

Name of the student: *Date:* 22/09/2020



Protoplasm is the physical basis of life and 90% of this protoplasm is water.

Q. Why is water called fluid of life?

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Imbibition:

Imbibition is a type of diffusion where the water is absorbed by the solid particles called colloids, causing an enormous increase in volume.

- ✓ Water absorption by colloids is known as imbibition. Colloids are hydrophilic in nature.
- ✓ In diffusion, the solid substances are referred to as Imbibants and the imbibed liquid is referred to as imbibate. E.g. the absorption of water by seed or dry wood.
- ✓ As the cell wall and protoplasm are colloidal in nature, absorbing water they become swelled up.

Why is it difficult to close and open the wooden doors in the rainy season?



Ans:

Diffusion:

The process through which the molecules of any substance are spread from the region of its higher concentration to the region of lower concentration is called diffusion.

- ✓ Occurs in liquid, gas and even solids.
- ✓ Do not require water for the movement of particles.
- ✓ Both the molecules of solute and solvent can diffuse.
- ✓ The flow of particles occurs in all the directions.
- ✓ Occurs between the similar and dissimilar types of solutions.
- ✓ The concentration of the diffusion substance equalizes to fill the available space.

Osmosis:

Movement of solvent through a selectively permeable membrane from its higher concentration to its lower concentration is called osmosis.

- ✓ It is limited only to the liquid medium.
- ✓ Requires a semipermeable membrane.
- ✓ Requires water for the movement of particles.
- ✓ Only the solvent molecules can diffuse.
- ✓ The flow of particles occurs only in one direction.
- ✓ Occurs only between similar types of solutions.
- ✓ The concentration of the solvent does not become equal on both sides of the membrane.



Why is osmosis one kind of diffusion?

Ans:

Q. Write five differences between diffusion and osmosis.

Diffusion	Osmosis