

BIOLOGY

NCERT - NCERT Biology(Telugu)

PLASMA MEMBRANE

Medicine Orientated Material

1. Perfume molecules of scent spreads in the room through –

B. Respiration C. Perspiration D. Diffusion **Answer: Watch Video Solution** 2. Energy required for diffusion or osmosis is -A. Potential energy

A. Transpiration

- B. Kinetic energy
- C. Chemical energy
- D. Solar energy



- 3. Movement in stomata is regulated by
 - A. Temperature and humidity
 - B. Soil water content

- C. Wind velocity
- D. All of the above



- **4.** Living flexible membrane is
 - A. Cytoplasm
 - B. Cell wall
 - C. Plasma membrane

D. None

Answer:



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5. Plasma membrane is –

A. A. Selectively permeable

B. B. Impermeable

C. C. Permeable

D. D. All of the above



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- **6.** In Greek, osmos means
 - A. A. Pushing
 - B. B. Pulling
 - C. C. Standing
 - D. D. Moving

7. The major bio molecule responsible for selective uptake of materials across plasma membrane is –

A. A. Carbohydrate

B. B. Protein

C. C.Lipid

D. D. Phospholipid

8. The major interaction responsible for stabilising plasma membrane is –

A. Option1 Hydrophilic interactions

B. Option2 Covalent bonds

C. Option3 Ionic bonds

D. Option4 Hydrophobic interactions



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9. The plasma membrane is impermeable to all molecules except –

A. A. Glucose

B. B. ATP

C. C. Urea

D. D. lipids

Answer:



10. The engulfing or swallowing of large objects by amoebas or white blood cells is called –

- A. A. Exocytosis
- B. B. Pinocytosis
- C. C. Endocytosis
- D. D. Oxytosis

Answer:



11. Movement of substances across the membrane without the use of cellular energy is termed –

A. A. Active transport

B. B. Passive transport

C. C. Carrier transport

D. D. Sodium potassium pump



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12. A beaker is divided into two halves, A & B by a membrane freely permeable to the water but not to glucose. (Side A is filled with a solution of water with 2% glucose, while side B is filled with water and 4% glucose). Which best describes what will happen to this system?

A. Option1 Water will move from A to B

B. Option 2 Water will move from B to A

- C. Option3 Water will move equally in both directions
- D. Option4 Water will move in both directions but mostly from A to B



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13. A solution that contains a higher level of salts than found in cells is said to be –

- A. A. Hypertonic
- B. B. Hypotonic
- C. C. Isotonic
- D. D. Cationic



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14. Unicellular freshwater organisms find themselves in a hypotonic solution in order to

get rid of excess water that diffuses into the cells, these organisms use –

- A. Option1 Plasmolysis
- B. Option2 Turgor
- C. Option3 Cytolysis
- D. Option4 Contractile vacuoles

Answer:



15. The bursting of cells due to osmosis is called –

- A. Option1 Plasmolysis
- B. Option2 Cytolysis
- C. Option3 Hypertonic
- D. Option4 Turgor

Answer:



16. When the process of diffusion reaches an equilibrium state:

A. A. The movement of all molecules stops

B. B. Molecules continue to move but in equal amounts

C. C. A further exchange of molecules ceases

D. D. A hypotonic solution is formed

Answer:



17. A state of biological balance maintained by living organisms is called -

A. A. Phagocytosis

B. B. Osmosis

C. C. Cytolysis

D. D. Homeostasis

Answer:



18. Red blood cells contain (0.9% salt) which of the following solutions would be hypotonic to the blood?

A. 0.09

B. 0.009

C. 0.0009

D. 0.019

Answer:



Exercise

1. Fill in the blanks: The smell of flowers reaches us through the process of ____



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2. Fill in the blanks: The MIC gas of Bhopal tragedy spread throughout the city through the process of ____



3. Fill in the blanks: Water enters into the potato osmometer due to a process called ____



4. Fill in the blanks: The fresh grape wrinkles, if kept in salt water because of _____



5. What do you mean by permeability of membrane? Explain with suitable example.



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6. If the dried vegetables are kept in water, they become fresh. What is the reason?



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7. Name the process by which we can get fresh water from sea water.



8. Explains osmosis with the help of an experiment.



9. What are the functions of plasma membrane?



10. Write about the importance of osmosis to living organisms.



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11. How can be prepare a saturated sugar solution?



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12. What is the nature of plasma membrane?



13. Write about the plasma membrane?



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14. Why does carbon dioxide cannot enter the cell?



15. In your daily life where do you find osmosis? List them out.



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16. What is osmosis?



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17. What is permeability?



