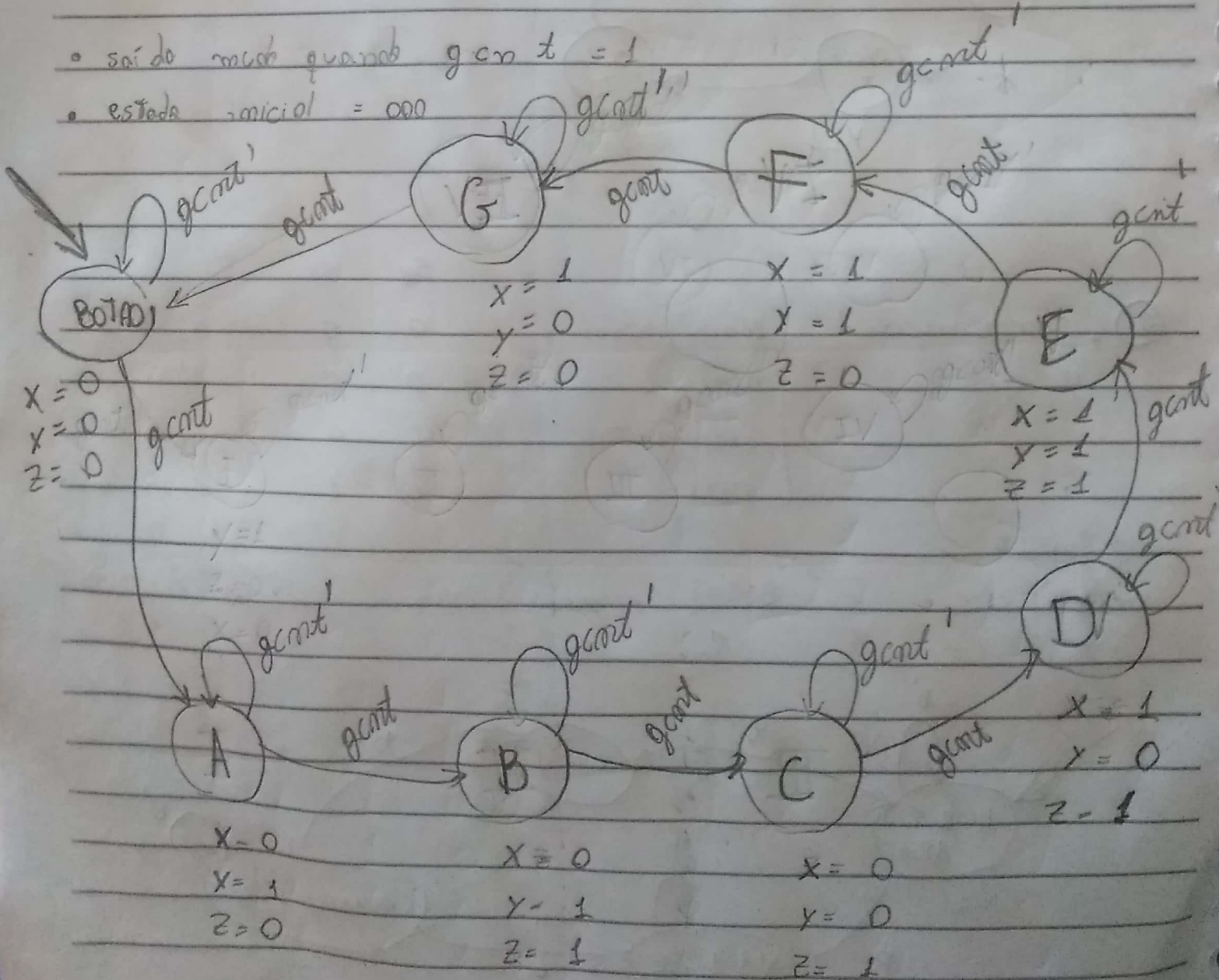


③

- entradas : gcnt
- saídas : x, y, z →

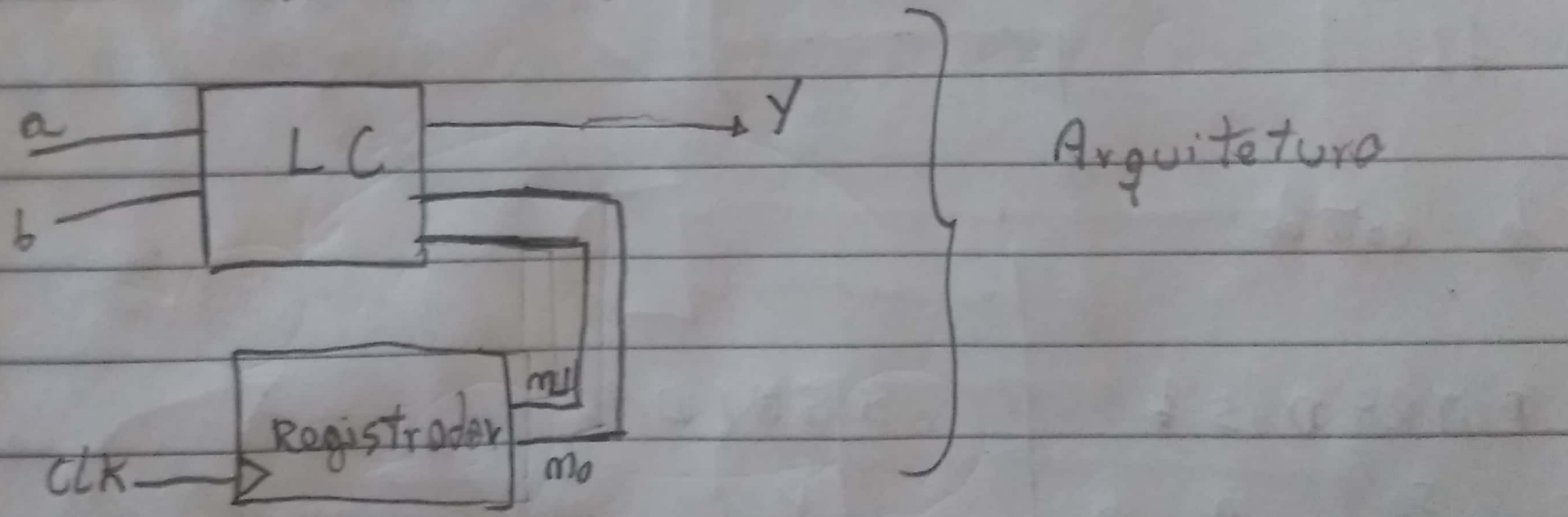
x	y	z
0	0	0
0	1	0
0	1	1
0	0	1
1	0	1
1	1	1
1	1	0
1	0	0

- saída mealy quando gcnt = 1
- estado inicial = 000



(4)

- entrada = a, b
- saída = Y
- nº estados = 2 bits (4)



- codificando estados

A → 00
B → 01
C → 10
D → 11

- Tabela de estado

	ENTRADAS				SAIDAS			
	s_1	s_0	a	b	Y	m_1	m_0	
A	0	0	0	0	0	1	0	*
	0	0	0	1	0	0	1	□
	0	0	1	0	0	0	0	
	0	0	1	1	0	0	0	
B	0	1	0	0	1	0	1	□
	0	1	0	1	1	0	1	□
	0	1	1	0	1	1	0	*
	0	1	1	1	1	1	0	*
C	1	0	0	0	1	1	0	*
	1	0	0	1	1	1	1	*□
	1	0	1	0	1	1	0	*
	1	0	1	1	1	1	1	*□
D	1	1	0	0	0	0	0	
	1	1	0	1	0	0	0	
	1	1	1	0	0	0	0	
	1	1	1	1	0	0	0	

• equações

$$Y = S_1 \oplus S_0$$

$$n_1 = S_1 S_0 a' b' + S_1 S_0 a b' + S_1 S_0 a b + S_1 S_0 a' b + S_1 S_0 a b' + S_1 S_0 a b$$

