

1. Fill in the blanks.

- a. Sugar + Water -: Sugar solution
- b. Solutes like sand, wood, chalk powder, and different types of oil are insoluble in water.
- c. Ghee is an example of immiscible liquids.
- d. This process of insoluble impurities settling down is called sedimentation.
- e. The filter allows the liquid to pass through, but not the impurities.

2. Give two examples of each of the following.

- a. Liquids that dissolve in water.

Alcohol, Vinegar

- b. Solids that dissolve in water.

Salt, Sugar

- c. Liquids other than water that dissolve substances in it.

Alcohol, Acetone

3. Define the following.

- a. Soluble substance

A substance that can dissolve in a solvent to form a solution.

- b. Immiscible liquids

Liquids that do not mix together and form separate layers when combined.

- c. Evaporation

The process by which a liquid changes into vapor upon heating.

4. Answer the following.

- a. Why water is called a universal solvent?

Water is called a universal solvent because it can dissolve a wide variety of substances.

b. Describe the process of decantation.

Decantation is a process of separating liquid from solid impurities by gently pouring the liquid.

c. State an example of filtration from your daily life.

Using a strainer to separate tea leaves from tea.

d. Which method of separation is useful in separating salt from seawater?

Evaporation.

e. Can a clear solution be coloured? If yes, give an example.

Yes, a clear solution can be coloured, e.g., sugar dissolved in water with food coloring.

f. How is solvent different from solution?

A solvent is a substance that dissolves a solute to form a solution, while a solution is the mixture of solvent and solute.