6.

(1).

	x=0	x=1
S_0	$S_0, 0$	$S_1, 0$
S_1	$S_4, 1$	$S_0, 1$
S_2	$S_2, 0$	$S_1, 0$
S_3	$S_4, 1$	$S_5, 1$
S_4	$S_2, 0$	$S_3, 1$
S_5	$S_4, 1$	$S_0, 1$

(2).

	0	1
000	000, 0	001, 0
001	100, 1	000, 1
010	010, 0	001, 0
011	100, 1	101, 1
100	010, 0	011, 1
101	100, 1	000, 1

Q_2^+

Q_2Q_1 \ Q_0x	00	01	11	10
00	0	0	0	1
01	0	0	1	1
11	d	d	d	d
10	0	0	0	1

Q_1^+

Q_2Q_1 \ Q_0x	00	01	11	10
00	0	0	0	0
01	1	0	0	0
11	d	d	d	d
10	1	1	0	0

Q_0^+

Q_2Q_1 \ Q_0x	00	01	11	10
00	0	1	0	0
01	0	1	1	0
11	d	d	d	d
10	0	1	0	0

y

Q_2Q_1 \ Q_0x	00	01	11	10
00	0	0	1	1
01	0	0	1	1
11	d	d	d	d
10	0	1	1	1

$$\begin{cases} y = Q_0 + Q_2 x \\ Q_2^+ = Q_0 \bar{x} + Q_1 Q_0 \\ Q_1^+ = Q_1 \bar{Q_0} \bar{x} + Q_2 \bar{Q_0} \\ Q_0^+ = \bar{Q_0} x + Q_1 x \end{cases}$$

(3).

$$\begin{cases} CL0 \cdots 3\text{コ} \ (2\text{入力}\ 3\text{コ}) \\ CL1 \cdots 3\text{コ} \ (2\text{入力}\ 2\text{コ},\ 3\text{入力}\ 1\text{コ}) \\ CL2 \cdots 3\text{コ} \ (2\text{入力}\ 3\text{コ}) \\ CLY \cdots 2\text{コ} \ (2\text{入力}\ 2\text{コ}) \end{cases}$$