

Day: Tuesday

Date: 18 Nov, 2025

NOA Test Series

Tehreem Javed

NOA Batch: OB-001-NTs 26

Subject: General science and abilities.

Question : 01

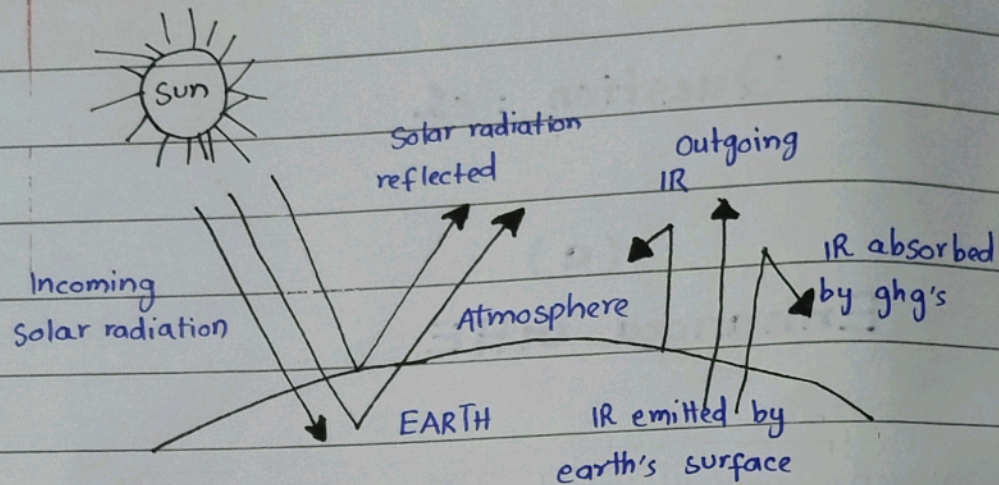
(a)

Enhanced GHE

When sunlight reaches Earth's surface, it can either be reflected back into space or absorbed by Earth. Once absorbed, the planet releases some of the energy back into the atmosphere as heat. Green house gases like water vapour, CO_2 and CH_4 absorb energy, slowing or preventing the loss of heat to space.

Since the industrial Revolution began around 1750, human activities have contributed substantially to climate change by adding CO_2 and other heat-trapping gases to the atmosphere. These greenhouse gas emissions

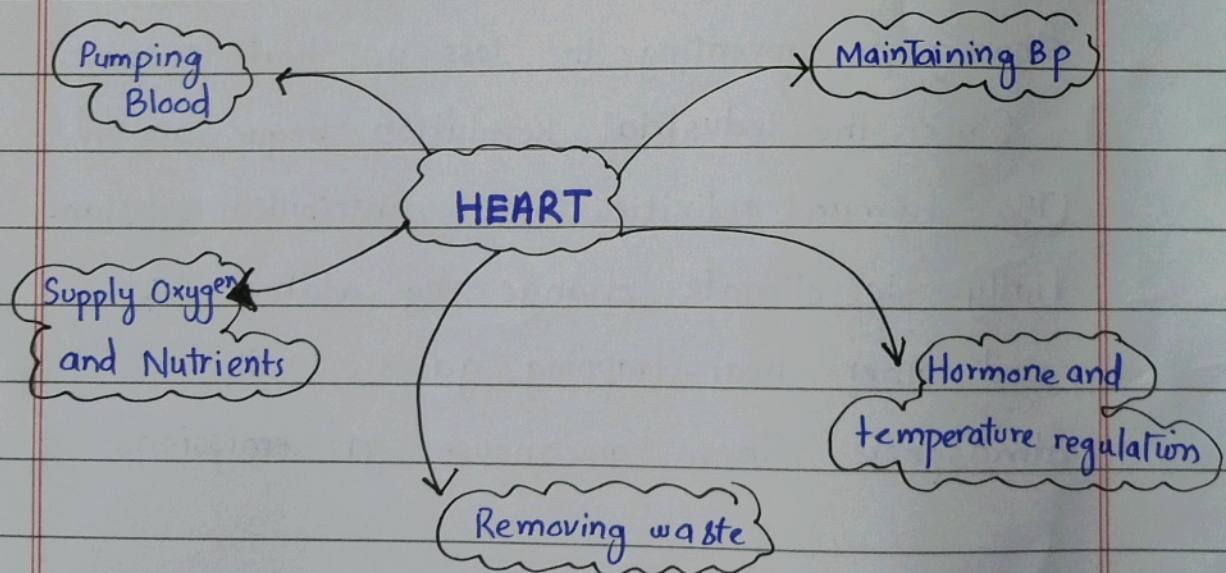
have increased the greenhouse effect and cause Earth's surface temperature to rise. Therefore, it is called Enhanced Green house Effect.



