CEREBRUM:

Types of sulci

1) Limiting sulci:

↳ sulcus which limit ② areas at the **FLOOR** of sulcus.

eg: Central sulcus (ROLANDIC S.) ⇒ sep. of M & S. cortex.
Calcarine sulcus

2) Operculated sulcus: (operculum - lip).

* They are just like ① but Transition is at **LIP**

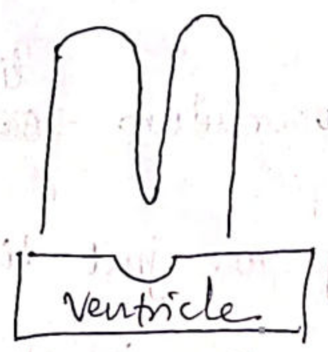
eg: Lunate sulcus (separates striate & peristriate area)

3) Axial sulcus :

* a sulcus is used as an axis Around which diff. areas of Cortex develop.

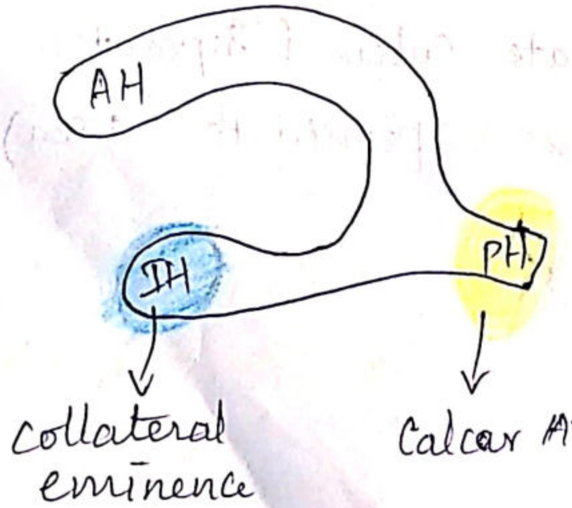
eg: post part of Calcarine sulcus.

4) Complete sulcus :
→ Deep enough to make an impression on the WALLS of the Ventricle



eg: 1) Ant. part of Calcarine sulcus.
2) Collateral sulcus.

Lat. V.



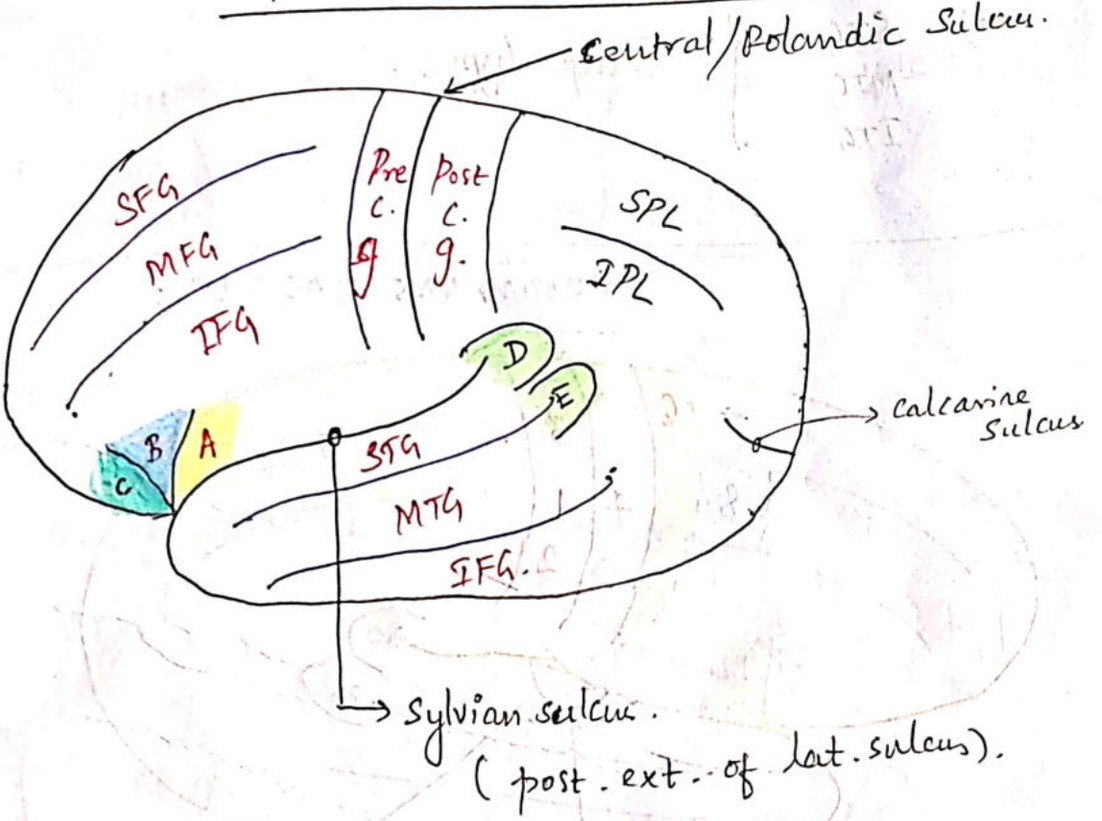
Note:

calcarine sulcus. => ③ Sulcus Type.

- limiting
- Axial
- Complete.

5) Incomplete Sulcus:

Supero lateral Surface of Brain:



[A] pars Opercularis] Broca's Area in it.
[B] pars Δlaris.]

[C] pars. Orbitalis (orbitale surf.).

[D] Supramarginal G. } Compon. of Wernickes Area
[E] Angular G. }

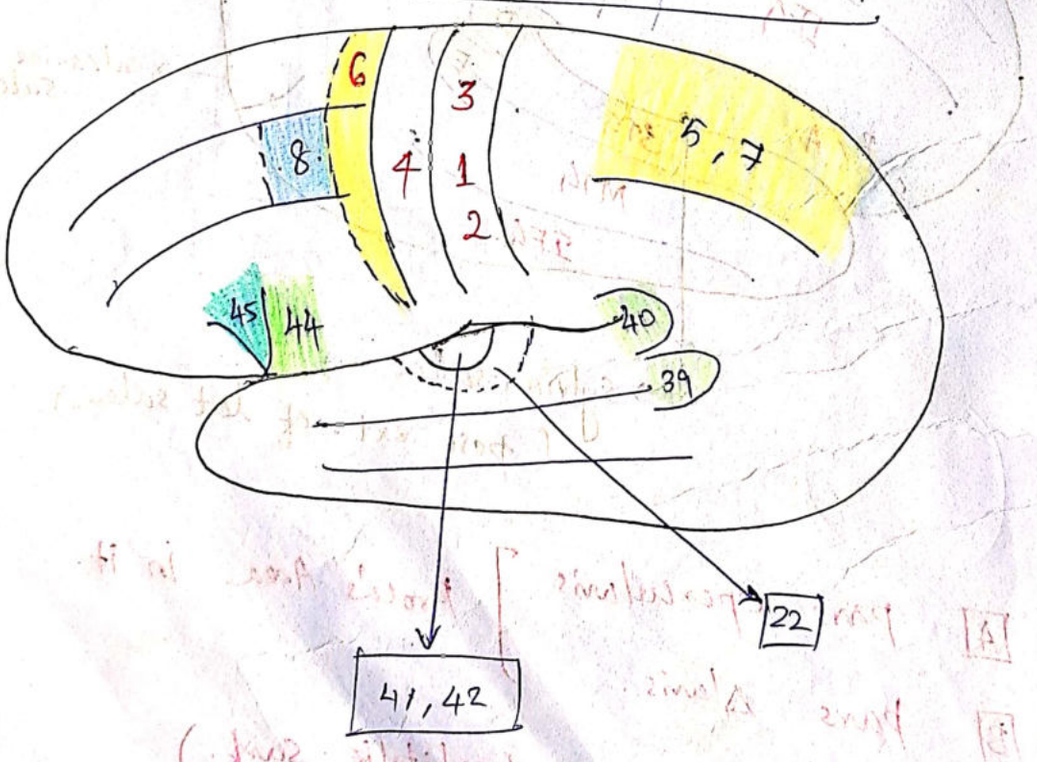
1) SFG, MFG, IFG. } Frontal Gyrus.

2) precentral & post central G.

3) SPL, IPL } parietal lobule (larger G. is lobule)

4) STG, MTG, ITG } Temp. Gyrus.

BRODMANN'S CLASSIFICN.:



Functions:

3, 1, 2 (post cent. G.)

⇓

⊙ prim. sensory area / cortex. $\xrightarrow{\#}$ C/L sen. loss.

5, 7 (Sup. parietal lobule).

↓

⊙ Sen. association area $\xrightarrow{\#}$ Tactile Agnosia.
(Stereognosis – sense the shape, size of an object without seeing it)

4 (Precentral G.).

↓

⊙ prim. motor Area $\xrightarrow{\#}$ C/L Hemiplegia

↓

⊙ site for origin of Pyramidal Tr. *

6 (SFG, MFG, IFG).

↓

⊙ pre motor area. $\xrightarrow{\#}$ Apraxia (diff in performing skilled mvts.)

↓

⊙ site for Origin of extrapyramidal Tr. *

8 (MFG).

↓

⊙ Frontal eye field area. $\xrightarrow{\#}$ C/L Conjugate eye mvt. is lost.

↓

⊙ Scanning occular mvt. & is Independent of Visual Stimulus.

Note:

* Frontal eye field $\xrightarrow{\#}$ eye will move towards the lesion.

* Although [8] is damaged, the PURSUIT mvt. of eye is not affected bcoz its is due to Occipital lobe.

⊗ [44, 45] (Inf. Frontal Gy. — [44] pars Opercularis, [45] " Triangularis)

↓

⊙ Motor Speech Area (Broca's Area).

↓ #

Broca's / Motor Aphasia. (M-B.)

[41, 42] (Sup. Temp. G.).

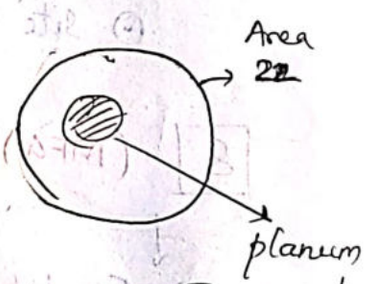
↓

⊙ Prim. Auditory Cortex. / Hesch's Cortex

[22] (Sup. Temp. G.)

↓

⊙ Aud. association area.



[39, 40] (Angular & Supramarginal Gy).

↓

⊙ Sens. Speech Area (Wernicke's Area).

⇓ # → Sen. Aphasia.

(22 + 39, 40)

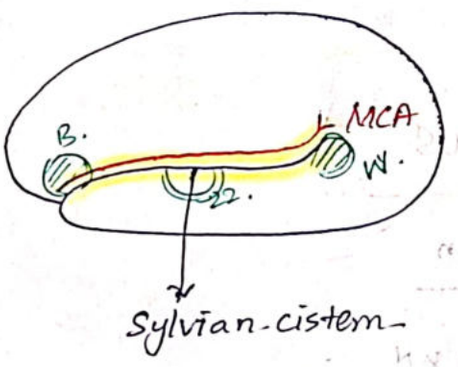
Note:

Broca's ~~Aphasia~~ Area # → Motor Aphasia.

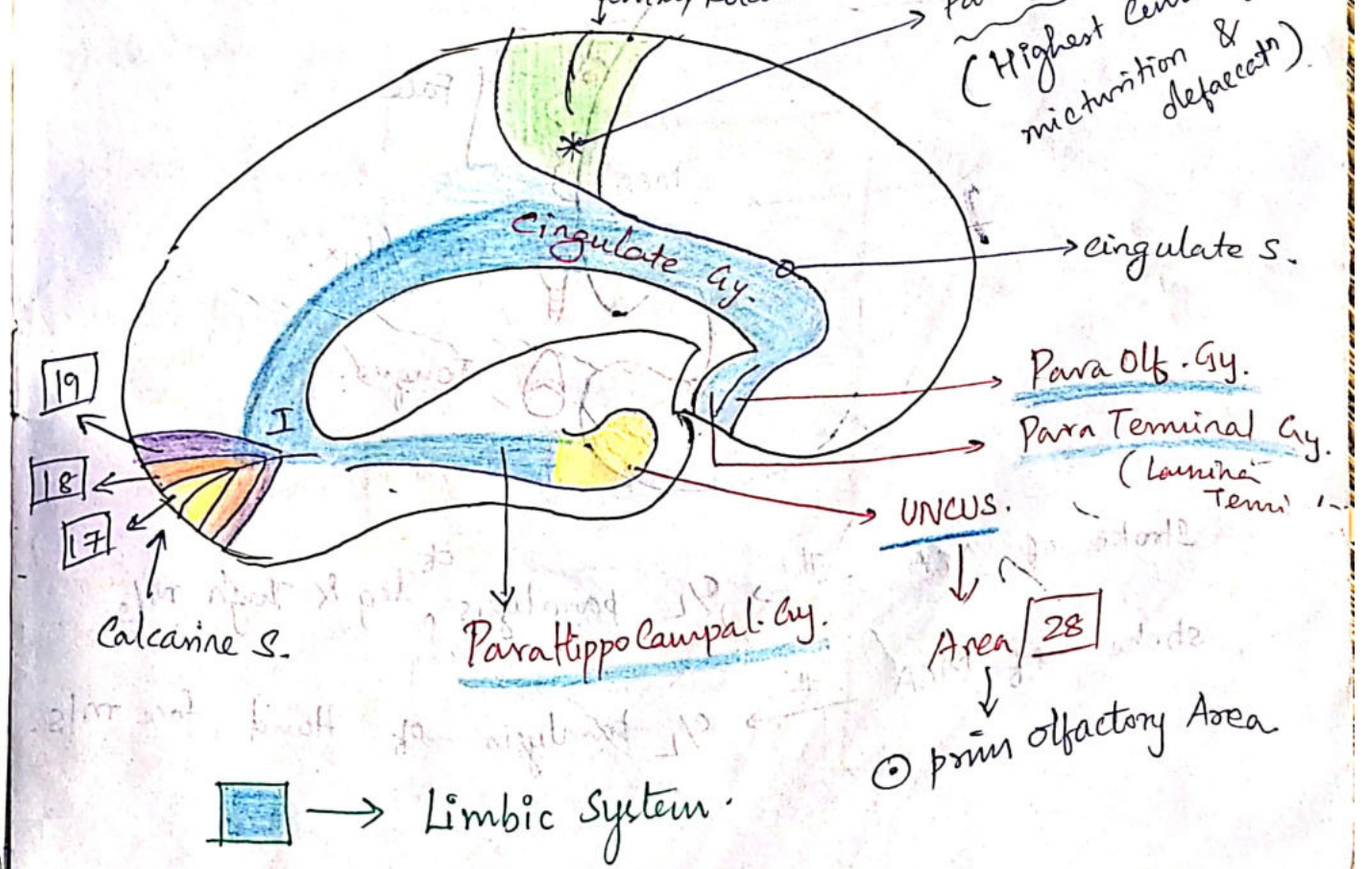
Wernicke's Area # → Sensory Aphasia. (word deafness)

M.A + S.A → Global Aphasia.

Stroke of MCA



MEDIAL SURFACE



→ Limbic System.

Note: PARACENTRAL LOBULE: (around central sulcus).

Highest centre for Micturitn & Defecatn.

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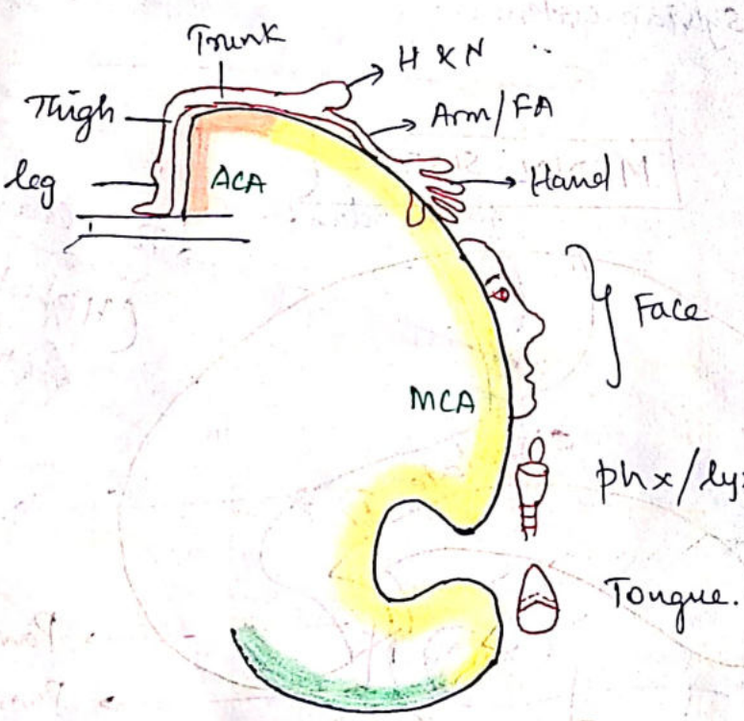
17 → prim visual area (Cuneus).

18,19 → Visual Association Area

HOMONCULUS:

Coronal secn



Stroke of ACA → # → C/L paralysis of leg & Thigh m/s.

stroke of MCA → # → C/L paralysis of Hand, face m/s.

