

HOTS (Higher Order Thinking Skills)

Q.1. Describe the composition of biosphere.

Ans.

- i. The word 'biosphere' has been derived from the Greek word 'bio' which means 'life'.
- ii. The narrow zone of contact between the land, water and air is biosphere.
- iii. It is in this zone that life, which is unique to the Earth, exists.
- iv. There are several species of organism that vary in size from minute bacteria to huge mammals like whale.
- v. All the living organisms including humans are linked to each other in the biosphere for survival.

Q.2. Examine the composition of atmosphere.

Ans.

- i. The atmosphere is composed mainly of nitrogen and oxygen, which make up about 99 per cent of clean, dry air.
- ii. Nitrogen 78 per cent, oxygen 21 per cent and other gases like carbon dioxide, argon and others comprise 1 per cent.
- iii. Oxygen is the life-giving gas, nitrogen helps in the growth of living organisms.
- iv. Carbon dioxide is important as it absorbs heat radiated by earth, thereby keeping the planet warm.

Q.3. How does atmospheric pressure affect us?

Ans.

- i. The density of the atmosphere varies with height.
- ii. It is maximum at the sea level and decrease rapidly as we go up.
- iii. The temperature also decreases as we go upwards.
- iv. The atmosphere exerts pressure on the earth.
- v. This varies from place to place.
- vi. Some areas experience high pressure and some areas low pressure.
- vii. Air moves from high pressure to low pressure.