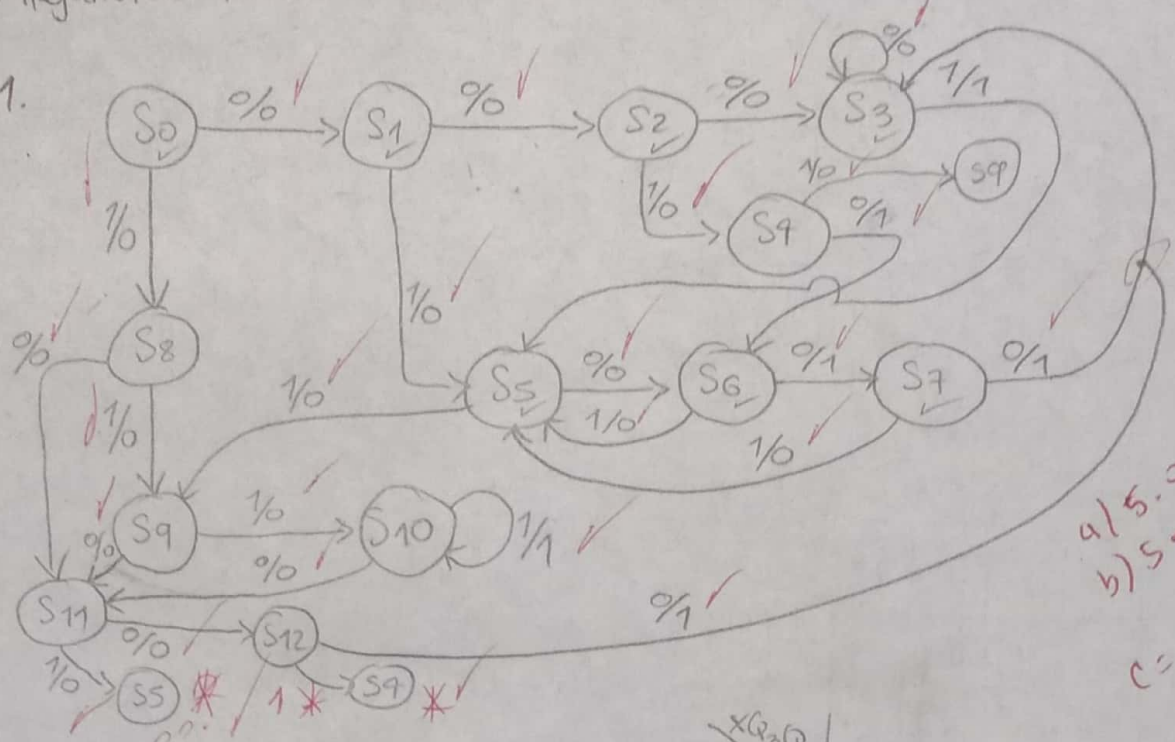


1.



a) 5.0
b) 5.0
c) 5.0

X	EP	PE	Z
0	0000	0001	0
1	0001	0010	0
2	0010	0011	0
3	0011	0011	0
4	0100	0110	1
5	0101	0110	0
6	0110	0111	1
7	0111	0011	1
8	1000	1011	0
9	1001	1011	0
10	1010	1011	0
11	1011	1100	0
12	1100	0011	1
13	0000	1000	0
14	0001	0101	0
15	0010	0100	0
16	0011	0101	1
17	0100	1001	0
18	0101	1001	0
19	0110	0101	0
20	0111	0101	0
21	1000	1001	0
22	1001	1010	0
23	1010	1010	0
24	1011	0101	0
25	1100	0100	0
26	0000	0000	0
27	0001	0001	0
28	0010	0010	0
29	0011	0011	0
30	0100	0100	0
31	0101	0101	0

XQ ₃ Q ₂	Q ₁ Q ₀	000	001	011	010	110	111	101	100
00	00	1	1	1	1	1	1	1	1
01	01	1	1	1	1	1	1	1	1
11	11	1	1	1	1	1	1	1	1
10	10	1	1	1	1	1	1	1	1

$$D_0 = \bar{x} \bar{Q}_3 Q_2 + \bar{x} Q_1 Q_0 + \bar{x} Q_3 \bar{Q}_1 + Q_3 \bar{Q}_2 \bar{Q}_1 \bar{Q}_0 + \bar{x} \bar{Q}_3 Q_1 + \bar{x} Q_1 \bar{Q}_0 + \bar{x} \bar{Q}_3 \bar{Q}_2 \bar{Q}_0$$

