

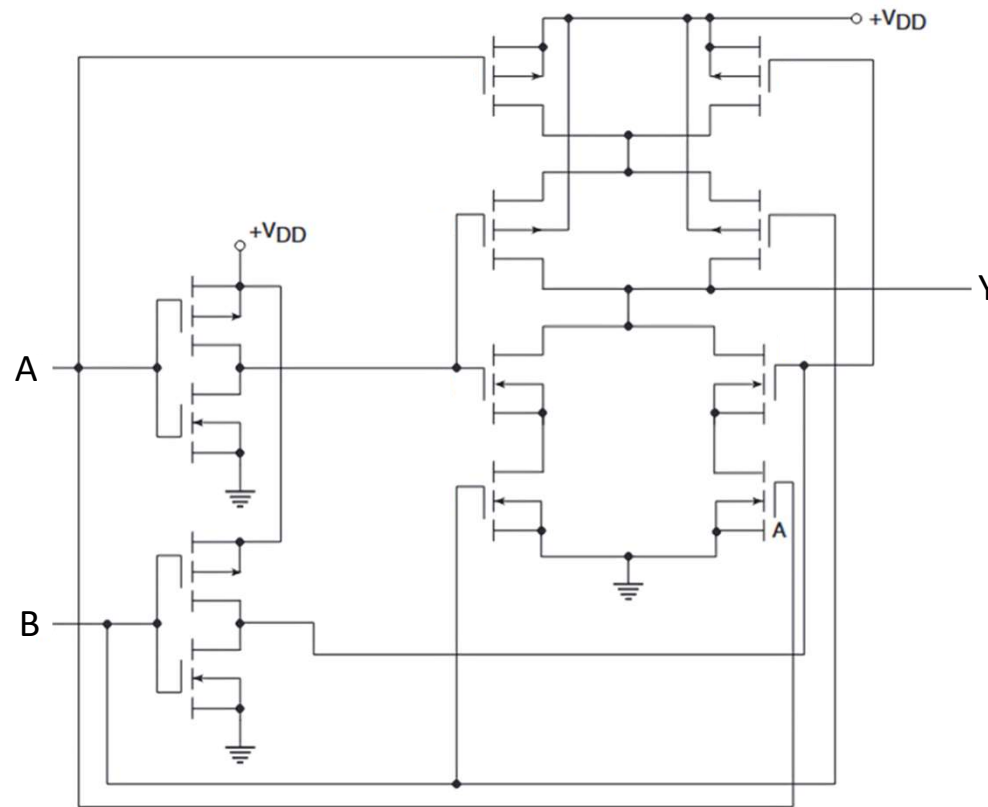
Ques: Design a transistor-level CMOS logic circuit to implement the following functions using the least number of transistors.

$$F = \overline{(x = yz) \cdot (w + x)}$$

Ques: Design a transistor-level CMOS logic circuit to implement the following functions using the least number of transistors.

$$Y = a + \overline{a + b} + c\overline{b}$$

Ques: Determine the logic function implemented by the circuit shown below



Ques: Implement the X-OR function using CMOS transmission gates (TG).  
Inputs are available in true form.

Ques: Implement the following function using CMOS transmission gates (TG) logic. Inputs are available in true and complement form.

$$F(A, B, C, D) = \sum m(0,4,5,6,8,9) + \sum d(10,11,12,13,14,15)$$

Ques: Implement NOR-based SR Flipflop using transistor-level CMOS logic circuit.