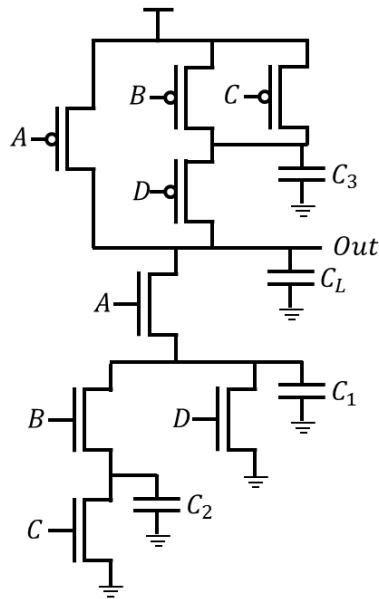


## Homework Assignment 7 (Due 4:10pm, Mar. 20)

**[Delay, 50 points]** Compute the Elmore delay of the circuit shown below for the following inputs.  $R_n$ : Resistance of an NFET.  $R_p$ : Resistance of a PFET.  $C_L$ : Load capacitance.  $C_1, C_2, C_3$ : Parasitic capacitances.



- (1) 10 points. ABCD = 1110.
- (2) 10 points. ABCD = 1000.
- (3) 10 points. ABCD = 1001.
- (4) 10 points. ABCD = 1010.
- (5) 10 points. ABCD = 0110.