Atmospheric Pressure

A. Choose the correct answer:

1. What is atmospheric pressure?

(a) Pressure exerted by ocean currents

(b) Pressure exerted by the Earth's crust

(c) Pressure exerted by the weight of air in the atmosphere

(d) Pressure due to temperature difference

2. Which instrument is used to measure atmospheric pressure?

(a) Thermometer

(b) Barometer

(c) Hygrometer

(d) Anemometer

3. Atmospheric pressure _____ with altitude.

(a) Increases

(b) Remains the same

(c) Decreases

(d) First increases then decreases

B. Fill in the Blanks:

1. Atmospheric pressure is caused by the _____ of air above the Earth's surface.

2. The SI unit of pressure is _____.

3. A _____ is used to measure atmospheric pressure.

C. Case Study:

At a mountain camp, Rohan and his friends noticed that packets of chips looked puffed up. Their science teacher explained it was due to the difference in air pressure at high altitudes. They also observed it was slightly harder to breathe.

Case Study Questions:

1. Why did the chips packet puff up at the mountain camp?

2. What happens to atmospheric pressure as we go higher above sea level?

3. Why do people find it harder to breathe at high altitudes?

4. What real-life example shows that atmospheric pressure acts on all objects?

D. Short Answer Questions:

1. What is atmospheric pressure?
2. How does atmospheric pressure affect objects on Earth?
3. Why don’t we feel atmospheric pressure acting on our bodies?

E. Long Answer Questions:

1. Describe what atmospheric pressure is and how it can be measured.
2. Explain with examples how atmospheric pressure changes with height and its effects.
3. Discuss the importance of atmospheric pressure in weather forecasting and daily life.