

Mock 07 for CSS 2024

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OB-53

General Science & Ability

Section - II

Question #02

Part (a)

2022 Floods; Climate Finance and COP 28:

- Floods of 2022:

United Nations Chief Secretary Antonio Guterres called the 2022 floods in Pakistan as a 'litmus test of climate Justice'. With 33 million people affected in Pakistan, 2022 floods caused destruction around one third of Pakistan. Pakistan is going to present its case in COP 28.

- COP 28:

The 28th Conference of Parties (COP28) at United Nations Framework Convention on Climate Change (UNFCCC) is going to be held in Dubai, UAE on November 30, 2023. This conference is going to continue till 12th December, 2023. It is going to be the largest conference ever conducted regarding climate change.

Agenda of COP28:

Among the four major points in its agenda, Climate Finance is the most relevant one to Pakistan. COP28 agenda mentions the fulfillment of old promises of climate finances which is advantageous to Pakistan.

- Pakistan and COP28:

Pakistan has suffered the most due to climate change triggered by green house gases emission. Pakistan is not among the major emitters but is paying the price.

Pakistan needs around \$15.3 billion for the mere reconstruction of the damaged infrastructure by 2022 floods. Apart from this, Pakistan requires a huge amount to recover, rehabilitate and reconstruct. Climate adaptation also requires funds. In COP28, Pakistan is going to emphasize on the pending payments provision as well as a new plan for financing the developing countries that are adversely affected by climate change.

Part (b)

Water Soluble and Fat Soluble Vitamins:

Water Soluble

Vitamins

These vitamins are soluble in water.

Fat Soluble

Vitamins

These vitamins are soluble in fats only.

Water Soluble Vitamins

These vitamins are easily dissolved in blood.

They are not stored in body.

They are non-toxic.

They are excreted via urine from body.

They include vitamin B₁-B₈, B₁₂ and Vitamin C.

These vitamins are found in green leafy vegetables, oils, dairy products etc.

Fat Soluble Vitamins

These vitamins are dissolved in bile acids.

They are stored in body in form of fats.

They can become toxic in case of excess amount.

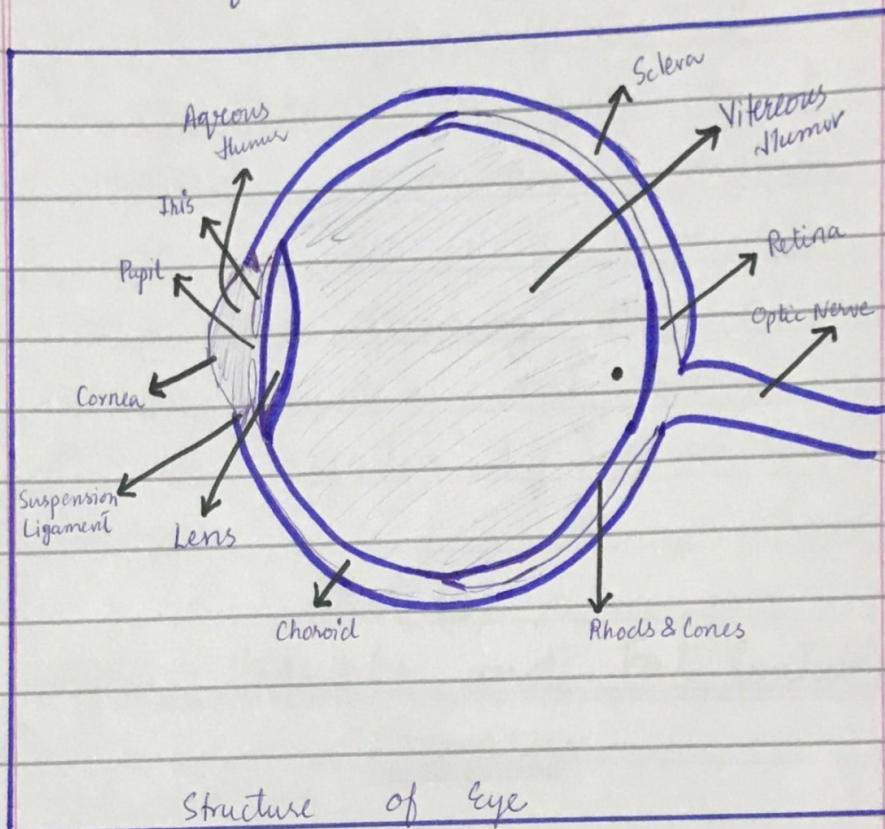
They are not excreted via urine.