Greenhouse Effect and Global Warming.

(b)

Role of Heart in human body



1) Pumping Blood:

The heart has four chambers - two atria and two ventricles. The right side handles deoxygenated blood, sending it to the lungs to pick up oxygen. The left side handles oxygen-rich blood, pumping it out to the rest of (y) our body.

2) Supplying Oxygen and Nutrients:

Every beat ensures your muscles, organs, and brain get a steady supply of oxygen and nutrients. Without it, nothing else can operate efficiently.

3) Removing Waste:

The heart also helps transport CO_2 and other metabolic waste to the lungs, liver and kidneys for elimination.

4) Maintaining Blood pressure:

By controlling how forcefully and how often it beats, the human heart keeps

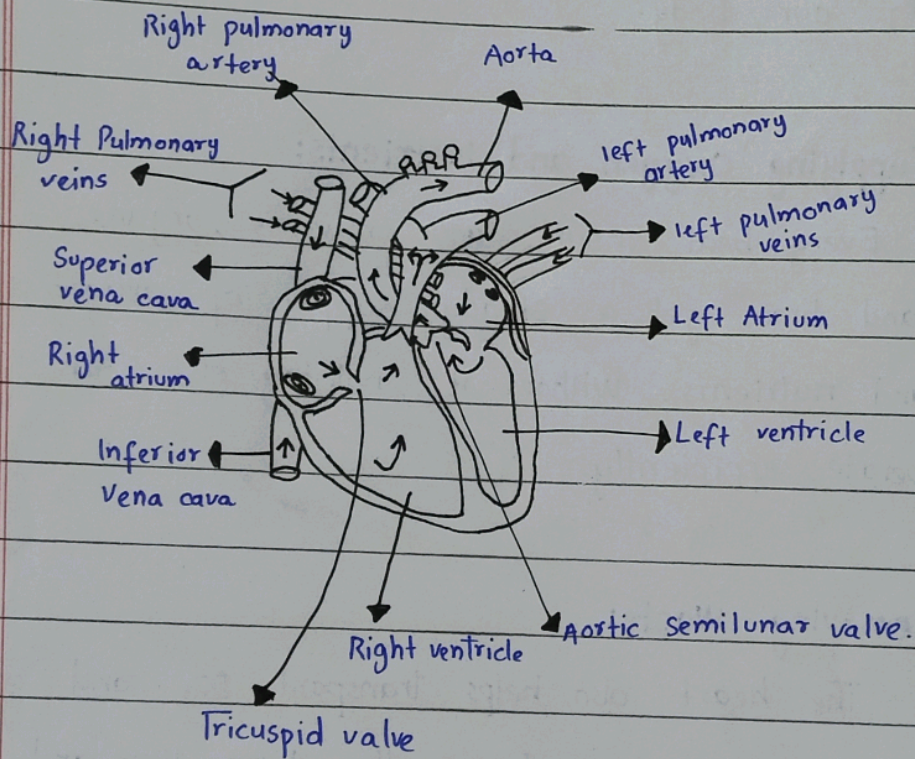
Day: _____

Date: _____

blood pressure in a healthy range.

05) Hormone and Temperature Regulation:

Through blood flow, it indirectly helps distribute hormones and maintain body temperature.



