

Chapter 4 – Air

1. Answer the following questions.

(i) What is the atmosphere?

Answer: The blanket of air surrounding the earth is called the atmosphere. The atmosphere primarily comprises of nitrogen and oxygen in bulk and other gases like carbon dioxide, helium, ozone, etc in lesser quantity. All living beings on earth depend on the atmosphere for their survival.

(ii) Which two gases make the bulk of the atmosphere?

Answer: The two gases that make the bulk of the atmosphere are:

1. Oxygen (21%)
2. Nitrogen (78%)

(iii) Which gas creates a greenhouse effect in the atmosphere?

Answer: Carbon dioxide is the gas that creates the greenhouse effect in the atmosphere.

(iv) What is the weather?

Answer: The hour to hour or the day to day condition of the atmosphere is called weather. Weather can change dramatically from day-to-day. It may be classified as hot, dry, cold or wet.

(v) Name three types of rainfall?

Answer: The three types of rainfall are as follows:

1. Convictional rainfall
2. Orographic rainfall
3. Cyclonic rainfall

(vi) What is air pressure?

Answer: Air pressure is defined as the pressure exerted by the weight of air on the earth's surface. The air pressure decreases as height increases and is the highest at the sea level.

2. Tick the correct answer.

(i) Which of the following gases protects us from harmful sun rays?

- (a) Carbon dioxide
- (b) Nitrogen
- (c) Ozone

Answer: c

(ii) The most important layer of the atmosphere is

- (a) Troposphere
- (b) Thermosphere
- (c) Mesosphere

Answer: a

(iii) Which of the following layers of the atmosphere is free from clouds?

- (a) Troposphere

(b) Stratosphere

(c) Mesosphere

Answer: b

(iv) As we go up the layers of the atmosphere, the pressure

(a) Increases

(b) Decreases

(c) Remains the same

Answer: b

(v) When precipitation comes down to the earth in the liquid form, it is called

(a) Cloud

(b) Rain

(c) Snow

Answer: b

3. Match the following.

(i) Trade Winds	(a) Incoming solar energy
(ii) Loo	(b) Seasonal wind
(iii) Monsoon	(c) The horizontal movement of Air
(iv) Wind	(d) A layer of ozone gas
	(e) Permanent wind
	(f) Local wind

Answer:

(i) Trade Winds	(e) Permanent wind
(ii) Loo	(f) Local wind
(iii) Monsoon	(b) Seasonal wind
(iv) Wind	(c) The horizontal movement of Air

4. Give reasons.

(i) Wet clothes take longer time to dry on a humid day?

Answer: Wet clothes take longer time to dry on a humid day because the amount of water in the air is more on a humid day than on a sunny day due to which the rate of evaporation decreases and air soaks in less water from the clothes.

(ii) Amount of insolation decreases from the equator towards poles?

Answer: Insolation is the incoming solar energy intercepted by the earth. Amount of insolation decreases from the equator toward poles because sun rays fall vertically on the equator and, slanting on the poles.

