1. Describe the structure of a neuron using cell body, dendrite, axon, synaptic terminals, nodes of ranvier.

2. Describe the differences between the 3 functional types of neurons (sensory, motor, and association).

Which is most common? Which makes up the peripheral nervous system? Autonomic?

3. Describe the differences between the 3 structural types of neurons (unipolar, multipolar, bipolar) Which is most common? Where are each found?

4. What are the 4 types of glial cells in the CNS? What are their functions? What about the 2 in the PNS?

5. Why are nerve cells myelinated? What cells do this in the CNS /PNS? What are nodes of ranvier?

6. What is the role of CSF in the brain? Who makes it? What 2 places is it located?

7. Describe the importance of the blood brain barrier. What cells form it?

8. What is the difference between a tract and nerve?

9. Describe specifically how a neuron can code for a strong stimulus versus a weak stimulus.

10. What is the difference between the CNS, ANS, Somatic, and Peripheral nervous system?

11. List the steps of the action potential starting from threshold and ending with neurotransmitter release.

Words to know:

Threshold, voltage gates, ion channel, passive transport, sodium potassium pump, depolarize, hyperpolarize, repolarize, resting membrane potential,

Describe the differences between a graded and action potential in a neuron including location / type channel/ membrane potential ranges/ summation/ etc.

Why can you say that a neuron carries out both chemical and electrical forms of communication?

Define: excitatory postsynaptic potential and inhibitory postsynaptic potential

What 2 things can happen to neurotransmitters after they bind to chemically gated ion channels?

Describe how different actions at the synapse could affect muscle contraction. (think about acetylcholine)