Chapter 11: Nervous System II

1. If the area of the cerebral hemisphere corresponding to Broca’s area is damaged, what is the result?

2. Gray matter of the spinal cord is mostly composed of ________________.

3. In the case of a subdural hematoma resulting from a blow to the head, blood accumulates between the ______________ and the ______________.

4. An inflammation of the meninges called meningitis most commonly involves the ________________ and the ________________.

5. Parkinson’s disease, which is characterized by slow movements and difficulty initiating voluntary muscular actions, results from a disorder in the ________________.

6. The right hemisphere of the cerebrum receives sensory impulses originating on the ________________ side of the body and vice versa.

7. Basal ganglia are located in the ______ and function to _____________________.

8. The somatic nervous system consists of nerve fibers that connect the CNS to the ________________, whereas the autonomic nervous system consists of fibers that connect the _________________________.

9. The gray commissure of the spinal cord surrounds the ________________.

10. The arbor vitae is found in the ________________.

11. Cerebrospinal fluid is produced by _______________ and it functions to _________________________.

12. The spinal cord in contiguous superiorly with the ________________.

13. The thickest of the meninges is the ________________.

14. The sensory root of a spinal nerve is also referred to as _______________________.

Label the identified structures on the diagram below:

15. A small lesion in the brainstem which resulted in a rapid heart rate, intense vasoconstriction, and elevated blood pressure would probably be located in the _________________.

16. The ________________ maintains alertness and attention.

17. An individual who has an eating disorder along with intense thirst and wildly varying body temperatures may have a dysfunction of the _________________.

18. The gray matter on the outer surface of the cerebrum is called the _________________.

19. The large C-shaped mass of white matter that consists of nerve fibers that connect the two cerebral hemispheres is called the _______________________.
Label the identified structures on the diagrams below:

A. Pons
B. Thalamus
C. Anterior
D. Posterior
E. Medulla oblongata

20. The ventricles of the brain contain _______________________________.

21. A shallow groove on the surface of the cerebral cortex is called a ________________.

22. The primary motor cortex is located in the ________________ lobe.

23. The primary visual area is located in the ________________ lobe.

24. There are ____ pairs of cranial nerves and ____ pairs of spinal nerves.

25. Restful activities are governed by the __________________ nervous system.

Chapter 12: Nervous System III

1. If you enter a room and smell a strong odor but the odor soon seems to fade away, you have experienced ________________________.

2. The olfactory receptors are examples of ________________________________.

3. What are the primary taste sensations?

4. The sets of color receptors within the retina are sensitive to lights that are ____________, ____________, and ________________.

5. Rhodopsin is found in ________________ cells.

6. Treatment for cataract usually involves removal of the ____________________.

7. A _______________________ is a feeling that results from sensory stimulation while ________________ is the brain causing it to seem to come from the receptors being stimulated

8. Specialized senses are primarily found in the ________________.

9. The auditory ossicles are located within the ________________ ear.

10. The ________________ is a layer of tissue that lines the inner surface of the eyelids and covers the anterior surface of the eye.

11. Tears contain an ________________ that functions to reduce the chances of developing an eye infection.

12. The sense of taste is called ________________.

13. Palpebrae is another name for the ________________.

14. The ________________ glands produce tears.

15. Explain why a person’s nose run when he cries?
16. The outermost tunic of the eyeball is the ______________.

17. The transparent anterior portion of the sclera is the ________________.

18. The contractile structure that surrounds the pupil is the ________________.

19. The area of greatest visual acuity is the ___________________.

20. The ___________________ contains no photoreceptor cells.

21. The ___________________ helps to hold the lens and retina in place.

22. The __________ focuses light on the retina.

23. The ____________, ____________, & ____________ transmit vibrations from the eardrum to the oval window.

24. Sensory receptors for balance are found in the ____________________.

25. The sensory cells for ______________ are located in the organ of Corti.

26. The feeling of pain on the body surface that has its origin in an internal organ is called ________________.

27. Photoreceptors are located in the ________________.

28. Changing the shape of the lens to correctly focus light on the retina is called ________________.

29. What is the function of the auditory (eustachian) tube?

**Chapter 14: Blood**

1. The percentage of solids in a sample of human blood is normally about __________.

2. The biconcave cells in blood that lack nuclei when they are mature are the ________________.

3. Identify the granulocytes and agranulocytes.

4. The normal white blood cell count is _________________.

5. The condition called cyanosis is caused by an increased blood concentration of _________________.

6. Biliverdin and bilirubin are pigments that result from the breakdown of RBCs; biliverdin is ______ in color and bilirubin is ______ in color.

7. Compounds produced by the immune system to combat specific antigens are called _________________.

8. Plasma is the ________________ while formed elements are the ________________.

9. The plasma component that forms fibrin, the insoluble protein, in a blood clot is ________________.

10. For a person whose hematocrit is 45%, correct ranking of the components of blood in order of decreasing percent volume is __________, __________, & ____________.

11. The only formed elements that possess a nucleus when mature are the ________________.

12. ________________ transports oxygen in the blood.

13. ________________ is needed to produce hemoglobin.

14. In adults, red blood cells are made in the ________________, spend most of their lifespan in the ________________, and most are finally destroyed in the ________________.

15. ________________ are the largest of the formed elements.

16. The most numerous of the leukocytes is the ________________.

17. The ability of white blood cells to leave the circulation and enter tissues is called ________________.

18. A person with an increased ________________ count might be suffering from an allergic reaction.

19. Type _______ blood has both A and B antigens on the RBC's, while type ____________ blood has no antigens on the RBC's.

20. When the oxygen content of the blood is low, ______ is released by the kidneys to increase red blood cell production in the red bone marrow.
21. A _______________ is a type of leukocyte has granules that release histamine and heparin?

