



## Air and its Components

### A. Choose the Correct Answer:

1. What is the most abundant gas in the air?

- A) Oxygen
- B) Nitrogen
- C) Carbon dioxide
- D) Hydrogen

2. Which gas in the air is essential for breathing?

- A) Oxygen
- B) Nitrogen
- C) Argon
- D) Helium

3. Which of the following is a property of air?

- A) Air has no weight
- B) Air is invisible but has mass
- C) Air cannot be compressed
- D) Air does not occupy space

### B. Fill in the Blanks:

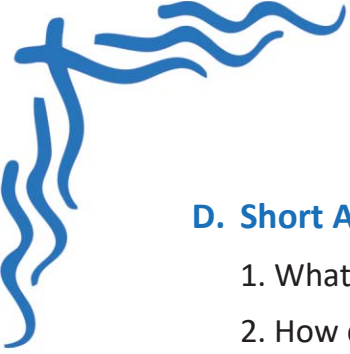
1. The air around us is made up of different \_\_\_\_\_.
2. The gas essential for burning is \_\_\_\_\_.
3. Plants take in \_\_\_\_\_ gas and release \_\_\_\_\_ gas during photosynthesis.

### C. Case Study:

- A group of students conducted an experiment to understand the presence of air. They took a glass and placed it upside down in a tub filled with water. They observed that the water did not enter the glass immediately. When they tilted the glass slightly, bubbles started coming out, and water replaced the empty space.

#### Case Study Questions:

1. What does this experiment prove about air?
2. Why did bubbles come out when the glass was tilted?
3. How can you show that air occupies space using another experiment?
4. Why is it important to know that air is present all around us?



#### **D. Short Answer Questions:**

1. What are the main components of air?
2. How does air help in burning?
3. Why do living things need oxygen?

#### **E. Long Answer Questions:**

1. Explain the composition of air and the role of each component.
2. Describe an experiment to prove that air occupies space.
3. Why is oxygen important for animals and plants, and how do they use it?