Nervous System I: Anatomy Review

1. muscles, glands
2. Dendrites → input area; receives signals from other neurons
   Soma (cell body) → input area; main nutritional and metabolic area
   Axon → conductive region; generates an action potential
3. synapses, dendrites, soma
4. axon hillock, action potential
5. collaterals, terminals
6. Schwann cells, axons, insulation
7. nodes of Ranvier
8. multipolar, unipolar
9. only one, frequently, many

Nervous System I: Ion Channels

1. Integral proteins
2. 1. Charge
   2. Size
   3. How much water the ion holds around it
3. nongated
4. Into
5. 130
6. a. Sodium
   b. Chloride
7.

Channels	Areas on the Neuron	Type of Potential
Nongated	dendrites, cell body, axon	resting membrane potential
Chemically gated	dendrites and cell body	synaptic potential
Voltage gated	axons	action potential

8. Found along the axon, Important for action potential, Opened and closed by gates
9. 1. Passive chloride
   2. Chemically gated (GABA)
10. a. Voltage gated sodium
    b. Action
    c. Respiratory failure

Nervous System I: Membrane Potential

1.

Ions	Intracellular	Extracellular
Sodium (Na^+)	15	150
Potassium (K^+)	150	5
Chloride (Cl^-)	10	125