$$n_1 = S_1 S_0 a' b' + S_1 S_0 a + S_1 S_0 a' + S_1 S_0 a$$

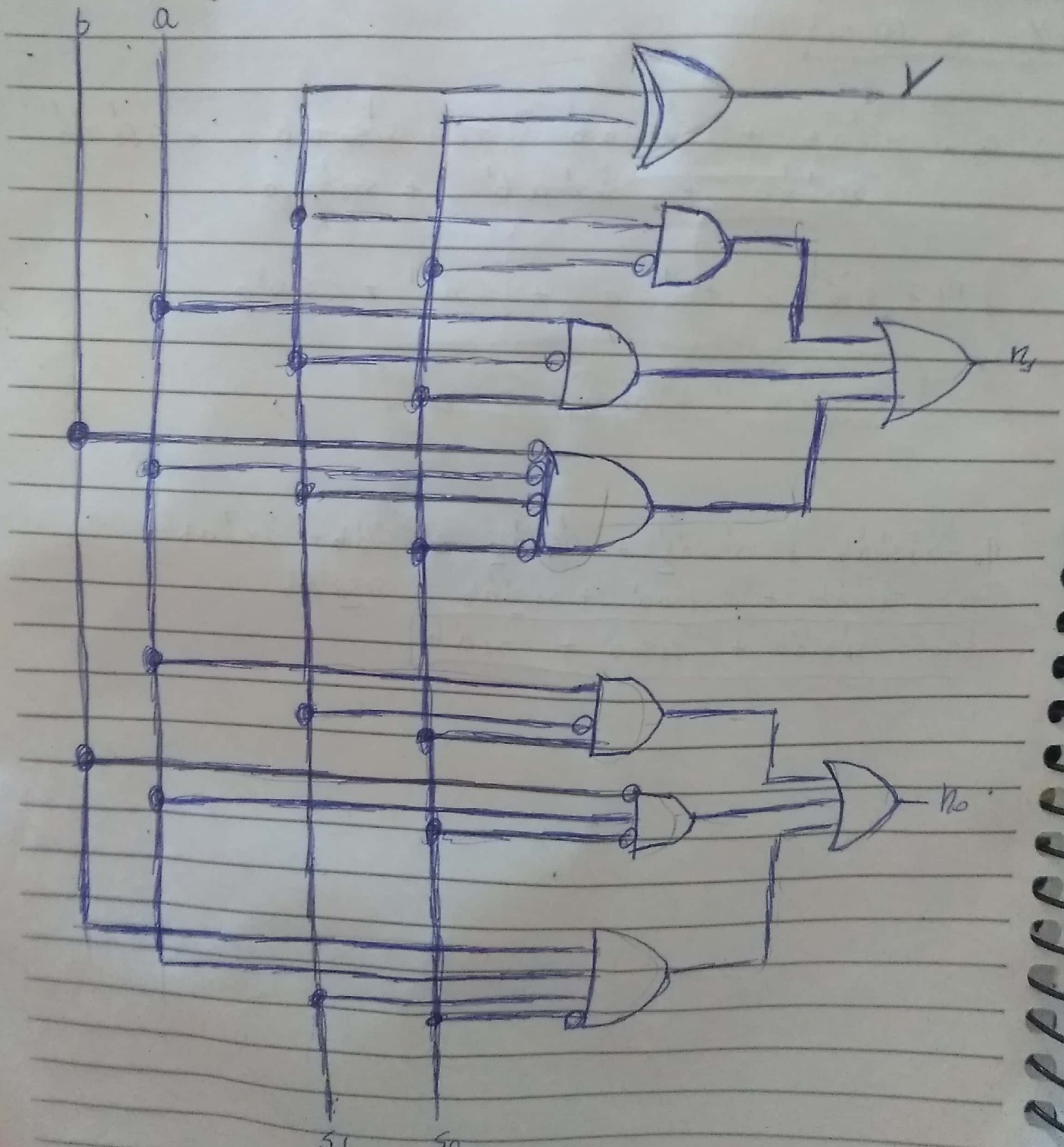
$$n_1 = S_1 S_0 a' b' + S_1 S_0 a + S_1 S_0'$$

$$n_0 = S_1 S_0 a' b + S_1 S_0 a' b + S_1 S_0 a b + S_1 S_0 a' b + S_1 S_0 a b$$

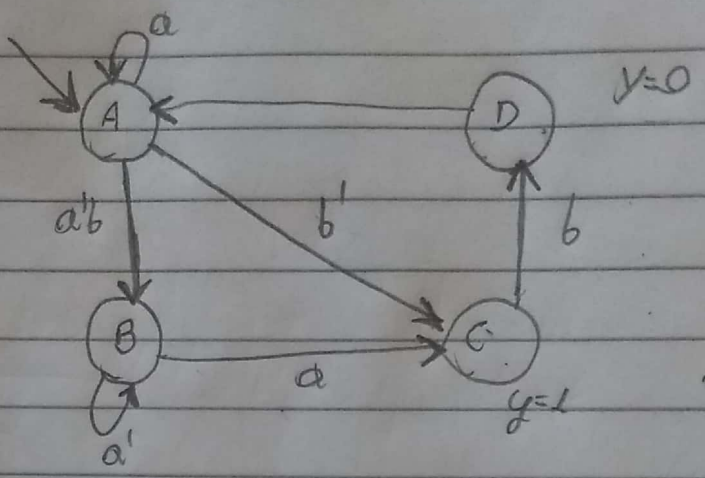
$$n_0 = S_1 S_0 a' b + S_1 S_0 a' + S_1 S_0 a' b + S_1 S_0 a b$$

$$n_0 = S_1 S_0 a' b + S_1 S_0 a' + S_1 a' b$$

• LC (Lógica Combinacional)



(5) FSM →



→ Testes OR e AND

estado A

OR → $a + b' + a'b \neq 1$

AND → $a \cdot b \neq 0$

→ Reescrevendo de maneira correta