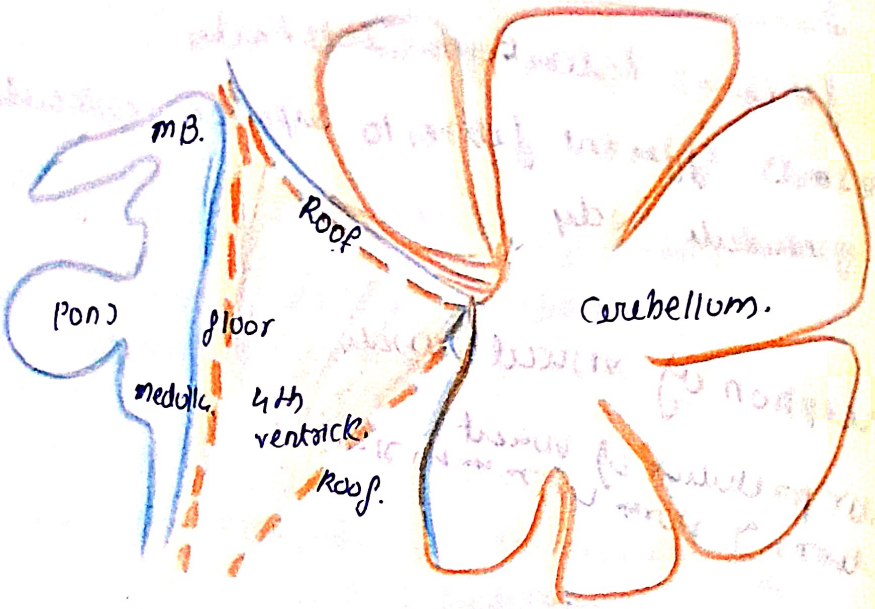
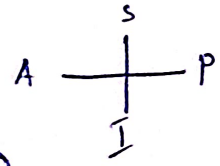
FOURTH VENTRICLE.

1. **Location:** in posterior cranial fossa.
   upper part of.
   between pons & medulla anteriorly
   cerebellum posteriorly.

2. **Shape:** D shape in mid saggital section, Rhomboid in horizontal section
   shape: tent shape.





3.
- lined by ependymal cells.
  {all ventricles are lined by it}.
- filled by CSF

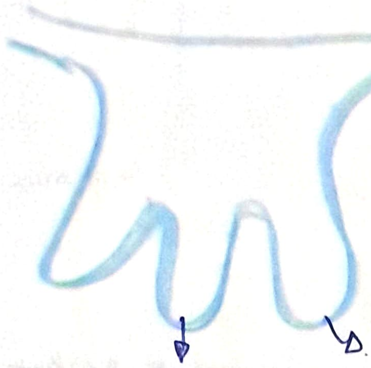
4. opening.
- superiorly connects with cerebral aqueduct of midbrain.
- inferiorly with central canal of medulla & spinal cord.
  remanno part of.
- ~~foramen of~~ CSF.
- communicates via 3 opening with subarachnoid space.

Recesses

{asked as subq on last ventricle}

(5) recess for fourth ventricle. there are.

- recesses are extensions from cavity of 4th ventricle.



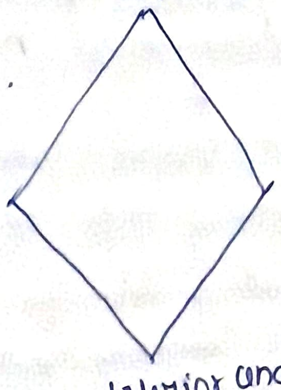
(1) 2 lateral recesses → lies in interval b/w inferior cerebellar peduncle (ventrally) & peduncle of flocculus {dorsally}

(2) median dorsal recess → extends into the white core of cerebellum & lies above the nodule.

