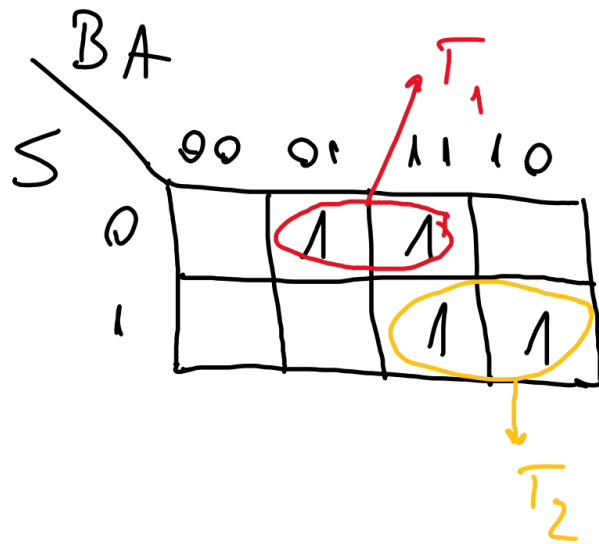


Laboratorul nr. 5;

1a.



$$OUT = T_1 + T_2 = \bar{S}A + SB$$

Tabelul de adevăr

(completat pe baza măsurătorilor)

S	B	A	OUT
0	0	0	0
0	0	1	1
0	1	0	0
0	1	1	1
1	0	0	0
1	0	1	0
1	1	0	1
1	1	1	1

Multiplexorul  
funcționează  
corect

1c.

$X = \text{don't care}$   
(variabile redundante)  
<sub>!!!</sub>  
pot fi eliminate.

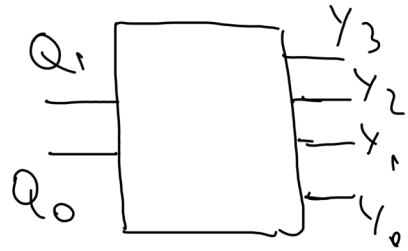
$$\text{OUT} = A\bar{S}_2\bar{S}_1 + B\bar{S}_2S_1 + CS_2\bar{S}_1 + DS_2S_1$$

D	C	B	A	$S_2$	$S_1$	OUT
X	X	X	1	0	0	1 = A
X	X	1	X	0	1	1 = B
X	1	X	X	1	0	1 = C
1	X	X	X	1	1	1 = D.



Multiplexorul funcționează  
corect.

Decoder BCD - zecimal pe  
2 biti.



$Q_1$	$Q_0$	$Y_3$	$Y_2$	$Y_1$	$Y_0$
0	0	0	0	0	1
0	1	0	0	1	0
1	0	0	1	0	0
1	1	1	0	0	0

$$Y_0 = \bar{Q}_1 \bar{Q}_0$$

$$Y_1 = \bar{Q}_1 Q_0$$

$$Y_2 = Q_1 \bar{Q}_0$$

$$Y_3 = Q_1 Q_0$$

