Excretory Lecture Test Questions – Set 1

1. The separation and ejection of metabolic wastes, usually in aqueous solution, is:
   a. reabsorption
   b. secretion
   c. filtration
   d. excretion
   e. endocrinology

2. Besides metabolic waste removal a function of excretion would be:
   a. ridding the blood of excess proteins
   b. concentrating food materials
   c. regulating the osmotic pressure of the body fluids
   d. synthesis
   e. all of the above

3. All of the following are excretory "systems", except:
   a. lungs
   b. kidneys
   c. pancreas
   d. colon
   e. skin

4. Which of the following is not eliminated by an excretory mechanism:
   a. urea
   b. undigested food
   c. carbon dioxide
   d. water
   e. sodium

5. All of the following are excreted at some time, except:
   a. water
   b. ammonia
   c. heat
   d. sodium
   e. there is no exception, since all of the above are excreted

6. The least abundant urine solute should be:
   a. urea
   b. sodium
   c. bicarbonate
   d. glucose
   e. creatinine

7. The most abundant urine solute:
   a. glucose
   b. urea
   c. sodium
   d. potassium
   e. creatinine

8. Cellular respiratory heat is primarily excreted by:
   a. kidneys
   b. colon
   c. lungs
   d. skin
   e. liver

9. Which of the following is formed in the liver from deamination of amino acids:
   a. creatinine
   b. phosphoric acid
   c. ATP
   d. water
   e. urea

10. The three basic processes involved in urine-formation are:
   a. micturition, nephritis, calyces
   b. absorption, micturition, secretion
   c. filtration, reabsorption, secretion
   d. filtration, reabsorption, peristalsis
   e. beer-in, beer-through, beer-out

11. The structural and functional unit of the kidney is the:
   a. nephron
   b. glomerulus
   c. vasa recta
   d. collecting duct
   e. renal pelvis

12. Which of the following is <u>not</u> a part of the nephron:
   a. loop of Henle
   b. collecting duct
   c. distal convoluted tubule
   d. proximal convoluted tubule
   e. Bowman's capsule

13. The bulk of urine formation is handled by the:
   a. cortical nephrons
   b. juxtamedullary nephrons
   c. vasa recta
   d. glomerulus
   e. left kidney

14. Which of the following is mostly located in the <u>medulla</u>:
   a. Bowman's capsule
   b. distal convoluted tubule
   c. vasa recta
   d. peritubular capillaries
   e. proximal convoluted tubule

15. The underlying physiological concept of the body, characterized by the maintenance of a steady-state of vital levels (balances):
    a. retention
    b. excretion
    c. homeostasis
    d. auto-regulation
    e. sympatheosis

16. The lungs primarily excrete:
    a. heat
    b. urea
    c. water
    d. carbon dioxide
    e. ammonia

17. Which of the following is a nitrogenous compound produced by muscle metabolism:
    a. ammonia
    b. creatinine
    c. urea
    d. niacin
    e. acetone

18. Nephrons which are mostly within the cortex:
    a. cortical
    b. juxtamedullary
    c. contramedullary
    d. glomerular
    e. none of the above, since these do not exist

19. Homeostasis:
    a. is the fundamental physiological concept of the body
    b. is concerned with all processes of the body
    c. is concerned with maintaining vital balances within a narrow range of tolerable variation
    d. is responsible for counteracting the ever-changing conditions within the body
    e. all of the above are true

20. Heat is primarily excreted by the:
    a. skin
    b. kidneys
    c. lungs
    d. alimentary tract
    e. liver

21. The association between a Bowman's capsule and its glomerulus is termed:
    a. nephron
    b. Malpighian corpuscle
    c. papilla
    d. juxtaglomerular apparatus
    e. calyx

22. Which of the following would be excreted in the least amount:
    a. sodium
    b. uric acid
    c. glucose
    d. CO_2
    e. water

23. Vasa recta are associated with which type of nephrons:
    a. peritubular
    b. cortical
    c. papillary
    d. juxtamedullary
    e. juxtaglomerular

24. All of the following substances undergo tubular secretion, except:
    a. ammonia
    b. creatinine
    c. penicillin and other drugs
    d. hydrogen ions
    e. no except, since all are secreted

25. The addition of substances to the filtrate, after Bowman's capsule, is:
    a. filtration
    b. reabsorption
    c. secretion
    d. micturition
    e. none of the above

26. The cause of hydrogen secretion:
    a. sodium reabsorption creates an electrochemical gradient which attracts other positive ions into the nephron
    b. it must be excreted in high concentration due to its extreme toxicity
    c. a decreased level of renin secretion
    d. unknown
    e. none of the above

27. All of the following undergo secretion, except:
    a. glucose
    b. ammonia
    c. potassium
    d. benzoic acid
    e. creatinine

28. All of the following undergo secretion, except:
    a. creatinine
    b. benzoic acid
    c. hydrogen
    d. ammonia
    e. amino acids

29. If the urine contains a greater concentration of a substance than is present in the blood leaving the kidneys, then this substance was:
    a. not filtered at all
    b. completely reabsorbed
    c. neither reabsorbed nor secreted
    d. not reabsorbed and was completely secreted
    e. a plasma protein

30. The sympathetic division of the visceral nervous system produces an <u>increased</u> glomerular blood pressure by:
    a. relatively equal constriction of the afferent and efferent arterioles
    b. greater constriction of the afferent arteriole
    c. greater constriction of the efferent arteriole
    d. no change in the arteriolar diameters
    e. constricting the glomerulus itself

31. The sympathetic division of the visceral nervous system produces a <u>decreased</u> glomerular blood pressure by:
    a. relatively equal constriction of the afferent and efferent arterioles
    b. greater constriction of the afferent arteriole
    c. greater constriction of the efferent arteriole
    d. no change in the arteriolar diameters
    e. relaxing the glomerulus itself

32. Auto-regulation is:
    a. reabsorption of amino acids based on a feedback mechanism between the ascending tubule and the vasa recta
    b. local nephron and arteriolar control of glomerular pressure
    c. sympathetic nervous control of glomerular pressure
    d. a mechanism by which ADH regulates the amount of facultative water reabsorption
    e. the process by which cortical nephrons control the juxtaglomerular nephrons

33. Auto-regulation is the responsibility of the:
    a. sympathetic nervous division
    b. juxtaglomerular apparatus
    c. parasympathetic nervous division
    d. visceral capsule wall
    e. vasa recta

34. The ability of the nephron to control glomerular blood pressure independently is:
    a. auto-regulation
    b. retention
    c. sympathetic
    d. osmoreception
    e. this is <u>not</u> possible, since all organs are absolutely controlled by the nervous and/or endocrine systems

35. Which of the following would produce an <u>increased</u> glomerular pressure:
    a. afferent arteriole constriction

b. efferent arteriole dilation
c. afferent and efferent arteriole dilation
d. afferent arteriole dilation
e. peritubular capillary dilation

36. Which of the following would produce a decreased glomerular pressure:
a. afferent arteriole dilation
b. efferent arteriole constriction
c. afferent arteriole constriction
d. afferent and efferent arteriole constriction
e. peritubular capillary constriction

37. Which of the following would produce a decreased glomerular pressure:
a. afferent arteriole constriction
b. efferent arteriole constriction
c. afferent arteriole dilation
d. afferent and efferent arteriole constriction
e. afferent arteriole dilation and efferent arteriole constriction