2. gyakorlat

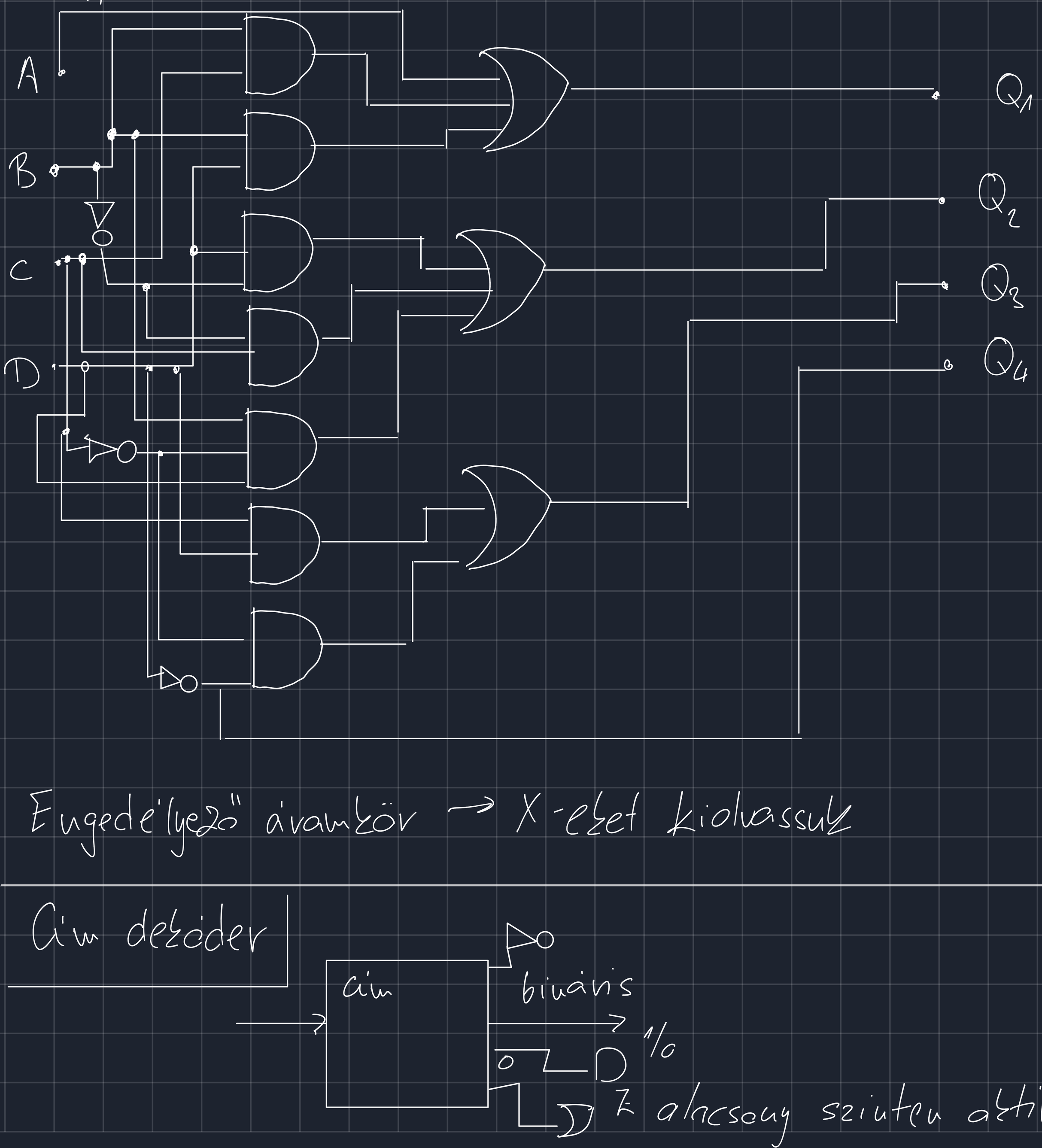
→ Bi-Shi →

$Q_1 : BC + A + B\bar{D}$

$Q_2 : \bar{B}D + \bar{B}C + B\bar{C}\bar{D}$

$Q_3 : CD + \bar{C}\bar{D}$

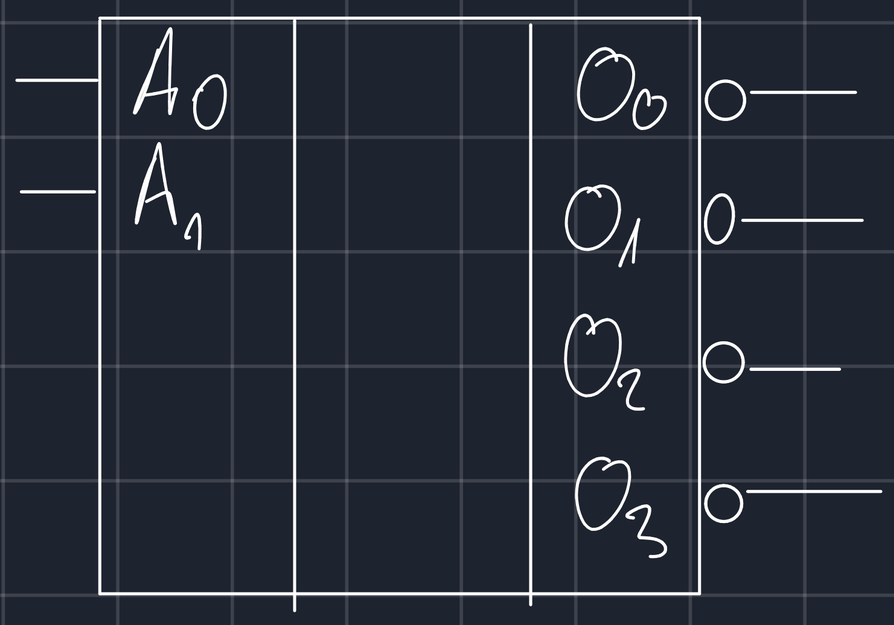
$Q_4 : \bar{D}$



Engedélyező áramkör → X-edet kiolvassuk