XQ ₃ Q ₂	Q ₁ Q ₀	000	001	011	010	110	111	101	100
00	00	1	1	1	1	1	1	1	1
01	01	1	1	1	1	1	1	1	1
11	11	1	1	1	1	1	1	1	1
10	10	1	1	1	1	1	1	1	1

$$D_1 = \bar{x} Q_2 + \bar{x} Q_3 \bar{Q}_1 + Q_3 \bar{Q}_1 Q_0 + \bar{x} \bar{Q}_3 Q_0 + \bar{x} Q_1 \bar{Q}_0 + Q_3 Q_1 \bar{Q}_0$$

xQ_3Q_2 Q_1Q_0	000	001	011	010	110	111	101	100
00		1				1		
01		1	X			X		1
11			X	1		X	1	1
10		1	X		1	X	1	1

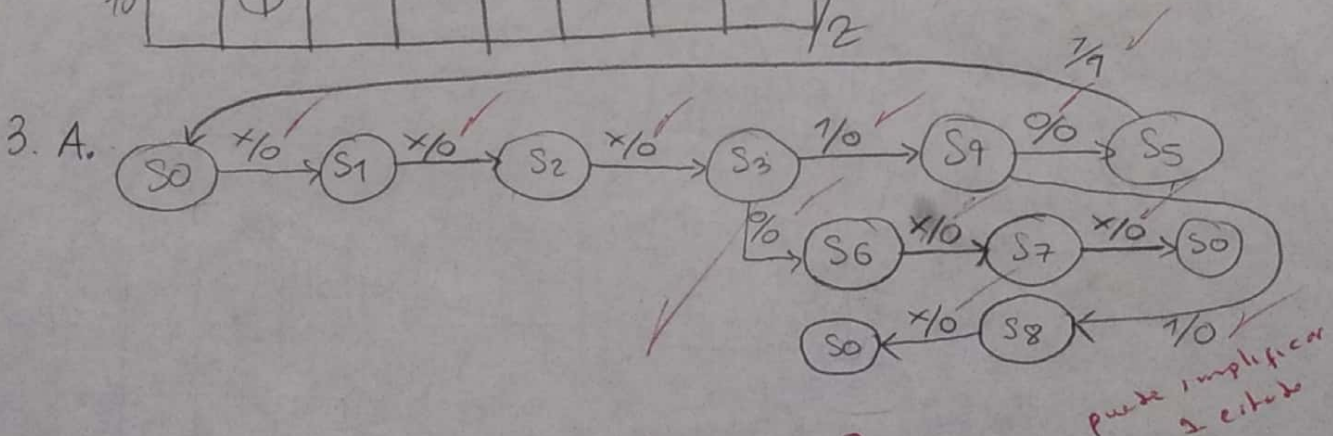
$$D_2 = Q_2 Q_1 \bar{Q}_0 + X Q_1 \bar{Q}_0 + X \bar{Q}_3 Q_1 + X \bar{Q}_3 \bar{Q}_2 Q_0 + X Q_3 Q_2 + \bar{X} Q_3 Q_1 Q_0 + \bar{X} \bar{Q}_3 Q_1$$

xQ_3Q_2 Q_1Q_0	000	001	011	010	110	111	101	100
00				1	1	1		
01			X	1	1	X		
11			X	1	1	X		
10			X	1	1	X		

$$D_3 = Q_3 \bar{Q}_2 + X Q_3$$

xQ_3Q_2 Q_1Q_0	000	001	011	010	110	111	101	100
00		1	1					
01								
11		1						1
10		1						

$$Z = X \bar{Q}_3 \bar{Q}_2 Q_1 Q_0 + \bar{X} Q_2 \bar{Q}_1 \bar{Q}_0 + \bar{X} \bar{Q}_3 Q_2 Q_1$$



