Module 8 A & P

Assignment #1 Read pages 217 - 229

Write the answers on your own paper, not on this sheet.

1. Define the following terms:
   a. Gray matter
   b. White matter
   c. Decussation
   d. Vital functions
   e. Commissures

2. What is hypoxia and why is it dangerous?

3. What is hypoglycemia and what can it do to the brain?

4. List these structures in order, from inferior to superior: midbrain, hypothalamus, pons, medulla, thalamus

5. Which of the structures in Question 4 are part of the brainstem?

6. Which of the structures in Question 4 are part of the diencephalon?

7. Is the outer surface of the cerebrum composed of gray or white matter?

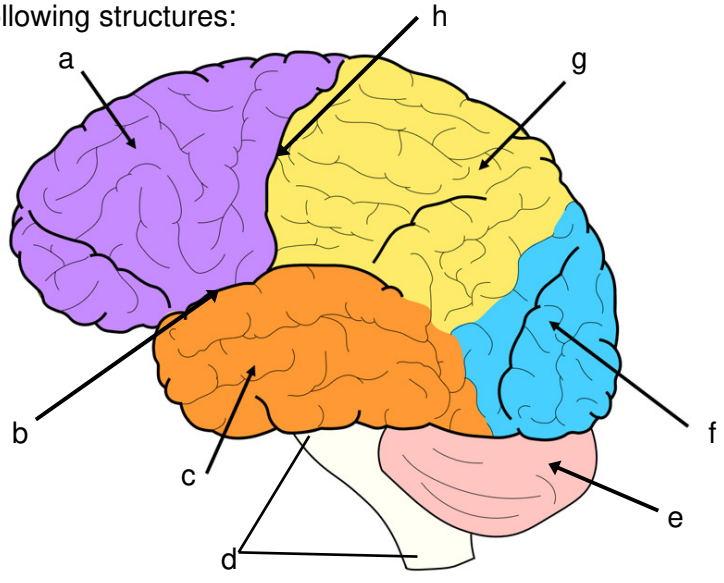
8. If you were to think of the cerebrum as a series of hills and valleys, would the gyri be the hills or the valleys? What about the sulci?

9. Which structure in the brain deals with the motor functions that we perform without consciously thinking of them?

10. List 5 functions that the cerebellum controls.

11. What is the purpose of the corpus callosum? There are other structures in the brain and spinal cord that perform the same task. What is the general term that describes all of these structures?

