Muhammad Danish
I.D No : 14729

Paper : ~~Anatomy~~

Date : 26 - June - 2020

Question-1

Write about the structure of Eye. Also name the foraminas found in the base of Skull.

Answer:

Eye: The organ of sight. The eye has a number of components. These components include but are not limited to the cornea, iris, pupil, lens retina, macula, optic nerve, choroid and vitreous. The cornea is the clear front window of the eye that transmits and focuses light into the eye.

STRUCTURE of EYE

structore of the is essential to understand as it one of the important sensory organs in the human body. It is mainly responsible for vision, differentiate of colous (the human eye can differentiate approximately 10-12 million colours) and maintaining the biological clock of the human body.

External Structure of Eye:

Sclera: It is tough and thick white sheath that protects the inner part of the eye.

Conjunctiva: It is a thin transparent membrane that is spread across the sclera. It keeps the eye moist and clear.

Cornea: It is transparent layer of the skin that is spread over the pupil and the iris.

Iris: It is a pigmented layer of tissues that make up the coloured portion the eye.

Pupil: It is the small opening located in the middle of the iris. It allows light to come in.

Internal Structure of Eye:

Lens: It is a transparent biconvex and an adjustable part of an eye. The lens with the help of cornea refracts light focused on the retina.

Retina: It is the layer present at the back of the eye where all the images are formed. It is third and inner coat

of the eye.

Optic nerve: It is located at the end of the eyes, behind the retina. The optic nerve is mainly responsible for carrying all the nerve impulses from photoreceptors to the human brain.

Aqueous Humor: It is a watery fluid that is present in the area between the lens and the cornea.

Vitreous Humour: It is a semi-solid transparent, jelly-like substance that covers the interior portion of the eye. It reached to the retina.

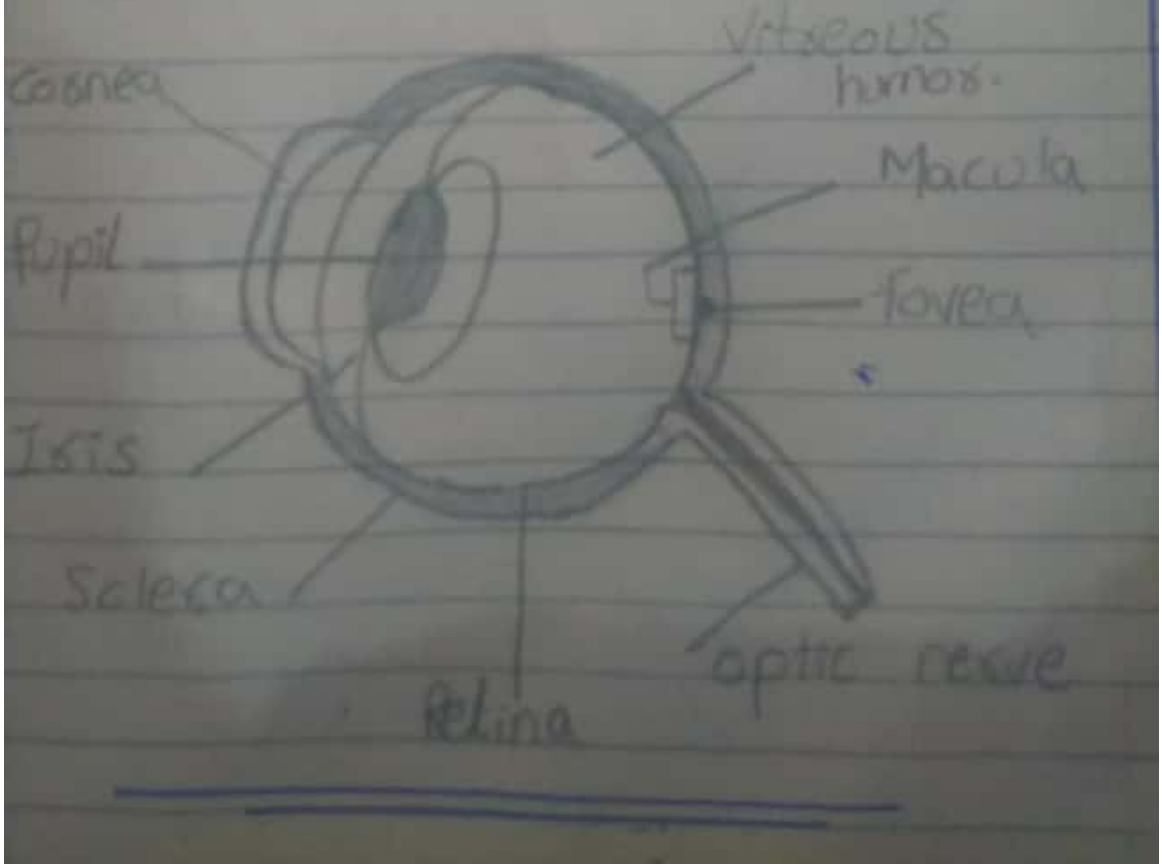
Name of the foraminas in the skull:

The human skull has the numerous openings (foramina) through which cranial nerves, arteries, veins, and other structure pass.

