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Q1: write note on the cranial nerves ?

Ans: Cranial nerve :

Cranial nerve, in vertebrates, any of the paired nerves of the peripheral nervous system that connect the muscles

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and sense organs of the head and thoracic region directly to the brain.

Types of Cranial Nerve:

The cranial nerves are a set of twelve nerves that originate in the brain. Each has a different function for sense or movement.

① Cranial Nerve 1

Olfactory nerve (CN I) - S.
Sensory

② Cranial Nerve 2:

Optic nerve (CN II) Sensory

③ Cranial Nerve 3:

Oculomotor nerve (CN III) motor

④ Cranial Nerve 4:

Trochlear nerve (CN IV) motor

⑤ Cranial Nerve 5

Trigeminal Nerve (CN V) mixed

⑥ Cranial Nerve 6

Abducens nerve (CN VI) motor

③

⑦ Cranial Nerve 7

Facial Nerve (CN VII) - mixed

⑧ Cranial Nerve 8

Vestibulocochlear (Nerve VIII) - Sensory

⑨ Cranial Nerve 9

Glossopharyngeal Nerve (CN IX) - Mixed

⑩ Cranial Nerve 10

Vagus Nerve (CN X) - mixed

⑪ Cranial Nerve 11

Accessory Nerve (CN XI) - motor

⑫ Cranial Nerve 12

Hypoglossal Nerve (CN XII) - motor

Function :

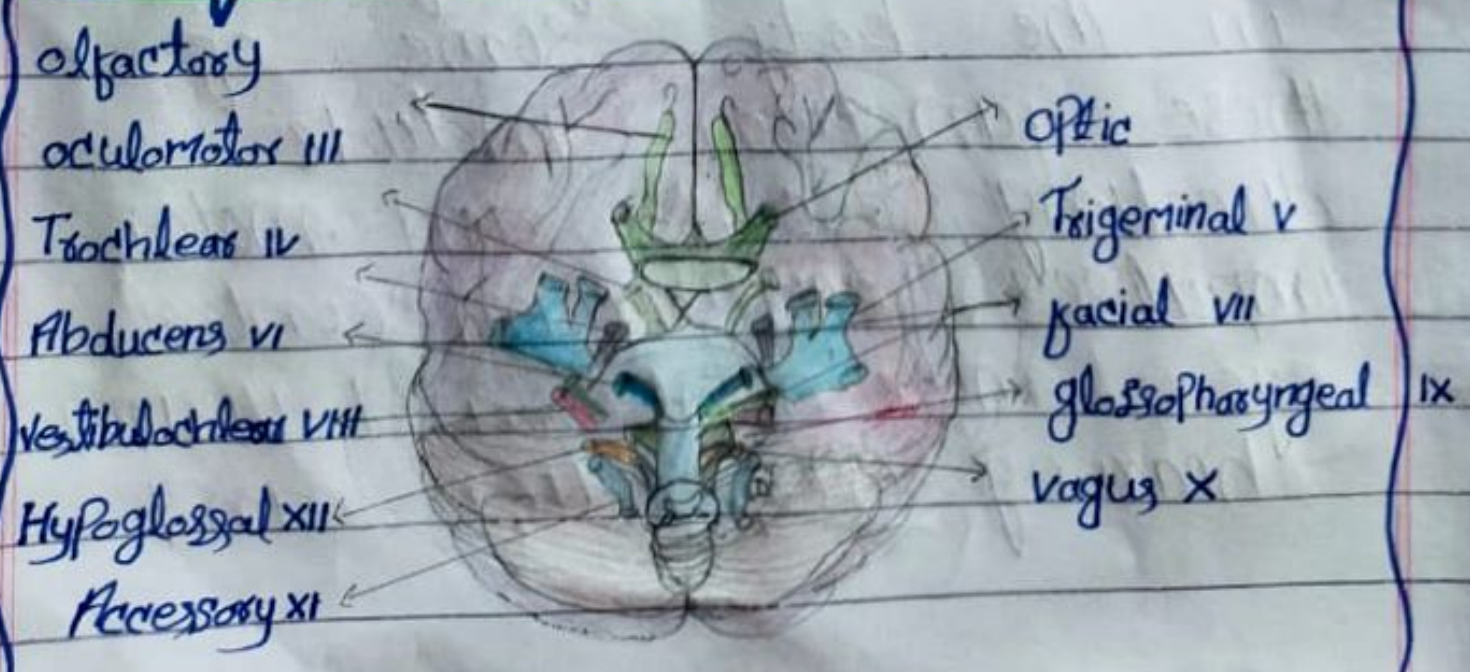
Cranial nerves are responsible for the control of a number of functions in the body. Some of these functions include directing sense and motor impulses, equilibrium control, eye movement and vision, hearing respiration and

Testing.

