

$$1.(a) \quad x^5 + x^4 + x^3 + x + 1 \Rightarrow x_4 + x_3 + x_1 + x_0$$

	x4	x3	x2	x1	x0
INITIAL STATE	1	0	0	0	0
1	1	1	0	0	0
2	0	1	1	0	0
3	1	0	1	1	0
4	0	1	0	1	1
5	1	0	1	0	1
6	0	1	0	1	0
7	0	0	1	0	1
8	1	0	0	1	0
9	0	1	0	0	1
10	0	0	1	0	0
11	0	0	0	1	0
12	1	0	0	0	1
13	0	1	0	0	0
14	1	0	1	0	0
15	1	1	0	1	0
16	1	1	1	0	1
17	1	1	1	1	0
18	1	1	1	1	1
19	0	1	1	1	1
20	1	0	1	1	1
21	1	1	0	1	1
22	0	1	1	0	1
23	0	0	1	1	0
24	1	0	0	1	1
25	1	1	0	0	1
26	1	1	1	0	0
27	0	1	1	1	0
28	0	0	1	1	1
29	0	0	0	1	1
30	0	0	0	0	1
REPEAT	1	0	0	0	0