

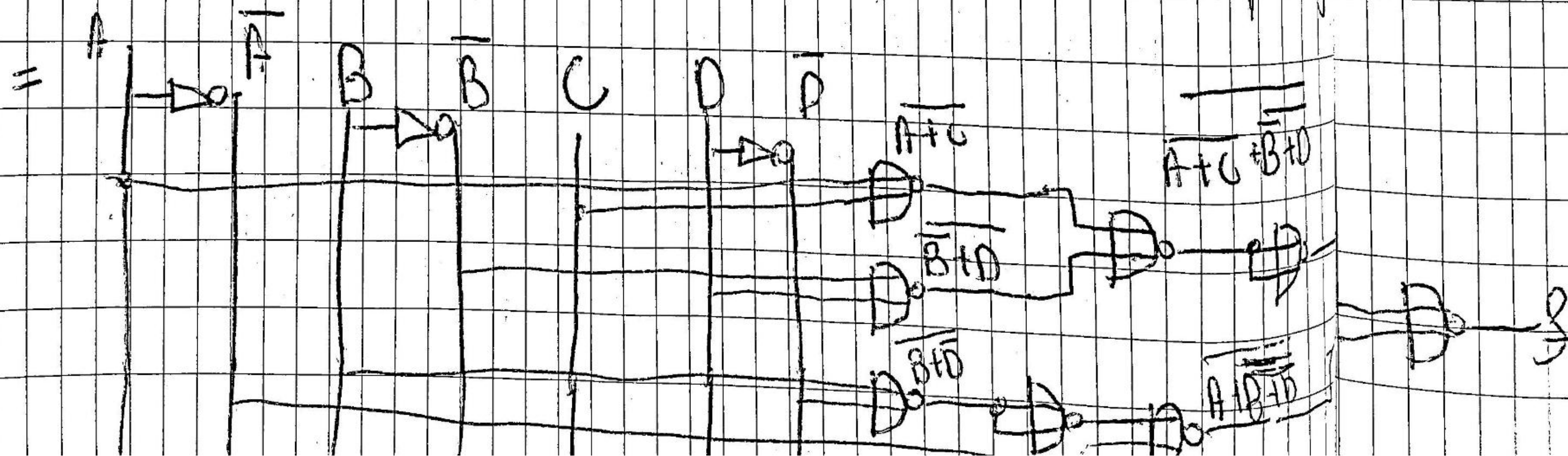
1503. IV сессия С.У.
2022

заг 1. мукыш $f = (A+C)(\bar{B}+D)(\bar{A}+B+\bar{D})$

а) База УММ-УЕ с гыфаксбел елестеме

$$f = (A+C)(\bar{B}+D)(\bar{A}+B+\bar{D}) = \overline{A+C} + \overline{\bar{B}+D} + \overline{\bar{A}+B+\bar{D}}$$

+C +D +D мукыш



3ag2.

$$f(A, B, C, D) = \overline{(A+B+D)(\overline{A}\overline{B}\overline{C})}(A+\overline{C}+\overline{D}) + \overline{BC} + \overline{BCD} + ACD + ABC(B+\overline{C}+\overline{D})$$

$$a) \overline{(A+B+D)} + \overline{A}\overline{B}\overline{C} + \overline{A+\overline{C}+\overline{D}} + \overline{BC} + \overline{BCD} + ACD + ABC(B+\overline{C}+\overline{D}) =$$

$$= \overline{A}\overline{B}\overline{D} + \overline{A}\overline{B}\overline{C} + \overline{A}\overline{C}\overline{D} + \overline{B}\overline{C}\overline{D} + ACD + \overline{BC} + \overline{BCD}$$

мыч

б) мыч

$$\overline{A}\overline{B}(C+\overline{C})D + \overline{A}\overline{B}C(D+\overline{D}) + \overline{A}(B+\overline{B})CD + (A+\overline{A})\overline{B}C\overline{D} + A(B+\overline{B})C\overline{D} + ABC(D+\overline{D}) + (A+\overline{A})BCD$$

