

Q N. 5.:

(a)

1) Introduction:

Greenhouse effect is the phenomenon in which heat trapped by the gases like CO_2 , methane etc. in glass houses is used to facilitate the growth of plants. Greenhouse effect is the process which aids to keep the temperature of the earth warm, otherwise the earth would be inhabitable like many other planets. The primacy of greenhouse effect is that it fosters the growth of plants, ~~(crops)~~ (keep) ^{etc} regulate the balance of temperature on earth. These gases are emitted into the atmosphere by anthropogenic activities like fossil fuel burning, cement manufacturing ^{and aerosols} etc.

2) What are greenhouse gases?

Greenhouse gases are those gases that captures the emitted heat by the earth. These include CO_2 , water vapors, methane etc. Their normal concentrations is good for the sustainability of life on earth but higher concentrations

may result in apocalypses like the temperature changes, floods, extreme weather patterns etc.

3) Greenhouse effect:

Greenhouse effect is a phenomenon by which heat released by the earth is trapped by the greenhouse gases rather than escaping heat energy into the space. The greenhouse effect phenomenon is elaborated below:-

(a) Sun radiations ingress into the atmosphere:

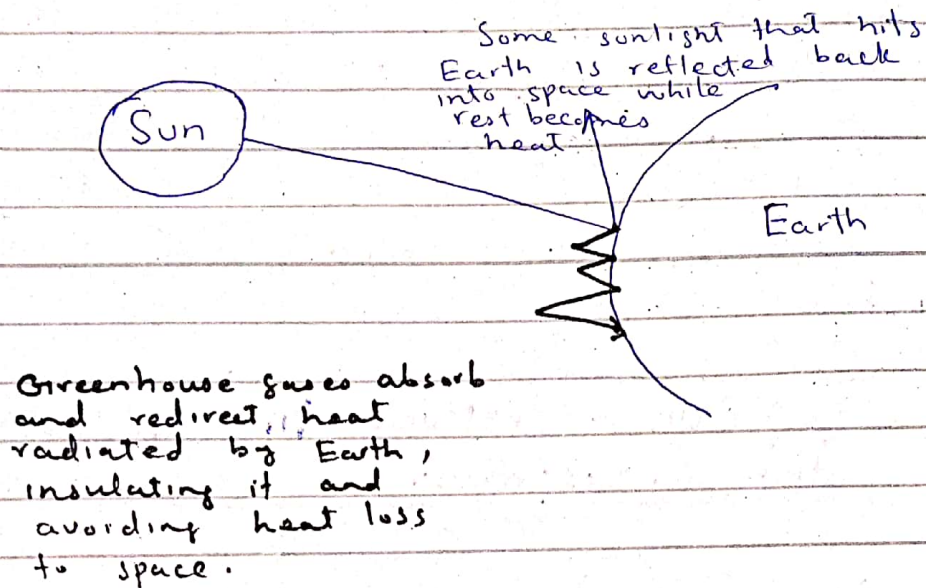
Sun constantly releases radiations in all its directions due to nuclear fusion reactions taking place on it. Some of these radiations in the form of ultraviolet, and visible rays, γ rays and infrared radiations etc. reach the earth.

(b) Absorption of radiations by the earth:

These radiations are then absorbed by the earth in the form of heat energy. at daytime. During night, earth release back this energy into the atmosphere. in the form of infrared radiations.

(c) Take up of these radiations by the greenhouse gases:

These infrared radiations are then trapped by the greenhouse gases in the atmosphere, preventing the discharge of heat into the space.



4) Significance of greenhouse effect:

The primacy of greenhouse gases is discussed below:

a) Keep the temperature stable:

The greenhouse effect regulates the temperature of earth. It is estimated that if there is no greenhouse effect, the temperature of the earth would fall to -20°C . and upkeep

b) Make the planet habitable:

The greenhouse effect is also has bearing to the stability and sustainability of life on earth. The living organisms on earth require certain temperatures to thrive. Without this effect, there would be no life possible on earth.

c) Help in the plant's growth:

The greenhouse effect provides suitable temperature for the plants to grow. Plants grow and nurture and support the other kinds of life on earth like human beings, omnivores etc.

5) Conclusion:

In the nutshell, greenhouse effect is the process by which heat (released) ^{emitted} by the earth is captured by the greenhouse gases. The significance / importance of greenhouse effect includes plant's growth, make the earth habitable, and maintain the temperature of the earth etc.