Cím dekóder

A_0	A_1	O_0	O_1	O_2	O_3
0	0	0	1	1	1
0	1	1	0	1	1
1	0	1	1	0	1
1	1	1	1	1	0



O_0

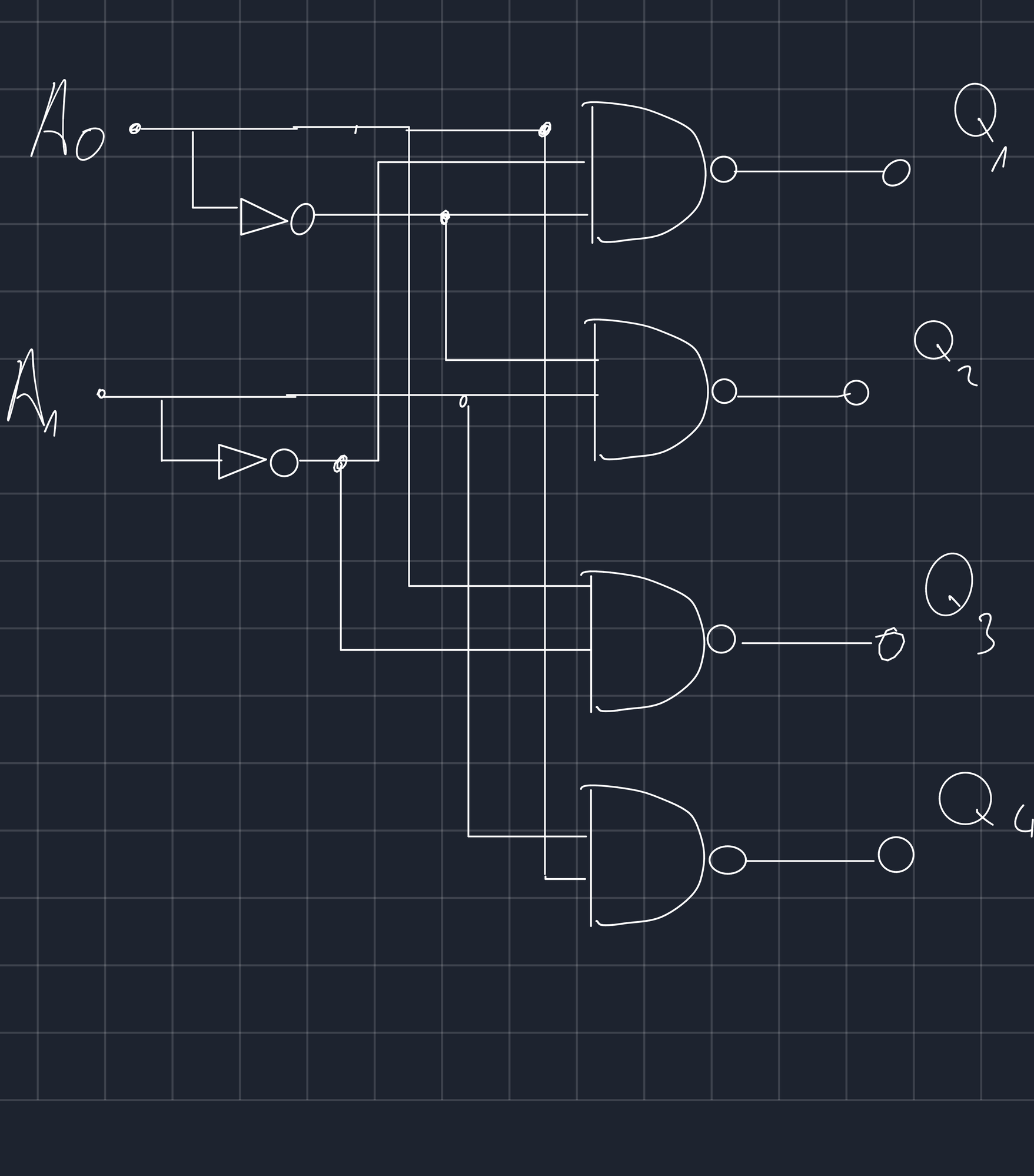
A_1 \ A_2	
0	1
1	1

$\bar{A}_0 \cdot \bar{A}_1$

$O_1 : \bar{A}_0 \cdot A_1$

$O_2 : A_0 \cdot \bar{A}_1$

