Describe the organization of the resp sys, listing the organs involved in respiration, from cellular level to the lungs.

Know the mechanics of breathing.

Explain the divisions of the nervous system and describe the histology and function of nervous tissue.

What are the 4 main functional regions of the brain? Name what each region is comprised of, and the basic function of each area.

1. Cerebral Hemispheres
   Cerebrum
   Cerebral Cortex
   1. Motor areas - primary motor cortex (controls mvmt), premotor cortex, Broca's Area (speech)
   2. Sensory areas - Primary somatosensory cortex, somatosensory association area, gustatory, vestibular
   3. Association areas – anterior, posterior, limbic
2. Diencephalon – thalamus (hormones production), hypothalamus, epithalamus
3. Brain Stem – Midbrain, pons, medulla
4. Cerebellum – Processing of motor activity and cognitive function

PNS – Peripheral Nervous System
2 functional divisions
1. Sensory (afferent) division
   • Somatic afferent fibers – convey impulses from skin and joints
   • Visceral afferent fibers – convey impulses from visceral organs
2. Motor

Motor (efferent) division (know these in detail)
1. Somatic (voluntary)
2. Autonomic (involuntary)

Autonomic Nervous System
- This is our body's auto pilot
- Most organs are under dual innervation

Histology of nervous tissue ****