Nervous System:
Know the parts of a neuron and what they do?
What is the resting potential and how is it generated? What is the difference between the two sides of the membrane?
What is an action potential?
Understand the mechanism of action potential generation and propagation.
What is the refractory period?
Understand the mechanism of transmission of nerve impulses from one neuron to another.
Be able to identify the parts of a synapse and know what they do.
Know the different types of neuroglial cells & their functions (ex. appendymal cells, astrocytes).
How is axon regeneration guided by neuroglial cells?
What is convergence and divergence of nerve impulses?
What is the neurotransmitter used at the neuromuscular junction?
What happens to the neurotransmitter in the synaptic cleft after it’s initiated an action potential in the post synaptic cell? What is acetylcholine esterase?
What comprises the central (CNS) and peripheral (PNS) nervous systems?
What are the different divisions of the peripheral NS (ex. sensory, motor, autonomic, sympathetic and parasympathetic divisions)?
What is a ganglion? A Tract?
What is saltatory conduction and what makes it possible?
Know the parts of the cerebrum & what they do (ex. lobes, gyri, sucli, fissures, functional areas, assoc. areas, diencephalon, thalamus, etc).
Know the parts of the cerebellum and what they do (ex. hemispheres, arbor vitae, vermis, etc.)
Know the parts of the brainstem and what they do (ex. pons, medulla, reticular formation, etc).
What are the different ascending & descending nerve tracts & types of info they carry?
What are the three meningeal layers?
What is cerebrospinal fluid? What is its function? What produces it?
What is a reflex? What are the components of a reflex arc? What are the different types of reflexes?
Be able to identify the cranial nerves, whether they are sensory or motor or both, and what they ennervate.
What is Bell’s palsy and what nerve is affected?
What is a nerve plexus and what are the major nerve plexuses in the PNS?
What are intero vs. exteroreceptors? What are the major types (chemo, proprio, nociceptors, etc.)?
What is the relationship between the sympathetic and parasympathetic nervous systems?
What are the general affects of sympathetic stimulation (hint. fight or flight)?
What are the general affects of parasympathetic stimulation (hint. resting & digesting/feed or breed)?