$$= m_2 + m_1 + m_7 + m_3 + m_{15} + m_{14} + m_{10}$$

в) мыч

г) мыч

$$f = \overline{A}\overline{B}D + \overline{A}BC + BCD + ACD$$

AB	CD	00	01	11	10
00		1	1	1	1
01					
11				1	1
10					1

д) мыч

$$f = (C+D)(B+C)(A+\overline{B}+D)(\overline{A} + \overline{B} + \overline{D})$$

Д-3

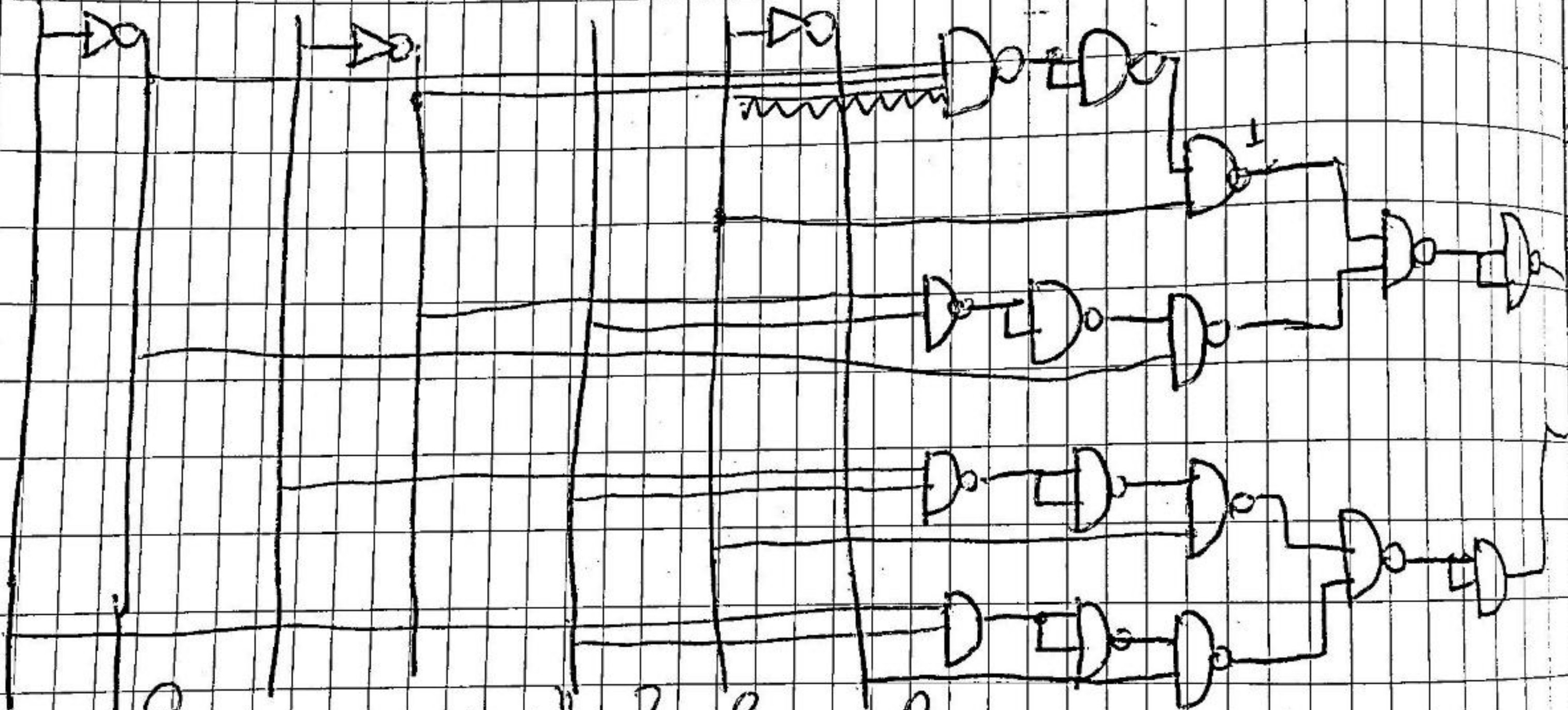
е) База "и-чѐ" 2-входов

$$\overline{A} \overline{B} D \cdot \overline{A} \overline{B} C \cdot \overline{B} C D \cdot \overline{A} C \overline{D}$$

