

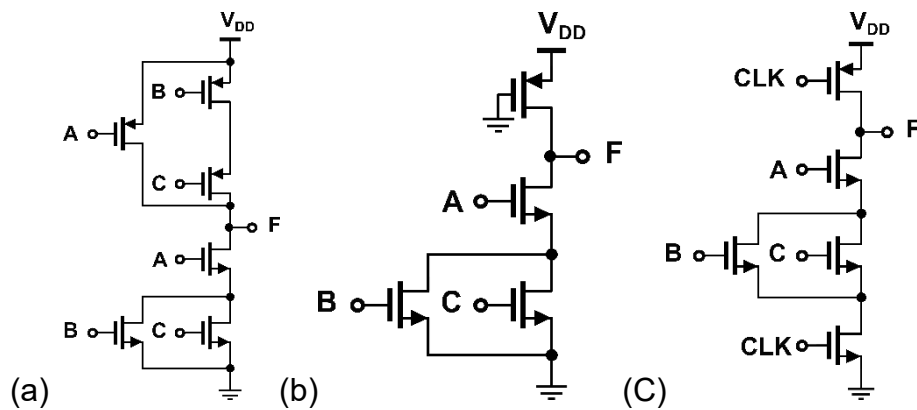


Exercise 10

10-1 Sketch 3-input gates $F = (A \cdot (B + C))'$ using each of the following circuit techniques:

- (a) Static CMOS.
- (b) Pseudo-nMOS.
- (c) Dynamic Gates.

Answer:



10-2 Consider the circuit of Fig 10.1.

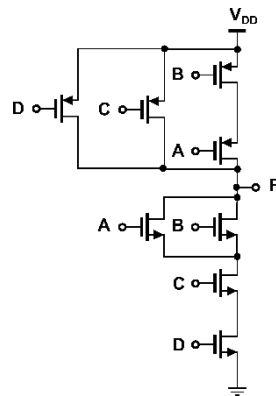


Fig.10.1

What is the logic function implemented by the CMOS transistor network?

Answer:

- (a) The logic function is : $F = \overline{(A + B)CD}$.

10-3 Implement the function $S = ABC + AB'C' + A'B'C + A'BC'$, which gives the sum of two inputs with a carry bit, using NMOS pass transistor logic.

Answer:

