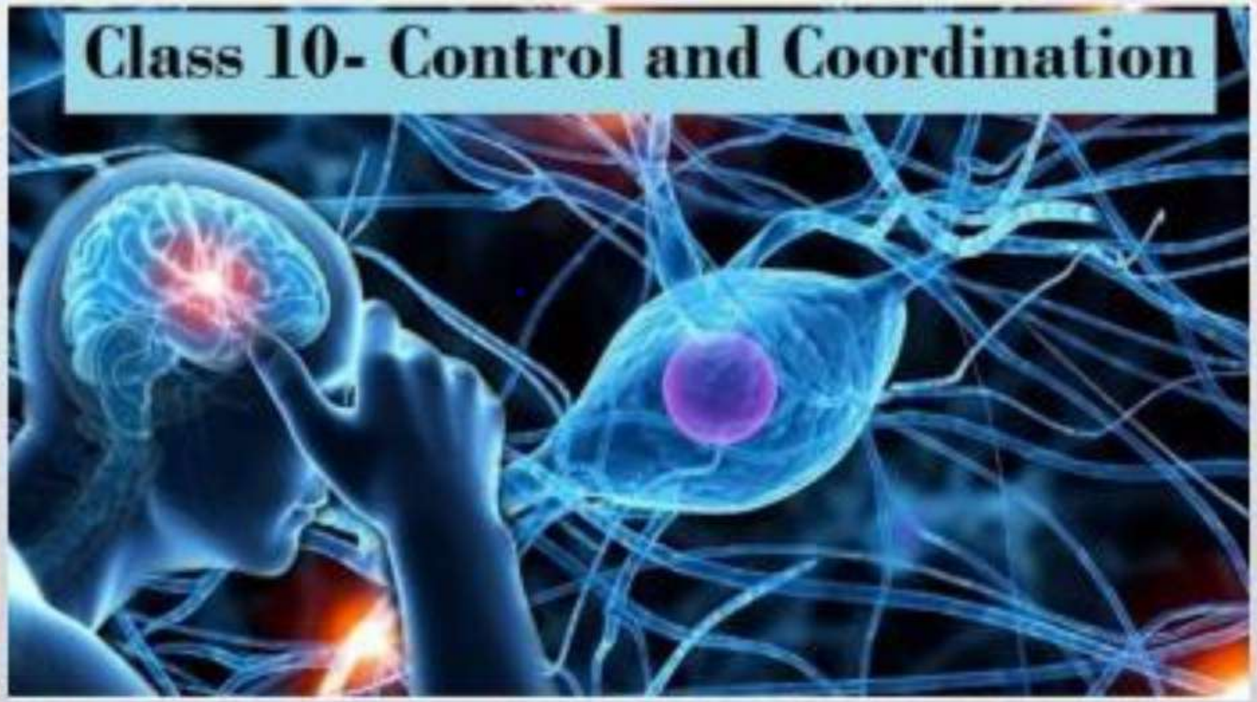
Control and Coordination

Class 10 : Chapter 6



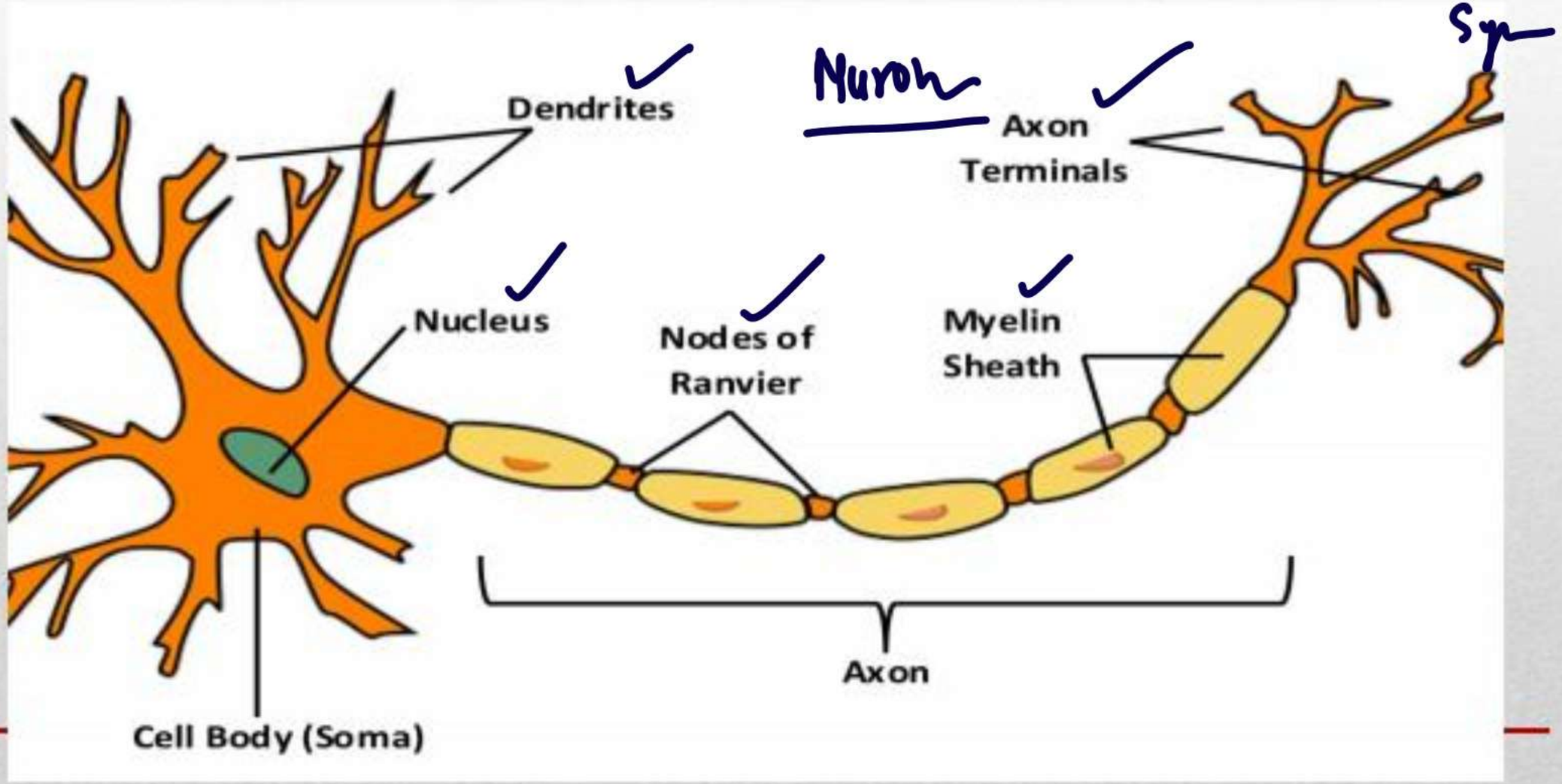
- Introduction
- Animal nervous system
- Coordination in plant
- Hormones in animal

Introduction

The two major systems that function for control and coordination in humans are the .

1. **Nervous system**
2. **Endocrine system.**

Animal nervous system



Humen Brain

"मानव मास्तिष्क"

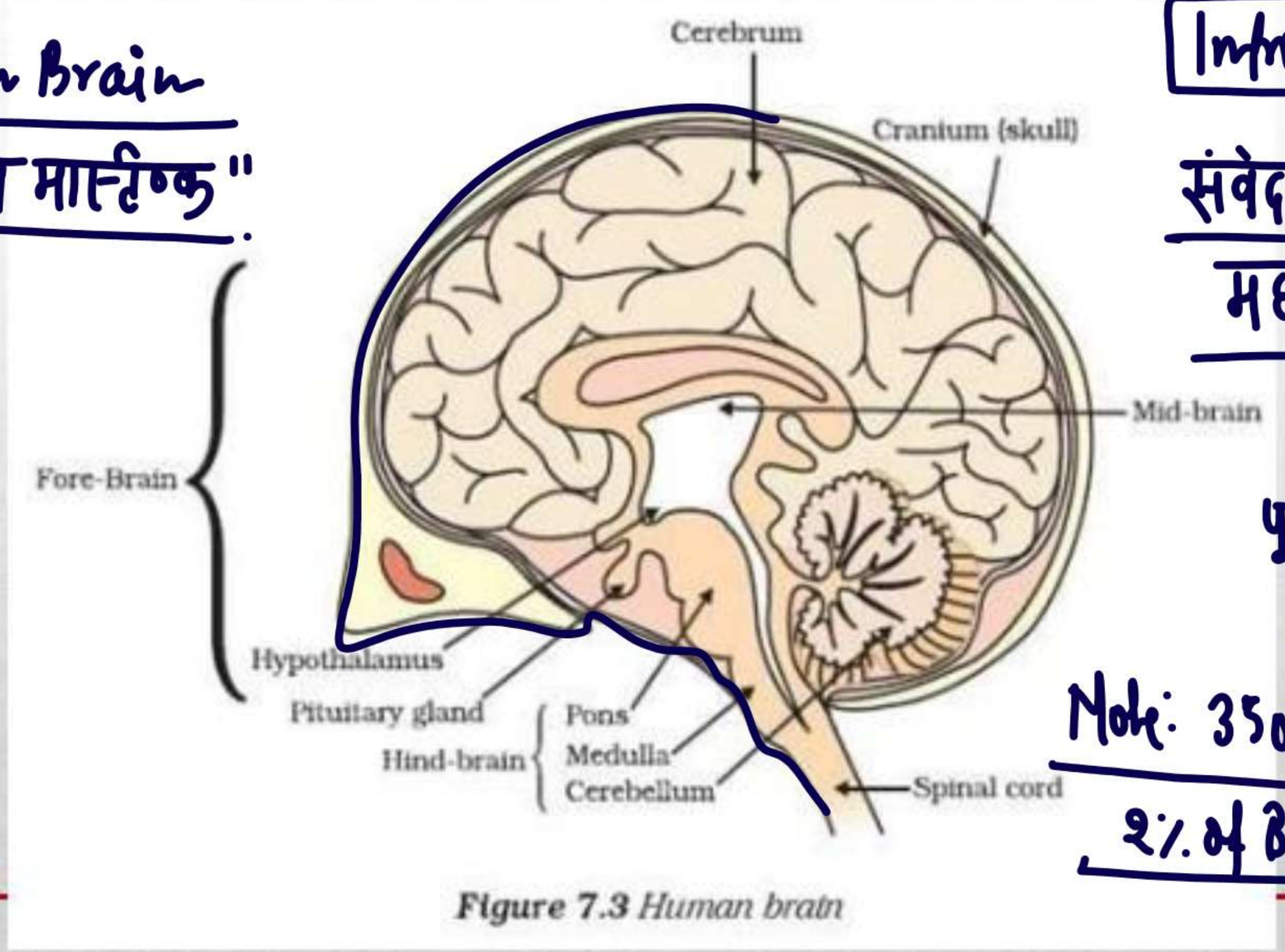


Figure 7.3 *Human brain*

Introduction

संवेदनशील

महत्वपूर्ण अंग

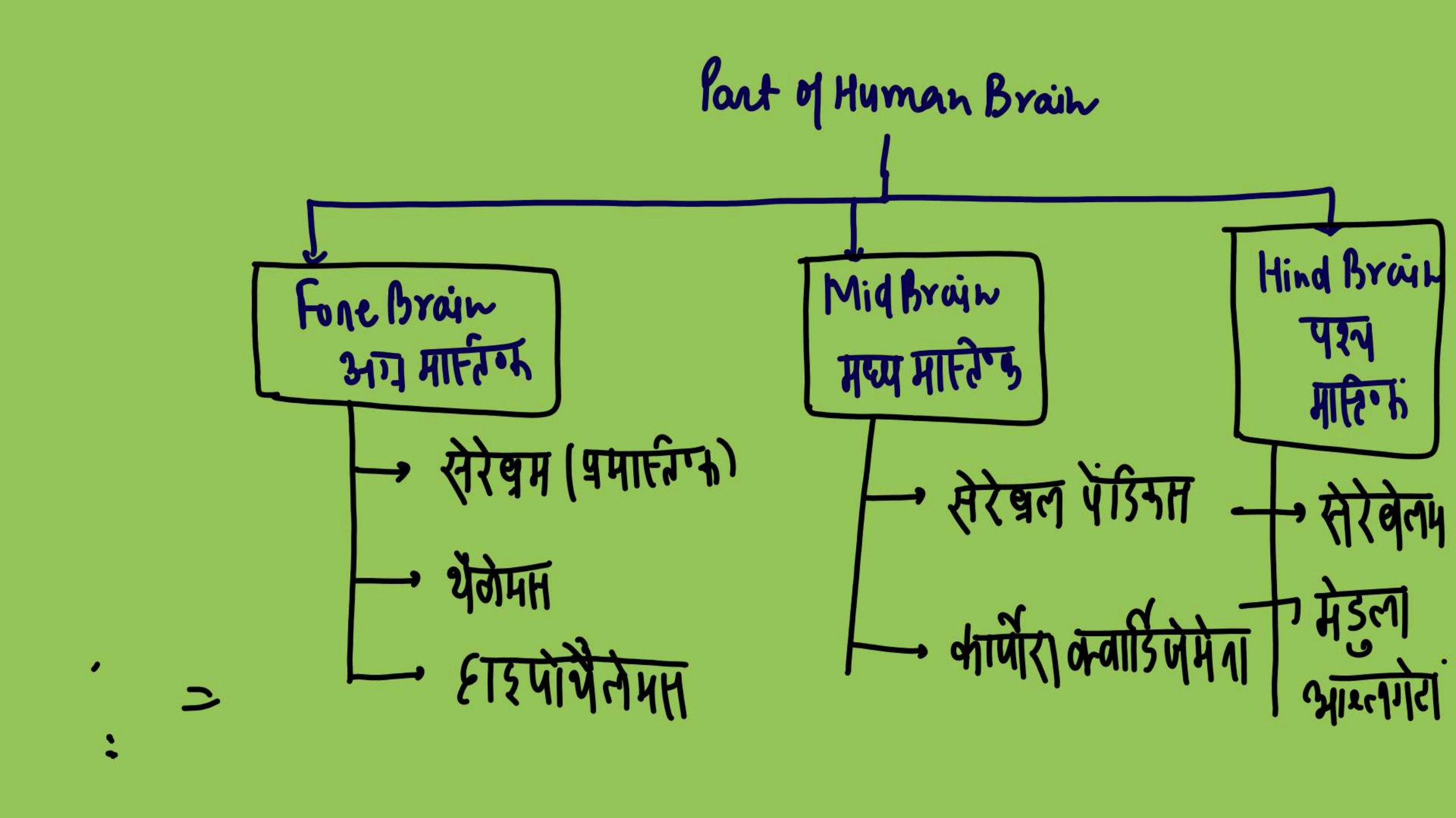
↓

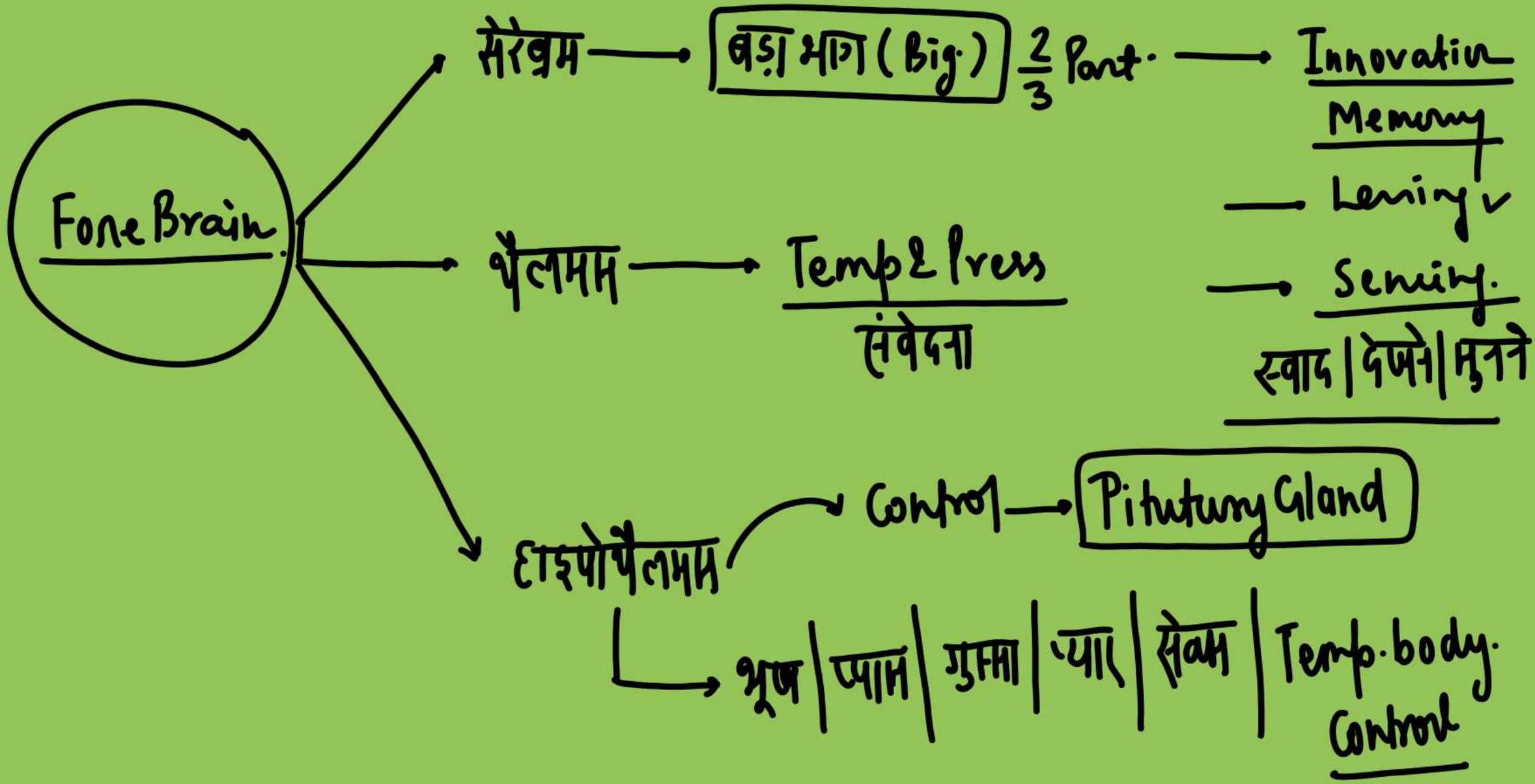
पूरी शरीर पर

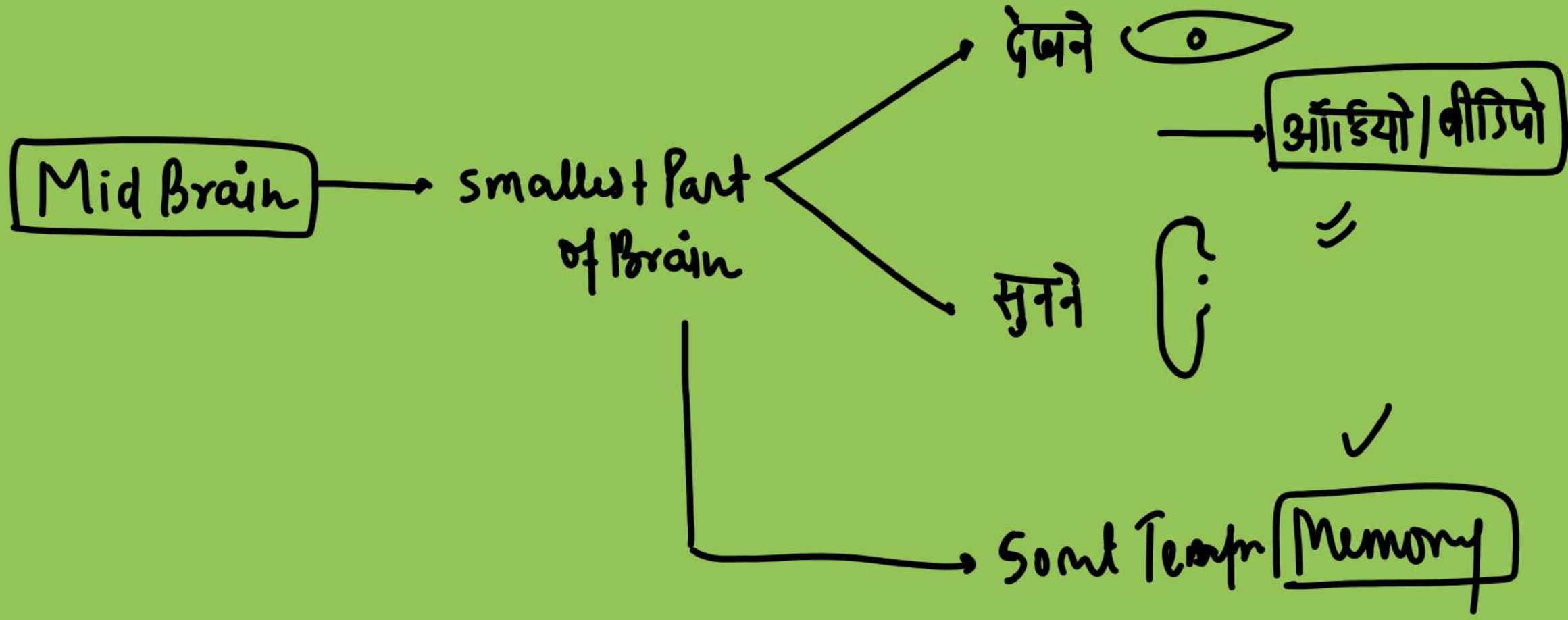
नियंत्रण.

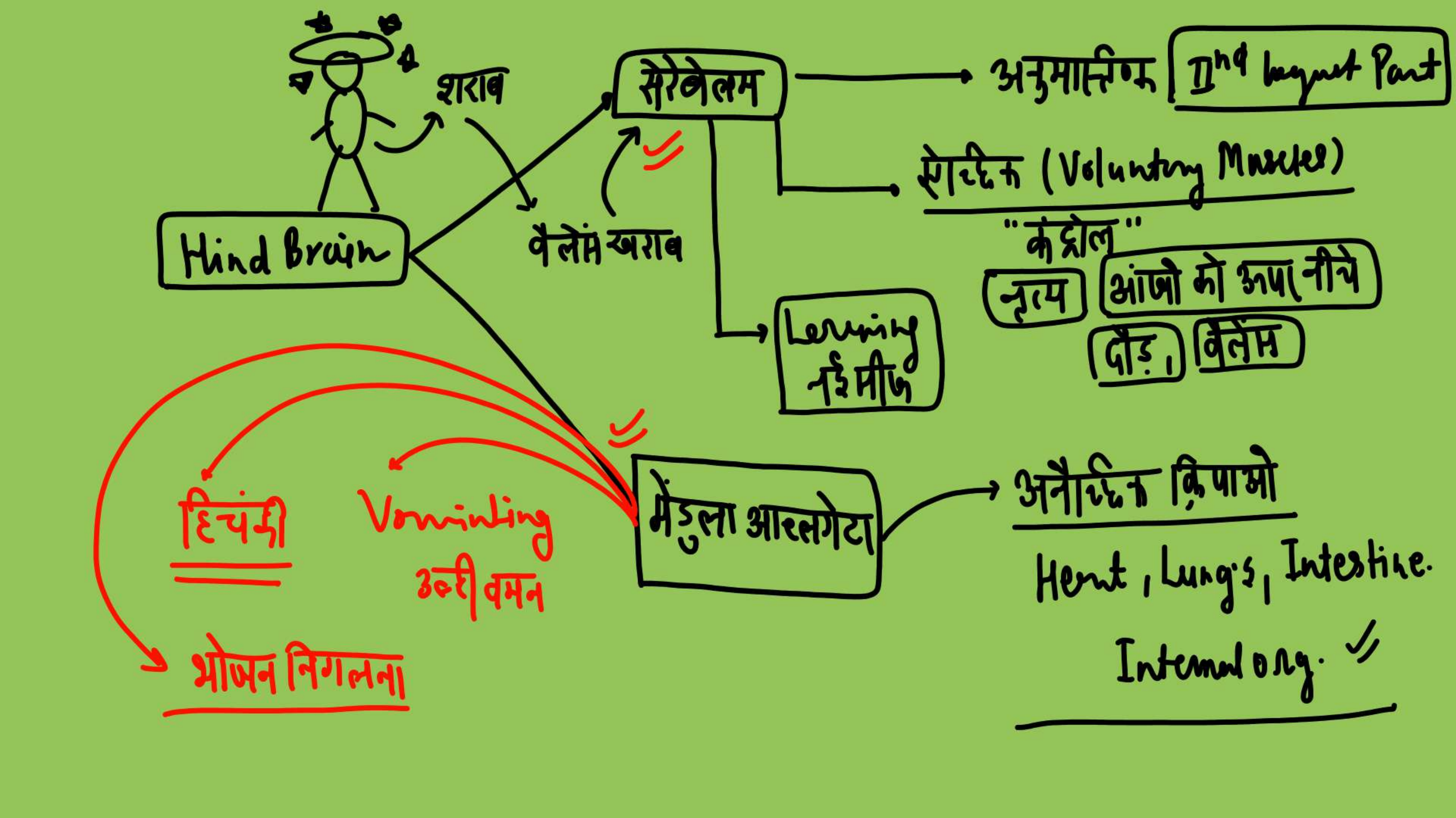
Note: 350g Weight

2% of Body


Part of Human Brain
Fore Brain
अग्र मास्तिष्क
Mid Brain
मध्य मास्तिष्क
Hind Brain
पश्च
मास्तिष्क
सेरेब्रम (प्रमास्तिष्क)
थैलेमस
हाइपोथैलेमस
सेरेब्रल पेंडिमस
कार्पोरा क्वाड्रिजेमेना
सेरेबेलम
मेडुला
आब्लागेटा


Fore Brain
सेरेब्रम
बड़ा भाग (Big.)
2/3 Part.
Innovation
Memory
Learning
थैलमस
Temp & Press
संवेदना
Sensing.
स्वाद | देखने | सुनने
हाइपोथैलमस
Control
Pituitary Gland
भूख | प्यास | गुस्सा | प्यार | सेक्स | Temp. body. Control

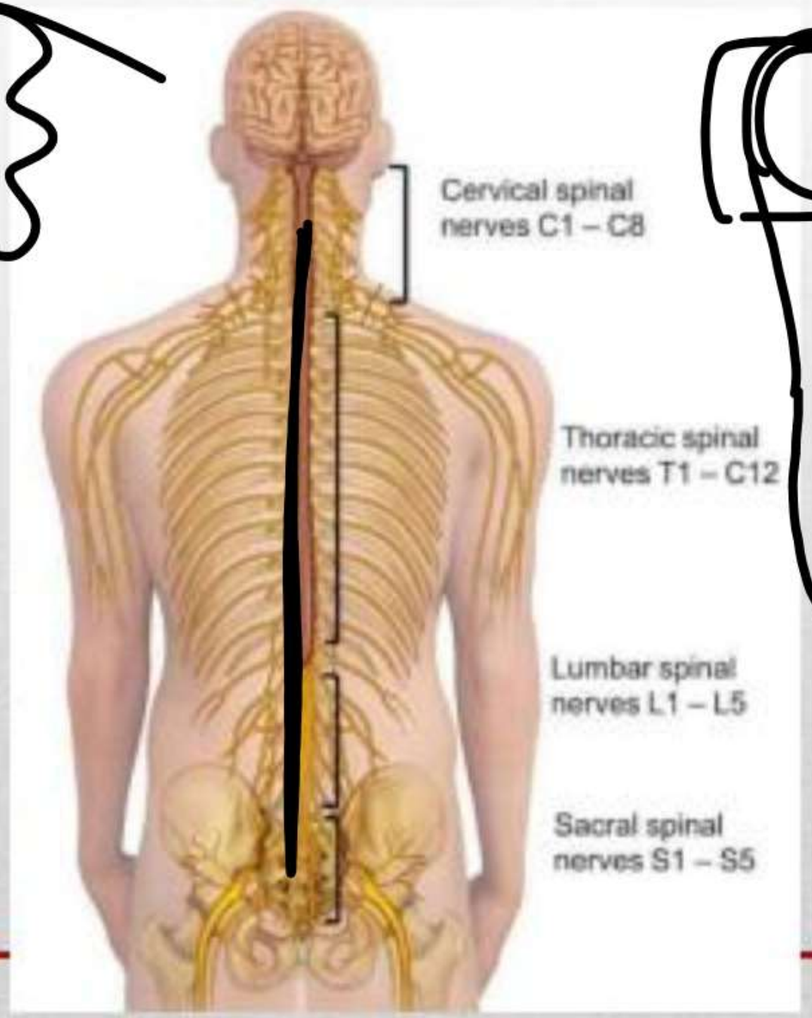

Mid Brain
smallest Part of Brain
देखने
आँडियो / वीडिपो
सुनने
Sort Term
Memory

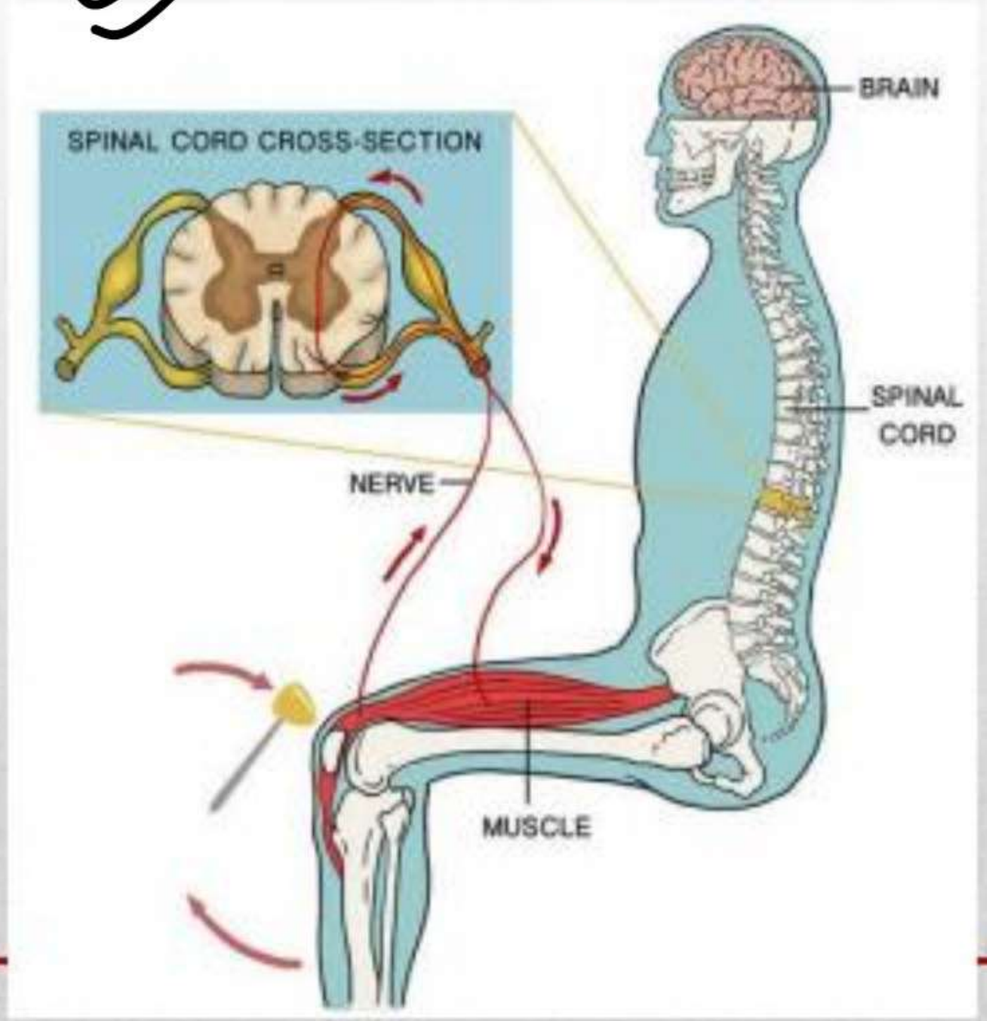

शराब
सेरेबेलम
अनुमास्तिष्क
IInd Largest Part
Hind Brain
पैरेलेम
खराब
ऐच्छिक (Voluntary Muscles)
"केंद्रोल"
नृत्य
आंखो को ऊपर नीचे
दौड़
बैलेंस
Learning नई चीज
हिचकी
Vomiting
उल्टी वमन
मेडुला आब्लगेटा
अनैच्छिक क्रियाओ
Heart, Lungs, Intestine.
Internal org.
भोजन निगलना

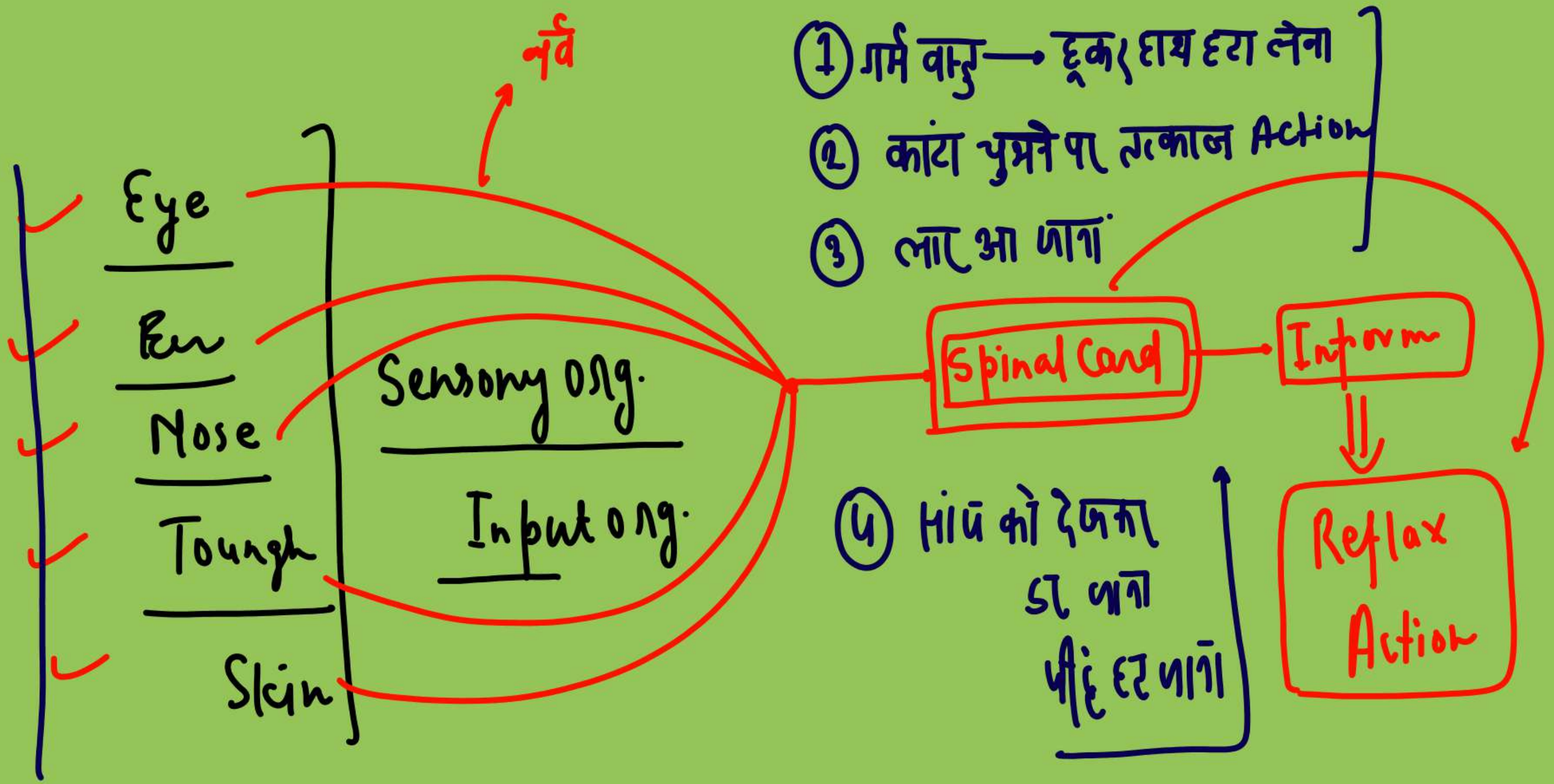
Part of Human Brain

Spinal cord and Reflex Action

मेरुरज्जु व प्रत्यावर्ती क्रियाएँ





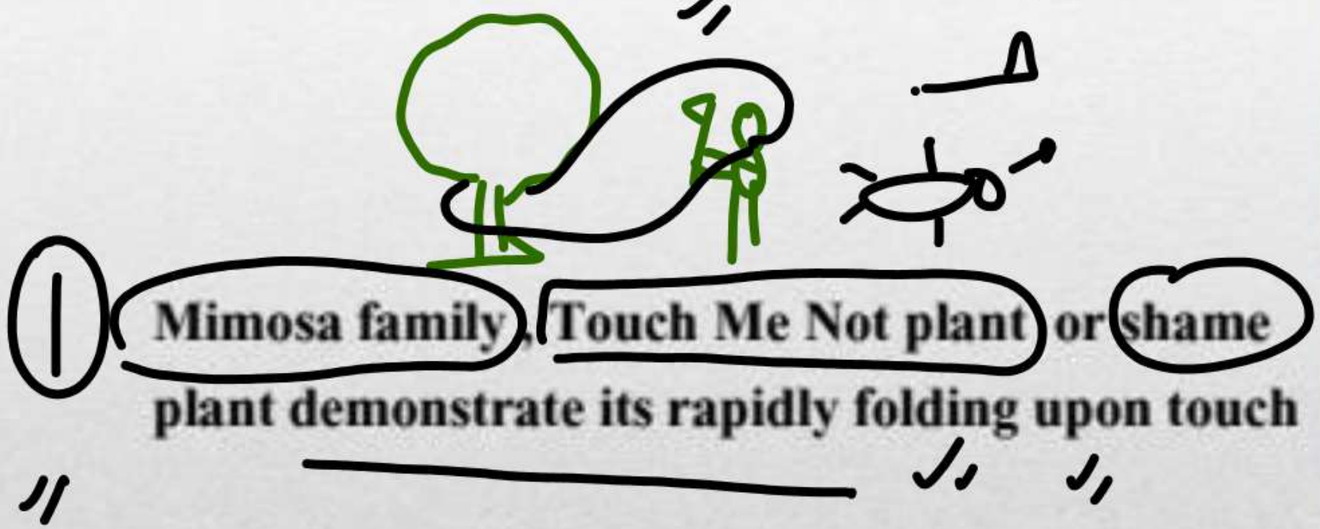

नर्व
Eye
Ear
Nose
Tounge
Skin
Sensory org.
Input org.
Spinal Cord
Inform
Reflax Action
① गर्म वस्तु → दूर हाथ हटा लेना
② कांटा चुभने पर तत्काल Action
③ लाल आ जाना
④ मिर्च को देखकर ही पानी निकल जाता

Part of human nervous system

- CNS
  - Central Nu System
  - केंद्रीय तंत्रिका तंत्र
  - (1) Human Brain
  - (2) Spinal Cord
- PNS
  - Peripheral N Syst
  - परिधानी तंत्रिकातंत्र
  - Cranial Nerve (Brain)
    - कपालीय तंत्रिका
    - → 12 Pair
  - Spinal Nerve (मेरुरज्जु तंत्रिका) → 31 (Pair)
- ANS
  - Autonomus NS
  - स्वायत्त तंत्रिका तंत्र
  - (1) Symphetic अनुकंपी
  - (2) परानुकंपी Parasym

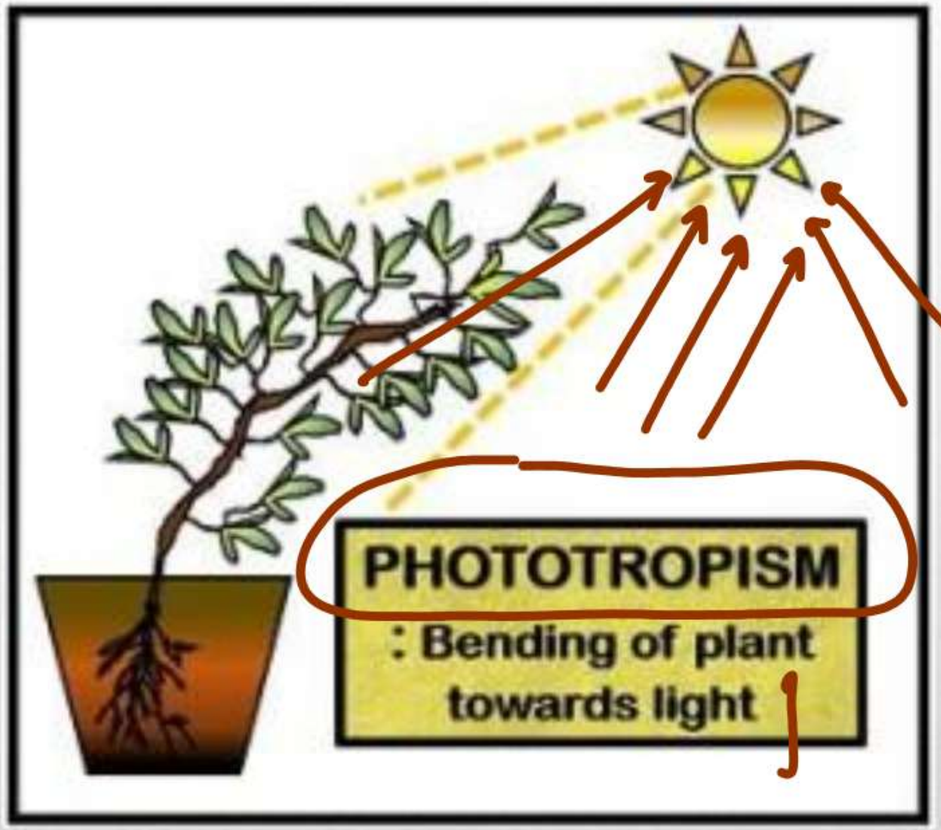
Coordination in Plants

Animals have a nervous system for controlling and coordinating the activities of the body but plants have neither and our system nor muscles .



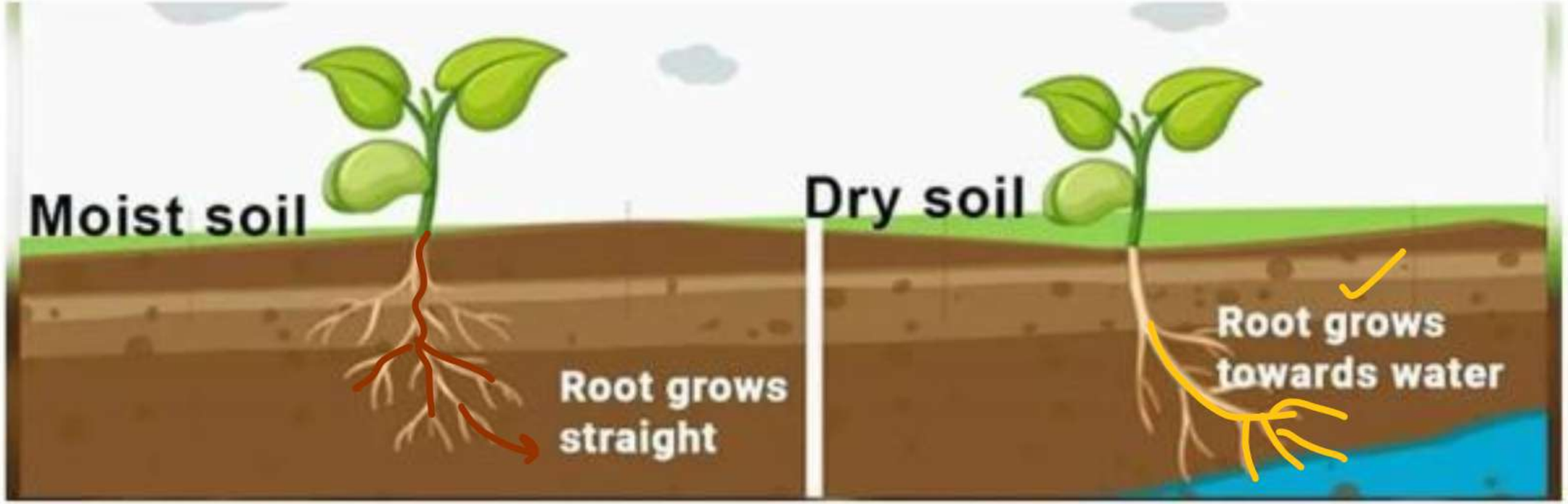
Mimosa family , Touch Me Not plant or shame plant demonstrate its rapidly folding upon touch

- Plant use hormones for communications such as auxins casing bending toward light by stimulating elongation on the shaded side .
- Gibberellins promote stem growth, cytokinin induce cell division, and abscisic acid inhibits growths .
- Hormones allow plant to co-ordinate growth, development and response to the environment


PHOTOTROPISM
: Bending of plant
towards light


Geotropism
Phototropism
Geotropism

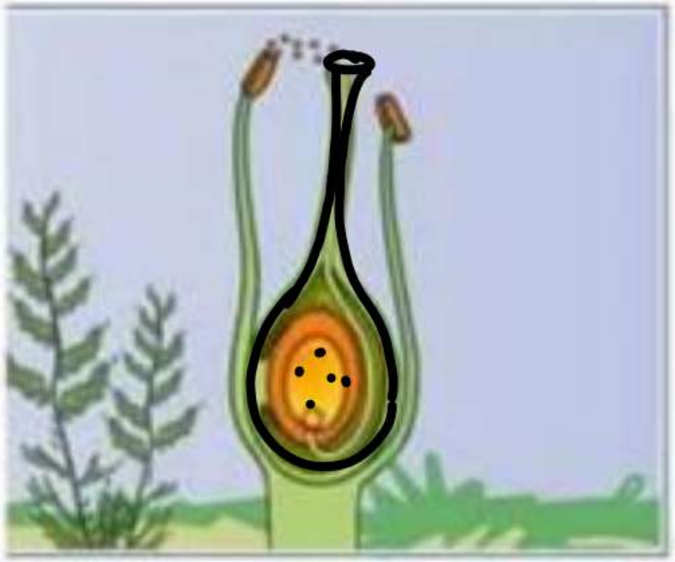
HYDROTROPISM



Chemotropism

के मो ट्रॉपिज्म

- **Chemotropism** is a growth movement of a plant part in response to chemical stimulus.
- Example - Growth of pollen tubes towards ovules



Flower showing Chemotropism