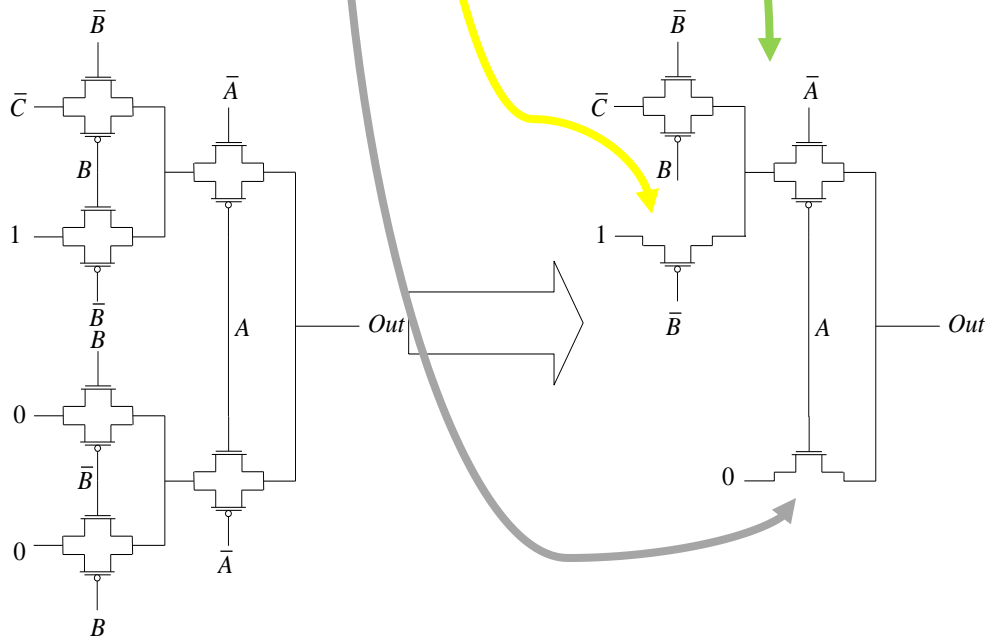# Solutions to HW1

(1) Flip-flop. PHI 1 and PHI2 are the two non-overlapping clocks
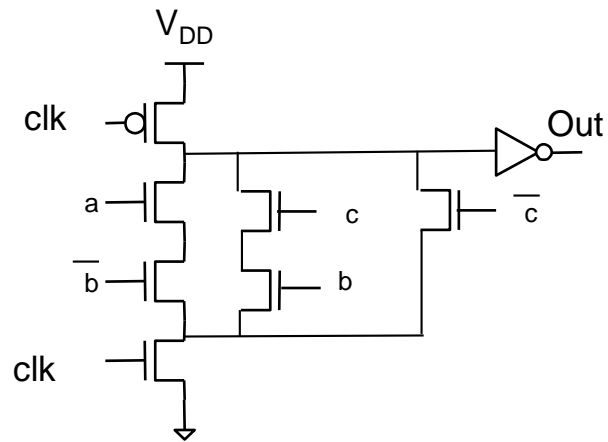
(2) Flip-flop. In principle it is same as the circuit of problem 1.

(3) $Out = \overline{(A+B+C)} + \bar{A}B = \bar{A}\bar{B}\bar{C} + \bar{A}B$

A	B	C	Out
0	0	0	1
0	0	1	0
0	1	0	1
0	1	1	1
1	0	0	0
1	0	1	0
1	1	0	0
1	1	1	0

(4) $Out = A\bar{B} + BC + \bar{C}$

(5) CLKG will be a glitched clock.