

11/10/21
ans) 1) Two processes supported by oxygen present in air are:
1- Combustion
2- Respiration

ans) 2) a) Oxygen: For respiration and breathing no life is possible without oxygen. Oxygen is the most vital component which is responsible for two most important processes.

i) Respiration

ii) Combustion.

b) Nitrogen: Present in air gets fixed up in the soil as nitrates used by plants for their growth and for the formation of protein an important nutrient for animals. It is used to make fertilizers and various nitrogenous products.

c) Carbon dioxide: Carbon dioxide is used by plants to prepare their food by photosynthesis. Dry ice (solid carbon dioxide) is used by plants to refrigerant. Carbon dioxide is used to prepare fizzy drinks like soda water.

d) Water vapour: Water vapour present in air provides moisture for both plants and animals. It also helps in predicting climatic conditions of a particular area as its amount varies from place to place and time to time.

3a) Respiration: It is a chemical process that takes place in all living beings (slow in plants). In this process, oxygen present in inhaled air reacts with the digested food material in the body. This results in release of energy, carbon-dioxide and water. $\text{Sugar} + \text{Oxygen} \rightarrow \text{CO}_2 + \text{Water} + \text{Energy}$

b) Photosynthesis: Process of producing food by green plants taking CO_2 from air, water from air, water from soil by roots and in presence of sun light and chlorophyll is called photosynthesis.

c) Combustion: Combustion also called burning "is burning of substance in oxygen of air completely producing heat and light is called combustion."

4) Fuels: The substances which burn in air to produce large amount of energy in form of heat and light are called fuels.

Ex:

- 1- CNG (Compressed natural gas)
- 2- LPG (Liquified natural gas).

5) a) Aquatic animals and plants use oxygen dissolved in water and survive.

b) Oxygen is necessary for combustion when covered with a glass tumbler supply of oxygen stops.