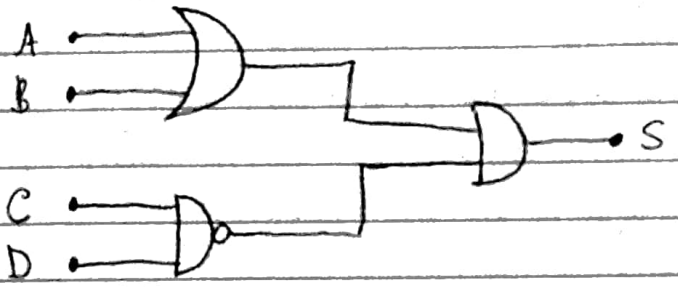
* Aluna: Isabela Beatriz da Silva Teixeira
S1 em Telemática *

19 - 04 - 21

Atividade de Lógica

a) Preencha a TV:



Entrada (E)				Saída (S)
A	B	C	D	S
0	0	0	0	0
0	0	0	1	0
0	0	1	0	0
0	0	1	1	0
0	1	0	0	1
0	1	0	1	1
0	1	1	0	1
0	1	1	1	0
1	0	0	0	1
1	0	0	1	1
1	0	1	0	1
1	0	1	1	0
1	1	0	0	1
1	1	0	1	1
1	1	1	0	1
1	1	1	1	0

$S = \bar{A}B\bar{C}\bar{D} + \bar{A}B\bar{C}D + \bar{A}BC\bar{D} + A\bar{B}\bar{C}\bar{D} + A\bar{B}\bar{C}D + A\bar{B}C\bar{D} + A\bar{B}CD + AB\bar{C}D + ABC\bar{D}$

=

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

19.04.21

b) Preencha a TV:

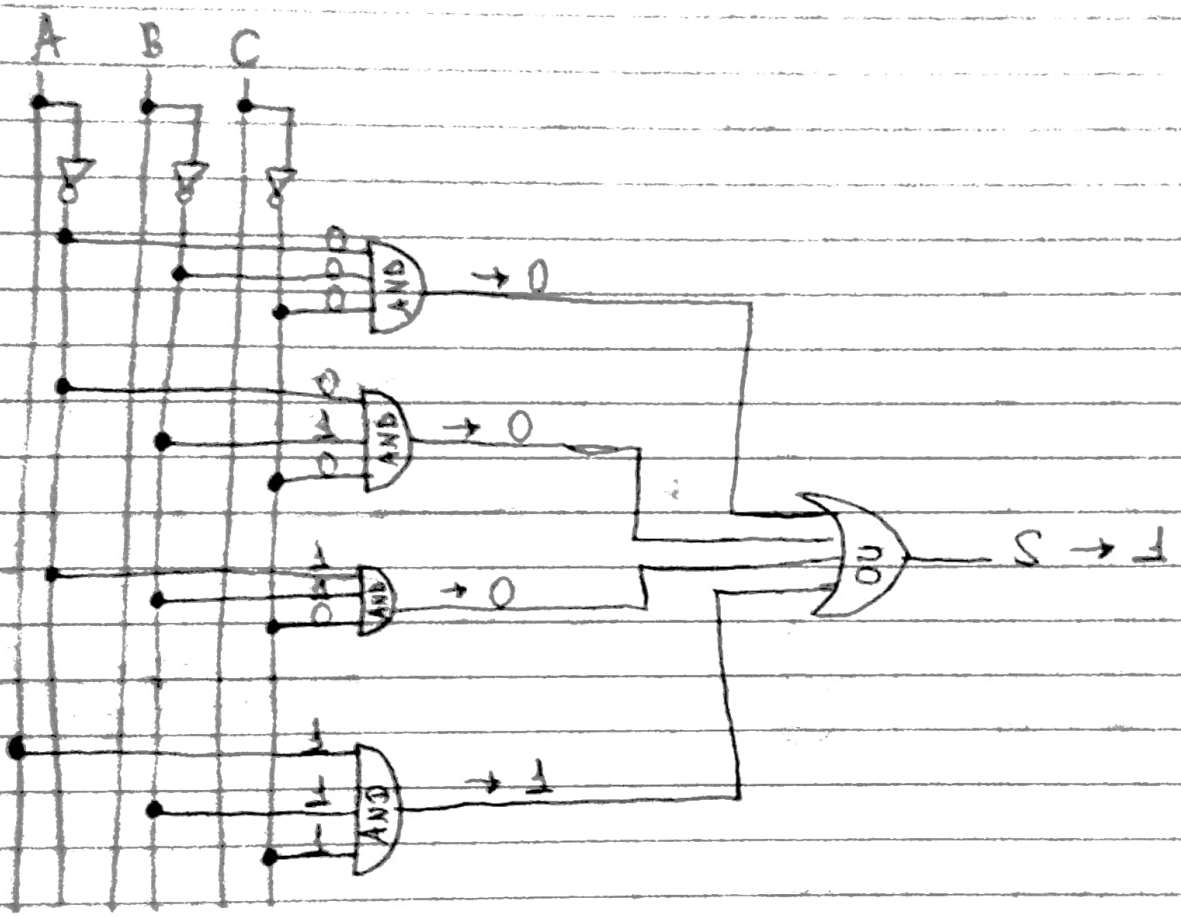
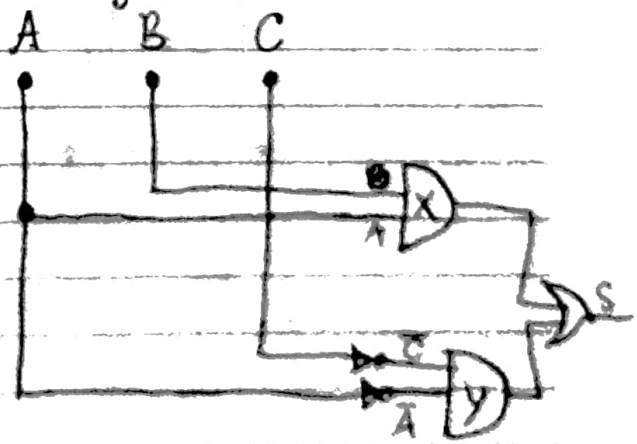


Tabela Verdade:

A	B	C	Saída (S)
0	0	0	1
0	0	1	0
0	1	0	1
0	1	1	0
1	0	0	0
1	0	1	0
1	1	0	1
1	1	1	1

logo:



$S = \bar{A}\bar{B}\bar{C} + \bar{A}B\bar{C} + AB\bar{C} + ABC =$

$\bar{A}\bar{C}(\bar{B}+B) + AB(\bar{C}+C) \rightarrow \boxed{S = \bar{A}\bar{C} + AB}$

11 • 04 • 21

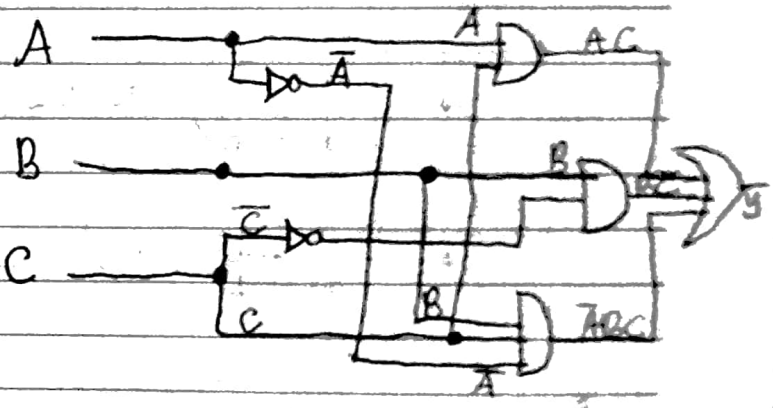
a) Desenhe o circuito lógico correspondente a expressão abaixo e preencha a TV:

