



Cell transport

43 Questions

NAME : _____

CLASS : _____

DATE : _____

1. A balance that an organism maintains by regulating what goes into and out of the cell.

- a) Hypertonic b) Homeostasis
 c) Plasmolysis d) Hypotonic

2. The type of cellular transport that requires no energy.

- a) Active Transport b) Protein Pumps
 c) Passive Transport d) Endocytosis

3. Which of the following modes of cellular transport does NOT require energy?

- a) Facilitated Diffusion b) Protein Pumps
 c) Endocytosis d) Exocytosis

4. The process of engulfing food or liquid particles into the cell.

- a) Osmosis b) Exocytosis
 c) Endocytosis d) Diffusion

5. Which type of cellular transport moves molecules from low concentrations to high concentrations?

- a) Osmosis b) Diffusion
 c) Passive Transport d) Protein Pumps

6. The release of large particles, often waste materials from the inside of the cell to the outside of the cell.

- a) Osmosis b) Exocytosis
 c) Endocytosis d) Diffusion

7. Condition that occurs if too much water leaves the cell and cell collapses.

- a) Plasmolysis b) Osmosis
 c) Cytolysis d) Exocytosis

8. What type of transport involves the movement of water from high to low concentrations?

- a) Diffusion b) Active Transport
 c) Facilitated Diffusion d) Osmosis

9. What type of transport uses transport (channel) proteins to help molecules move from higher to lower concentrations?

- a) Protein Pumps b) Diffusion
 c) Facilitated Diffusion d) Osmosis

10. What type of solution has more solutes and less water than a cell that it contains?

- a) Isotonic b) Hypertonic
 c) Hypotonic d) None of the Above

11. What happens to a plant cell that is placed into a hypotonic solution?

- a) It shrinks b) Plasmolysis
 c) It swells d) Cytolysis

12. What might happen to a freshwater plant that is placed into saltwater?

- a) Cells will swell b) Plasmolysis
 c) Cytolysis d) There will be no change

13. A cell with a 5% salt solution is placed into a beaker with a 10% salt solution. This solution is considered to be _____ to the cell.

- a) Isotonic b) Hypertonic
 c) Hypotonic d) None of the Above

14. A cell with a 5% salt solution is placed into a beaker with a 10% salt solution. What will happen to the cell?

- a) It will shrink b) It will swell
 c) No change d) Cytolysis

15. A cell with a 20% salt solution is placed into a beaker of pure water. What will happen to the cell?

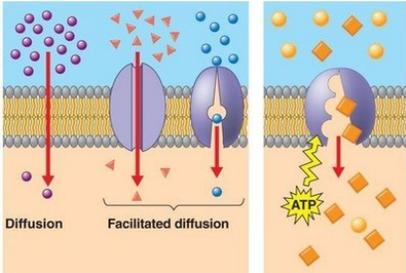
- a) It will shrink b) Plasmolysis
 c) No change d) Cytolysis

16. A cell with a 10% salt solution is placed into a beaker with a 40% salt solution. How will water move?

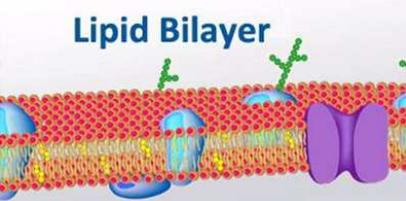
- a) It will leave the cell b) It will enter the cell
 c) It will move in and out equally d) There will be no movement

17. A plant cell with a 20% salt solution is placed into a beaker with a 10% salt solution. What will happen to the plant cell?

- a) Cytolysis b) Plasmolysis
 c) It will shrink d) It will swell

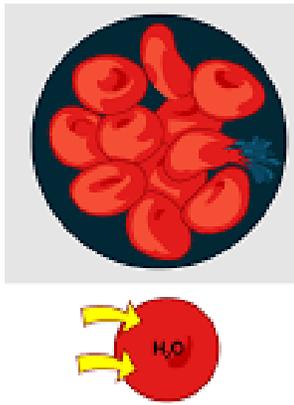
18.  What are the two types of cell transport?

