

Module 05 Quiz: Membranes

Name: _____ Date: _____

Part A: Multiple Choice (7 points)

Choose the best answer for each question. (1 point each)

1. The fluid mosaic model describes:
 2. A) How DNA replicates
 3. B) The structure of cell membranes
 4. C) Protein synthesis
 5. D) Cell division
6. Which type of transport does NOT require energy from the cell?
 7. A) Active transport
 8. B) Endocytosis
 9. C) Passive transport
 10. D) Exocytosis
11. A red blood cell placed in pure water will:
 12. A) Shrink
 13. B) Swell and possibly burst
 14. C) Remain unchanged
 15. D) Divide
16. Osmosis is specifically the movement of:
 17. A) Solutes from high to low concentration
 18. B) Water across a semipermeable membrane

- 19. C) Proteins across the membrane
- 20. D) Ions using ATP
- 21. What type of transport uses carrier proteins but no ATP?
- 22. A) Simple diffusion
- 23. B) Facilitated diffusion
- 24. C) Active transport
- 25. D) Endocytosis
- 26. The sodium-potassium pump moves:
- 27. A) Both ions in the same direction
- 28. B) Sodium out and potassium into the cell
- 29. C) Water molecules
- 30. D) Without using ATP
- 31. A cell placed in a hypertonic solution will:
- 32. A) Swell
- 33. B) Shrink
- 34. C) Stay the same
- 35. D) Divide

Part B: Free Response (3 points)

Answer each question in complete sentences.

1. (1 point) Explain why the cell membrane is described as "selectively permeable."

1. (1 point) Compare passive transport and active transport. Include examples of each.

1. (1 point) A patient receives IV fluids. Explain why it is important that the IV solution is isotonic to blood.
