Practice Questions Ch 2, part 2 (cell transport) Updated 9/28/22

1. Which form of active transport (cell pumps) is important in cardiac and smooth muscle?
   A. H+ pumps B. Ca+2 pumps C. Na+ pumps

2. _____ is a term which describes a membrane that allows only certain molecules to penetrate it.
   A. Freely permeable B. Selectively permeable C. Counter transport

3. Which form of active transport (cell pumps) is important in the stomach for making hydrochloric acid (HCl)?
   A. H+ pumps B. Ca+2 pumps C. Na+ pumps

4. Which form of passive transport of particles (not water) does not require any cell surface channels or protein carriers, or fluid pressure, and substances can simply diffuse across the membrane (ex. Gases like O2 and CO2)?
   A. Simple Diffusion
   B. Filtration
   C. Osmosis
   D. Facilitated diffusion with protein carriers
   E. Facilitated diffusion with ion channels

5. Which form of passive transport involves movement of particles and fluid across a membrane with the aid of fluid pressure?
   A. Simple Diffusion
   B. Filtration
   C. Osmosis
   D. Facilitated diffusion with protein carriers
   E. Facilitated diffusion with ion channels

6. Cells placed in isotonic solutions will _____.
   A. shrink B. swell C. not change in size or shape.

7. Cells placed in hypertonic solutions will _____.
   A. shrink B. swell C. not change in size or shape.

8. Cells placed in hypotonic solutions will _____.
   A. shrink B. swell C. not change in size or shape.

9. The Na+/K+ pump
   A. is an example of secondary active transport.
   B. generates a positive membrane potential.
   C. actively transports 3 K+ out of the cell and 2 Na+ into a cell.
   D. actively transports 2 Na+ out of a cell and 3 K+ into a cell.
   E. actively transports 3 Na+ out of a cell and 2 K+ into a cell.
   F. actively transports 3 Na+ into the cell and 2 K+ out of the cell.

10. The normal resting membrane potential of a cell is _____ mV.
   A. -30 B. -50 C. -70 D. +30 E. +70

11. Which ions, if allowed into a cell through ion channels, will stimulate the cell?
   A. Na+ B. K+ C. Ca+2 D. Cl- E. both A & C F. both B & D

12. Which form of active transport involves the passive movement of one substance, which aids in the active transport of another substance in the same direction?
   A. Osmosis B. Filtration C. Counter transport D. Co-transport E. Simple diffusion

13. Which form of bulk transport allows endocytosis of fluids?
   A. Receptor-mediated B. Pinocytosis C. Phagocytosis

14. A depolarized cell (one that has formed an action potential) temporarily has a membrane potential of

A. -30 B. -50 C. -70 D. +30 E. +70

15. The term for the active transport of large substances out of a cell is

A. Diffusion B. Osmosis C. Endocytosis D. Exocytosis E. Filtration

Ch 2 part 2. Answers:

1. B
2. B
3. A
4. A
5. B
6. C
7. A
8. B
9. E (updated!)
10. C
11. E
12. D
13. B
14. D
15. D

How did you do?