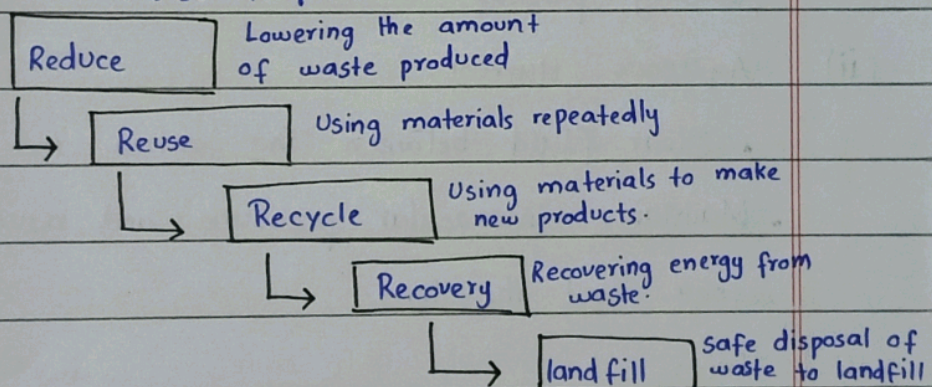
Human Heart.

(C)

Waste Disposal techniques

Disposal is the process of final placement of solid waste with and or without previous treatment processing and recycling in a landfill. It can be defined as the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into land or water. Landfill means a disposal facility or a part of a facility where waste is placed on land and is not a land treatment (fāmī) facility.

Most Favoured option



Least Favoured
Option.

(d)

Structure and Working of Human Eye.

Structure:

The human eye is roughly spherical and about 2.5 cm in diameter. It acts like a camera with several parts performing specific functions.

(i) Cornea:

- Transparent, dome-shaped front layer.
- Refracts light entering the eye beginning focusing process.

(ii) Aqueous Humor:

- Clear fluid between the cornea and the lens.
- Maintains intraocular pressure and nourishes the cornea and the lens.

(iii) Iris:

- Colored part of the eye.
- contains muscles that control the size of the pupil to regulate light entering the eye.

(iv) Pupil:

- Black circular opening in the center of the iris.
- Adjust the size depending on light intensity.

(v) Lens:

- Transparent, biconvex structure behind the pupil.

(vi) Vitreous Humor:

- Gel-like substance filling the space between the lens and retina.

(vii) Retina:

- Light-sensitive layer at the back of the eye.

(viii) Fovea:

- Small pit in the retina with a high density of cones.

(ix) Optic Nerve:

- Transmit visual signals from the retina to the brain.

(x) Sclera:

- White, tough outer layer of eyeball.

Day: _____

Date: _____

Working:

The human eye works by focusing light on the retina, converting it into electrical signals, and sending them to the brain.

The processes the signals, and forming the image we see.

Question # 02

(a)

Water Pollution.

Definition:-

Water pollution is basically when harmful substances - chemicals, microbes or waste, get into water bodies like rivers, lakes, oceans or groundwater, making the water unsafe for living beings and the environment.

Types of water pollution:

There are four types of water pollution:

- 1) Chemical pollution
- 2) Biological pollution
- 3) Physical pollution
- 4) Thermal pollution.

1) Chemical pollution:

Cause: Industrial waste, pesticides, heavy metals and acids.

Effect: Toxic to aquatic life, can make water unsafe for drinking, and bioaccumulates in the food chain.

2) Biological Pollution:

Cause: Pathogens like bacteria, viruses, and parasites from sewage or untreated waste water.

Effect: Waterborne diseases like cholera, typhoid, dysentery.

3) Physical Pollution:-

Causes: Suspended solids like sediments, plastics or oil spills.

Effect: Blocks sunlight in water, harms aquatic ecosystems, can suffocate fish.

4) Thermal Pollution:

Cause: Industries or power plants release hot water into rivers or lakes.

Effect: Increases water temperature, reduces oxygen, stresses aquatic life.

(b)

Cell

What is cell?

A cell is a basic structural, functional and biological unit of all living organisms. It is also called building block of life.

Differentiate:-

Feature	Plant cell	Animal cell	Microorganism.
Cell wall	Present (made of cellulose)	Absent	Sometimes present.
Shape	Usually rectangular/ rigid	Usually round/ irregular	Rods, spheres, Spirals.
Chloroplasts	Present (photosyn.)	Absent	Sometimes present in algae.
Vacuole	large central vac- uole-	Small or none	Small or none
Energy produce	Mitochondria	Mitochondria	Plasma membranes
Nucleus	Present	Present	Bacteria: Present others: Absent.
Example	leaf cells, stem cells	Muscle cells, nerve cells	Bacteria, yeast, amoeba.