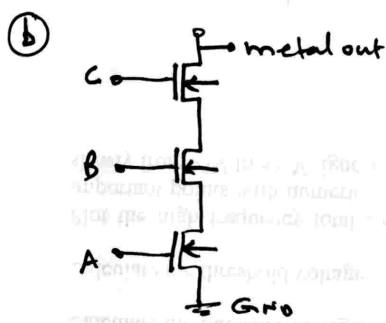


ECSE-2210 Microelectronics Technology
Class Activity 34 – Solution

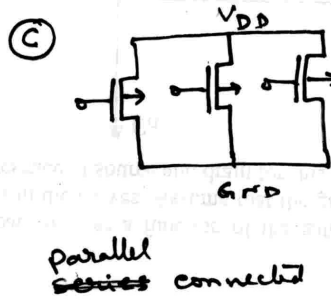
1. Masks should be designed such that the poly-gate area should overhang the active area by a distance “ d ” as shown in the notes. Explain why.

The source and drain area will get shorted if we make any errors in the alignment (“misalignment”). To avoid this, we need to make an allowance “ d ”.

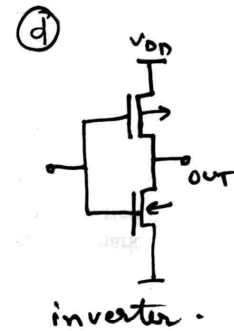
2. Some basic CMOS circuit layouts are shown on the next page. Draw the circuit they represent. The first one is done for you.



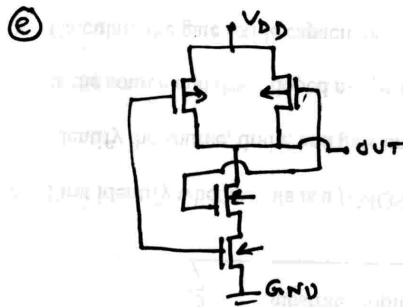
Series connected



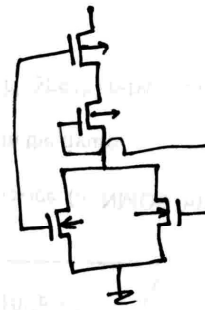
parallel series connected



inverter.



NAND gate



NOR gate