OZONE LAYER - FULL MIND MAP

Topic-wise | Hinglish | SSC / BPSC / BSSC / Railway

Topics in this chapter:

1. Ozone Formation & Stratospheric Chemistry

- O3 - stratospheric ozone natural roop se tab banti hai jab Sun ka UV radiation oxygen anuon (O_2) ko todakar oxygen atoms banata hai; ye atoms O_2 se milakar ozone (O_3) banate hain. [Q1]

2. Location of the Ozone Layer

- atmosphere ki zyadatar ozone stratosphere mein kendrit hai aur ozone layer Earth ki surface se lagbhag 15-40 kimi ki unchai par located hoti hai. stratospheric ozone Sun ke UV-C radiation ko puri tarah aur zyadatar UV-B radiation ko absorbed kar satahi life ki protection karti hai. [Q2]

3. UV Absorption & Protective Role

- Ultraviolet - stratospheric ozone khas roop se important hai kyunki yeh Sun ke UV-C radiation ko puri tarah aur zyadatar UV-B radiation ko absorbed karti hai. yeh protection DNA damage, tvacha kainsar aur ecosystems ko hone wali damage jaise biotic prabhavon ko kam karti hai. [Q3]
- Ultraviolet rays - stratospheric ozone khas roop se important hai kyunki yeh Sun ke UV-C radiation ko puri tarah aur zyadatar UV-B radiation ko absorbed karti hai. yeh protection DNA damage, tvacha kainsar aur ecosystems ko hone wali damage jaise biotic prabhavon ko kam karti hai. [Q4]
- Ultraviolet rays - stratospheric ozone khas roop se important hai kyunki yeh Sun ke UV-C radiation ko puri tarah aur zyadatar UV-B radiation ko absorbed karti hai. yeh protection DNA damage, tvacha kainsar aur ecosystems ko hone wali damage jaise biotic prabhavon ko kam karti hai. [Q5]
- Provides safety to life on earth from ultraviolet radiation - stratospheric ozone khas roop se important hai kyunki yeh Sun ke UV-C radiation ko puri tarah aur zyadatar UV-B radiation ko absorbed karti hai. yeh protection DNA damage, tvacha kainsar aur ecosystems ko hone wali damage jaise biotic prabhavon ko kam karti hai. [Q6]
- It prevents the Sun’s ultraviolet rays from reaching the Earth. - stratospheric ozone khas roop se important hai kyunki yeh Sun ke UV-C radiation ko puri tarah aur zyadatar UV-B radiation ko absorbed karti hai. yeh protection DNA damage, tvacha kainsar aur ecosystems ko hone wali damage jaise biotic prabhavon ko kam karti hai. [Q7]
- statement 1 sahi hai: stratospheric ozone Sun ke harmful UV radiation ko Earth ki surface tak pahunchane se bahut had tak rokati hai. statement 2 bhi sahi hai: chlorofluorocarbon (CFCs) stratosphere mein chlorine free karte hain aur main ozone-depleting substance hain. [Q8]

4. Atmospheric Layer / Pair-Based Questions

- Galat kathan: Ozone layer-Troposphere; ozone layer mainly stratosphere mein located hoti hai, troposphere mein nahin. sawal ke context mein dusre diye gaye pair standard roop se sahi sanbaddhataen hain. [Q9]
- atmosphere ki zyadatar ozone stratosphere mein kendrit hai aur ozone layer Earth ki surface se lagbhag 15-40 kimi ki unchai par located hoti hai. stratospheric ozone Sun ke UV-C radiation ko puri tarah aur zyadatar UV-B radiation ko absorbed kar satahi life ki protection karti hai. [Q10]
- atmosphere ki zyadatar ozone stratosphere mein kendrit hai aur ozone layer Earth ki surface se lagbhag 15-40 kimi ki unchai par located hoti hai. stratospheric ozone Sun ke UV-C radiation ko puri tarah aur zyadatar UV-B radiation ko absorbed kar satahi life ki protection karti hai. [Q11]

5. Ozone Thickness & Maximum Concentration

- Dobson units - total stanbhiy ozone ko paranparagat roop se dobasan ikai (DU) mein mapa jata hai. ek dobasan ikai standard tap aur dab par sanpidit shuddh ozone ki 0.01 mimi motai ke barabar hota hai. [Q12]
- 20 km. - ozone layer widespread roop se lower aur madhy stratosphere mein phaili hoti hai, jabki ozone ki sabse zyada concentration aam taur par lagbhag 20-25 kimi ki unchai ke asapas payi jati hai. diye gaye options mein 20 kimi sabse paas sahi man hai. [Q13]
- atmosphere ki zyadatar ozone stratosphere mein kendrit hai aur ozone layer Earth ki surface se lagbhag 15-40 kimi ki unchai par located hoti hai. stratospheric ozone Sun ke UV-C radiation ko puri tarah aur zyadatar UV-B radiation ko absorbed kar satahi life ki protection karti hai. [Q14]
- atmosphere ki zyadatar ozone stratosphere mein kendrit hai aur ozone layer Earth ki surface se lagbhag 15-40 kimi ki unchai par located hoti hai. stratospheric ozone Sun ke UV-C radiation ko puri tarah aur zyadatar UV-B radiation ko absorbed kar satahi life ki protection karti hai. [Q15]

6. Atmospheric Layer Basics

- troposphere atmosphere ki sabse nichali parat hai aur Earth ki surface se shuru hoti hai. iski upari limit akshansh aur ritu ke ke mutabik badalati hai; aam taur par ushnakatibandh mein zyada aur dhruvon ke paas kam unchai par hoti hai. [Q16]
- Galat kathan: Ionosphere; paranparagat chemical-sanrachana based classification mein samamandal (Homosphere) atmosphere ka achchhi tarah mishrit nichala hissa hai, jismein troposphere, stratosphere aur madhyamandal shamil mane jate hain. ayanamandal ka nirdharan saman chemical sanrachana se nahi balki ayanikaran ke basis par hota hai aur yeh madhyamandal aur tapamandal ke kuchh bhagon par adhyaropit hota hai. [Q17]

7. Natural Regulation of Stratospheric Ozone

- Nitrogen dioxide - stratospheric ozone ka level photochemical construction aur anek natural vinashakari reactions ke balance se niyantrit hota hai. pratikriyashil nitrogen oxides ozone-decomposition ke catalytic chakron mein hissa lete hain; nitrogen daioksaid (NO_2), NO/NO_2 cycle ka ek sadasy hai. [Q18]