

HIW  
27/01/2021

# HOME ASSIGNMENT

classmate

Date \_\_\_\_\_

Page \_\_\_\_\_

① Draw the diagram of brain and label the different parts.

Ans → Drawn in the <sup>another</sup> ~~next~~ page....

② How CNS, PNS and ANS are different from each other structurally and functionally.

Ans → Central Nervous System -  
(CNS)

\* It is composed of the brain and the spinal cord.

\* The brain controls all the functions in the human body & it is protected by Cranium or Skull.

\* The spinal cord works as the relay channel for signals between the brain & the peripheral nervous system PNS. It is well-protected by within the vertebral column.

## Peripheral Nervous System (PNS):

\* It is composed of the cranial nerves & spinal nerves.

\* There are 12 pairs of cranial nerves and they ~~come~~ emerge from the brain (head region) & go out to the organs in head region.

\* There are 31 pairs of spinal nerves & they come out of the spinal cord & go to the organs which are below the head region.

## AUTONOMIC NERVOUS SYSTEM (ANS)

\* It is composed of a chain of nerve ganglion which runs along the spinal cord. It controls all the involuntary organs in the human body.

It is divided into 2 parts -

⇒ Sympathetic Nervous System

⇒ Parasympathetic Nervous System.

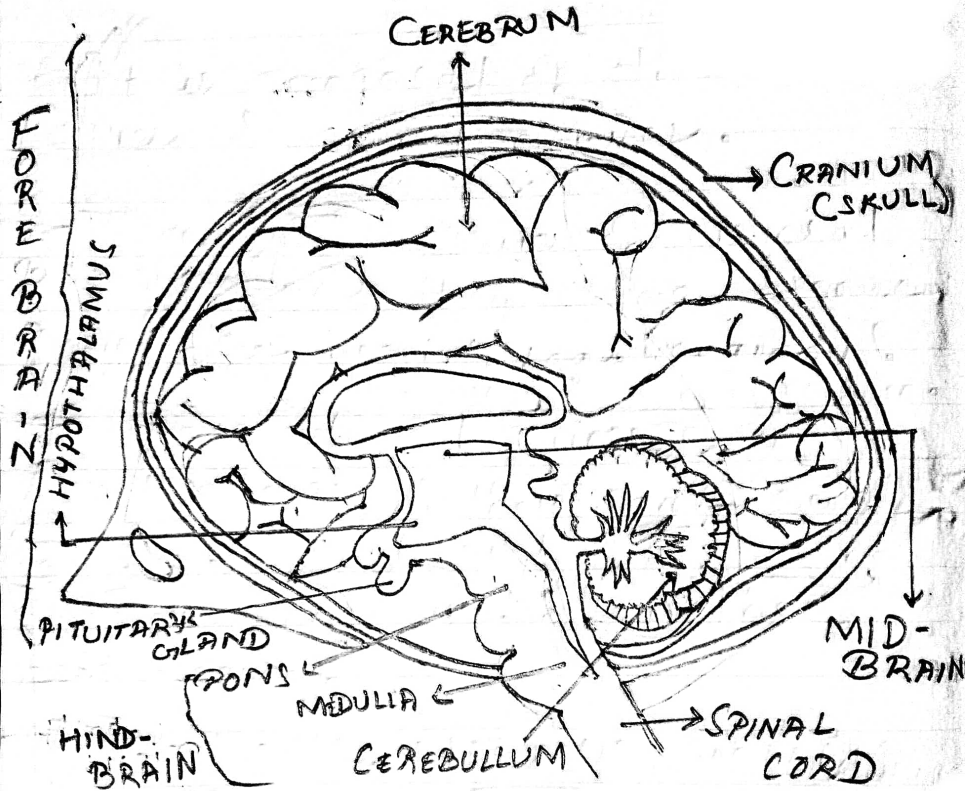
- ★ ⇒ Sympathetic Nervous system heightens the activity of an organ as per the need.
- ⇒ ★ Parasympathetic Nervous system slows ~~the~~ down the activity of an organ & thus has a calming effect. It can be said that this part of ANS helps in the conservation of energy.

★ Ex - In times of fear, the Sympathetic nervous system dilates the Pupil of the eyes, constricts the vessels of the skin and accelerates the ~~a~~ heart rate. Whereas the Parasympathetic nervous system dilates the blood vessels, constricts the Pupil of the eyes & slows down the heart rate.

In other words, the <sup>2</sup> parts of ANS are antagonistic (opposite) in their actions.



# Diagram of Human Brain



HUMAN BRAIN