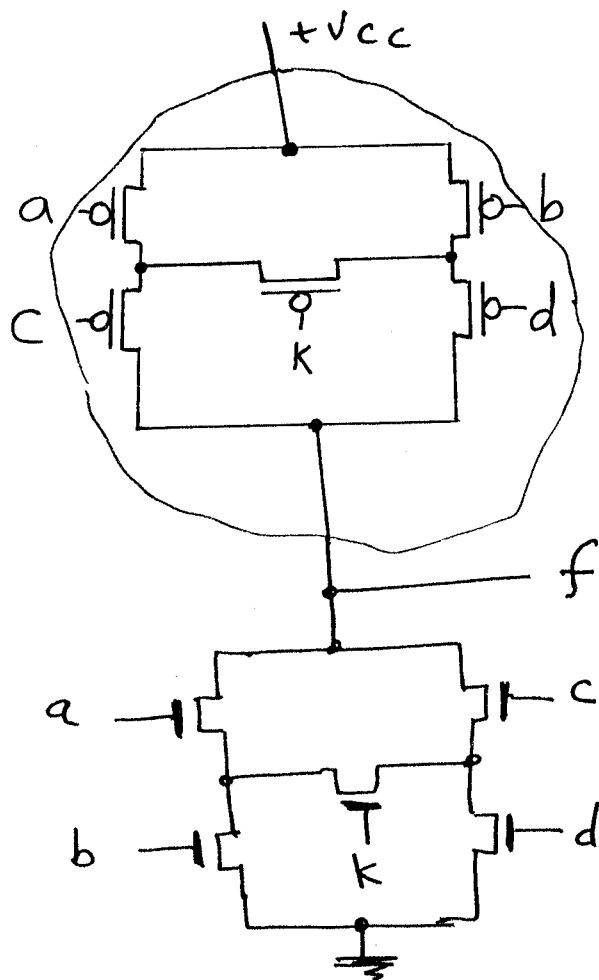**Your Name:**   KEY

Problem #1:

Complete the circuit diagram for the given CMOS logic block.
You can treat transistors as switches as explained in the class. Use the methods that you
learned in lectures. Your final circuits should be in the minimal logic form.

(a)

(b) Write the logical expression for f.

$$\bar{f} = ab + cd + akd + ckb$$

$$f = (\bar{a} + \bar{b})(\bar{c} + \bar{d})(\bar{a} + \bar{k} + \bar{d})(\bar{c} + \bar{k} + \bar{b})$$