

Quiz #1

2009.10.9

Name:

Q1) Design an AND gate with only NMOSs and PMOSs.

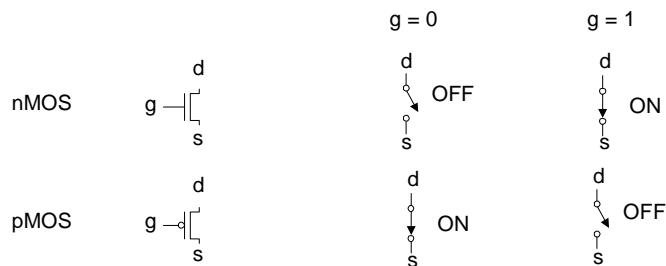
A	B	Y
0	0	0
0	1	0
1	0	0
1	1	1

Hint 1) Truth Table for an AND gate

Q2) Design a complex gate for the given function with only NMOSs and PMOSs.

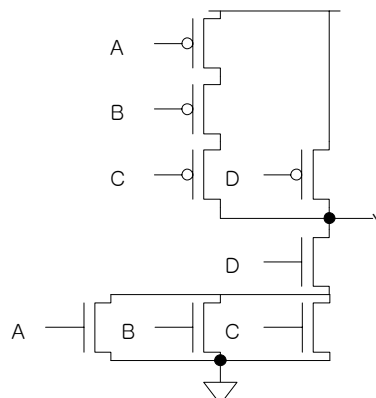
$$\bar{Y} = ((A+B+C) \times D \times E) + F$$

Hint 2)



Hint 3)

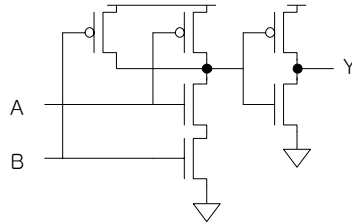
$$Y = \overline{(A+B+C) \times D}$$



Quiz #1 - Solutions

2009.10.9

A1) Design an AND gate with only NMOSs and PMOSs.



A2) Design a complex gate for the given function with only NMOSs and PMOSs.

$$\bar{Y} = ((A+B+C) \times D \times E) + F$$

$$Y = \overline{((A+B+C) \times D \times E) + F}$$

