

(1)

Q → Why does life not exist on Venus and Mars while it exists on Earth?

Ans → The major component of the atmosphere on Venus and Mars is  $\text{CO}_2$  (95-97%). So no life is known to exist on these planets as  $\text{O}_2$  is necessary for supporting. On other hand, the atmosphere on Earth has life supporting gases like Nitrogen, oxygen,  $\text{CO}_2$  and water-vapour, apart from that, water is also present only on Earth.

Q → All living organisms are basically made-up of C, N, S, P, H and O. How do they enter the living forms? Discuss.

Ans → Plants take up C and H by the process of photosynthesis and the rest of the minerals are absorbed from the soil. Consumers take in O and H by the process of respiration and rest of the minerals are taken via food.

Q → You have seen weather reports on Television and in newspapers. How do you think we are able to predict the weather?

Ans → weather prediction can be done on the basis of speed and direction of wind, which in turn help in predicting rainfall patterns and cloud formation.

2

Q → How is our atmosphere different from the atmosphere on Venus and Mars?

Ans → Our atmosphere consists of a mixture of many gases like oxygen, nitrogen, carbon dioxide and water vapour which are life supporting whereas the atmosphere of Venus and Mars contains 95-97% carbon dioxide and life supporting gases are not present.

Q → How does the atmosphere act as a blanket?

Ans → The atmosphere prevents the sudden increase in temperature during the daylight hours and slows down the escape of heat into outer space during the night. This is because air is a bad conductor of heat and our atmosphere mainly contains air. Thus, the atmosphere mainly keeps the average temperature of Earth fairly steady.

Q → What causes winds?

Ans. winds are caused due to unequal heating of atmospheric air in different regions of the Earth. After heating air rises, a region of low pressure is created, further rushing of air is from high pressure area to low pressure area. This way wind is produced.

Q

Q → How are clouds formed?

3

Ans! - A large amount of water from various bodies evaporates and goes into the air, heating it. The hot air containing the water vapour rises up. As it rises, it starts cooling causing the water-vapour to condense to form tiny droplets. These droplets condense to grow bigger size and form clouds.

Q → List any three human activities that you think would lead to air pollution.

Ans → Human activities that would lead to air pollution are :-

- (i) Excessive burning of fossil fuels like coal and petroleum.
- (ii) Deforestation, which would increase the amount of  $\text{CO}_2$ .
- (iii) Smoke from industries and automobiles.

Q → What are harmful effects of ozone?

Ans → Harmful effects of ozone are following: -

- (i) Inhaling ozone causes dryness dryness of mucous membrane of mouth, throat and nose.
- (ii) It changes visual activities.
- (iii) Causes headache and pulmonary disorders.
- (iv) It harms crops, leafy vegetables, fruits and forest trees.