

**Extra Questions****SHORT ANSWER TYPE QUESTIONS**

Q.1 Give an account of the composition of the atmosphere.

Ans. Our atmosphere is composed of mainly two gases—nitrogen (78%) and oxygen (21%). Other gases like carbon dioxide, helium, ozone, argon and hydrogen are found in lesser quantities. Apart from these gases, tiny dust particles are also present in the air.

Q.2 How do Bacteria help plants use nitrogen? [V. Imp.]

Ans. Nitrogen is essential for the survival of the plant. But plants cannot take nitrogen directly from the air. Bacteria, that live in the soil and roots of some plants, take nitrogen from the air and change its form so that plants can use it.

Q.3 Why is temperature in cities much higher than that of villages ?

Ans. In cities, we find high rise buildings. The concrete and metals in these buildings and the asphalt of roads get heated up during the day. This heat is released during the night.

Another reason is that the crowded high rise buildings of the cities trap the warm air and thus raise the temperature of the cities.

Q.4 Write a short note on the distribution of air pressure in the atmosphere.

Ans:

- Air pressure is the pressure exerted by the weight of air on the earth's surface. As we go up the layers of the atmosphere, the pressure falls rapidly. The air pressure is highest at the sea level and decreases with height.
- Horizontally the distribution of air pressure is influenced by the temperature of the air at a given place.
- In areas where the temperature is high the air gets heated and rises. This creates a low-pressure area. In areas having lower temperature, the air is cold, hence, it is heavy. Heavy air sinks and creates a high-pressure area.

Q.5 Why do astronauts wear special protective suits when they go to the moon?

Ans. Astronauts wear special protective space suits filled with air when they go to the moon. If they did not wear these space suits, the counter pressure exerted by the body of the astronauts would make the blood vessels burst. The astronauts would bleed.

Q.6 How is rainfall important for us? What happens when there is excess rain?

Ans. Rainfall is very important for the survival of plants and animals. It brings fresh water to the earth's surface. If rainfall is less, there is water scarcity which sometimes causes drought like situation. If there is excess rain, floods take place which makes the life of the affected people miserable.

## LONG ANSWER TYPE QUESTIONS

Q.1 What is wind? Mention its different types.

Ans. The wind is the movement of air from the high-pressure areas to low-pressure areas. It is divided into three types:

Permanent winds

Seasonal winds

Local winds

1. Permanent winds. The trade winds, westerlies, and easterlies are the permanent winds. These blow constantly throughout the year in a particular direction.
2. Seasonal winds. These winds change their direction in different seasons. For example monsoons in India.
3. Local winds. These winds blow only during a particular period of the day or year in a small area. For example land and sea breeze. Loo is a local wind which hot and dry and blows in the northern plains of India during summers.