$O_3 : A_0 \cdot A_1$



Szinkron sorrendi hálózatok

① $x_1 = 0,\ x_2 = 1,\ z = 0$ } 1. viselkedési mód : a

$x_1 = 0,\ x_2 = 0,\ z = 1$ } 2. viselkedési mód : b

$a \to b$

y \ x_1x_2	00	01	11	10
1.	a	b 0	a 0	a 0	a 0
2.	b 1	b 1	a 1	b 1	b 1

Kódolás →

y \ x_1x_2	00	01	11	10
0	1 0	0 0	0 0	0 0
1	1 1	0 1	1 1	1 1

y Y z

y: régi állapot

Y: új állapot

Y

y \ x_1x_2	00	01	11	10
1	0	0	0
1	0	1	1

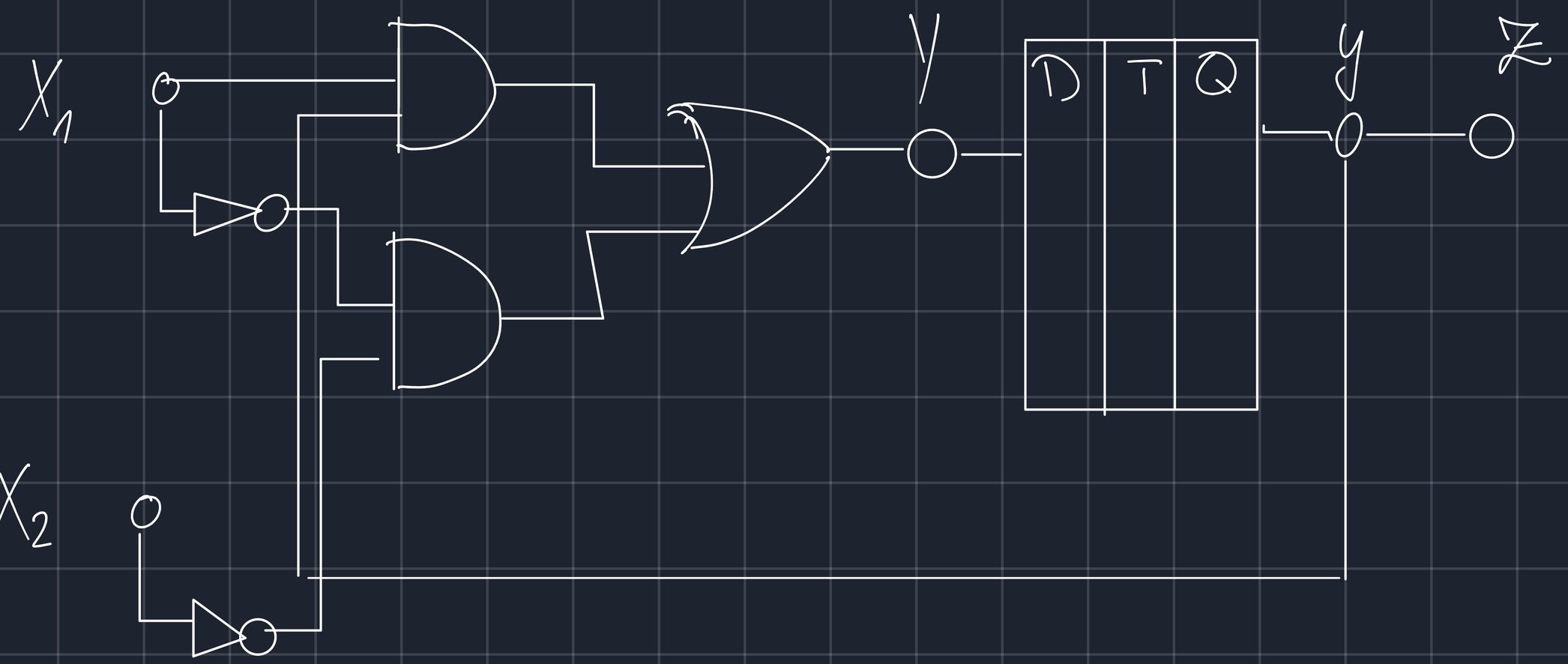
$$Y = \bar{x}_1 \cdot \bar{x}_2 + x_1 y$$

(1# nem kell hazárdmentesen)

