9.01 Study Questions
Lecture 11

1. Why are some animals more helpless after neocortex ablation than others?

2. What is "spinal shock" and why is it so different in widely different species?

3. "Diaschisis", or deafferentation depression, has a specific meaning in neurology, but is a frequently mis-used term. Explain the meaning of "corticospinal diaschisis."

4. What are two known mechanisms of recovery from deafferentation depression (diaschisis)?

5. The telencephalon, or end-brain, contains two major structures in addition to neocortex. These structures, present in all vertebrates, are the _____ _____, which has some close connections with the olfactory bulb, and the _____ _____.

6. What are the kinds of functions we can associate with these endbrain structures?

7. 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.

8. Make a similar drawing of the corticospinal tract's longest axons, from Betz cells in the motor cortex to destination sites.

9. In the embryonic spinal cord, the sulcus limitans separates the _____ plate dorsally from the _____ ventrally. Where are spinal interneurons located? Where are the motor neurons located?

10. Describe a major difference in appearance, in a frontal section, of the cervical spinal cord and the sacral spinal cord.

11. Define: propriospinal axons.