

15. Which of the following sequence organizes these structures from the simplest to the most complex?

- A. molecules - atoms - tissues - cells - organ
- B. atoms - molecules - cells - tissues - organ
- C. atoms - molecules - tissues - cells - organ
- D. molecules - atoms - tissues - cells - organ

16. Which type of junction is an anchoring junction that is linked to the cytoskeleton and designed to provide strength of cell-to-cell attachment?

- A. tight junction
- B. desmosome
- C. glycocalyx
- D. gap junction

17. The plasma membrane presents a(n) barrier to free diffusion *of water*

- A. hydrophilic
- B. impermeable
- C. hydrophobic
- D. water-soluble

18. Which of the following does NOT traverse the plasma membrane by simple diffusion?

- A. alcohol
- B. O₂
- C. amino acids
- D. CO₂

19. Active transport:

- A. is specific
- B. involves carrier
- C. moves substances against a concentration gradient
- D. A), B) and C)

20. During the repolarizing phase of an action potential:

- A. K⁺ gates are open
- B. Na⁺ gates are open
- C. the membrane potential is becoming less negative
- D. A) and C)

21. Impulse propagation is associated with:

- A. graded potentials
- B. chemically gated ion channels
- C. hyperpolarization
- D. voltage-gated sodium channels