(2) 2 lateral dorsal recesses → to lateral to nodule

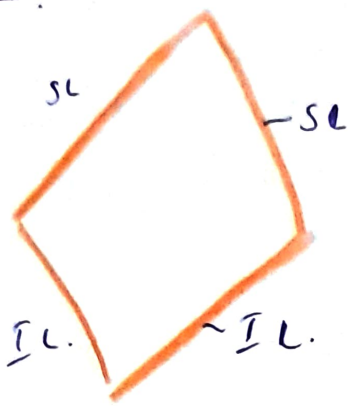
4♡ 4♡ 4♡

ANGLES



- in horizontal section: shape: rhomboid.
- SA: (Continuous above) with cerebral aqueduct
- IA: Continuous below with central canal

Boundaries.



① Lateral → superolaterally → superior cerebellar peduncle.

inferolaterally → inferior cerebellar peduncle.

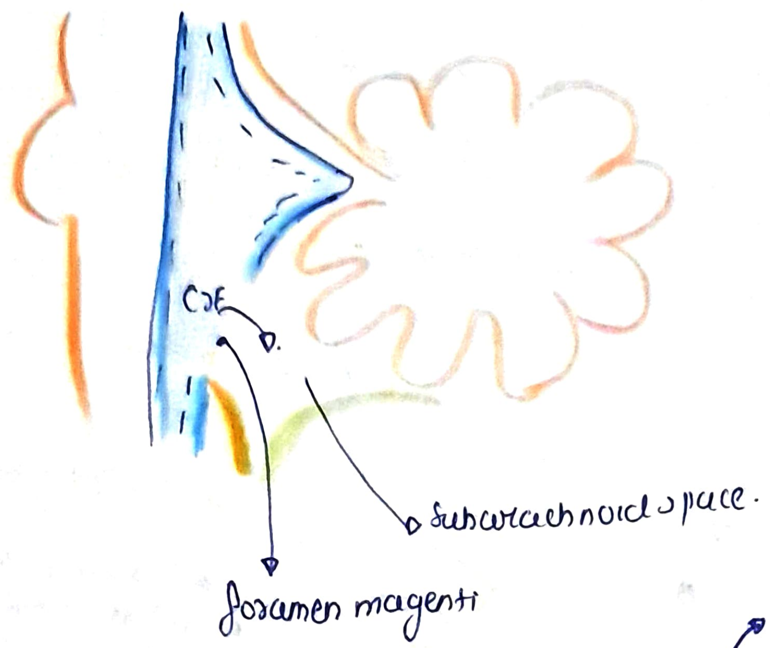
supplemented by gracile & cuneate tubercle

GRACILE & CUNEATE

② Roof (posterior wall).

- tent shaped roof sloping
- has upper part & lower part.
- superior medullary velum
- inferior medullary velum.

- In lower part of lower roof there is a deficiency
  → median aperture/ foramen of Magendie.
  ↓
  CSF enters subarachnoid space from 4th ventricle through this aperture.