$$C = 5 - 0$$

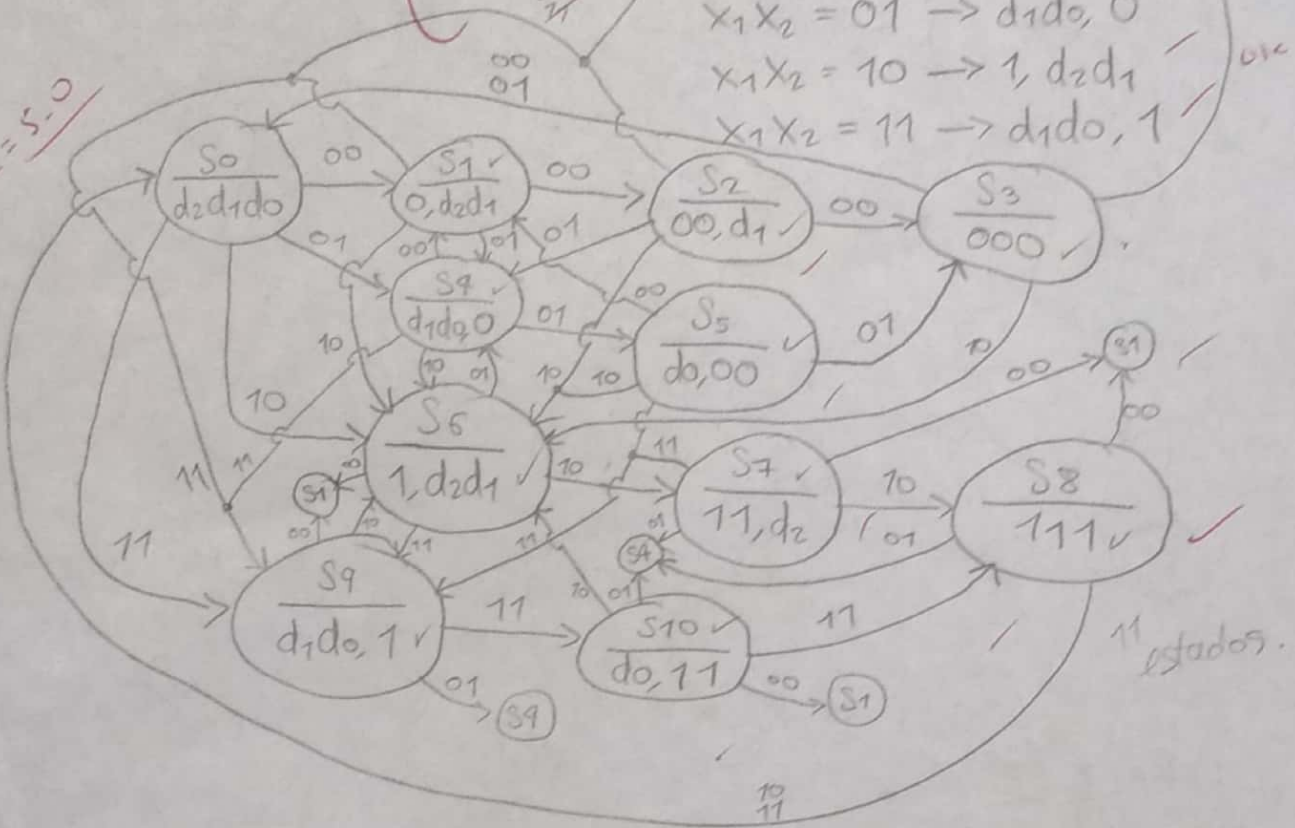
2. $d[2..0] = d_2 d_1 d_0$

$C = 4.3$

Felicitaciones

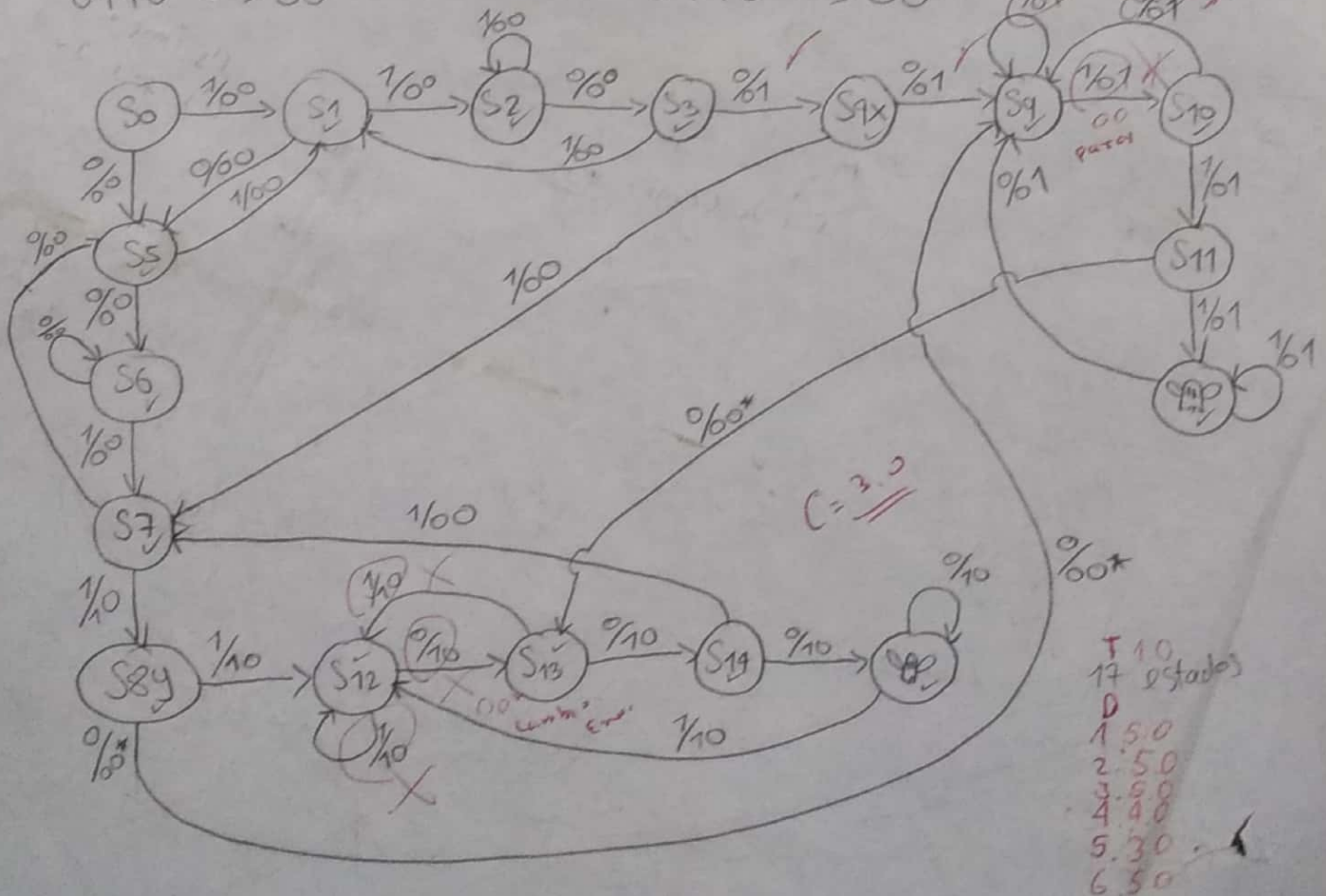
$x_1 x_2 = 00 \rightarrow 0, d_2 d_1$
 $x_1 x_2 = 01 \rightarrow d_1 d_0, 0$
 $x_1 x_2 = 10 \rightarrow 1, d_2 d_1$
 $x_1 x_2 = 11 \rightarrow d_1 d_0, 1$