Location:

The cranial nerves consist of 12 paired nerves that arise from brain stem. The olfactory and optic nerves arise from the anterior portion of the brain called cerebrum. The oculomotor and trochlear cranial nerves system from the mid brain. The glossopharyngeal, vagus, accessory and hypoglossal nerves are attached to the medulla oblongata.

Diagram:



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Q2: Write note on the salient features of norma frontalis and norma occipitalis of skull?

Ans: Norma frontalis :-

The outline of the skull viewed from the front.

When viewed from the front the skull exhibits a somewhat oval outline, limited above by the frontal bone, below by the body of mandible, and laterally by the zygomatic bones and mandibular rami. The upper part, formed by the frontal squama is smooth and convex.

The anterior view of skull present an irregular surface with 3 excavations.

- ① one nasal cavity
- ② two orbital cavity.

Six Regions of Norma Frontalis :

- Frontal Region
- orbital Region
- Nasal Region
- Zygomatic Region
- Maxillary Region
- Mandibular Region

Objectives :

- To identify the bones of the skull base as well as their boundaries
- To know the importance of anatomic structures passing in and out of base of skull.

Boundaries :

- ⇒ bounded in front by the incisor teeth in the maxillae.
- ⇒ laterally by alveolar arch, the lower border of Zygomatic bone the Zygomatic arch and an imaginary line extending

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from it to mastoid process and extremity of superior nuchal line of the occipital.

Base of skull is formed by following bones:

- ① Hard plate formed by palatine processes of maxillae and palatine bones.
- ② The vomer
- ③ sphenoid bone with
 - ① the pterygoid processes
 - ② the under surface of great wings.
 - ③ spinous processes
- ④ Temporal bone with squame and mastoid and petrous portion.
- ④ Temporal bone with squame and mastoid and petrous portion.
- ⑤ occipital bone.

Normo occipital:

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visible bone:

- ① posterior parts of the parietal bones, above.
- ② upper part of the squamous part of the occipital bone below.
- ③ Mastoid part of temporal bone on each side

SUTURES:

- ① The lambdoid suture lies between the occipital bone and the two parietal bones. sutural bones are common along this suture.
- ② The occipitalimous suture lies between the occipital bone and the mastoid part of the temporal bone.

Other Features:

- ① Lambda, parietal foramina and obelion foramina and has been examined in the norma verticalis.

DIAGRAM ①

NORMA FRONTALIS :-



DIAGRAM ②

NORMA OCCIPITALIS



② The external occipital protuberance is a median prominence in the lower part of this noma. it makes the junction of head and neck.

③ The occipital point is a median point a little above inion. it is the point farthest from the glabella.

Q3: * what do you know about *
muscles of hip and
- knee?

③ what are major features of intracranial fossa of skull?

Ans: **INTRACRANIAL FOSSAE:**

② paired bones frontal and temporal

③ unpaired ethmoid, sphenoid and occipital.

intracranial fossa:

cranial cavity is divided

into.

Anterior cranial fossa

Middle cranial fossa

posterior cranial fossa

Anterior cranial fossa:

The frontal bone turns sharply back to form a large part of the roof of the orbit. This part of the bone is therefore called orbital plate of the frontal bone which is largest contributor to anterior fossa.

The frontal lobe of the brain occupies the anterior cranial fossa.

The posterior boundaries of the anterior cranial fossa is made by the lesser wing of the sphenoid.

Medially, lesser wing of sphenoid is projected

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back to the anterior clinoid processes.

- Boundaries.
- Anterolaterally
- Frontal sinus
- posteriorly lesser wing and the body sphenoid.

Floor

- Frontal bone
- Ethmoid
- lesser wing and the body sphenoid.

Relation:

nasal cavity, orbital cavity

contents

Frontal lobes of cerebral hemisphere.

