

1. What do you mean by green house effect?

Solution:

Green house effect is the process where the earth's surface and its lower atmosphere warms up due to absorption of infrared radiations of long wavelengths that are emitted from the planet's surface by the green house gases such as carbon dioxide, water vapor, methane nitrous oxide, ozone, chlorofluoro carbons (CFCs) etc.

2. Name three green house gases.

Solution:

Three green house gases are – Carbon dioxide, Methane nitrous oxide, ozone

3. Which of the following solar radiations pass through the atmosphere of the earth?

X-rays, ultraviolet rays, visible light rays, infrared radiation.

Solution:

The solar radiations that pass through the atmosphere of the earth are Visible light rays and infrared radiation.

4. What results in the increase of carbon dioxide contents of earth's atmosphere?

Solution:

The increase of the carbon dioxide content in the earth's atmosphere can be contributed to industrial growth, deforestation and burning of fossil fuels.

5. Name the radiations which are absorbed by the green house gases.

Solution:

The radiations that are absorbed by the green house gases are infrared radiation of longer wavelengths.

6. What would have been the temperature of earth's atmosphere in absence of green house gases in it?

Solution:

The average temperature of the earth would have been -18°C in the absence of green house gases.

7. State the effect of green house gases on the temperature of earth's atmosphere.

Solution:

They have an effect on the temperature of approximately 15.5°C

8. What do you mean by global warming?

Solution:

It is the increase in the average effective temperature near the earth's surface due to an increase in the amount of green house gases in its atmosphere.

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9. What causes the rise in atmospheric temperature?

Solution:

Rise of atmospheric pressure can be contributed to the an increase in the concentration of green house gases due to activities such as deforestation, combustion of fossil fuels, industrial growth.

10. State the cause of increase of green house effect.

Solution:

Increase in the green house effect can be contributed to activities such as deforestation, industrialization, combustion of fuels, natural gas exploration, extensive use of gadgets such as refrigerators etc.

11. What will be the effect of global warming at the poles?

Solution:

As the temperature decreases at the poles, the snow caps and ice melt their way, causing floods at coastal countries. The icebergs of oceans and dark land melt, causing them to uncover and absorb more heat radiations from the Sun, which furthermore increases the green house effect.

12. State the effect of global warming in coastal regions.

Solution:

The ice and snow melts at the poles causing flood in coastal countries due to global warming.

13. How will global warming affect the sea level?

Solution:

Global warming causes melting of glaciers and polar ice which results in the rise in sea level on coastal wet lands which causes a rise worldwide in the level of sea. Hence, several big cities in the coastal regions would be covered by sea water.

14. How will global warming affect agriculture?

Solution:

Global warming would result in a low agricultural yield as it would tremendously cause changes in the patterns of rainfall, wind etc.

15. State two ways to minimize the impact of global warming.

Solution:

The two ways to minimize the impact of global warming are as follows:

- Instead of generating electricity from non-renewable resources such as fossil fuels etc, renewable sources must be utilized
- Population must be controlled through various activities such as family planning, women empowerment schemes and programmes, welfare reforms etc.

16. What is carbon tax? Who will pay it?

Solution:

Carbon tax is the tax calculated based on the carbon emission from number of employee hour and turnover of the factory, industry.

Carbon tax is paid by industries which promotes industries to use energy efficient techniques.

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Multiple choice type:

1. The green house gas is:

- (a) Oxygen
- (b) Nitrogen
- (c) Chlorine
- (d) Carbon dioxide

Solution:

- (d) Carbon dioxide

Green house gases cause the green house effect.

2. The increase of carbon dioxide gas in atmosphere will cause:

- (a) Decrease in temperature
- (b) Increase in temperature
- (c) No change in temperature
- (d) Increase in humidity

Solution:

- (b) Increase in temperature

Increase in the green house gases has an effect on the temperature.

3. Without green house effect, the average temperature of earth's surface would have been:

- (a) -18°C
- (b) 33°C
- (c) 0°C
- (d) 15°C

Solution:

- (a) -18°C

Absence of green house gases would cause the average temperature of the earth's surface to drop.

4. The global warming has resulted in:

- (a) The increase in yield of crops
- (b) The decrease in sea levels
- (c) The decrease in human deaths
- (d) The increase in sea levels.

Solution:

- (d) The increase in sea levels

Increase in the sea levels is caused to due to melting of ice caps and snow at the poles due to an increase in the temperature.