QUIZ - 6

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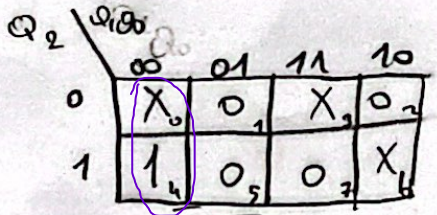
1-) This is a moore machine, because the output values depend only on the current state, not the input.

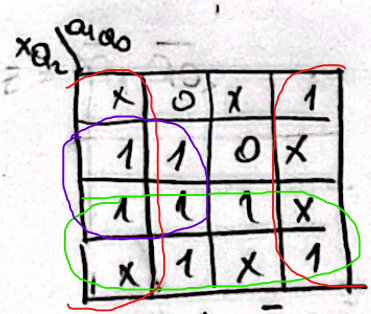
2-)

Index	x	$Q_2(t)$	$Q_1(t)$	$Q_0(t)$	$Q_2(t+1)$	$Q_1(t+1)$	$Q_0(t+1)$	z
0	0	0	0	0	X	X	X	X
1	0	0	0	1	0	1	0	0
2	0	0	1	0	1	0	1	0
3	0	0	1	1	X	X	X	X
4	0	1	0	0	1	0	1	0
5	0	1	0	1	1	0	1	0
6	0	1	1	0	X	X	X	X
7	0	1	1	1	1	0	0	0
8	1	0	0	0	X	X	X	X
9	1	0	0	1	0	0	1	0
10	1	0	1	0	1	1	1	0
11	1	0	1	1	X	X	X	X
12	1	1	0	0	0	0	1	1
13	1	1	0	1	0	0	1	0
14	1	1	1	0	X	X	X	X
15	1	1	1	1	0	0	1	0

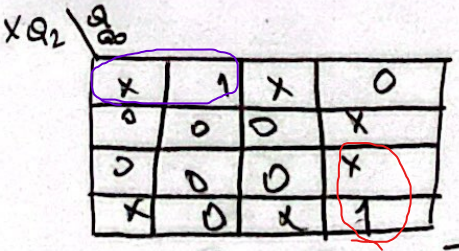
3-)



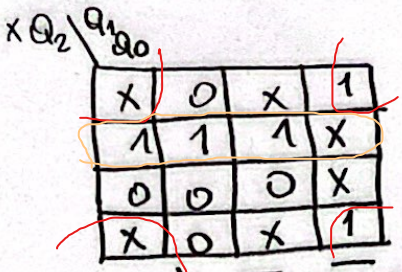
$z = Q_1(t)\bar{Q}_2(t)$



$Q_0(t+1) = \bar{Q}_0(t) + x + Q_2(t)\bar{Q}_1(t)$



$Q_1(t+1) = \bar{x}\,\bar{Q}_2(t)\,\bar{Q}_1(t) + x\bar{Q}_2(t)\,\bar{Q}_0(t)$



$Q_2(t+1) = \bar{Q}_2(t)\bar{Q}_0(t) + \bar{x}\,Q_2(t)$