18. Define impermeability.



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19. What is the meant by permeable?



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20. What is meant by semi permeable membrane?



21. Define selective permeable membrane?



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22. Define exosmosis.



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23. Define endosmosis.



24. What is desalination?



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25. What is reverse osmosis?



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26. Define diffusion.



27. What does Graham's law state?



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28. The process in which water moves from less concentrated solution to a more concentrated solution is called.

A. Osmosis

B. Diffusion

- C. Root pressure
- D. Semi permeability



- **29.** In Greek, osmos means
 - A. Pulling
 - B. Moving
 - C. Bringing

D. Pushing

Answer:



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30. Nature of the plasma membrane is

A. It allows water to pass through it

B. It allows certain materials dissolved in

water to pass through

C. It will not allow certain materials to pass through it

D. All the above

Answer:



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31. Allowing only certain materials to pass through called

A. Impermeability

- B. Permeability
- C. Selectively permeability
- D. Possessing



- **32.** Plasma membrane is
 - A. Impermeable
 - B. Permeable

- C. Selectively permeable
- D. Rigid



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33. Protoplasm of cell consists of two parts, they are

- A. Nucleus and nucleolus
- B. Cytoplasm and nucleus

- C. Ribosomes and mitochondria
- D. Mitochondria and golgi complex



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34. Plasma membrane is a

- A. a. Living rigid membrane
- B. b. Dead flexible membrane
- C. c. Dead right membrane

D. d. Living flexible membrane

Answer:



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35. Exit of some substances while preventing passage to remaining substances is nature of

A. a. Impermeable

B. b. Permeable

C. c. Selectively permeable

D. d. Rigid

Answer:



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36. _____ Provides definite shape of semi

fluid contents of cell

A. a.Plasma membrane

B. b. Cytoplasm

C. c. Protoplasm

D. d. Nucleus

Answer:



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37. Amoeba acquires its food by

- A. Exocytosis
- B. Cytosis
- C. Endocytosis
- D. Osmosis



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38. The _____ of the plasma membrane enables the cell to engulf food and other substances

- A. Rigidity
- B. Flexibility
- C. Both
- D. None



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39. _____ occurs due to presence of tiny water channels in the plasma membrane.

- A. a. Osmosis
- B. b. Diffusion
- C. c. Cytosis
- D. d. Root pressure



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40. Which of the following is function of plasma membrane?

- A. Cell continuity
- B. Mechanical barrier
- C. Flow of information
- D. All of above



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41. If the substances do not pass through the membrane it is called

- A. Impermeable
- B. Permeable
- C. Semi permeable
- D. Selectively permeable



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42. If the substances, both solute (substance which is dissolved) and solvent (medium in which solute dissolves) can pass readily through the membrane, it is

- A. Impermeable
- B. Permeable
- C. Semi permeable

D. Selectively permeable

Answer:



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43. If the membrane is permeable to solvent but prevents the passage of solutes, it is

A. Impermeable

B. Permeable

C. Semi permeable

D. Selectively permeable

Answer:



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44. If the membrane allows the passage of solvent and some selected solutes, it is

A. Impermeable

B. Permeable

C. Semi permeable

D. Selectively permeable

Answer:



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45. The process in which water molecules leave the cell is called

- A. Exosmosis
- B. Endosmosis
- C. Diffusion

Answer:



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46. The process in which water molecules enters the cell is called

- A. Exosmosis
- B. Endosmosis
- C. Diffusion

Answer:



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47. The egg placed in salt water shrinks the shrinking is due to

A. Exosmosis

B. Endosmosis

C. Diffusion

Answer:



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48. The egg placed in the tap water swells, the swelling is due to

A. Exosmosis

B. Endosmosis

C. Diffusion

Answer:



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49. _____ of the earth is covered with oceans

A. Three fourth

B. Four third

C. Two third

D. One third



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50. Removal of salt from sea water using a semi permeable membrane is

- A. Desalination
- B. Salination
- C. Exosmosis
- D. Endosmosis



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51. The process in which the water moves from salt solution into fresh water leaving the salt behind is known as

- A. Osmosis
- B. Diffusion
- C. Diffusion
- D. Filtration



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52. Desalination was done by

A. Freddie mercury and David bownie

B. Coyle

C. Coyle

D. Freddie

Answer:

53. Which of the following implies to the importance of osmosis?

A. Waters enters the roots

B. Water moves between cells

C. Waste materials are filtered from blood

D. All the above

Answer:



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54. Smell of scent spreads in the entire room because of

A. a. Osmosis

B. b. Diffusion

C. c. Reverse osmosis

D. d. Filtration

Answer:



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