



when nitrates mix with iron in red blood cells, leaving the blood unable to transport oxygen to the body's cells.

Reference: Shankar ias.

Q.66) Ans: D

Exp:

Abiotic factors

- The **biotic factors** refer to all the living beings present in an ecosystem and the **abiotic factor** is a non- living part of an ecosystem that shapes its environment.
- **Temperature** is the most important ecologically relevant environmental factor. It ranges from sub-zero levels in polar areas and high altitudes to >500C in tropical deserts in summer. There are, however, unique habitats such as thermal springs and deep-sea hydrothermal vents where average temperatures exceed 100 Degree C. The significance of temperature to living organisms is that it affects the kinetics of enzymes and through it the metabolic activity and other physiological functions of the organism.
- **Water** is another important factor influencing the life of organisms. In fact, life on earth originated in water and is unsustainable without water. Its availability is so limited in deserts that only special adaptations make it possible for organisms to live there. The **productivity and distribution of plants is also heavily dependent on water**.
- **Plants** produce food through **photosynthesis**, a **process which is only possible** when **sunlight** is available as a source of energy. Many species of small plants (herbs and shrubs) growing in forests are adapted to photosynthesis optimally under very low light conditions because they are constantly overshadowed by tall, canopied trees. **Many plants** are also dependent on **sunlight to meet their photoperiodic requirement for flowering**.

Reference: Shankar ias.

Q.67) Ans: C

Exp:

Kigali Amendment to the Montreal Protocol

- Under the agreement, **developed countries will reduce HFC emissions** use first, followed by a group of Article 5 **countries including China**. India and nine other countries in South and West Asia will follow suit. Overall, the agreement is expected to **reduce HFC use by 85 per cent by 2045**.
- **Statement 1 is incorrect:** Countries are divided into three groups, as per their phase-down schedules to freeze and reduce the production of HFCs. The developed countries, led by the **US and Europe, will reduce HFC use by 85 per cent by 2036** over a 2011-13 baseline. **China**, which is the largest producer of HFCs in the world, will **reduce HFC use by 80 per cent by 2045** over the 2020-22 baseline. **India will reduce the use of HFCs by 85 per cent over the 2024-26 baseline**. The amendment also increases funding support to developing countries. In addition to their phase-down deadlines, developed nations have agreed to cut 70 percent of their HFC use by 2029.
- **Statement 2 is correct:** The **Agreement upholds the principle of Common but Differentiated Responsibilities and Respective Capabilities**. The agreement recognises the development imperatives of high-growth economies like India and provides a realistic and viable roadmap for the implementation of a phase-out schedule.
- **Statement 3 is incorrect:** The **Kigali Amendment to the Montreal Protocol came into force on 1 January 2019**. The threshold for the agreement to **enter into force was met on 17 November 2017**, when it was **ratified by 20 parties**.

Reference:

<https://indianexpress.com/article/india/india-decides->