

major sources of greenhouse gases and also result in diseases among individual.

* Agricultural Activities

Ammonia is one of the most hazardous gases emitted during agricultural activities. The insecticides, pesticides and fertilizers emit harmful chemicals in the atmosphere and contaminated it.

* Factories and Industries

Factories and industries are the main source of carbon monoxide, organic compounds, hydrocarbons and chemicals. These are released into the air, degrading its quality.

Exercise - II

Q1. Name the processes which maintain the balance between oxygen and carbon dioxide in air. How is it done?

Ans. Respiration and combustion are the processes which maintain the balance between oxygen and CO_2 in air.

1. Respiration - Respiration is a chemical process that takes place in all living being. In this process, oxygen present in the inhaled air reacts with the digested

food materials in the body. This results in the release of energy, carbon dioxide and water.

2. Combustion - Burning or Combustion is a process in which a substance reacts chemically with oxygen and gets oxidised, with the release of energy in the form of heat and light. It is a fast process. During the process of burning, along with energy, carbon dioxide and water vapour are also produced.

Q7 State two similarities and two differences between respiration and burning.

Ans Similarities -

→ Like Burning

- i) Oxygen is needed to combine with carbon and hydrogen to form compound.
- ii) CO_2 and H_2O are formed with release of energy.

Respiration

- i) Oxygen is needed to combine with carbon and hydrogen of food.
- ii) CO_2 and H_2O are formed with release of energy.

Differences

→ Burning

- i) It is a fast process.
- ii) A natural and continuous process.

Respiration

1. It is a slow process.
3. An artificial and discontinuous process.

Q1 Define rusting? What are two necessary conditions for rusting of iron. Give the chemical name of rust.

Ans Rusting - Slow conversion of iron into its hydrated oxide in the presence of moisture and air is called rusting.

Conditions necessary for rusting:

1. Presence of moisture (H_2O) (water).
2. Presence of oxygen (O_2) (air).

Chemical name of rust is hydrated iron oxide.

Q9 How is air useful to:

a) Water boats.

Ans Air helps movement of water boats.

b) Agriculture.

Ans - Air speeds up drying up of agricultural products like grain, pulses etc. Air helps in pollination of flowers and dispersal of seed.

c) Windmills.

Ans Windmills work where there is sufficient movement of air.

d) Scooters and cars?

Ans Air filled tyres of cars and scooters move smoothly on road as there is less friction.

Q10 State the full form of LPG and CNG? How are the two different in their composition.

ans The full form of LPG is liquefied petroleum gas. Its composition is, it mainly contains gaseous compounds known as isobutane and butane. It is obtained from crude petroleum oil.

The full form of CNG is compressed natural gas. It is produced along crude oil. It mainly contains methane gas.

Q11 Why is nitrogen important to all living beings?

ans Nitrogen constitutes 78% of air by volume. It is of vital importance to the plants, animal and human beings as it is needed to prepare vital nutrient 'protein' which every living needs for its growth.

Q12 What is nitrogen fixation.

Nitrogen fixation is the process by which free nitrogen of air is converted into nitrogen compounds like nitrites and nitrates which are useful plant nutrients to produce proteins.