

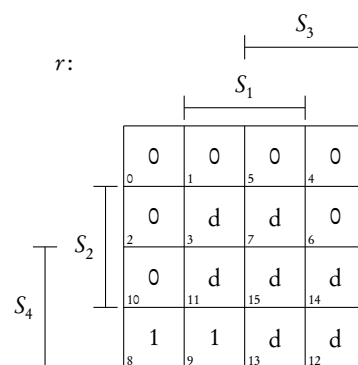
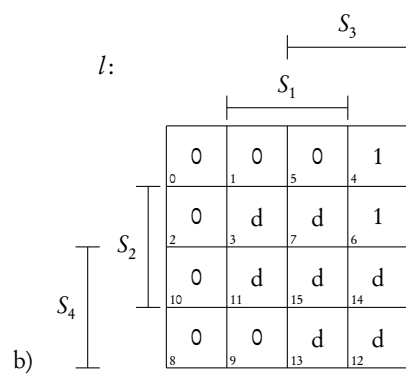
Musterlösung 6. Gruppenübung

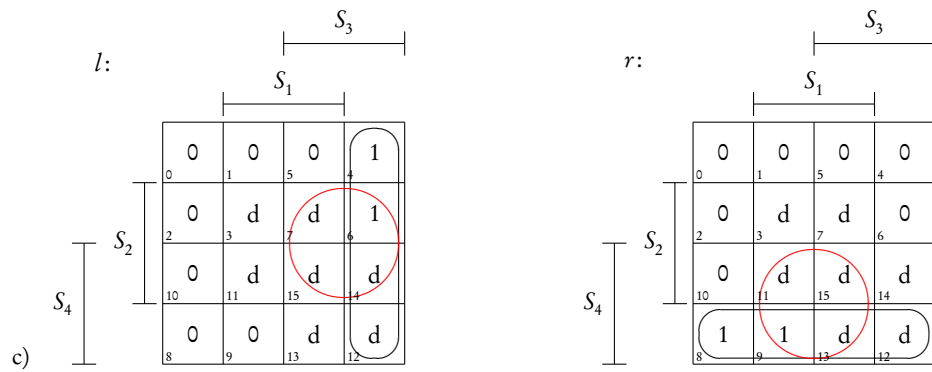
Digitaltechnik und Rechnersysteme • Wintersemester 2022/2023

1.1 Transportwagensteuerung

a)

S_4	S_3	S_2	S_1	l	r
0	0	0	0	0	0
0	0	0	1	0	0
0	0	1	0	0	0
0	0	1	1	d	d
0	1	0	0	1	0
0	1	0	1	0	0
0	1	1	0	1	0
0	1	1	1	d	d
1	0	0	0	0	1
1	0	0	1	0	1
1	0	1	0	0	0
1	0	1	1	d	d
1	1	0	0	d	d
1	1	0	1	d	d
1	1	1	0	d	d
1	1	1	1	d	d





Rot markierte Primimplikanten sind API's, der Rest sind KPI's.

d) kostengünstigste DNF:

$$l(S_1, S_2, S_3, S_4) = \bar{S}_1 S_3$$

$$r(S_1, S_2, S_3, S_4) = \bar{S}_2 S_4$$

