

# Sample Questions

Mark A for True and B for False.

1. Nuclei are clusters of nerve cell bodies located in the periphery.
2. The charge difference across a membrane produces the membrane potential.
3. The rate of diffusion increases as the concentration gradient increases.
4. Damage to the frontal lobe of the cerebrum would impair sensory interpretation.
5. Schwann cells and oligodendrocytes have similar functions.

Choose the single best answer.

6. Spatial summation
  - A. occurs when a single neuron releases neurotransmitter repetitively over time.
  - B. occurs with convergence of many neurons on a single postsynaptic cell.
  - C. only involves excitatory postsynaptic potentials.
  - D. only involves inhibitory postsynaptic potentials.
7. Which cell membrane component functions as transport channels, enzymes, and cell markers?
  - A. phospholipids.
  - B. carbohydrates.
  - C. proteins.
  - D. nonpolar core.
8. An isotonic solution of NaCl (molecular weight = 58.5g) would contain
  - A. 0.99g NaCl per liter.
  - B. 1.8g NaCl per liter.
  - C. 9g NaCl per liter.
  - D. 18g NaCl per liter.
9. The hypothalamus
  - A. is involved in regulation of many physiological functions.
  - B. is only involved in regulation of body temperature.
  - C. is important in memory.
  - D. is directly involved in regulating skeletal muscle contraction.
10. The hypothalamus and limbic system help regulate
  - A. muscle contraction.
  - B. fear and aggression.
  - C. vision.
  - D. speech.