22. _______________ are cell fragments and are also called ________________.

23. Blood type is determined by _______________ on red blood cells.

24. Type _______ blood considered the universal recipient?

25. Mr. Jones has Type A blood and needs a transfusion. What type(s) could he safely be given?

26. Formation of RBC is initiated by a ______-feedback system whereas the blood clotting process is caused by a ______-feedback system.

27. Average life span of a RBC is on average ______ months.

Chapter 15: Cardiovascular System
1. List the correct sequence of parts through which blood moves in passing from the vena cava to the lungs?

2. Blood from the face and scalp is drained by the ___________________ vein

3. The blood pressure in the systemic arteries is greatest during ___________________.

4. The inner lining of the heart is the ___________________.

5. The normal pacemaker of the heart is the __________ node.

6. When a person’s pulse is taken by palpation near the thumb on the wrist, the _______ artery is being felt.

7. The ________________ circuit sends deoxygenated blood to the heart.

8. Another name for the visceral pericardium is the ________________.

9. The ________________ forms the bulk of the heart wall?

10. Blood vessels enter and exit from the _______ of the heart.

11. Blood in the pulmonary veins returns to the ________________.

12. The blood vessel carries blood from the left ventricle to the body is the ________________.

13. In a normal electrocardiogram, the ________________ complex results from ventricular depolarization.

14. What is the order of the blood vessels that a red blood cell would pass through as the blood leaves the heart, travels to a tissue, and then returns to the heart.

15. The exchange of nutrients and gases between the blood and tissue cells is the primary function of _________________.

16. Veins contain __________ and arteries do not.

17. Strong, elastic vessels that carry blood under high pressure describes _________________.

18. The longest vein in the body is the ________________.

19. The measure of force blood exerts against blood vessel walls is _________________.

20. Why does the left ventricle have a thicker myocardial wall?

21. Diastole refers to _________________.

22. During the ventricular systole, the AV valves _______ and the semilunar valves ______.
23. Sympathetic stimulation of the heart causes the heart rate to ______________.

24. The ______________ artery is usually used to determine blood pressure.

25. For a blood pressure reading of 125/86, the 86 represents the ________________________.

26. The left side of the heart acts as a pump for the ___________________ circulation.

**Chapter 17: Digestive System**

1. The material that leaves the mouth and enters the pharynx is called ____________.

2. The external surface of the crown of a tooth is covered with the ____________.

3. Deep folds in the wall of the stomach called _____ help it to expand to hold food.

4. Gastric glands that secrete HCl are called ____________.

5. Food leaving the stomach is called ____________.

6. The first portion of the small intestine is the ________________.

7. Why are the pancreas and liver referred to as accessory organs?

8. Pancreatic juice and bile are both released into the ________________.

9. The _______ ONLY transports food.

10. The _______ digests ONLY starch.

11. The _______ absorbs nutrients.

12. Chemical digestion begins in the ____________.

13. Arrange the following structures in order from the small intestine to the rectum.
   (1) ascending colon
   (2) descending colon
   (3) sigmoid colon
   (4) transverse colon

14. ____________ emulsifies fats in the small intestine.
15. Damage to the liver would hamper digestion of ____________.

16. Bile is produced by cells of the ____________.

17. Which layer of the small intestine wall contains cells with microvilli?

18. The ____________ stores bile.

19. The salivary glands located just anterior to the ear are the ____________.

20. What are the correct sequence for the layers within the walls of the alimentary canal from inside to outside?

21. The root canal of a tooth contains __________ & __________.

22. The parietal cells of gastric glands secrete ____________.

23. ____________ occurs in the digestive tract from the pharynx to the anus.

24. The effects of sympathetic nerve impulses on the alimentary canal are ____________ and parasympathetic impulses are ____________.

25. Which layer of the alimentary canal is responsible for absorption of nutrients? ____________

26. What is a function of the large intestine?

27. Mixing in the small intestine is accomplished by ____________.

28. The epiglottis is attached to the ____________.

Chapter 20: Urinary System

1. Urea is a by-product of ________________ metabolism.

2. When the oxygen-carrying capacity of the blood is low, the kidneys release ________________, which will cause an increase in red blood cell production.

3. The ________________ carries urine from the kidney to the urinary bladder.

4. The three openings of the bladder form the ________________.

5. The ________________ extends from the urinary bladder to an external opening?
6. Another name for urination is ________________.

7. The three regions of a kidney are the renal ________________, ________________, and ________________.

8. The ________________ is the functional unit of the kidney that produces urine.

9. The glomerular capsule and both the proximal and distal convoluted tubule are found in the renal ________________, while the loop of Henle is found in the renal ________________.

10. Approximately ___________ water is filtered by the kidneys per day.

11. Water and needed nutrients are returned to the blood in the ________________ ________________ tubule.

12. Significant amounts of protein and ______________ are normally NOT found in urine.

13. Water makes up approximately _________ percent of the volume of urine.

14. Urine drains from the ________________ ________________ into the calyces of the kidney then into the renal ________________, and finally exits the kidney through the ________________.

15. The network of capillaries that is located in Bowman’s capsule is called the ________________.

16. The renal corpuscle consists of the ________________ and the ________________ ________________.

17. The amount of filtrate produced per minute is called the ________________ ________________ ________________.

18. Kidneys are located behind the peritoneum, which is referred to as ________________.

19. Urine is stored in the ________________ ________________ until it is voided from the body.

20. The process of ________________ depends on a pressure gradient.

21. To some degree the micturition reflex can be voluntarily controlled by contracting the urethral ________________.

Identify the structures in the diagrams below: