CMOS: resultados

1. - a) NOT.
   b) Out = 1 ; transistores ON: P1, N2 e P3.

2. - a)

3. - Y = A + B + C.D

4. - a) $\overline{\overline{A+B} + A.C}$

   b) Out = 1 ; transistores ON: N1, P2, P3, P4 e N5.

5. - a) Y = A + B.C

6. - a) $v_{O2} = (v_A + v_B) \,.\, v_C$
   b)

Estado	CLK	v_A	v_B	v_C	v_{O1}	v_{O2}	N_A	N_B	N_C	N_1	P_1	N_2	P_2
1	0	0	0	0	1	0	Off	Off	Off	Off	On	On	Off
2	1	1	0	0	1	0	On	Off	Off	On	Off	On	Off
3	0	0	0	0	1	0	Off	Off	Off	Off	On	On	Off
4	1	0	0	1	1	0	Off	Off	On	On	Off	On	Off
5	0	0	0	0	1	0	Off	Off	Off	Off	On	On	Off
6	1	0	1	1	0	1	Off	On	On	On	Off	Off	On

7. - a) A=B=0 —> Y=0; b) A=1 e B=0—> Y=1;
   c) A=0 e B=1—> Y=1 d) A=B=1—> Y=0;
   e) XOR.

8. - a) Q=0
   b) Off: M_{P3} ; M_{P4} ; M_{N2} ; M_{P1}
   c) On: M_{P3} ; M_{P4} ; M_{P2} ; M_{N1} $V_{CD} = V_{DD}$