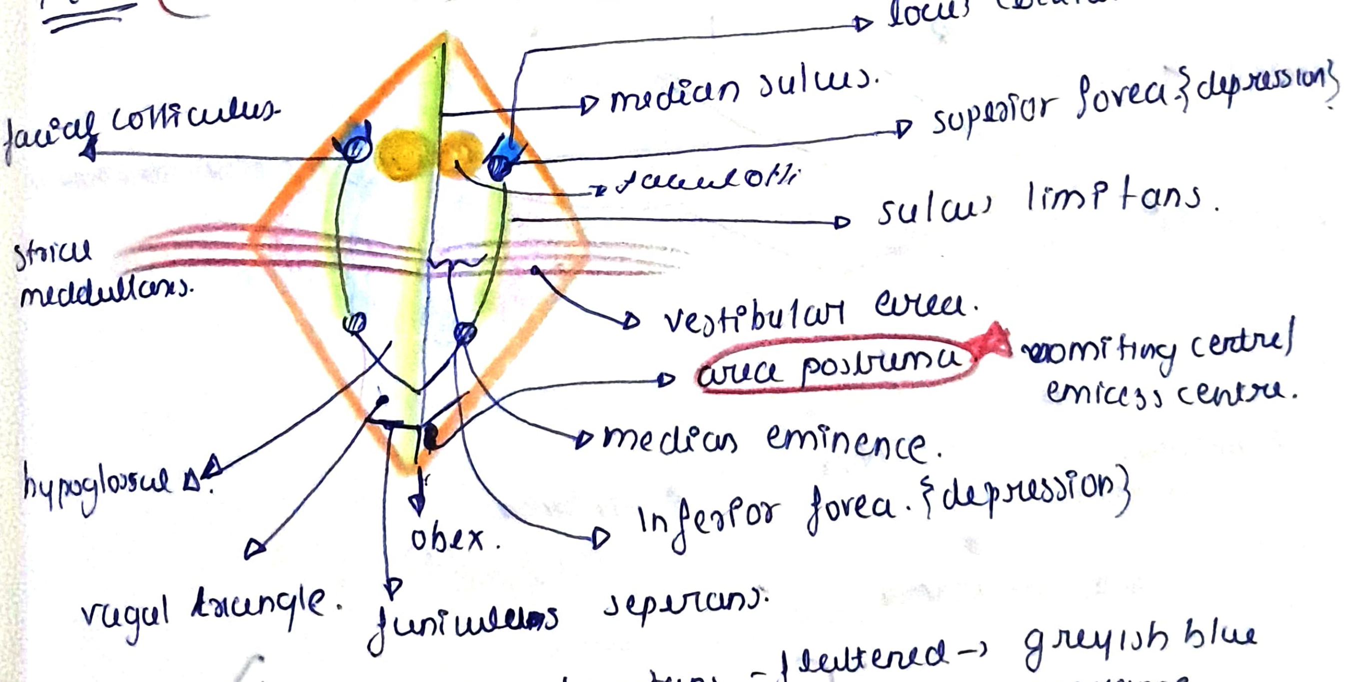


Qstn will be asked like this

{RHOMBOID FOSSA}

(8, 4 marks)

FLOOR (Short Note) FLOOR OF FOURTH VENTRICLE.



- upper part of sulcus limitans - fleltered -> greyish blue appearance.
  -> locus coeruleus.

