



# BIOLOGY

**BOOKS - VGS PUBLICATION-BRILLIANT**

## **TRANSPORTATION THROUGH PLASMA MEMBRANE**

### **Exercise**

**1. The structure which controls the entry and exit of the materials through the cell is**

- A. Cell wall
- B. Cell membrane
- C. Both
- D. None of them

**Answer:**



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2. Fill in the blanks: The smell of flowers reaches us through the process of \_\_\_\_



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3. Fill in the blanks: The MIC gas of Bhopal tragedy spread throughout the city through the process of \_\_\_\_



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4. Fill in the blanks: Water enters into the potato osmometer due to a process called \_\_\_\_



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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.



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8. What will happen to a marine fish if kept in fresh water aquarium ? Support your answer with reasons.



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**9.** Why do the doctors administer saline only, but not the distilled water ?



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**10.** What will happen if cells do not have ability of permeability ?



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**11.** You have purchased a coconut in the market. By shaking it, you found there is less water in the coconut. Can you fill the coconut with water without making a hole in it?



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**12.** How is diffusion useful in everyday life?



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**13.** Give examples of three daily life activities in which osmosis is involved .



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**14.** Discuss with your friends and write the list of incidences where diffusion occurs.



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**15.** How do you observe the diffusion of coffee powder in water ? Write your findings.



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**16.** Observe the diffusion of potassium permanganate in water. Write your findings.



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**17.** What are the substances required by the cell to perform various functions?



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**18.** In a sugar or salt solution what is the name given to the sugar or salt? What is the water?



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**19.** In osmosis the water always moves towards

....



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**20.** What is selectively permeable?



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**21.** What is endocytosis?



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**22.** What is semipermeable?



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**23.** How can we dissolve the shell of an egg which is made up of calcium carbonate?



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**24.** What is the necessity of osmosis in plants?



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**25.** What is necessity of osmosis in animals?



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**26.** What is diffusion?



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**27.** State Graham's law of diffusion.



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28. On which principles does dialysis machine works ?



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29. Why does the animal cell kept in hypotonic solution burst ? Why not plant cell?



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**30.** How is cool drink prepared ?



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**31.** Which part of the cell is modified to absorb the digested food materials?



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**32.** How do you appreciate the role of plasma membrane in protecting the body form

microorganisms ?



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**33.** You have purchased a coconut in the market. By shaking it, you found there is less water in the coconut. Can you fill the coconut with water without making a hole in it?



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**34.** What happens if cell membranes allow all the substances to pass through it?



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**35.** How is diffusion useful in everyday life ?



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**36.** What is reverse osmosis?



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**37.** How is osmosis useful to human beings?



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**38.** How can you smell different substances when blind folded?



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**39.** What would have happened if william kolft did not invent dialysis machine?



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**40.** Why do we feel thirstier even after drinking cool drink?



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**41.** What is the better food during a journey?



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**42. What is exosmosis ?**



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**43. Define endosmosis.**



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**44.** What happens if red blood cells are placed in distilled water?



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**45.** What is a saturated solution ?



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**46.** What is the principle involved in dialysis?



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**47.** Name the principle involved in air freshners, mosquito repellents that are used in our daily life.



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**48.** What is a hypotonic solution ?



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**49.** What is isotonic solution ?



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**50.** What is hypertonic solution ?



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**51.** What is plasmolysis ?



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**52.** How do substances like  $CO_2$  and water move in and out of the cell?



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**53.** What will happen to the size of the cell if it is placed in such solutions which vary in their concentrations When placed in Hypotonic solution?



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**54.** What will happen to the size of the cell if it is placed in hypertonic solution ?



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**55.** Why does the skin of your finger shrink when you wash your clothes for a long time ?



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56. A person takes concentrated solution of salt. After sometime, he starts vomiting. What is the phenomenon responsible for such solution ?



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57. When you are cooking vegetables generally you add salt to vegetables during cooking. After adding salt, vegetables release wafer. What mechanism is responsible for this ?





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**58.** What is reverse osmosis?



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**59.** What is diffusion? Give example.



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**60.** What does Graham's law state?





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**61.** What is dialysis ? Who constructed dialysis machine ? On which principle does the machine work ?



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**62.** What will be the effect of cool drink on our body ?



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**63.** Why did we feel thirstier, after eating 50 gms of potato chips in journey?



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**64.** Why does carbon dioxide cannot enter the cell?



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**65.** Water enters the root cells from the soil, why? Name the process involved in this.



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**66.** Why do dry apricots placed in salt solution do not swell while they do so when kept in water?



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**67.** What happens to the dry raisins when we put them in plain water for sometime ? What happens if these raisins are now placed in, concentrated solution?



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**68.** What happens if plasma membrane ruptures or breaks?