- a) Passive and Active b) Active and Facilitated
 c) Passive and Facilitated d) None of the above

19.  What macromolecule is embedded into the lipid bilayer and helps to transport molecules?

- a) Carbohydrate b) Lipid
 c) Protein d) Nucleic Acid

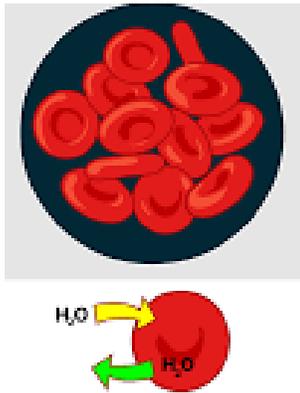
20.



Which describes a hypotonic environment?

- a) Too much water in the cell will cause the cell to burst - the percentage of water is higher outside the cell than inside the cell
- b) Too little water in the cell will cause the cell to shrink - the percentage of water is lower outside the cell than inside the cell
- c) Concentrations of water are equal inside and outside the cell

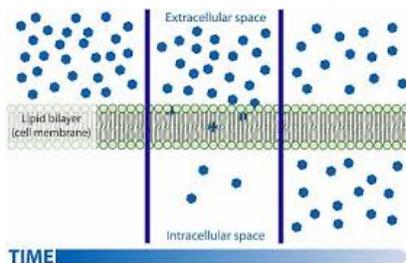
21.



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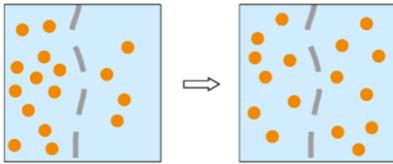
22.



The movement of particles from an area of high concentration to an area of low concentration

- a) active transport
- b) osmosis
- c) diffusion
- d) random movement

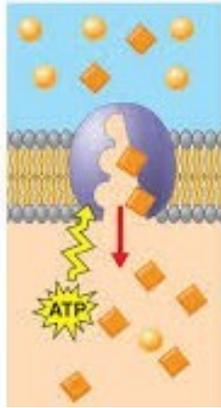
23.



When material passes into and out of a cell at equal rates and there is no difference in concentration between the inside and outside of the cell, the cell is in a state of...

- a) dynamic equilibrium
- b) diffusion
- c) osmosis
- d) active transport

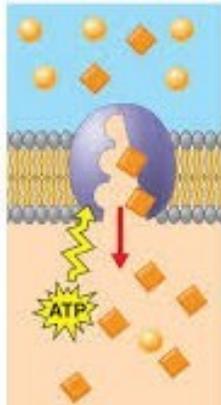
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The movement of materials that requires energy is called...

- a) active transport
- b) passive transport
- c) massive transport
- d) proactive transport

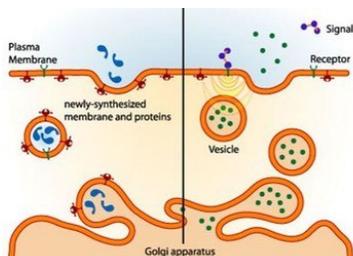
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The movement of materials from an area of low concentration to an area of high concentration would require...

- a) glucose
- b) energy (ATP)
- c) fish
- d) chips

26.

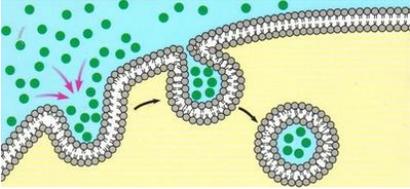


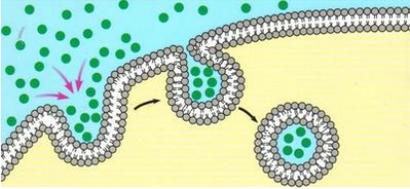
When a cell forms a vesicle around unwanted particles and expels it OUT of the cell.