Foramina Names :

- Supraorbital foramen.
- foramen cecum.
- foramina of cribriform plate.
- Anterior ethmoidal foramen.
- Posterior ethmoidal foramen.
- optic canal.
- Superior orbital fissure.

Diagram of Eye :



Question.2

Write the name of the muscles of the medial fascial compartment of thigh with their origin and insertion?

Answer

The muscles in the medial compartment of the thigh are collectively known as the hip adductors.

Five muscles in this group:

These are five muscles in this group:

1: Gracilis.
2: Obturator.
3: Externus.
4: Adductor longus.
5. Adductor magnus.

All the medial thigh muscles are innervated by the obturator nerve, which arise from the lumbar

Muscle	Origin	Insertion
Gracilis	Inferior ramus of pubis, ramus of ischium.	upper part of shaft of tibia on medial surface.
Adductor Longus.	Body of pubis, medial to public tubercle.	Posterior Surface of shaft of femur.
Adductor brevis	Inferior rums of pubic.	Posterior Surface of shaf of femu
Adductor magnus	Inferior ramus of pubis, rams of ischium, ischial tubessity.	Posterior Surface of shaft of femur, adductor tubercle of femu
obturator externus	outer surface of obturator membrane and pubic and inschial rami.	Medial surface of greater trochanter

Question-3

What is the effect of injury of external laryngeal nerve and also write about how to test the integrity of facial nerve?

Answer:

Effect of injury of external laryngeal nerve:

⇒ It is commonly felt that SLNp primarily affects professional voice users as it hampers their ability to produce higher vocal registers and decreases vocal projection.

⇒ The most common effect on the voice was reduced fundamental frequency range and reduction in the highest obtainable

fundamental frequency.

Patients also had contraction of fundamental frequency at the lower range as well.

This compensation may change significantly over time.

⇒ Decrease in mean airflow with normal phonation and overall increase in subglottic pressures as well as increased phonatory instability characterized by increased jitter.

Test the integrity of facial nerve:

There are two main type of integrity test:

⇒ Covert (personality-based) tests that measure traits linked to rule adherence and

⇒ overt test. which asses an applicants attitudes towards various counterproductive work behaviors directly.

Question-4

Answer

Sutures of the Skull:

- Sutures are a type of fibrous joint that are unique to the skull. They are immovable and fuse completely around the age 20. Sutures are of clinical importance, as they can be points of potential weakness in both childhood and adulthood. The main sutures in adulthood are:

Coronal Suture

which fuses the frontal bone with the two parietal bones.

Sagittal suture

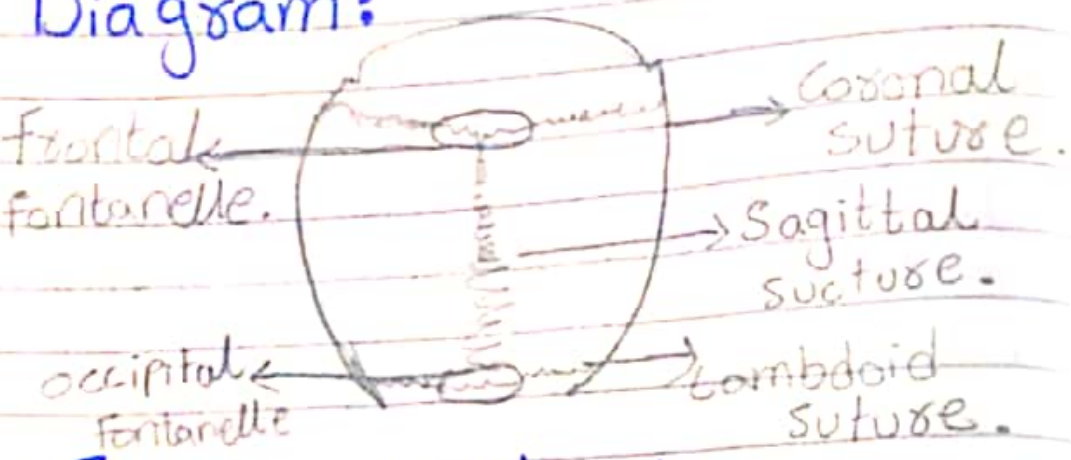
which fuses both parietal bones to each other.