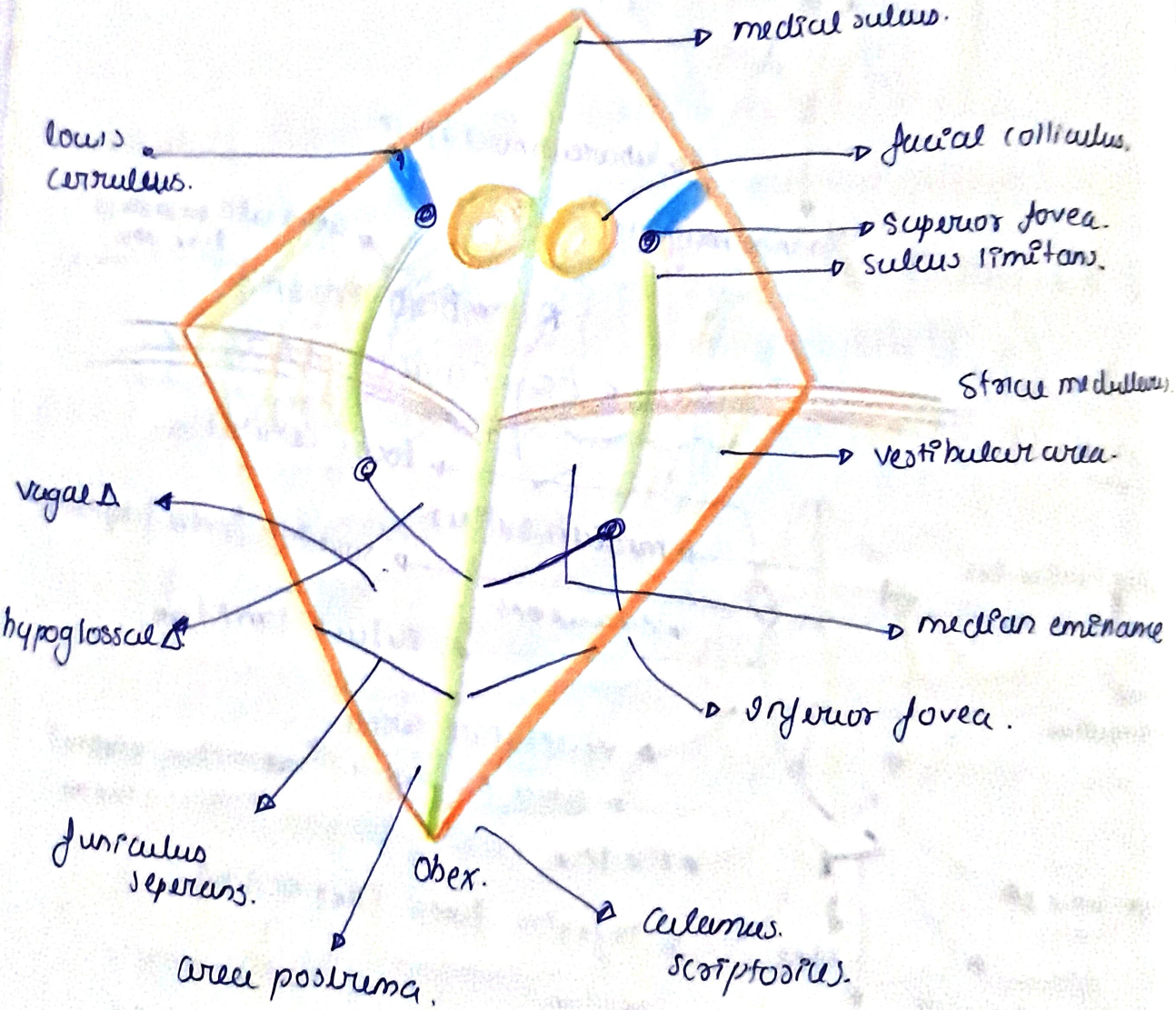
- in median eminence. at level of superior forea -> projecting swelling - facial colliculus
  due to winding of facial nerve around CN 6th nuclei

- dep to hypoglossal Δ → hypogl. nuclei
- dep to vagal Δ → nuclei of 9, 10, 11.

- Funiculus seperans → divide. vagal Δ

- lower part of floor.

locus ceruleus → calamus scriptorius.



→ (Explanation on other page.)

openings

- 5 openings.

① foramen of magendie.

② foramen of luschka (2).

③ central canal of medulla oblongata.

④ cerebral aqueduct.

★ CSF reaches 4th ventricle through.

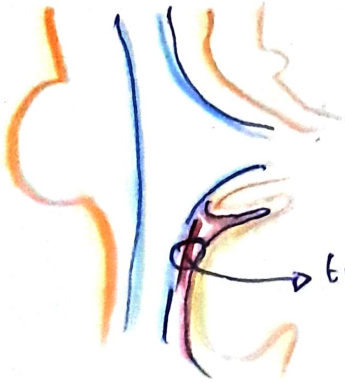
- Cerebral aqueduct

★ CSF leaves through central canal.

★ 4th ventricle connects to Subarachnoid space through foramen luschkae & foramen magendie.

Tela chorioidea of IVth ventricle.

- double layered fold of pia-mater between inferior vermis & lower part of roof of 4th ventricle.



CHOROID PLEXUS.

- capillary plexus of blood vessels btw two layers of tela chorioidea.
- project through the lower part of roof of choroid plexus.
- plexus is T-shaped.
- vertical limb - double - FM in between.
- horizontal limb - single lateral aperture.

Applied Anatomy.

- Ependymoma & medulloblastoma.
- due to proliferation of ependymal cells - obstruction to flow of CSF - internal hydrocephalous.

medulloblastoma - arises from the poorly differentiated primitive neurectodermal cells of cerebellar vermis & occurs mostly in children.