The Urinary System: Early Filtrate Processing

1. What are the two reabsorption pathways through the tubular cell barrier?

   a.

   b.

2. How can we cause water to diffuse from the lumen into the interstitial space?

3. Transport of what ion could cause the diffusion in question 2?

4. Summarize reabsorption in the proximal tubule.

5. What percent of the filtrate is reabsorbed in the proximal tubule? _____%

6. The simple squamous cells of the thin descending loop are permeable to

   _____ but impermeable to _____.

7. The ascending limb of the loop of Henle is permeable to

   _____ but impermeable to _____.

8. What is the role of the loop of Henle?

9. What is the role of the Vasa Recta?

10. From the quiz section, what does furosemide do?

11. If you increase furosemide, what would happen to the following? (↑ or ↓)

   a. ____ Na^+-K^+-$2Cl^-$ cotransport

   b. ____ Na^+-K^+-$2Cl^-$ retained in tubule

   c. ____ interstitial osmolarity

d. ____ water reabsorption in descending limb

e. ____ filtrate and volume flow

f. ____ urine output

g. ____ loss of body water and electrolytes