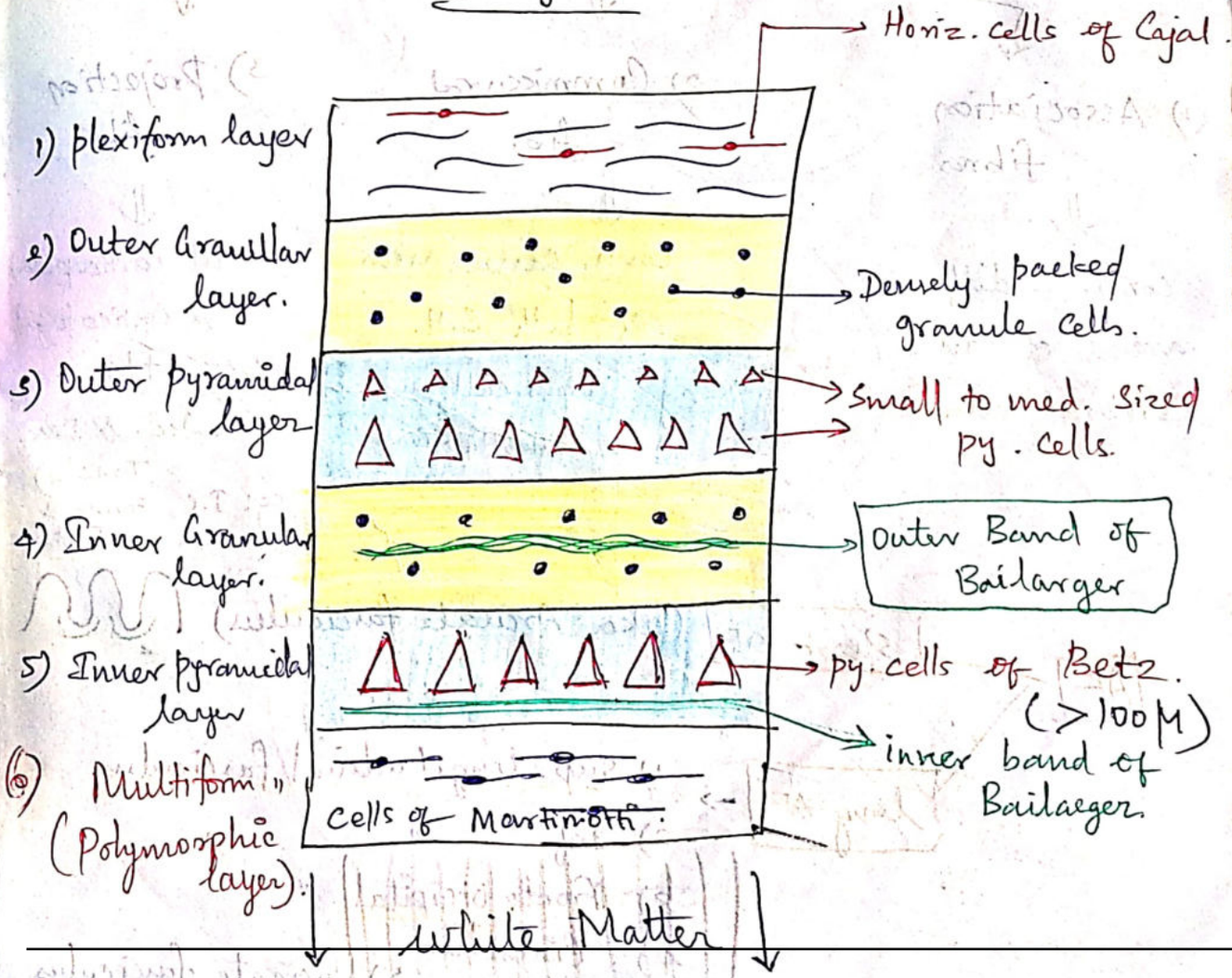
Histology of Cerebral cortex (6 layers).

Cerebral Cortex
② types.
- Granular Cortex
- Agranular Cortex

Granular layer >>> Pyramidal layer (more developed) → Sensory Cortex

Pyramidal layer >>> Granular layer → Motor Cortex

⑥ layers



Note:

outer band of Baillarger ⇒ found in Inner

↳ N. prominent in VISUAL

& appears as STRIATIONS

microscope. Thats why Visual

is aka "STRIATE CORTEX"