12. Identify the following structures:

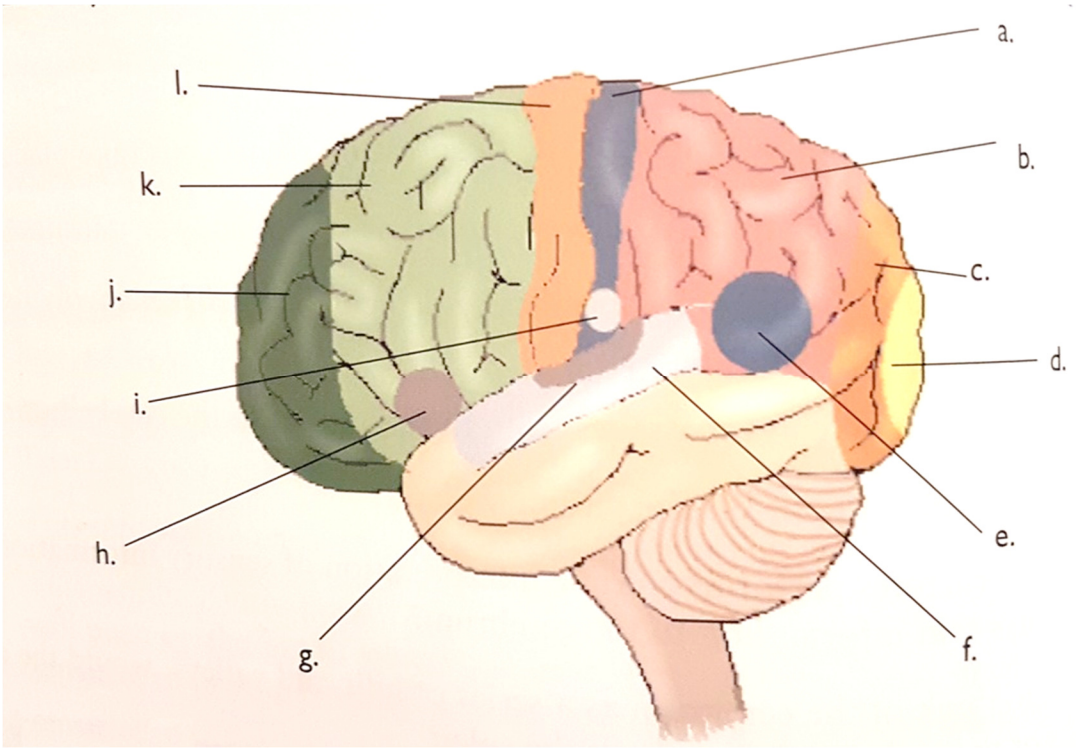


Module 8 A & P

Assignment #2 Read pages 230 – 244.

Write the answers on your own paper, not on this sheet.

13. Identify the functional areas below AND indicate what functions they perform.



14. What does the limbic system do?

15. How are the hippocampus and the amygdaloid nucleus similar? What is the difference between the hippocampus and the amygdaloid nucleus?

16. Where is the majority of the cerebrospinal fluid produced?

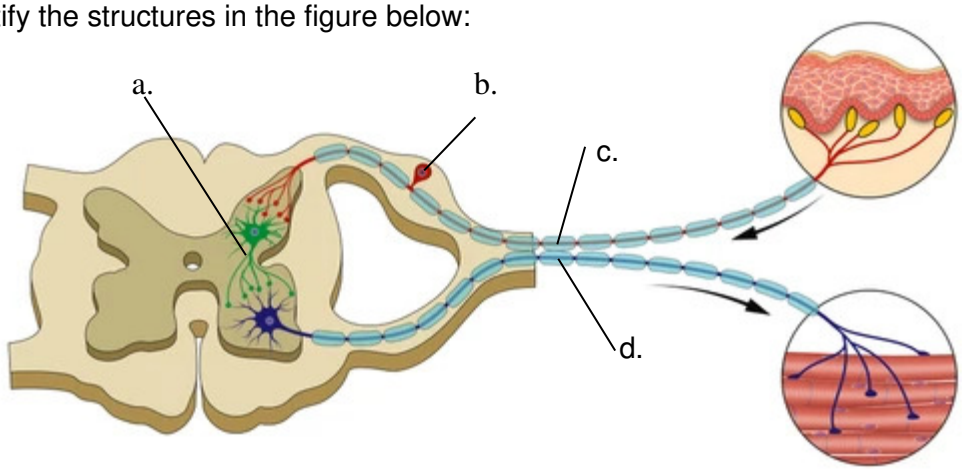
17. Where is the rest of the cerebrospinal fluid produced?

18. What is the purpose of cerebrospinal fluid?

19. What three structures underneath the bone covering the CNS protect the brain? What are they called collectively?

20. What are arachnoid granulations AND what do they do?

21. Identify the structures in the figure below:



22. What are the three neurons in a reflex arc AND in what order are they activated?

23. Where can you find the association neuron in the reflex arc?

24. Of the three neuron circuits we discussed in the previous module (convergent, divergent, or oscillating), which is formed by the afferent neuron in the reflex arc?

25. In the reflex arc, what kind of circuit is the efferent neuron part of (convergent, divergent, or oscillating)?

26. Complete the table for the motor and sensory pathways:

	Motor Pathway	Sensory Pathway
Ascending or descending?		
Where to signals originate?		
Where are signals sent to?		
Where does most of the decussation occur?		

27. Why does the sensory pathway have more synapses than the motor pathway?