They include Vitamin A, Vitamin E, Vitamin K and Vitamin D.

These vitamins are found in meat, sunlight and nuts etc.

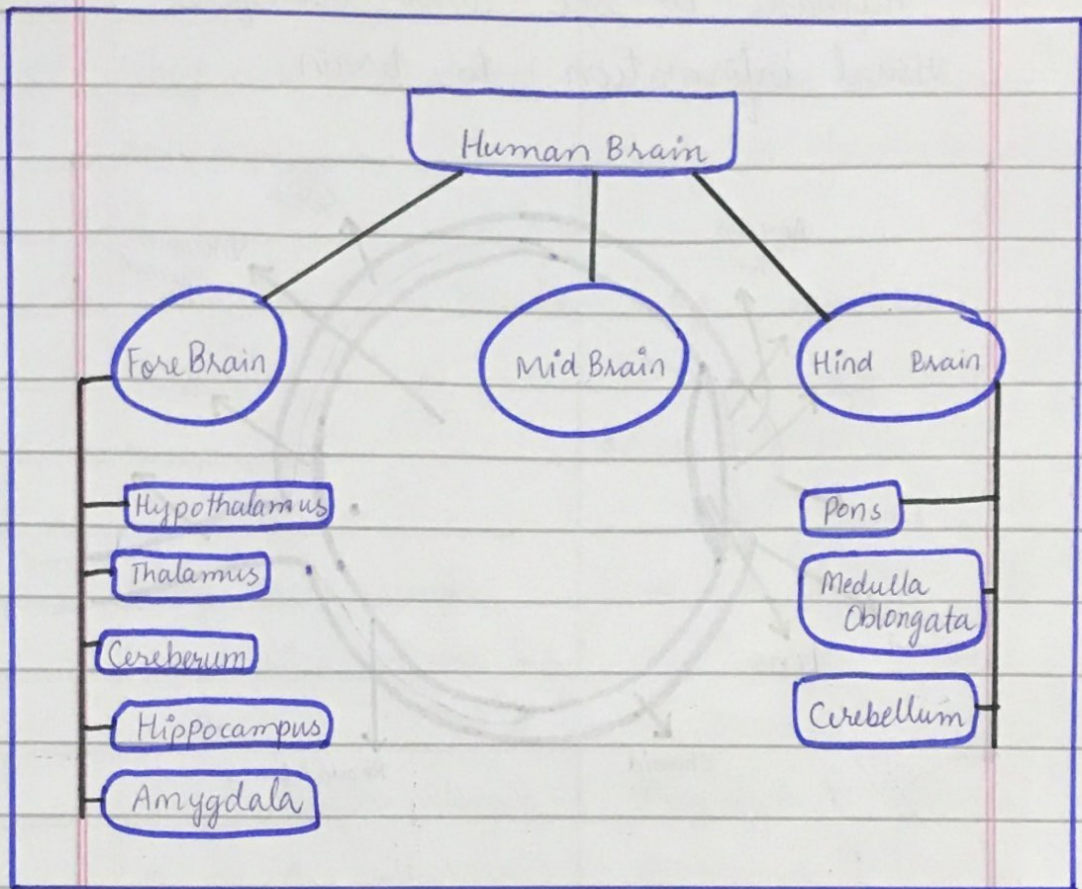
(Part c) Structure of Eye

Human eye is the organ responsible for sight and vision. It enables humans to see and transfers visual information to brain.