Land marks

- Frontal crest = flex cerebri

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Later to foremen
lecerum the apex of
the petrous bone is
grooved by trigeminal
ganglion.

Anterolater to this
is small groove made
by the lesser petrosal
nerve. it is directed
to words foreman ovele.

posterior cranial fossa

The large superior
sagittal sinus is usually
continuous with right
transverse sinus and
smaller straight sinus with
left. Therefore the right
jugular foramen is
usually larger than the
left.

There is also the groove
for inferior petrosal sinus

On each side the is
clivus.

The opening of the
aquiduct of the vestibule.

On the posterior aspect
of petrous temporal bone
is the internal auditory
meatus which lead into
the region of the middle
and inner year.

Daigram:°



- Frontal
- Ethmoid
- Sphenoid
- Temporal
- Parietal
- Occipital

Q4: what do you know about muscles of hip and knee?

ANS: Muscles of hip:
in human anatomy, the muscles of hip joint are those muscles that cause movement in the hip. Most modern anatomists define 17 of these muscles may some times be considered.

Function:

Movement of hip are described in anatomical terminology.

The movement that brings the thighs close to abdomen is called flexion. when the legs open, such as in the lotus posture of yoga this is called opposite movement called medial

rotation. Hip abduction occurs when the femur moves outward to the side as in taking the things apart. Hip adduction occurs when the femur moves back to midline. Many muscles contribute to these movements.

The gluteus maximus is the main hip extensor, but the inferior portion of the adductor magnus also plays a role.

The adductor group is responsible for hip adduction.

MUSCLES OF KNEE:-

The knee is one of the largest and most complex joints in the body. The knee joint

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in the body. The knee joins the thigh bone (femur) to the shin bone. The smaller bone that runs alongside the tibia and the kneecap are other bones that make the knee joint.

The anterior cruciate ligament prevents the femur sliding backward on the tibia and the posterior cruciate ligament prevents the femur from sliding forward on the tibia. The medial and lateral collateral ligaments prevent the femur from sliding side to side. Two C-shaped pieces of cartilage called the medial and lateral meniscus act as shock absorbers.

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between the femur and tibia numerous bursae, or fluid filled sacs, help the knee move smoothly.

Function:

The muscles of the knee includes the quadriceps, hamstrings and the muscle of the calf. these muscle work in group to flex, extended and stabilize the knee joint. these motion of knee allow the body to perform such important movements as walking, running, kicking and jumping. Tendons connect the knee bones to leg muscles that moves the knee joint. ligaments joint the knee bones to provide stability to the knee.

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Daigram:

Hip Muscles:



Knee Muscles:



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Q5: Write a comprehensive note on the femoral triangle?

Ans: Femoral triangle:

- The femoral triangle is a hollow area in anterior thigh.
- Large neurovascular structures pass through this area, and can be accessed relatively easily.
- Thus it is an area of both anatomical and clinical importance.

Boundries:

Base:

inguinal ligament.

Apex:

it's created by the meeting point of the medial edge of adductor longus and sartorius.

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Floor :

it's gutter-shaped and muscular.

From lateral to medial side it's created by these muscles.

- iliacus
- psoas major
- pectineus

Boarder :

As this area is triangle, it has three borders.

superior boarder :

Formed by inguinal ligament. A ligament that runs from the anterior superior iliac spine to pubic.

lateral border :

formed by medial border of sartorius.

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It is approximately 1.3 cm long.

The femoral ring is closed by a connective tissue paper layer the femoral septum.

Femoral sheath :

it's funnel-shaped fascial sheath enclosing the upper 3.4 cm of femoral vessel.

the femoral sheath is split into 3 components by 2 anteroposterior septa.

- The lateral component includes the femoral artery and femoral branches of the genitofemoral nerve.

The intermediate component includes the femoral vein.

The medial compartment is small and called femoral canal.

"The End"

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Femoral pulse:

The femoral artery cross exactly midway between the pubic symphise and anterior superior iliac spine.

Just inferior to where the femoral artery crossed the inguinal ligament. it can be palpated to measure the femoral plus.

The femoral artery crossed exactly midway between the pubic symphise and anterior superior iliac spine.

Femoral canal:

The femoral canal is smallest anatomical compartment, located is most medial part of femoral sheath.