

Test 4 - General Science

Q1

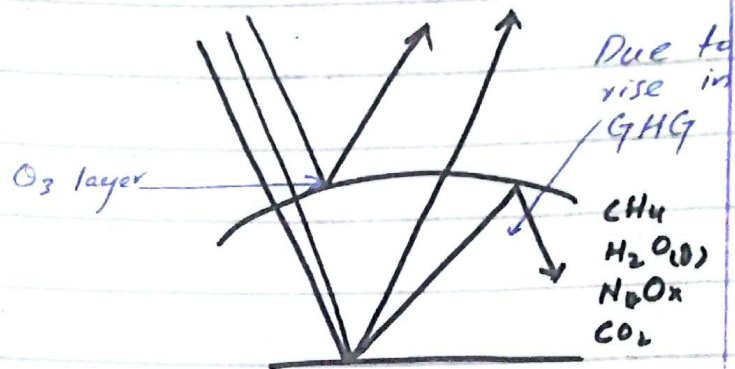
Ans a)

I - Introduction: GHE enhancement in global context

Green house gases are variable gases that can change the global atmosphere because they can trap energy coming from the sun. These gases are a major reason of global warming all across the world.

II - Definition of Green House Gas Effect :

Green house gases include water vapors, carbon dioxide, methane, and ozone etc. and change in their concentration in the atmosphere ~~can~~ leads to rise in the temperature of atmosphere because they do not let the energy reflect back coming from the sun. This effect is called green house gas effect.



III - Causes of Enhancing Green House Gases Effect

A - Natural Causes

There are some natural phenomenon that leads to rise the concentration of GHG gases.

- i) Volcanic Activity
- ii) Wildfire

B - Anthropogenic factors

Green house gases concentration has increased rapidly after the rise in industry. The human activities which lead to this rise includes:

- i) Burning of fossil fuels
- ii) Deforestation
- iii) Urbanization
- iv) Smoke of vehicles
- v) Agricultural activities

IV - Threats caused by GHGE for the planet

Green house gas effect has caused challenges include:

- i) Global warming
- ii) Climate change
- iii) Erratic weather patterns
- iv) Smog.

V - Conclusion

Countering Green house gas effect is necessary to protect environment and life on the Earth. Efforts on national and international levels are required to do it.

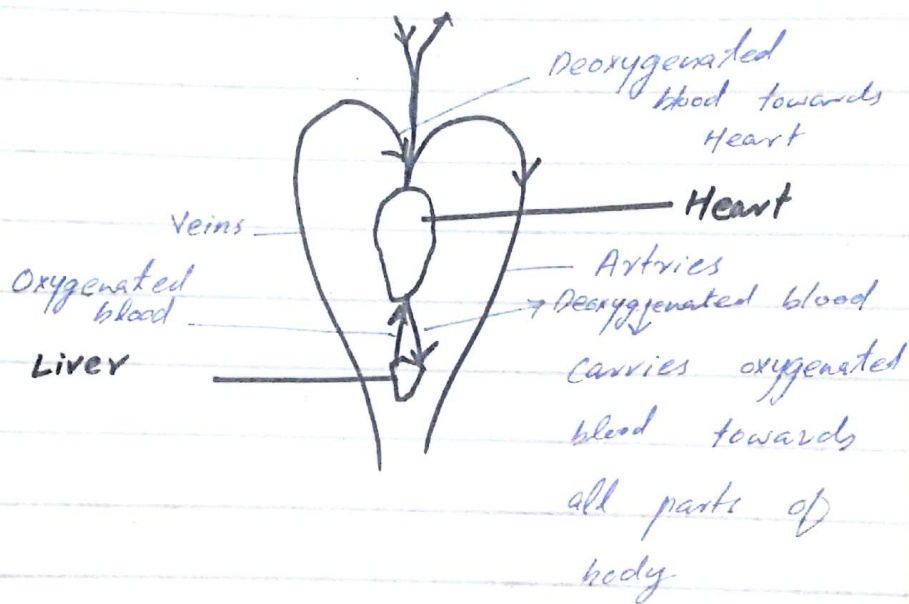
Ans b)

I - Introduction: Role of Heart in human body

Heart is a vital organ of human body essential for life of humans. It is responsible for circulation of blood in the body.

II - Role of Heart in Body

Heart is responsible for circulation of blood in human body. It pumps oxygenated blood in the whole body through arteries. It expands contracts in this process.



When it expands all the deoxygenated blood comes to heart, which gives this blood to liver where oxygen is mixed into it.

III - Heart Attack

Dysfunction of any process due to blockage of veins leads to heart attack or stroke.

Q3

Ans b)

I - Introduction: Effects and solution to acid rain and smog

Acid rain and smog are two impacts of environmental pollution. These have impacts on life and economy of a society.

II - Acid Rain:

A - Definition:

Dry or wet deposition of acid on earth is called acid rain.

B - Effects of Acid rain

Acid rain has various effects.

- i) Loss of life due to acid rain
- ii) Threat to plankton which is responsible to produce oxygen in the water
- iii) Erosion of metal structure
- iv) Infrastructural loss due

to acid rain

v) Loss of habitat

C - Solutions of acid rain

Following measures need to be taken to reduce acid rain.

- i) Use devices like catalytic converter to reduce Sulphur and nitric oxide emission
- ii) Shift to renewable energy
- iii) Afforestation to reduce air pollution
- iv) Encouraging public transport
- v) Banning burning of crops wastage

IV - Smog

A) Definition

It is a type of air pollution in which fog combines with smoke.

B) Effects of Smog

The effects of smoke includes:

- i) Cardiovascular diseases like heart attack and stroke
- ii) Diseases of lungs like

asthma and bronchitis

iii) Reduce the process of photosynthesis

iv) Eye and skin diseases

ii) Methods to reduce smog

i) Reduction in the use of fossil fuel burning

ii) Planned urbanization

iii) Techniques like scrubbing and smog towers installation

iv) Banning crop waste burning

v) Growing trees

iv) Conclusion.

Acid rain and smog are the outcomes of human activities and leads to destruction of life and infrastructure, highlights the need for effective measures to reduce these.

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Ans c)

I - Introduction: Why global warming is a threat

Water and air, are two essential fluids essential for

preserving life on earth, have become human sink! Owing to air pollution, global warming is happening.

II - Global Warming Definition

(Increase in the average temperature of earth atmosphere due to human activities is called global warming. The phenomenon has become a major threat to human existence on the planet.

III - Why global warming is a Threat :

A) Rise in Global Temperature

Global warming is actually rise in temperature of atmosphere which can make it difficult to sustain life on the planet. Therefore, global warming is a threat.

B) Increasing Sea Level

Sea level is increasing due to global warming causing threat to the regions

which are not very high from sea level.

C) Melting — glacier with a rapid — pace

Global warming leads to melting glaciers rapidly. This leads to flooding and water shortage on the planet.

D) Changing — Weather Patterns

Weather patterns are changing due to global warming, which leads to erratic rainfall as happened in Pakistan in 2025. At some places, there is no rain due to it. Therefore, global warming is a threat for human and other lives.

E) Flooding

Flooding is also an outcome of global warming.

IV- Conclusion

Sustainable measures are required to reduce global warming.