Urinary Study Guide

1. What are the functions of the kidneys? **Rids body of nitrogenous waste, regulates blood chemistry and blood pressure**
2. Where are the kidneys found? **Superior lumbar dorsal wall**
3. What is the cup shaped extension of the pelvis that collects urine that drains from the apex of the pyramids? **Calyces**
4. What is the name of the single tube that carries urine from the bladder to the outside environment? **Urethra**
5. What is the kidney structure that is responsible for filtration, reabsorption and secretion? **Nephron**
6. What encloses the glomerulus? **Bowman's capsule**
7. What structure is where high blood pressure forces out fluids and solutes out of the plasma? **Glomerulus**
8. Hemodialysis works on the principle of: **Diffusion**
9. What does pressure filtration remove? **Glucose, amino acids, salts**
10. What will selective reabsorption return to the blood by? **Diffusion or active transport**
11. What nitrogenous waste is creatinine formed from? **Muscle metabolism**
12. The difference between the blood in the renal artery and the renal vein is: **Artery has O2 rich, unfiltered blood; vein CO2 rich, filtered blood**
13. What would happen if the kidney absorbs more water in relation to blood volume? **Increases and blood pressure rises**
14. Stretch receptors in the heart monitor high blood volume and release: **ANH**
15. If low arterial blood pressure is excessive, the glomerular pressure: **drops and filtration decreases**
16. What area of the kidney contains the glomeruli? **Renal cortex**
17. What is urea a waste product from? **Amino acid metabolism-protein breakdown**
18. What are ketones a waste product from? **Fatty acid breakdown**
19. Water follows salt. This is based solely on: **Osmosis**
20. What is the function of ADH? **Causes water to be reabsorbed when blood volume declines**
21. What is the function of ANH? **Keeps Na+ and water from**
22. What is the flow of urine from the collecting tubules? **Calyces → renal pelvis → ureter → bladder → urethra**
23. What is the name of the structure that has the renal artery, renal vein, and ureter all join together? **Medial hilus**
Identify the following on a kidney diagram:

24. Renal capsule
25. Renal pelvis
26. Renal calyces
27. Renal pyramid
28. Nephron
29. Cortex
30. Renal artery
31. Ureter

Be able to identify the following on a nephron diagram:

32. Efferent arteriole
33. Glomerulus
34. Afferent arteriole
35. Bowman’s capsule
36. Renal artery
37. Collecting duct
38. Proximal descending tubule
39. Distal ascending tubule
40. Loop of Henle