

9.01 Study Questions

Lecture 14

1. Which cranial nerve carries somatosensory input from the face into the brain? Give the number of the nerve as well as its common name. Where are the primary sensory neurons of this nerve? Where are the secondary sensory neurons?
2. What causes quantitative distortions of the basic structural layout of the hindbrain? What is the major distortion that occurs in the development of the hindbrain of humans and other primates?
3. Two divisions of the diencephalon (the 'tweenbrain") usually considered to be the major divisions are the _____ and the _____. Briefly, indicate a major function of each of these divisions.
4. What is the meaning of the word "pons"? Where is the mammalian pons? Major inputs to cells of the pons (the pontine gray) come from what structure?
5. The largest bundle of myelinated axons coursing through the human midbrain is the _____. These fibers come from the _____.
6. In relative terms, the tree shrew and the squirrel have a very large _____ in the midbrain.
7. A fiber bundle that passes rostrally through the hindbrain and continues rostrally through the midbrain is the _____. (You could name several.)
8. The mesencephalon, diencephalon, and telencephalon (midbrain, 'tweenbrain and endbrain) can each be divided into the same two types of regions, namely _____ and _____.
9. Developmental and comparative neuroanatomists refer to two major groups of axons that carry outputs of these two regions of the forebrain. These are called the _____ and _____.
10. Name two major sources of axons in each of these two bundles.