

# VS de Eletrônica Digital

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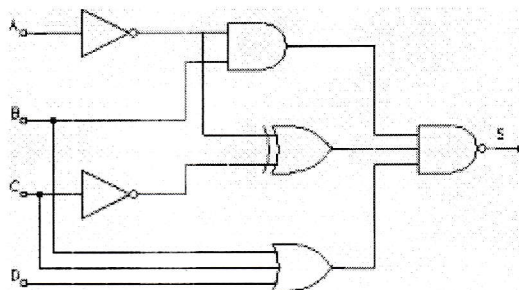
1. Efetue as seguintes mudanças de base. (1,0)

Binário	Base 6	Octal	Decimal	Hexadecimal
1110000000	4052	1600	896	380
111000011001	24413	7031	3609	E19

2. Efetue as seguintes operação: (1,5)

a.  $20131030_4 + 3237465_8 - 2C3F_{16} = (1101.1001.1010.0100.0010)_2$

3. Dado os circuitos, faça o que se pede:



a. Encontre a tabela verdade. (1,0)

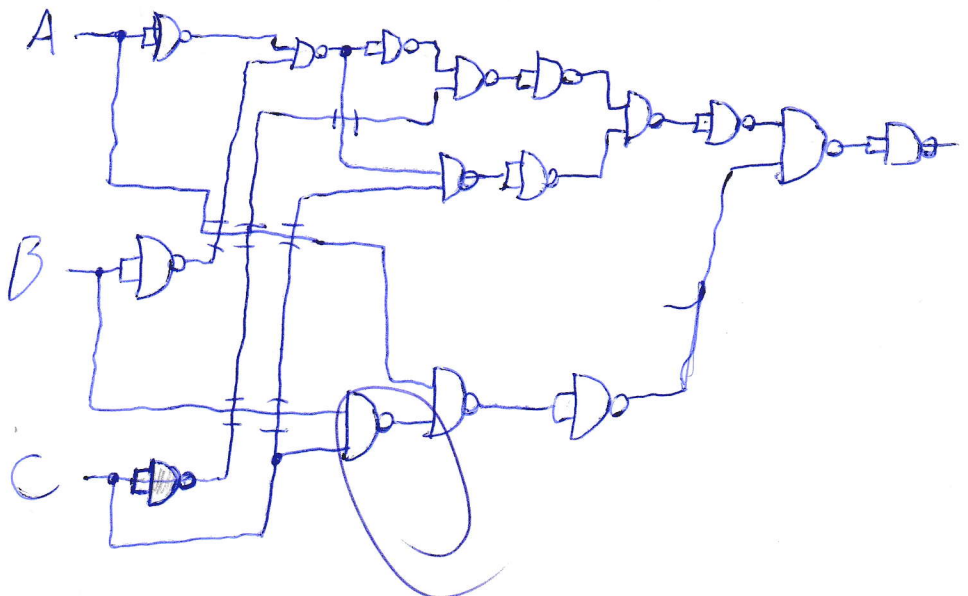
b. Refaça utilizando somente NORs de duas entradas. (2,0)

4. Dada a expressão, encontre a tabela verdade: (2,5)

$$S = (\overline{\overline{CD} + \overline{AB}})(\overline{\overline{BCD} + \overline{BC} \oplus \overline{AD}})$$

5. Dada a tabela, desenhe S utilizando somente NANDs de duas entradas: (2,0)

C	B	A	S
0	0	0	0
0	0	1	1
0	1	0	1
0	1	1	1
1	0	0	0
1	0	1	1
1	1	0	1
1	1	1	0



3-a)

$D$	$C$	$B$	$A$	$\overline{X}$ $\overline{A}B$	$\overline{Y}$ $A \oplus C$	$\overline{Z}$ $B + C + D$	$\overline{X \cdot Y \cdot Z}$
0	0	0	0	0	0	0	1
0	0	0	1	0	1	0	1
0	0	1	0	1	0	1	1
0	0	1	1	0	1	1	1
0	1	0	0	0	1	1	1
0	1	0	1	0	0	1	1
0	1	1	0	1	1	1	0
0	1	1	1	0	0	1	1
1	0	0	0	0	0	1	1
1	0	0	1	0	1	1	1
1	0	1	0	1	0	1	1
1	0	1	1	0	1	1	1
1	1	0	0	0	1	1	1
1	1	0	1	0	0	1	1
1	1	1	0	1	1	1	1
1	1	1	1	0	0	1	0
1	1	1	1	0	0	1	1

b)

