

OZONE LAYER DEPLETION - FULL MIND MAP

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

Topics in this chapter:

1. CFCs - Properties, Sources & Ozone Damage
2. Ozone Hole - Major Causes
3. Non-Ozone-Depleting / Exception Questions
4. Uses of CFCs
5. Why the Antarctic Ozone Hole Forms
6. Refrigerant Gas - Source-Key Trap

1. CFCs - Properties, Sources & Ozone Damage

- Galat kathan: Is not responsible for the greenhouse effect; chlorofluorocarbon (CFCs) mein carbon, chlorine aur phlorin hote hain; CFC ki basic sanrachana mein oxygen shamil nahi hoti. CFCs ka widespread use rephrijarent ke roop mein hua aur ve lower atmosphere mein bahut stable rahate hain. [Q1]

EXAM TRAP is matching sawal mein ekamatr fixed galat pair nahi banata. thermal power production se carbon dioxide nikalati hai aur int-bhatthon se sulfur dioxide ka emissions ho sakta hai. CFC-12 ka historic roop se motar-vahan vatanukulan systems mein use hua tha, isliye "CFC - Automobile" ek vaidh historic relation ho sakta hai. [Q2]

2. Ozone Hole - Major Causes

- chlorofluorocarbon (CFCs) long-lived ozone-depleting substance hain, jo lower atmosphere mein stable rehkar stratosphere tak pahunch sakte hain. wahan strong UV radiation unhe todata hai aur free chlorine atoms catalytic reactions dwara ozone ko destroy karte hain. [Q3]
- Chlorofluorocarbons - chlorofluorocarbon (CFCs) long-lived ozone-depleting substance hain, jo lower atmosphere mein stable rehkar stratosphere tak pahunch sakte hain. wahan strong UV radiation unhe todata hai aur free chlorine atoms catalytic reactions dwara ozone ko destroy karte hain. [Q4]
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- Chlorofluorocarbons - chlorofluorocarbon (CFCs) long-lived ozone-depleting substance hain, jo lower atmosphere mein stable rehkar stratosphere tak pahunch sakte hain. wahan strong UV radiation unhe todata hai aur free chlorine atoms catalytic reactions dwara ozone ko destroy karte hain. [Q8]

- Chlorofluorocarbons - chlorofluorocarbon (CFCs) long-lived ozone-depleting substance hain, jo lower atmosphere mein stable rehkar stratosphere tak pahunch sakte hain. wahan strong UV radiation unhe todata hai aur free chlorine atoms catalytic reactions dwara ozone ko destroy karte hain. [Q9]

3. Non-Ozone-Depleting / Exception Questions

EXAM TRAP CFC-12, methyl klorophorm (1,1,1-trichloroethane) aur Halon-1211 sabhi many ozone-depleting substance ya niyantrit ozone-depleting rasayan hain. nitrous oxide (N_2O) ko Montreal Protocol ke tahat ODS ke roop mein niyantrit nahi kiya gaya hai, lekin stratospheric rasayan mein yeh pratikriyashil nitrogen ka important source hai jo ozone ko destroy kar sakta hai. is type listed har ek substance kisi na kisi scientific roop se prasangik meaning mein ozone-kshay mein contribution de sakta hai. [Q10]

EXAM TRAP sawal ki shabdavali scientific roop se trutipurn hai kyunki rakshak ozone layer mainly stratosphere mein hoti hai, jabki kshobhamandaliy ozone ek pollutant hai jo mainly nitrogen oxides aur volatile organic compounds ki suryaprakash-prerit reactions se banti hai. carbon monoxide ko aam taur par direct greenhouse gas nahi mana jata, halanki yeh atmospheric rasayan ko prabhavit kar sakti hai. methane, water vapour aur nitrogen oxides bhi ozone rasayan par jatil apratyaksh effect dalate hain aur sawal ke saral statement mein thick se phit nahi hote. [Q11]

- sabse strong avarti ozone-chhidr kshay dakshini golardh ke vasant mein Antarctica ke upar hota hai. bahut kam stratospheric temperature dhruviy stratospheric badal banate hain aur Antarctic dhruviy bhanvar air-dravyaman ko alag rakhata hai. [Q12]

4. Uses of CFCs

- 1, 3 and 4 - CFCs ka historic use phom banane wale ejent, ilektronik components ki saphai ke liye vilayak aur eyarosol utpadon mein pranodak ke roop mein hua. tyubales tayaron ke production mein unaka use is sawal mein batai gayi standard use-category nahi hai. [Q13]

5. Why the Antarctic Ozone Hole Forms

- Antarctic ozone-chhidr ke construction ke liye bahut thandi stratospheric paristhitiyan, dhruviy stratospheric badal, dhruviy bhanvar/phrant area dwara air ka prithakkaran aur chlorine-bromine yukt ozone-depleting substance zaroori bhumika nibhate hain. dhruviy stratospheric badalon ke kanon par hone wali abhikriyaen chlorine ke nishkriy bhandar-compounds ko aise rupon mein badalati hain jo vasant mein suryaprakash lautane par bahut zyada sakriy ho jate hain. [Q14]

6. Refrigerant Gas - Source-Key Trap

EXAM TRAP rephrijaretaron mein bhari jane wali koi ek universal gas nahi hai; rephrijarent upakaran ke type, takanik aur samay ke ke mutabik badalate hain. purani systems mein CFC-12 (Freon/R-12) jaise rephrijarent used hote the, jabki adhunik gharelu rephrijaretaron mein aam taur par isobutyene (Isobutane, R-600a) jaise option used hote hain; amoniya industrial prashitan mein widespread roop se use hota hai. "maiphron" (Mafron) universal rephrijarent ki pahachan ke bajay vyaparik/brand-based naam hai. [Q15]