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**69.** What are the differences between diffusion and osmosis ?



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**70.** What is osmosis ? Explain with example.



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**71.** What is cell membrane? What is its function?







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**72.** Write about the importance of osmosis to living organisms.



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**73.** Plasma membrane is

- A. Permeable
- B. Semipermeable
- C. Selectively permeable

D. All the above

**Answer:**



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**74.** Plasma membrane is present in

A. Only in plants

B. Only in animals

C. Both plants and animals

D. None

**Answer:**



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**75.** Diffusion occurs in this medium.

A. Solids

B. Liquids

C. Gases

D. All

**Answer:**



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76. Osmosis occurs in this medium.

A. Solids

B. Liquids

C. Gases

D. None

**Answer:**



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77. Semipermeable membrane is necessary for

A. Osmosis

B. Diffusion

C. Both osmosis & diffusion

D. None

**Answer:**



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**78.** Identify the solvent.

A. Sugar

B. Salt

C. Water

D. Cytoplasm

**Answer:**



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**79.** Dissolved substance in a solution

A. Solvent

B. Solute

C. Mixture

D. Water

**Answer:**



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**80.** Function of plasma membrane is

A. Providing definite shape to semifluid contents in the cell

B. Osmosis

C. Provides flow of information among the cells

D. All

**Answer:**



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**81.** Scientist who worked on diffusion of gases?

A. Thomas Graham

B. Freddie Mercury

C. David Bowie

D. Bichat

**Answer:**



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82. The smell of perfume spread is because of -

A. Osmosis

B. Diffusion

C. Air

D. Endocytosis

**Answer:**



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**83.** The opening and closing of stomata is due to -

A. Sunlight

B. Osmosis

C. Plasmolysis

D. Endocytosis

**Answer:**



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**84.** Name the process by which  $CO_2, O_2$  move across the cell membrane .

A. Diffusion

B. Osmosis

C. Plasmolysjs

D. None

**Answer:**



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**85.** Plasmolysis occurs due to -

A. Absorption

B. Endosmosis

C. Osmosis

D. Exosmosis

**Answer:**



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**86.** A cell placed in hypotonic solution is will -

A. Shrinks

B. Show plasmolysis

C. Swellup

D. No change in the shape or size

**Answer:**



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**87.** Bulk transport occurs through -

A. Endocytosis

B. Exocytosis

C. Endosmosis

D. Both A & B

**Answer:**



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**88.** Amoeba acquires its food through a process termed as .....

A. Excytosis

B. Endocytosis

C. Plasmolysis

D. Exocytosis and endocytosis both

**Answer:**



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**89.** Example for semipermeable membrane

.....

A. Paper

B. Cloth

C. Egg

D. Plastic

**Answer:**



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90. Water enters into roots through

A. Exosmosis

B. Endocytosis

C. Osmosis

D. Reverse osmosis

**Answer:**



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91. The principle involved in dialysis .....

A. Reverse osmosis

B. Endocytosis

C. Osmosis

D. Diffusion

**Answer:**



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92. Osmosis does not takes place in

- A. Animal cells
- B. Plant cells
- C. Bacterial cells
- D. Dead cells

**Answer:**



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**93.** The raisin wrinkles, if kept in salt water because of -

A. Diffusion

B. Exosmosis

C. Endosmosis

D. Osmosis

**Answer:**



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94. The egg placed in salt water ....

A. Shrinks

B. Swells

C. No change

D. Breaks

**Answer:**



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95. The principle involved in de-salination

A. Diffusion

B. Reverse Osmosis

C. Exosmosis

D. None

**Answer:**



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**96.** If the dried vegetables are kept in water they become

A. Shrink

B. Swell

C. Fresh

D. No change

**Answer:**



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**97.** If a marine fish will kept in fresh water aquarium then it dies because of



A. Osmosis

B. Exosmosis

C. Diffusion

D. Reverse osmosis

**Answer:**



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**98.** What happens if fresh grapes put in salt water ?

A. size increases

B. size decreases

C. no change

D. burst

**Answer:**



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**99.** Coffee powder and  $KMNO_4$  experiments are done to prove

A. Osmosis

B. Reverse, osmosis

C. Exosmosis

D. Diffusion

**Answer:**



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**100.** Shrinking of egg placed in the salt water  
is due to

A. osmosis

B. exosmosis

C. diffusion

D. endosmosis

**Answer:**



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**101.** Swelling of egg placed in the tap water is due to

A. osmosis

B. exosmosis

C. diffusion

D. endosmosis

**Answer:**



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**102.** Bhopal gas tragedy happened due to

A. Osmosis

B. Reverse osmosis

C. Diffusion

D. Exosmosis

**Answer:**



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