

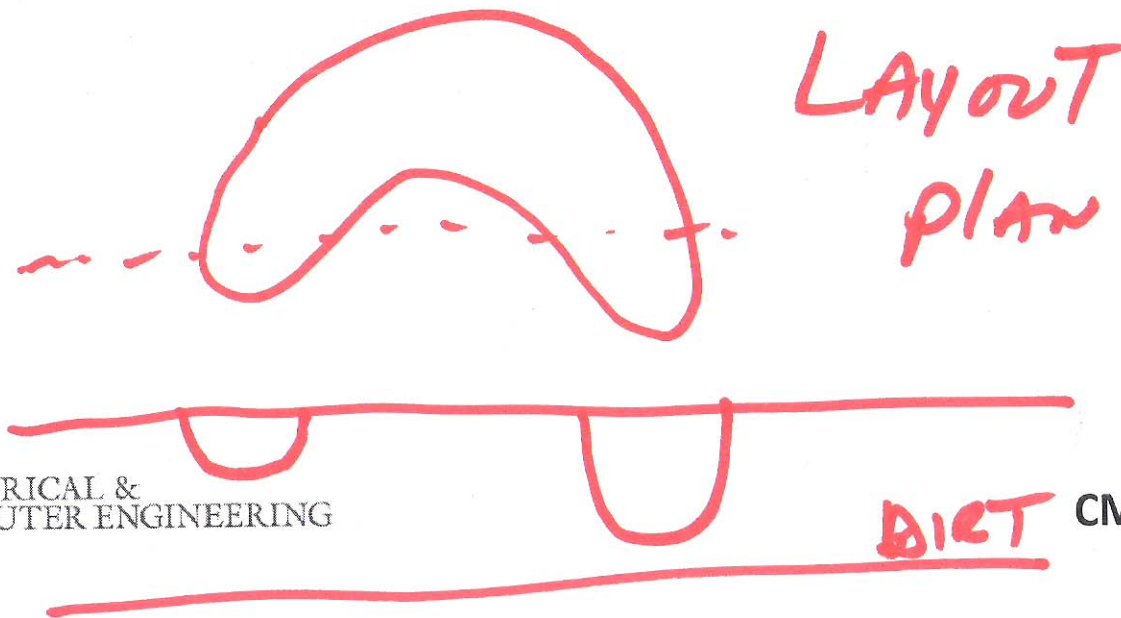
EE 421 / ECE 621

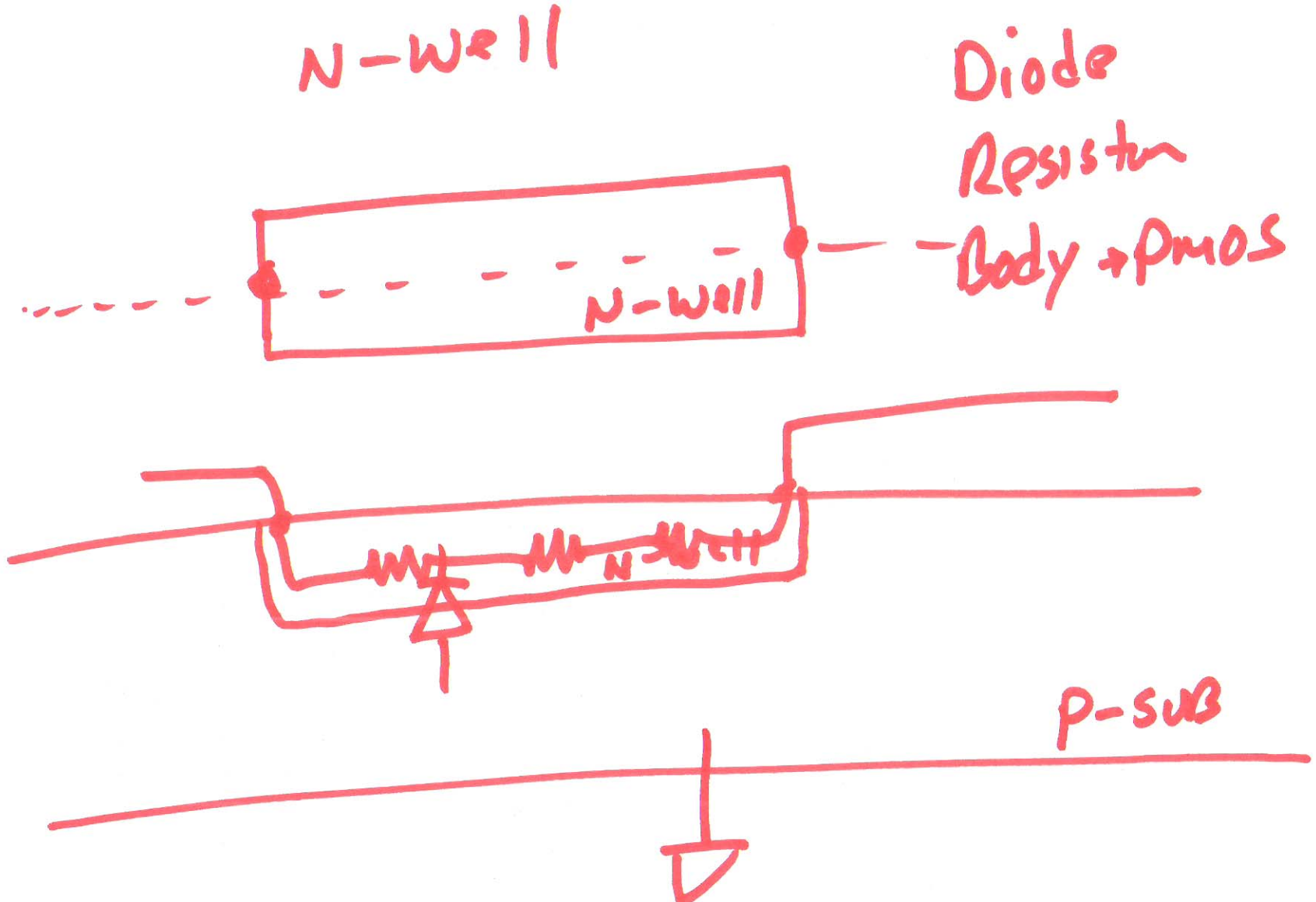
Digital IC Design

August 26, 2015

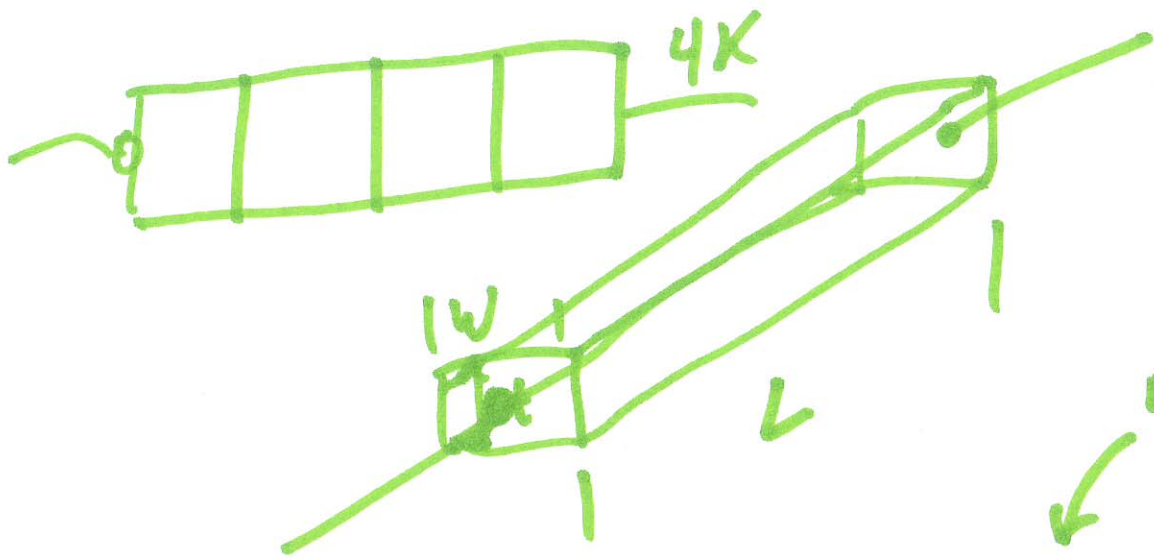
Lecture 2

N-well





2)



resistivity
 $\Omega\text{-cm}$

N-well

$800\frac{\Omega}{\square}$

$$R = \left(\frac{\rho}{t} \right) \cdot \frac{L}{W}$$

constant

sheet resistance $\frac{\Omega}{\square}$

$1K\frac{\Omega}{\square}$

3)

$$R_D = 800 \frac{\Omega}{\mu\text{m}}$$

$$R = 5 \text{ k} \quad , \quad R = R_D \cdot \frac{L}{W} = 800 \cdot \frac{L}{W}$$

$$\frac{L}{W} = 6.25$$

$$L = 22.5$$

$$\frac{L}{W} = \frac{5000}{800} = \underline{\underline{6.25}}$$



4)