$C = 5.0$



$1100 \rightarrow 01$
 $1001 \rightarrow 00$
 $0110 \rightarrow 00^*$

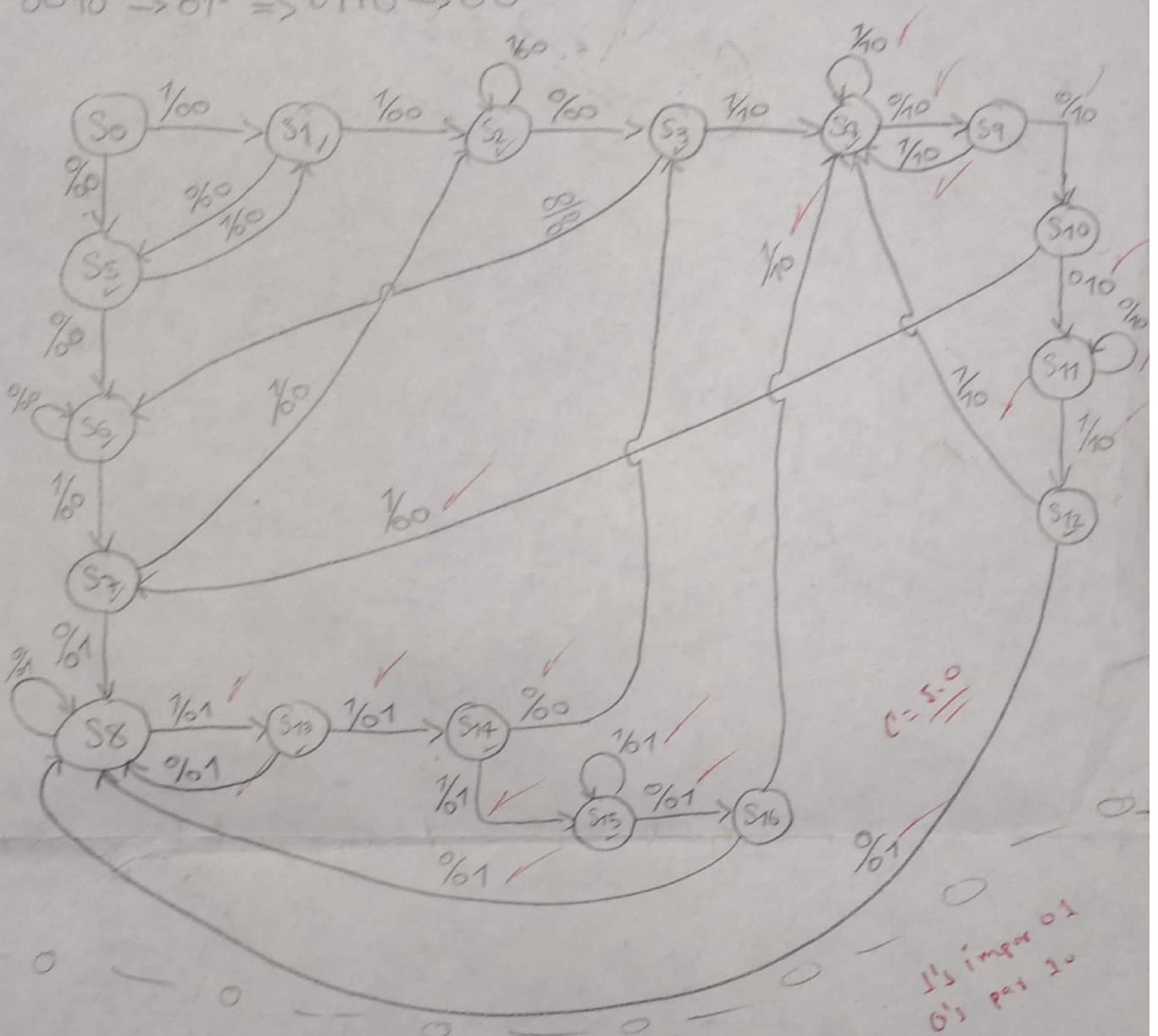
$0011 \rightarrow 10$
 $1001 \rightarrow 00$
 $0110 \rightarrow 00^*$



$C = 3.0$

$T = 10$
 $D = 17$ estados
 $1.5.0$
 $2.5.0$
 $3.5.0$
 $4.4.0$
 $5.3.0$
 $6.5.0$

6. $1101 \rightarrow 10_1 \Rightarrow 1001 \rightarrow 00$
 $0010 \rightarrow 01_1 \Rightarrow 0110 \rightarrow 00$



4. $S_i \text{ OP} \Rightarrow 1P \rightarrow 01$
 $S_i \text{ OI} \Rightarrow 1I \rightarrow 10$
 $S_i \text{ } \neq \rightarrow 0$

Ex de Carol = 101

