



Fundação CECIERJ - Vice Presidência de Educação Superior a Distância

Curso de Tecnologia em Sistemas de Computação

Disciplina: Introdução à Informática

AP3 2º semestre de 2005.

Data:

GABARITO

1. a) $(FEDC.BA)_{16} + (9ABC.DE)_{16} = (19999.98)_{16} = (121212121.212)_4$

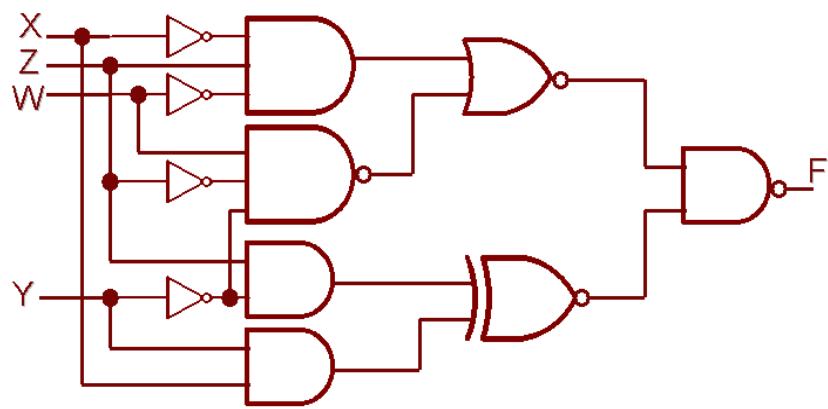
b) $(77665.544)_8 + (66775.665)_8 = (166663.431)_8 = (EDB3.8C8)_{16}$

c) $(B000B.0B)_{16} - (AE0CD.DD)_{16} = (1F3D.2E)_{16} = (17475.134)_8$

d) $(11101011.1001)_2 + (11110111.1101)_2 + (11011101.0101)_2 =$
 $= (1011000000.1011)_2 = (1300.54)_8$

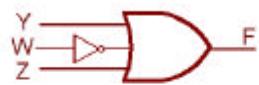
e) $(110101011.001)_2 - (101010011.111)_2 = (1010111.010)_2 = (1113.1)_4$

2. $F(x,y,w,z) = \overline{\overline{x}} \overline{\overline{w}} \overline{\overline{z}} + \overline{y} \overline{w} \overline{z} \cdot \overline{x} \overline{y} \oplus \overline{y} \overline{z}$

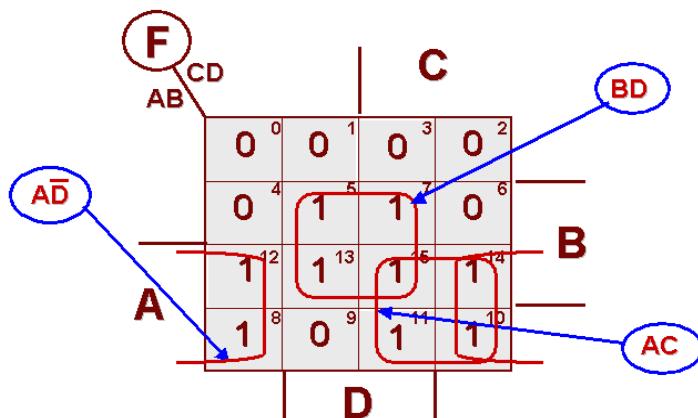


Obs: Existem formas alternativas corretas de desenhar o circuito acima.

Circuito equivalente mais simples:



$$3. F(A,B,C,D) = \overline{A}BD + AC\overline{D} + A\overline{C}\overline{D} + AB\overline{C}D + A\overline{B}CD + ABCD$$



$$F(A,B,C,D) = AC + A\bar{D} + BD$$

4.

- b) tamanho do bloco 512 bits = 64 bytes = $2^6 \Rightarrow 6$ bits (bits 0->5)
 a) Associatividade 16 = $2^4 \Rightarrow 4$ bits (bits de 6 -> 9)
 c) bits 10 -> 63

5.

0	1	2	3	4	1	2	3	1	2	3	4	7	6	5	4
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0	0	0	0	4	4	4	4	4	4	4	4	4	4	4	4
1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	5
2	2	2	2	2	2	2	2	2	2	2	2	2	6	6	6
3	3	3	3	3	3	3	3	3	3	3	7	7	7	7	7