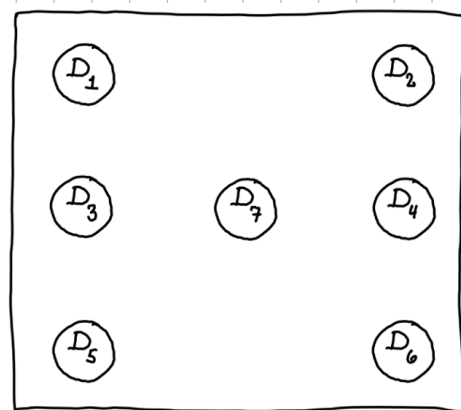


ETZ 22

Oppg 2)

Resultat

| | D ₁ | D ₂ | D ₃ | D ₄ | D ₅ | D ₆ | D ₇ |
|---|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| 3 | 1 | 0 | 0 | 0 | 0 | 1 | 1 |
| 4 | 1 | 1 | 0 | 0 | 1 | 1 | 0 |
| 5 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 6 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |



Oppg 5)

Resultat av beregning

| | T ₁ | T ₂ | T ₃ | D ₁ | D ₂ | D ₃ | D ₄ | D ₅ | D ₆ | D ₇ |
|---|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 2 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| 3 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 |
| 4 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 |
| 5 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 6 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |

Oppg 3) $V_D = 2V$ $I_D = 20mA$ $V_{DD} = 5V$

$$V_{DD} = V_D$$

$$V_{DD} - V_D = IR$$

$$R = \frac{3V}{20 \cdot 10^{-3}} = 150\Omega$$

Oppg 4) $P = UI$ $U = \frac{3}{2}$

$$P_R = \frac{I^2}{R} = \frac{20 \cdot 10^{-3}}{150} \cdot u$$

$$P_D = 2 = 20 \cdot 10^{-3} \cdot u$$

Oppg 6)

Resultat av kort

| | T_1 | T_2 | T_3 | U_1 | U_2 | U_3 | U_4 | U_5 | U_6 | U_7 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 2 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| 3 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 |
| 4 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 |
| 5 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 6 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |

$$U_1 = T_1 + T_2$$

$$U_2 = T_1$$

$$U_3 = T_1 T_2$$

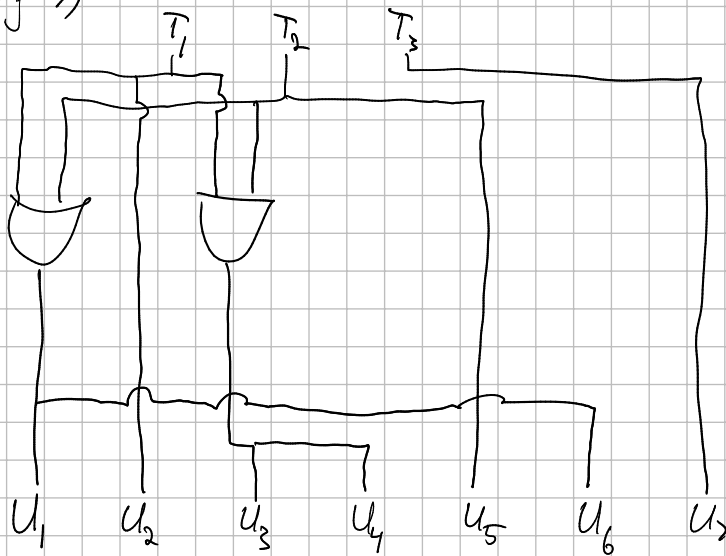
$$U_4 = T_1 T_2$$

$$U_5 = T_2$$

$$U_6 = T_1 + T_2$$

$$U_7 = T_3$$

Oppg 7)



Oppg 9)

| T_2 | T_1 | T_0 | F |
|-------|-------|-------|-----|
| 0 | 0 | 1 | 0 |
| 0 | 1 | 0 | 0 |
| 1 | 0 | 0 | 0 |
| 1 | 1 | 0 | 1 |

$$F = T_2 T_1$$



Oppløst

| K | T_2 | T_1 | T_0 | C_1 | C_2 |
|-----|-------|-------|-------|-------|-------|
| 0 | 0 | 0 | 0 | X | X |
| 0 | 0 | 0 | 1 | / | 0 |
| 0 | 0 | 1 | 0 | / | 0 |
| 0 | 0 | 1 | 1 | / | 0 |
| 0 | 1 | 0 | 0 | / | 0 |
| 0 | 1 | 0 | 1 | / | 0 |
| 0 | 1 | 1 | 0 | / | / |
| 0 | 1 | 1 | 1 | X | X |
| 1 | 0 | 0 | 0 | X | X |
| 1 | 0 | 0 | 1 | 0 | 0 |
| 1 | 0 | 1 | 0 | 0 | 0 |
| 1 | 0 | 1 | 1 | 0 | 0 |
| 1 | 1 | 0 | 0 | 0 | 0 |
| 1 | 1 | 0 | 1 | 0 | 0 |
| 1 | 1 | 1 | 0 | 0 | 0 |
| 1 | 1 | 1 | 1 | X | X |

