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1 printf("Universidade Estadual Vale do Acaraú\n");
2 printf("Centro de Ciências Exatas e Tecnológicas (CCET)\n");
3 printf("Ciência da Computação\n");
4 printf("Circuitos Digitais\n");
5 printf("Lista 02\n");

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1. Obtenha o projeto de circuito digital a partir das tabelas-verdades a seguir:

(a)

<b>A</b>	<b>B</b>	<b>C</b>	<b>S</b>
0	0	0	1
0	0	1	0
0	1	0	0
0	1	1	1
1	0	0	1
1	0	1	1
1	1	0	0
1	1	1	1

(b)

<b>A</b>	<b>B</b>	<b>C</b>	<b>S</b>
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	0
1	1	1	0

(c)

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

(d)

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

2. Implemente os circuitos lógicos das funções a seguir:

(a)  $S_1 = A \cdot B \cdot C + (A + B) \cdot C$

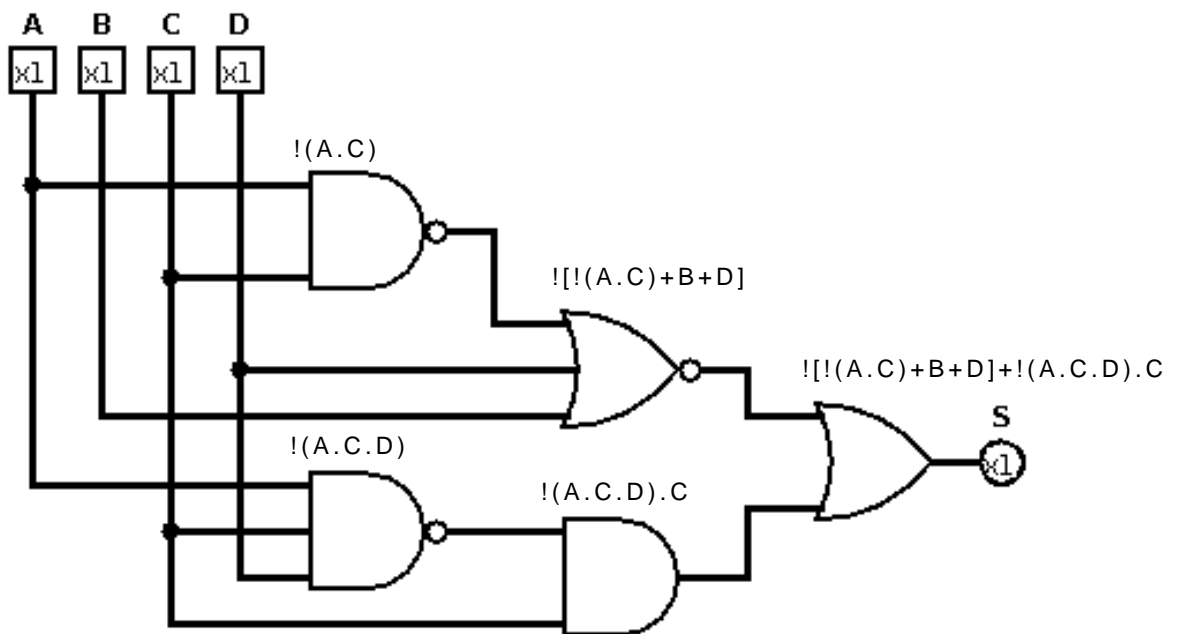
(b)  $S_2 = \overline{[(\overline{A+B}) + (\overline{C \cdot D})]} \cdot \overline{D}$

(c)  $S_3 = A \cdot B + (A \cdot \overline{B} \cdot C \cdot \overline{D}) + (B \cdot \overline{C} \cdot D) + (\overline{A} \cdot \overline{B} \cdot \overline{C} \cdot \overline{D})$

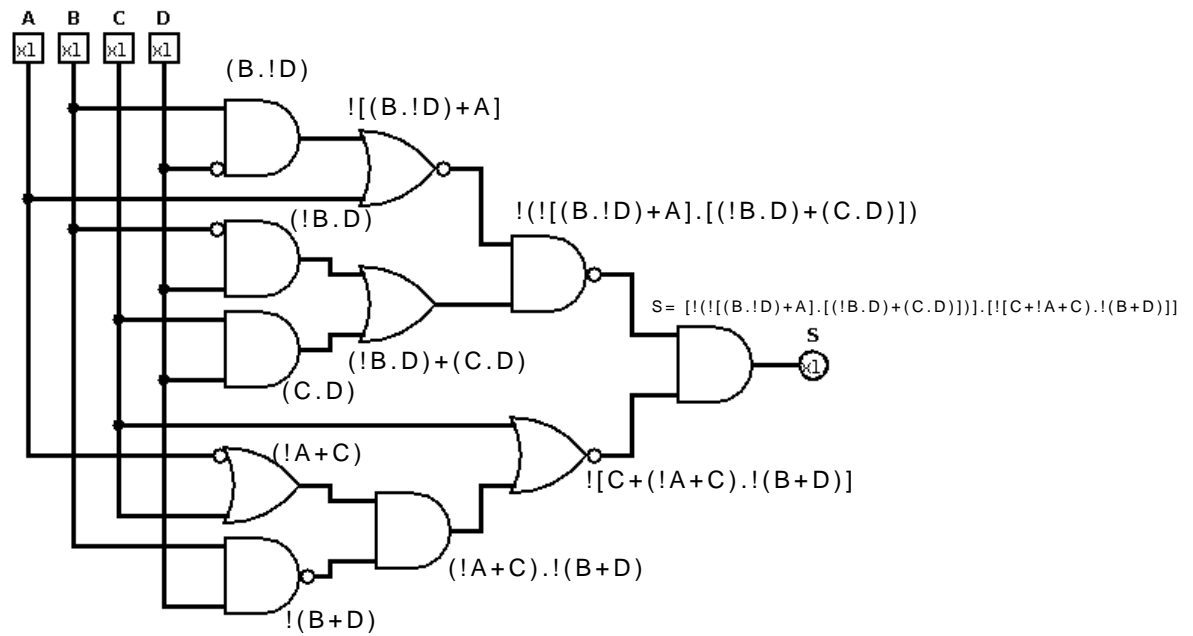
(d)  $S_4 = (A + B) \cdot (\overline{A} + \overline{C}) + D \cdot (\overline{A} + C + E)$

3. Obtenha a expressão booleana e a tabela-verdade dos circuitos lógicos a seguir:

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



(b)  $S = [!(!(B.!D)+A).(!B.D)+(C.D))].![C+!A+C).!(B+D)]$



(c)  $S = (B * D) + ![(A * C * D) + !(A + B + C)].C + ![(A + B + C).D]$

