

## 9.01 Study Questions

### Session 8-11 Lecture Questions

1. Define: motor neuron, primary sensory neuron, secondary sensory neuron, and interneuron.
2. Amphioxus is the most primitive living member of our phylum, the \_\_\_\_\_. The CNS is located [ventrally, dorsally] as a tubular structure found just above the \_\_\_\_\_.
3. The expansion of the neural tube in evolution gives rise to three major brain vesicles (enlargements), known as \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_. (*English or Latin, eventually you should learn both*)
4. A major reason for these enlargements was the evolution of \_\_\_\_\_.
5. The first "Schmoo" CNS diagrams depict a putative pre-mammalian brain. Such a brain is shown without a \_\_\_\_\_, an endbrain structure characteristic of all mammals.
6. Define "dermatome". Describe a typical thoracic dermatome.
7. Name three types of channels of conduction for sensory information entering the CNS.
8. Why is the term "spinothalamic tract" somewhat of a misnomer?
9. What is "spinal shock" and why is it so different in widely different species?
10. "Diaschisis", or deafferentation depression, has a specific meaning in neurology, but is a frequently mis-used term. Explain the meaning of "corticospinal diaschisis."
11. Draw, on an outline of the embryonic mammalian CNS, the dorsal column - medial lemniscus pathway (the "neolemniscus) leading from skin to neocortex. Note where the axons decussate.
12. Make a similar drawing of the corticospinal tract's longest axons, from Betz cells in the motor cortex to destination sites.

### Session 8-11 Reading Questions

*Note: These are the same questions as classes 5-7*

## **Rosenzweig chapter 5**

From the Study Guide:

1.3, 1.4, 2.1, 2.2, 4.0, 4.4, 5.2, 7.1, 7.2, 9.2, 9.3, 10.1, 11.1, 11.2, 12.1, 12.2, 13.2, 13.3, 14.2, 14.4, 15.1, 16.2, 17.1, 19.1, 19.2, 19.3, 26.2

## **Rosenzweig chapter 6**

From the Study Guide:

1.1, 2.4, 3.1, 3.2, 3.3, 6.1, 6.2, 6.3, 8.2, 9.2, 10.1, 10.2, 10.3, 11.1, 14.3, 14.4, 15.1

## **Rosenzweig chapter 8**

From the Study Guide:

4.4, 5.2, 6.2, 7.1, 7.2, 8.1, 8.2, 10.1, 11.1, 12.1, 13.1, 13.2, 15.1, 16.3, 17.1, 18.1, 19.1, 20.3, 21.2, 21.3, 22.2, 22.3, 22.4, 24.1, 25.1, 25.3, 26.2

*Note: These are the same questions as classes 5-7*