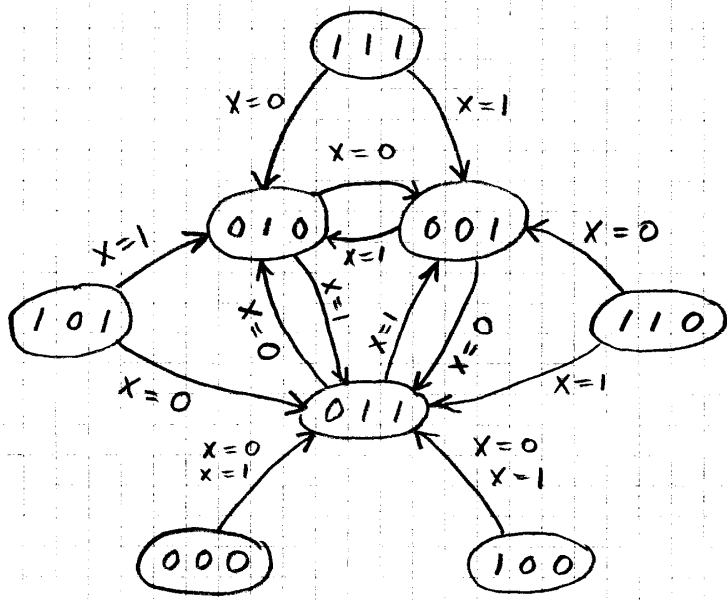


Lösningsförslag till dugga 3 i TMEL53 Digitalteknik 2016-02-19

$$\begin{aligned}
 T &= Q_1 \\
 S &= \overline{Q_2} \\
 R &= \overline{(Q_3 \oplus X)} + \overline{Q_2} \\
 D &= \overline{Q_3} + \overline{(Q_2 \oplus X)}
 \end{aligned}$$

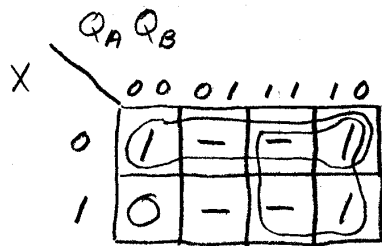
X	Q ₁	Q ₂	Q ₃	T	S	R	D	Q ₁ ⁺	Q ₂ ⁺	Q ₃ ⁺
0	0	0	0	0	1	0	1	0	1	1
0	0	0	1	0	1	0	1	0	1	1
0	0	1	0	0	0	1	1	0	0	1
0	0	1	1	0	0	0	0	0	1	0
0	1	0	0	1	1	0	1	0	1	1
0	1	0	1	1	0	0	1	0	0	1
0	1	1	0	1	0	0	0	0	1	0
0	1	1	1	0	0	0	0	0	1	0
1	0	0	0	0	1	0	0	0	1	1
1	0	0	1	0	0	0	1	0	1	1
1	0	1	0	0	0	1	1	0	0	1
1	0	1	1	0	0	0	1	0	1	1
1	1	0	0	1	1	0	0	0	1	1
1	1	0	1	1	0	0	1	0	1	1
1	1	1	0	1	0	0	0	0	0	1
1	1	1	1	1	0	1	1	0	0	1



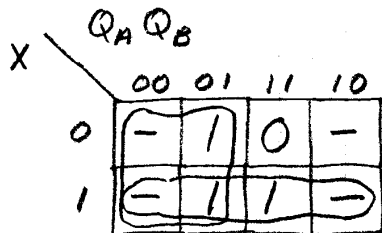
2.

	X	Q _A	Q _B	J _A	K _A	J _B	K _B	Q _A ⁺	Q _B ⁺
	0	0	0	0	-	1	-	0	1
	0	0	1	0	-	-	1	0	0
	0	1	0	-	1	1	-	0	1
	0	1	1	-	1	-	0	0	1
	1	0	0	1	-	0	-	1	0
	1	0	1	1	-	-	1	1	0
	1	1	0	-	0	1	-	1	1
	1	1	1	-	0	-	1	1	0

MAN SER DIREKT ATT $J_A = X$ OCH $K_A = \bar{X}$



$$J_B = \bar{X} + Q_A = \overline{X \bar{Q}_A}$$



$$K_B = X + \bar{Q}_A = \overline{\bar{X} Q_A}$$