Z

y \ x_1x_2	00	01	11	10
0	0	0	0
1	1	1	1

$$Z = y$$



② $X_1 X_2 = 01 \quad Z = X_1$ } 1. nis m. : a b → a

$X_1 X_2 = 11 \quad Z = \bar{X}_2$ } 2. nis. m. : b a → b

$y_1 y_2$ / $g_1 g_2$	00	01	11	10
a	a 0	a 0	b 1	a 1
b	b 1	a 0	b 0	b 1

→

a : 0

b : 1

$y_1 y_2$ / y	00	01	11	10
0	00	00	11	01
1	11	00	10	11

Z

y / x_1	0	0	1	1
1	0	0	0	1

x_2

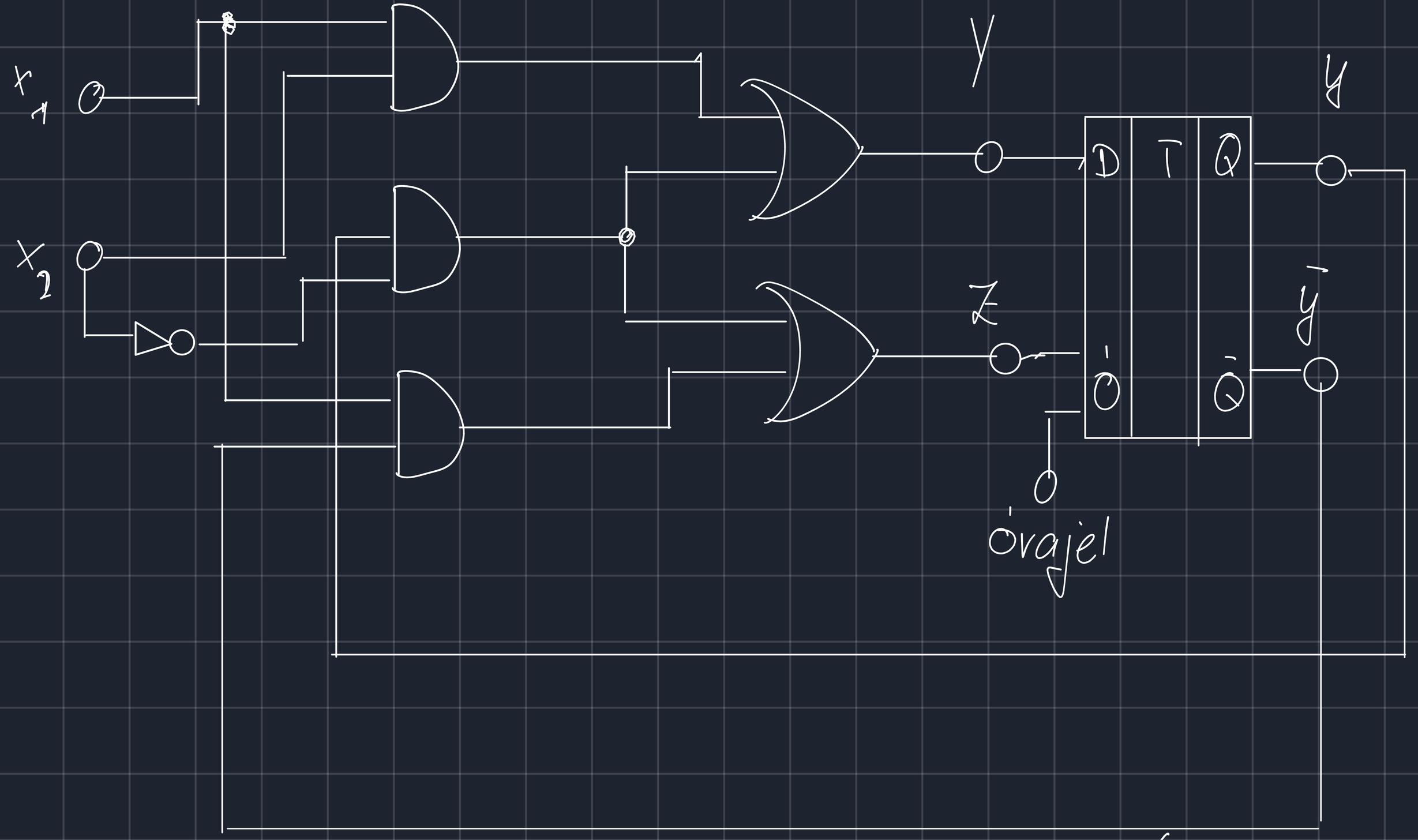
$$Z = \bar{y} x_1 + y \bar{x}_2$$

Y

y / x_1	0	0	1	0
1	1	0	1	1

x_2

$$Y = X_1 X_2 + y \bar{X}_2$$



③ 3 egymást követő órajel esetén $\begin{cases} b \to c \\ c \to d \\ d \to a \end{cases}$ (2 üs. m. h állapot)

$X_1 = 1 \quad Z = 1$

$X_1 X_2 = 01 \quad Z = 0$ ↑

$\begin{cases} 1.\ \text{üs. m.} : a \\ 2.\ \text{üs. m.} : bcd \end{cases}$

$a \to b$