↓

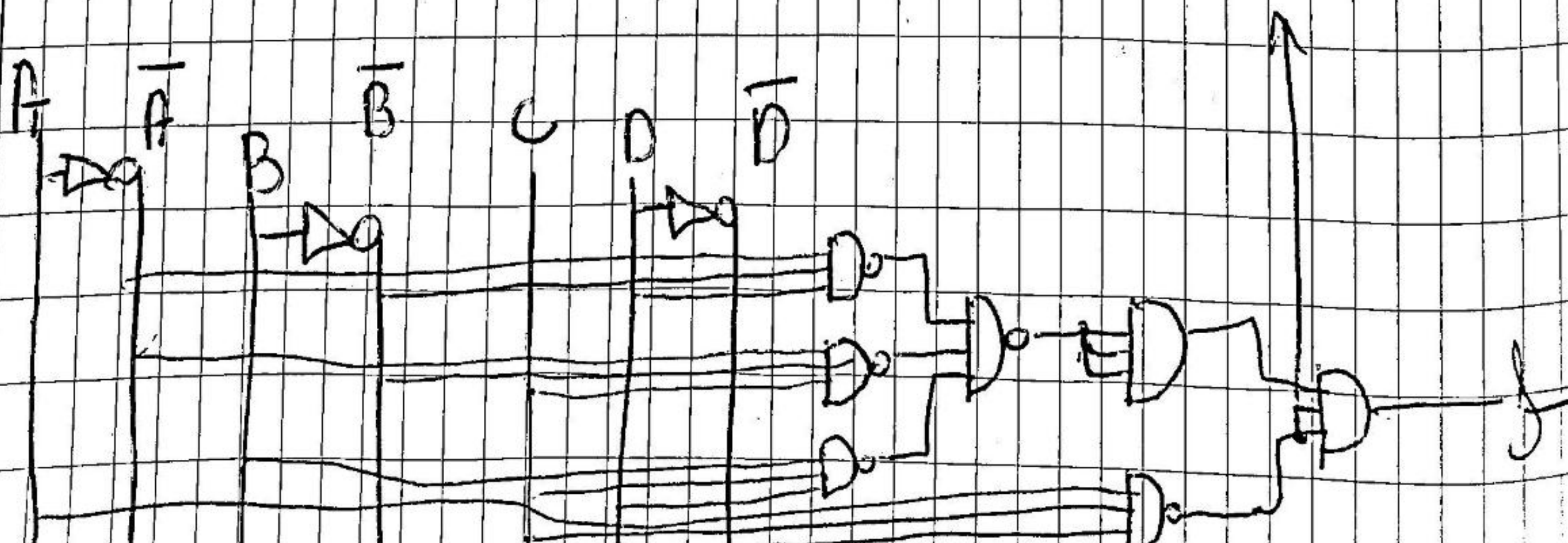
$$f_{\text{и-чѐ}} = \overline{A} \overline{B} D \cdot \overline{A} \overline{B} C \cdot \overline{B} C D \cdot \overline{A} C \overline{D}$$

A \overline{A} B \overline{B} C D \overline{D}



ж) База "и-чѐ" 3-входов

$$\overline{A} \overline{B} D \cdot \overline{A} \overline{B} C \cdot \overline{B} C D \cdot \overline{A} C \overline{D} \cdot \overline{A} C \overline{D}$$



