



## Water Solution

### A. Choose the Correct Answer:

**1. What is a solution made of?**

- a) Only water
- b) Water and salt or sugar
- c) Only air
- d) Only solid materials

**2. Which of the following will dissolve in water?**

- a) Sand
- b) Sugar
- c) Stone
- d) Plastic

**3. What happens when you mix salt with water?**

- a) The salt disappears completely
- b) The water turns into ice
- c) The salt floats on water
- d) The water evaporates immediately

**4. Which of these is an example of a solution?**

- a) Water and oil
- b) Water and stones
- c) Sugar dissolved in water
- d) A pile of sand and salt

**5. What do we call a substance that dissolves in water?**

- a) Insoluble
- b) Heavy
- c) Soluble
- d) Liquid

### B. Fill in the Blanks:

1. When sugar is mixed with water, it \_\_\_\_\_ in the water.
2. A \_\_\_\_\_ is formed when one substance dissolves in another.
3. Saltwater is an example of a \_\_\_\_\_.
4. Some materials, like sand, do not dissolve in water. They are called \_\_\_\_\_ substances.
5. The process of a substance mixing evenly in water is called \_\_\_\_\_.

### C. Case Study:

Riya wanted to see what happens when different substances are mixed with water. She took three glasses of water and added different items:

- **Glass 1:** Sugar – it dissolved quickly.
- **Glass 2:** Sand – it settled at the bottom.

- 
- **Glass 3:** Salt – it disappeared into the water, making it salty.

Riya noticed that some substances dissolved in water, while others did not.

**Case Study Questions:**

1. What happened to the sugar in Glass 1?
2. Why did the sand in Glass 2 not dissolve?
3. What kind of solution was formed in Glass 3?
4. Based on Riya's experiment, what is the difference between soluble and insoluble substances?

**D. Short Answer Questions:**

1. What is a solution?
2. Name two substances that dissolve easily in water.
3. Why does salt disappear when mixed with water?

**E. Long Answer Questions:**

1. Explain the difference between soluble and insoluble substances with examples.
2. Describe how you can make a lemonade solution at home and explain the process.
3. What are some uses of water solutions in daily life? Give three examples.