(Part d)

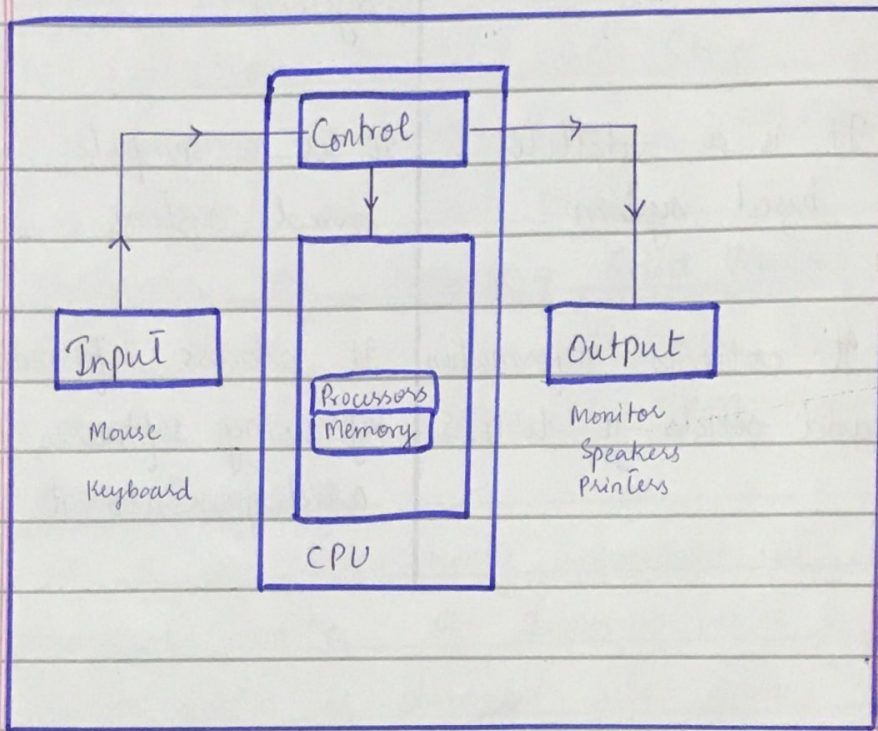
Flow Chart of Different Parts of Brain



Question #05

(Part a)

Block Diagram of Computer



Part (b)

Definition of Optics:

Optics can be defined as a branch of physics that deals with the propagation, behaviour, determination of light. Optics deals with electromagnetic light as well.

(Part c)

Solid Waste Management

"Solid Waste Management" is the supervised collection, recovery and disposal of solid wastes. It has three basic stages:

Collection of Solid Waste Stage

Recovery and Segregation of Solid Waste

Disposal of Solid Waste

Methods of Disposing Solid Waste:

Solid Waste can be disposed by various methods. Some of them are:

i) Open Dumping:

It is a comparatively unpreferred yet common method of disposing waste in which waste is dumped into open places. Usually, waste is dumped into barren land. These open dumping spaces must be far away from residential areas and agricultural lands. This method of disposing waste is not very eco-friendly.

ii) Incineration:

It is the process of burning waste. In this process, solid waste is combusted and disposed. It is not eco-friendly.

iii) Land filling:

In this method of disposing solid waste, land pits are filled with waste. The waste is buried in land. In this way solid waste is disposed.

iv) Composting:

Composting is usually done with biowastes. It is the decomposition of solid wastes by using microbes. Compost is formed from this method. Compost is used as a fertilizer.

(Part d)

Difference between GPS & GIS

GPS

GPS stands for
Global Positioning System

It is a satellite
based system.

It collects information
and sends it to GIS.

GIS

GIS stands for
geographical information
system.

It is a computer
based system.

It process information
by using softwares
and presents it.