Lambdoid Suture

which fuses the occipital bone

to the two parietal bones.

Diagram:



Trigminal Nerve :

The trigeminal nerve (the fifth cranial nerve, or simply CN V) is a nerve responsible for sensation in the face and motor functions such as biting and chewing; it is most complex of the cranial nerves.

Branches of trigeminal nerve :

⇒ Ophthalmic Nerve.
⇒ Maxillary Nerve.
⇒ Mandibular Nerve.

Ophthalmic Nerve

It is branch of trigeminal nerve.
It provides sensory innervation to the skin, mucous membranes and sinuses of the upper face and scalp.

Ophthalmic nerve travels laterally to the cavernous sinus and gives rise to the recurrent tentorial branch.

Maxillary Nerve

It is second branch of the trigeminal nerve, which originates embryologically from the first pharyngeal arch. Its primary function is sensory supply to the mid-third of the face.
The maxillary nerve contains general somatic afferent fibers.

Maxillary nerve arising

from the trigeminal ganglion in the middle cranial fossa leaves the cranial cavity through the foramen rotundum and emerges in the pterygopalatine fossa.

Mandibular Nerve

It is largest branch of trigeminal nerve.

It consists of both afferent and efferent motoric and sensory fibers as well as Proprioceptive, Sympathetic and parasympathetic fiber.

Supply:

It supplies
- ⇒ The teeth and gums of the mandible.
- ⇒ The skin of the temporal region.
- ⇒ The auricula.
- ⇒ The lower lip.
- ⇒ The lowest part of face.
- ⇒ muscles of mastication.

functions:

This carries sensory information from the lower third of the face which includes the lower lip.
It also responsible for the motor innervation of muscles of mastication, the tensor tympani and the anterior belly of digastric muscle.

Question. 5

Write a not on spinal cord with reference to it anatomical position and structure also write short note an pharynx with enumeration to its constrictors.

Answer

Spinal Cord:

The spinal cord is a long thin, tubular structure

made up of nervous tissue, which extends from the medulla oblongata in the brainstem to the lumbar region of the vertebral column. It enclose the central canal of the spinal cord, which contains cerebrospinal fluid.
The brain and spinal cord together make up the central nervous system. In human spinal cord begins at the occipital bone, passing through foramen magnum and entering the spinal cord at the beginning of the cervical vertebrae.
The spinal cord extends down to between the first and second lumbar vertebrae, where it ends.
It is around 45cm (18in) in men, and around 43cm (17in) long in women.
The diameters of spinal cord ranges from 13mm(½) in cervical and lumbar regions to 6.4mm (¼in) in thoracic area.

Anatomical Position and Structure:

.The Spinal cord in a cylindrical structure.

Greyish-white in colour. It has a relatively simple anatomical course.

.The spinal cord arises cranially as a continuation of medulla.

. It then travels inferiorly within the vertebral canal, surrounded by spinal menings containing cerebrospinal fluid.

. At the L2 vertebral level the spinal cord tapers off forming the conus medullaris

As a result of termination of spinal cord L2, it occupies around two third of the vertebral canal. The spinal nerves that

arise from the end of spinal cord are bundled together, forming a structure known as the cauda equina.
The spinal cord is marked by two depression on its surface. The anterior median fissure is a deep groove extending the length of anterior surface of spinal cord. on the posterior aspect there is slightly shallower depression.

Diagram

Pharynx

Is the part of the throat behind the mouth and nasal cavity, and above esophagus and Larynx - the tubes going down to the stomach and the lungs.

It is found in Vertebrates and invertebrates, through its structure varies across species.

Enumeration:

1. Constrictor pharyngeus superior.
2. Constrictor pharyngum medius.
3. Constrictor pharynus inferior.
4. Stylopharyngeus.
5. Salpingopharyngeus.
6. Palatopharyngeus.

Constrictor of the Pharynx

- Pharyngotympanic tube.
- Levator palati -
- Ascending palatine branch of facial artery.
- palatine branch of asscend: pharyngeal artery.
- Stylopharyngeus with glossopharyngeal nerve.
- Int laryngeal nerve and Sup laryngeal artery.