- a) Pinocytosis
- b) Endocytosis
- c) Receptor-mediated
- d) Exocytosis

27. Molecules using simple diffusion move from

- a) high to low concentrations b) low to high concentrations
- c) no concentrations d) both concentrations

28.  This picture represents what type of cell transport?



- a) endocytosis b) exocytosis
- c) osmosis d) passive transport

29. A membrane that keeps out some molecules but allows others to pass

- a) semi-permeable b) permeable
- c) diffusion d) concentration gradient

30. Which of the following is moved across the plasma membrane by facilitated diffusion?

- a) water b) glucose
- c) carbon dioxide d) oxygen

31. Which of the following can move freely across the plasma membrane without facilitation (help)?

- a) water - polar b) glucose - large & polar
- c) carbon dioxide - non-polar d) oxygen - polar

32. If the environment gets cold, we will often shiver in order to:

- a) keep body temperature the same as the external temperature b) decrease body temperature
- c) increase body temperature d) regulate blood pressure

33. Why is the sensation of thirst important to maintaining homeostasis?

- a) Water removed by the kidneys must be replaced b) Oxygen cannot diffuse into cells if a person is dehydrated
- c) Water molecules are needed to carry carbon dioxide waste to the kidneys

34.



Why does pulse rate increase during exercise?

- a) Oxygen and carbon dioxide must be removed from the body ASAP
- b) Gas exchange must happen more quickly than when a person is at rest
- c) Oxygen must be moved to the lungs and carbon dioxide must be moved to cells more quickly
- d) Carbon dioxide must be moved to the kidneys to be excreted

35. Which of the following is an example of positive feedback?

- a) Thermoregulation
- b) Blood Pressure
- c) Childbirth
- d) Blood Sugar Levels

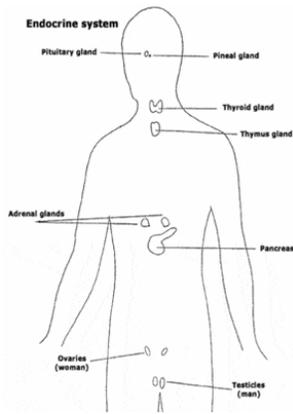
36. When you get cut, your skin cells release hormones that signal platelets to come and stop the bleeding. Platelets then release more hormones that signal even more platelets to help stop bleeding. The hormone signals continue until the cut is closed.

- a) Positive Feedback Response
- b) Negative Feedback Loop

37. Which body system controls the body to maintain homeostasis?

- a) excretory
- b) nervous
- c) circulatory
- d) skeletal

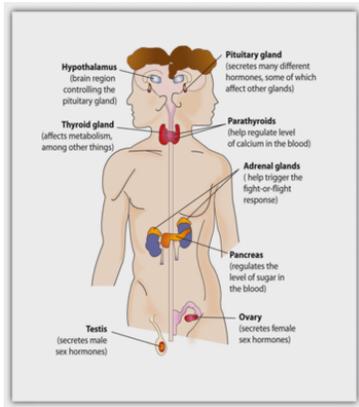
38.



a body system that controls growth and homeostasis by secreting hormones from glands.

- a) skeletal system
- b) nervous system
- c) endocrine sytem
- d) integumentary system

39.



organ of the endocrine system that secretes hormones.

- a) heart
- b) gland
- c) brain
- d) skin

40. chemical made by glands that tell cells to make something or respond in some way.

- a) acid
- b) enzyme
- c) perspiration
- d) hormone

41. Negative Feedback Loops:

- a) amplify processes
- b) prevent small changes from getting larger
- c) are initiated during childbirth
- d) are found only in plants

42.



The graph above shows changes in body temperature of an endotherm with time. Which one of the following accurately describes the regulatory mechanism shown in the graph?

- a) A - Negative feedback
- b) B - Positive feedback
- c) C - Thermoregulation
- d) Both A and C

43. Which best describes the stimulus-response model?

- a) Stimulus -> receptor -> effector -> control center -> response
- b) Stimulus -> receptor -> control centre -> effector -> response
- c) Stimulus -> effector -> control center -> receptor -> response

Answer Key

- | | | | |
|-------|-------|-------|-------|
| 1. b | 12. b | 23. a | 34. b |
| 2. c | 13. b | 24. a | 35. c |
| 3. a | 14. a | 25. b | 36. a |
| 4. c | 15. d | 26. d | 37. b |
| 5. d | 16. a | 27. a | 38. c |
| 6. b | 17. d | 28. a | 39. b |
| 7. a | 18. a | 29. a | 40. d |
| 8. d | 19. c | 30. b | 41. b |
| 9. c | 20. a | 31. c | 42. d |
| 10. b | 21. c | 32. c | 43. b |
| 11. c | 22. c | 33. a | |