• Expressão: $y = AC + B\bar{C} + \bar{A}BC$

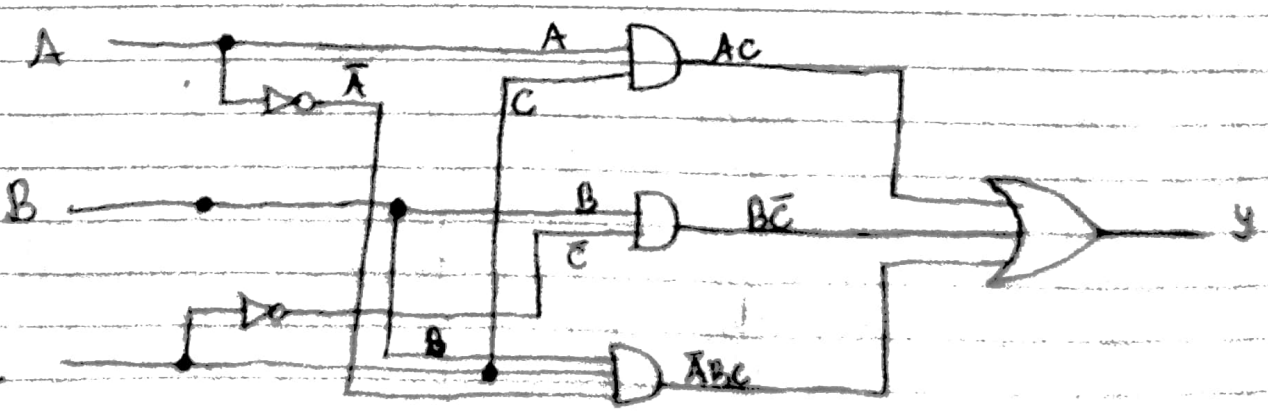
1 → Tabela Verdade:

A	B	C	y
0	0	0	0
0	0	1	0
0	1	0	1
0	1	1	1
1	0	0	0
1	0	1	1
1	1	0	1
1	1	1	1

⇒



2 → Desenho: circuito lógico:



12.04.21

2) Realize as seguintes operações:

1. $(DBAB)_{16} + (1F2)_{16} =$

Régua: (←)

0 1 2 3 4 5 6 7 8 9 A B C D E F

$$\begin{array}{r} (DBAB)_{16} \\ +\ (1F2)_{16} \\ \hline (DD9D)_{16} \end{array}$$

2. $(FOF1)_{16} - (2FF)_{16} =$

Régua: (→)

0 1 2 3 4 5 6 7 8 9 A B C D E F

$$\begin{array}{r} (FOF1)_{16} \\ -\ (2FF)_{16} \\ \hline (EDF2)_{16} \end{array}$$

3. $(100011111)_2 + (101100111)_2 =$

$$\begin{array}{r} (1000^{1}1^{1}1^{1}1^{1}1)_2 \\ +\ (1011^{1}0^{1}0^{1}1^{1}1)_2 \\ \hline (1010000110)_2 \end{array}$$

Regras:

0 1

$$\begin{cases} 0+0=0 \\ 0+1=1 \\ 1+0=1 \\ 1+1=0 \text{ (vai 1)} \\ 1+1+1=1 \text{ (vai 1)} \end{cases}$$

4. $(10101110)_2 - (1111)_2 =$

$$\begin{array}{r} (10^{0}1^{1}0^{1}1^{1}0)_2 \\ -\ (1111)_2 \\ \hline (10011111)_2 \end{array}$$

Regra:

0 1

$$\begin{cases} 0-0=0 \\ 0-1=1 \text{ (pede 1)} \\ 1-0=1 \\ 1-1=0 \end{cases}$$