

1. The part of a neuron that conducts impulses away from its cell body is called a(n):  
 A. axon  
B. dendrite  
C. neurolemma  
D. Schwann cell
2. Which of the following is a characteristic of a graded potential?  
A. produced at axon hillock  
 B. all-or-none  
 C. current decreases with distance travelled  
D. always induces membrane hyperpolarization
3. Osmosis is a special case of diffusion in which:  
 A. water moves down its concentration gradient.  
B. water is moving against its concentration gradient.  
C. water is moving from an area of high solute concentration to an area of low solute concentration  
D. B) and C)
4. In the contraction of skeletal muscle, calcium apparently acts to:  
 A. increase the action potential transmitted along the sarcolemma  
B. release the inhibition on Z discs  
 C. remove the blocking action of tropomyosin  
D. cause ATP binding to actin
5. The electrochemical gradient for ..... is enhanced by the resting membrane potential of a neuron.  
A.  $\text{Na}^+$   
 B.  $\text{K}^+$   
 C.  $\text{Ca}^+$   
D. none of the above
6. The  $\text{Na}^+/\text{K}^+$  ATPase:  
 A. pumps 3  $\text{Na}^+$  ions outside the cells and 2  $\text{K}^+$  ions inside.  
B. pumps 3  $\text{Na}^+$  ions outside the cell and 3  $\text{K}^+$  ions inside.  
C. pumps 3  $\text{Na}^+$  ions inside the cell and 2  $\text{K}^+$  ions outside.  
D. pumps 2  $\text{Na}^+$  ions inside the cell and 3  $\text{K}^+$  ions outside.
7. Which of the following statements concerning the **resting membrane potential** is TRUE?  
 A.  $\text{Na}^+$  tends to diffuse out of the cell.  
B. The resting membrane potential exists because the cell membrane is more permeable to  $\text{Cl}^-$  than it is to  $\text{K}^+$ .  
 C.  $\text{K}^+$  tends to diffuse out of the cell.  
D. The cell membrane is more permeable to  $\text{Na}^+$  than to  $\text{K}^+$ .