

What do you mean by Ozone depletion
and how we can prevent its depletion?

(5)

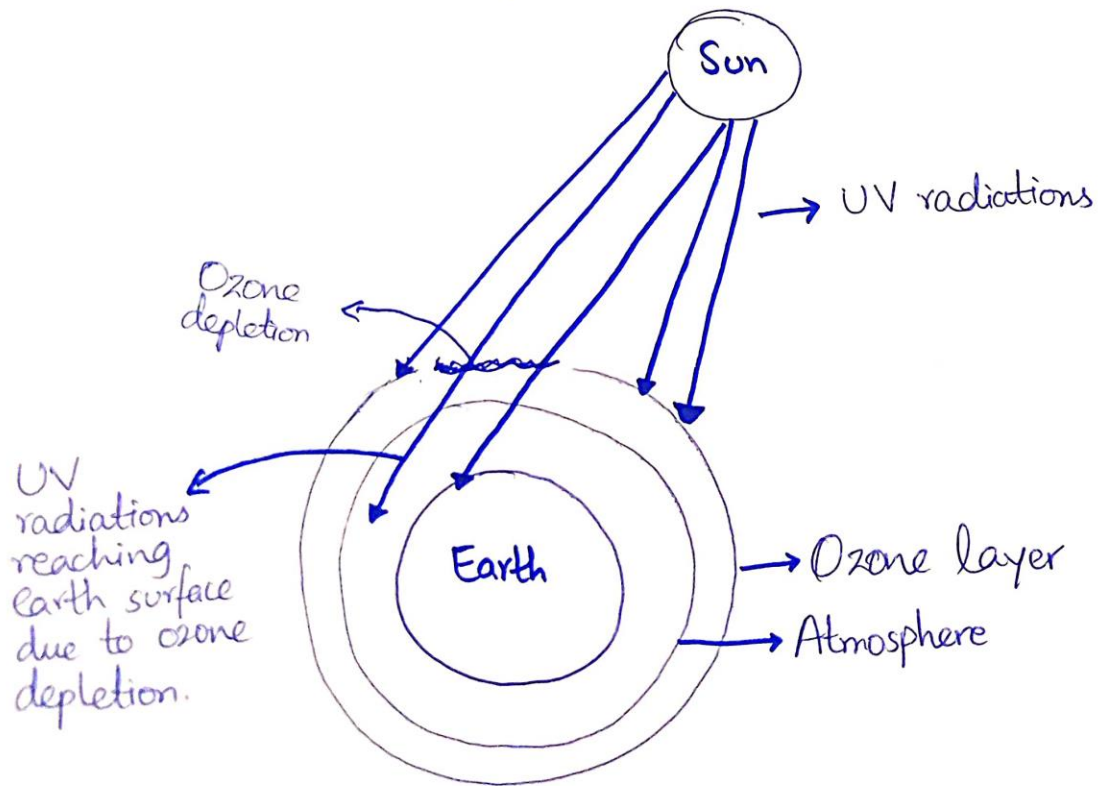
(1) Ozone:-

"Ozone is a region in stratospheric layer of the atmosphere which contains high concentration of ozone (O_3) molecules."

Ozone layer is responsible for the prevention of sun's harmful UV radiations reaching earth surface.

(2) Ozone Depletion:-

The destruction or thinning of ozone due to various ozone depleting substances (ODS), including CFCs, Nitrogen oxides, tropospheric ozone etc, is called ozone depletion.

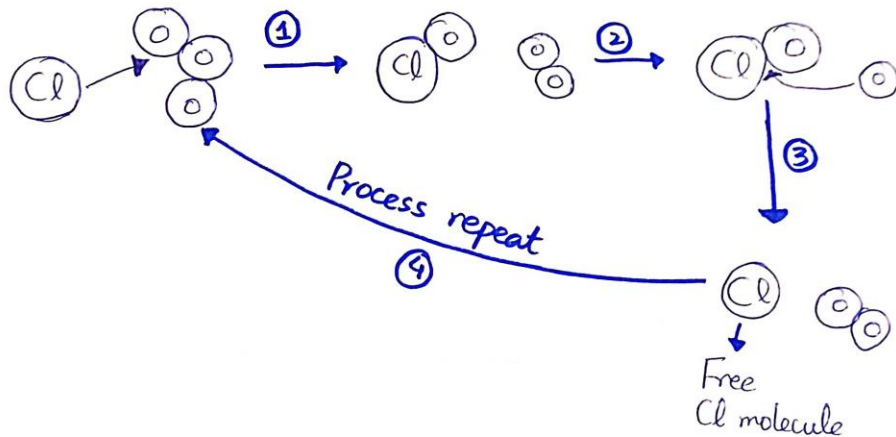


(i) Factors responsible for ozone depletion:-

Various factors responsible for ozone depletion are CFCs, Nitrogen oxides, Tropospheric ozone.

CFCs are chlorine containing compounds used in refrigerators and air conditioners. Nitrogen oxides come from burning of fossil fuels and from exhaust fumes of vehicles. These oxides in turn react with volatile compounds in presence of sunlight to form tropospheric ozone.

(ii) Chemical reaction of ozone depletion:-



Chlorine in CFCs form chlorine oxides by breaking down ozone molecule. This chlorine molecule become free at the end of process and ϕ depletion cycle repeats.

(2) Prevention of ozone depletion:-

Following are some of the suggestions to prevent ozone depletion:-

- (i) There is a need ~~to~~ to overcome emissions by fossil fuel combustion to renewable energy sources.
- (ii) Catalytic converters must be installed to prevent release of nitrogen oxides from vehicles.
- (iii) The targets regarding avoidance of CFCs and HFCs given by Montreal Protocol should be met with true spirit.
- (iv) People should prevent the use of aerosols and must buy refrigerators and air-conditioners that are free from freon gas.