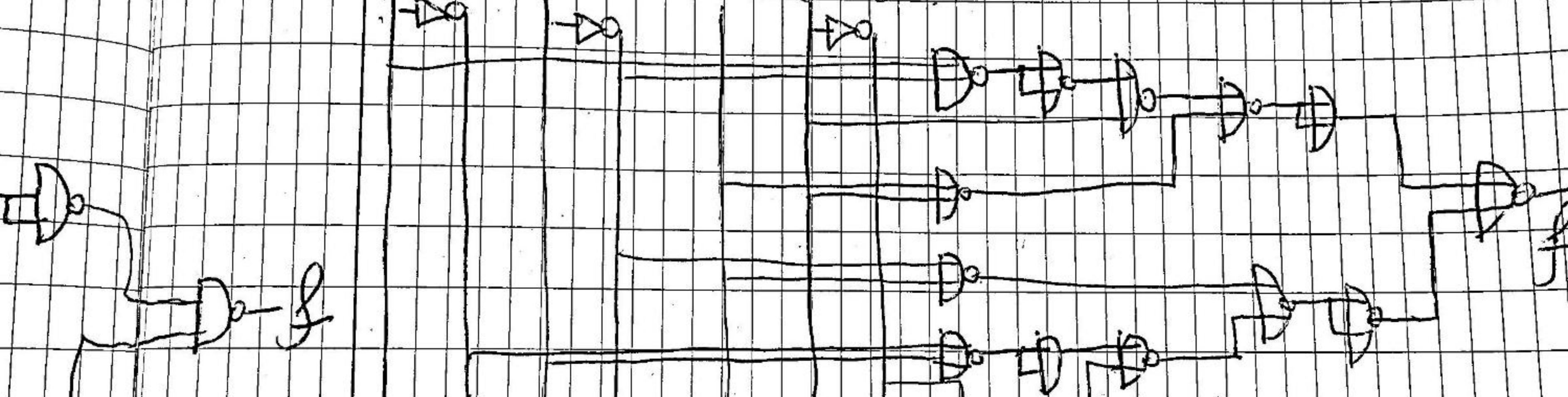
3) Задача „или-и-е“ - 2 входа

$$f_{\text{или-и-е}} = (C+D)(\bar{B}+C)(\bar{A}+\bar{B}+D)(\bar{A}+B+\bar{D}) =$$

$$= \overline{A+B+D} + \overline{C+D} + \overline{B+C} + \overline{A+B+\bar{D}}$$

$$\overline{A+B+D} + \overline{C+D} + \overline{B+C} + \overline{A+B+\bar{D}}$$

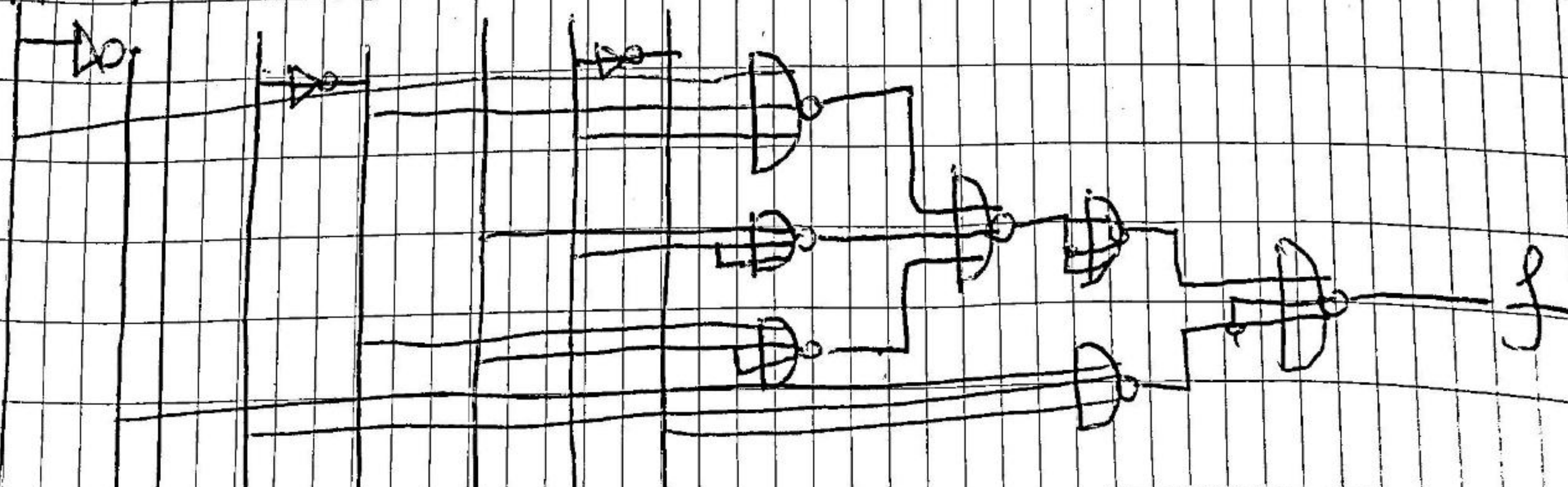
A \bar{A} B \bar{B} C D \bar{D}



4) Задача „или-и-е“ - 3 входа

$$f = \overline{A+B+D} + \overline{C+D+\bar{D}} + \overline{B+C+C} + \overline{A+B+\bar{D}}$$

A \bar{A} B \bar{B} C D \bar{D}



3ag 3

$$\overline{A} \overline{B} \overline{C} + \overline{A} B \overline{D} + \overline{B} \overline{C} + \overline{C} D =$$

=

$$\overline{A} \overline{B} \overline{C} \cdot \overline{A} B \overline{D} \cdot \overline{B} \overline{C} \cdot \overline{C} D =$$

U-HE 3-Exagob

=

$$\overline{A} \overline{B} \overline{C} \cdot \overline{A} B \overline{D} \cdot \overline{B} \overline{B} \overline{C} \cdot \overline{C} D D \cdot \overline{C} D D$$