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Q1

Ans

The Eye

The eye Ball

The extraocular muscle

The bony orbit.

The eye ball:

The eye ball is a
bilateral and spherical organ.
which houses the structure
responsible for vision.

It lies in a bony cavity
within the facial skeleton.

known as the bony orbit.
Anatomically eye ball can
be divided into three parts
the fibrous vascular and
inner layer.

Layer of the eye balls:-

The eyeball divided into
fibrous vascular and inner
layer. The layer have different
structure and function.

Fibrous layer:-

The fibrous layer
of the eye is the outermost
layer. It consist of the
sclera and cornea. which
are continuous with each
other. Their main function
are to provide shape to
the eye and support the
deeper structure.

Sclera:-

Comprises the majority
of the fibrous layer
approximately (85%) it

it provide attachment to the extraocular muscle those muscle are responsible for the movement of eye. it is visible at the white part of eye.

Cornea:-

is transparent and positioned centrally at the front of eye. Light entering the eye is refracted by the cornea.

Vascular layer:-

The vascular layer of the eye lies underneath the pigmented layer. It consist of the choroid, ciliary body and iris.

Choroid:-

A layer of connective tissue and blood vessel. It provide nourishment to the outer layer of retina.

Ciliary body:-

Comprised of two parts. The ciliary muscle and ciliary process. The ciliary muscle consist of a collection of smooth muscle fibres. These are attached to the lens of the eye by ciliary muscle.

Iris:-

A circular structure with an aperture in the center called pupil it alter by the diameter of pupil smooth muscle fibres in with iris.

Inner layer:-

The inner layer of the eye consist of retina the light detecting part of the body eye. The retina itself is composed of two cellular layers.

Neural layer:-

Consist of photoreceptor
The light detecting the cell
of the retina it is
located posteriorly and
laterally in the eye.

pigmented layer:-

lies underneath the
neural layer and is attached
to the choroid layer. it
acts to support neural layer
and continues around the
whole inner surface of eye.

structure in the eyeball:-

with in eye ball
there are structures that
are not located in the
three layers.

Lens:-

The lens of the eye
is located anteriorly b/w
vitreous humor and the pupil.
The shape of the lens is
altered by ciliary body.

Anterior and posterior chamber:

There are two fluid filled areas in the eye known as the anterior and posterior chambers.

The anterior chamber is located b/w the cornea and iris and the posterior chamber b/w the iris and ciliary body.

Foramina of skull:

Various holes or foramina or found in the base of the skull.

- 1 Foramen caecum.
- 2 optic canal.
- 3 superior orbital fissure.
- 4 Foramen rotundum.
- 5 Foramen ovale.
- 6 Foramen spinosum.
- 7 Foramen Lacerum.
- 8 Carotid canal.
- 9 Foramen magnum.

- 10 Hypoglossal canal.
- 11 Jugular Foramen
- 12 Internal acoustic meatus.

Q2

Ans Muscle of the medial femoral compartment of thigh with their origin and insertion.

Gracilis:

origin: inferior ramus of pubis
ramus of ischium

insertion: upper part of shaft of tibia on medial surface

Adductor longus:

origin: Body of pubis medial to pubic tubercle.

insertion: posterior surface of shaft of femur (linea aspera)

Adductor brevis:

origin: inferior ramus of pubis

insertion: posterior surface of

shaft of femur (linea aspera)

Adductor magnus:

Origin: Inferior ramus of
of pubis ramus of ischium
ischial tuberosity.

Insertion: posterior surface of
shaft of femur. adductor
tubercle of femur.

Obturator externus:

Origin: Outer surface of
obturator membrane and
pubic and ischial rami.

Insertion: Medial surface of
greater trochanter.

Q3

Ans A superior laryngeal nerve
palsy change the pitch
of the voice box and
causes an inability to
explosive sound due to
paralysis of the cricothyroid

muscle. \rightarrow no recovery is evident three months after the palsy initially presents, the damage is most likely to be permanent.
 A bilateral palsy present as a "strabismic" and hoarse voice.

\rightarrow The external laryngeal nerve produces weakness of the voice because the vocal fold cannot be tensed the cricothyroid muscle is paralyzed.

Test of facial nerve

Temporal Branches
 wrinkle forehead
 Elevate eyebrow

Zygomatic branches
 close the eyes

Mandibular branches

show teeth.

Blow cheek.

cervical grimacing.

Q4

Ans 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 of 20. Sutures are clinically important as they can be point of potential weakness in both childhood and adulthood.

Coronal suture

which fuses the frontal bone with the parietal bone.

Sagittal suture

which fuses both parietal bones to each other.

Lambdoid suture:-

Capitulum bone in the two parietal bone. In neonates the incompletely fused suture bone joint give rise to membranous gaps b/w the bone known as fontanelles. The two major fontanelles are the frontal fontelles (located at the coronal and sigmoid sutures) and the occipital fontanelle (located at the junction of sigmoid and lambdoid sutures)

Trigeminal nerve:-

The trigeminal nerve is responsible for sensation in the face and motor function such as biting and chewing it is the most complex of the cranial nerve.

(Trigeminal Tri-Two and

geminus \rightarrow twin or twice
 derived from the fact
 that each of the two
 nerve (one on each side
 of the pons) has
 three major branches.

ophthalmic nerve (V_1)
 maxillary (V_2)
 mandibular nerve (V_3)

The ophthalmic and maxillary
 nerve are purely sensory
 whereas the mandibular nerve
 motor as well as sensory
 function.

Branches

Ophthalmic nerve:

Component sensory

Function:

Cornea

skin of forehead

scalp

eyelid and nose

Mucous membrane of peri-
 nasal sinuses and nasal
 cavity.

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 origin:- anterior aspect of
 the pons.
 opening in the skull
 superior orbital fissure.

Maxillary nerve

Component sensory

Function

stem of the face over maxilla.
 Teeth of the upper jaw
 Mucus membrane of
 the nose the maxillary sinus
 and palate.

Mandibular nerve

Component of motor

Function:-

Muscle of mastication.

Mylohyoid.

Anterior belly of digastric.

Tensor veli palatine

Tensor tympani.

Origin:- Anterior aspect of
 the pons.

Opening to the skull.
Foramen Rotundum.

Component to sensory.

Function:-

stem of cheek.

stem over mandible and
side of head.

Teeth of lower jaw
and TMJ.

Mucus membrane of mouth
and interior part of tongue.

Origin:- Anterior aspect of
pons.

opening to the skull.

Foramen Rotundum.

Q.5

Ans Spinal cord:-

The spinal cord is a cylindrical structure greyish white in colour. It has relatively simple anatomical course.

- The spinal cord arises cranially as a continuation of the medulla oblongata.

- In them travel inferiorly within the vertebral canal surrounded by the spinal meninges containing cerebrospinal fluid.

As a result of the termination of the spinal cord at L₂ it occupies around two third of the vertebral canal.

The spinal nerve that arise from the end of spinal cord are bundled together forming a structure known as cauda equina.

During the course of spinal cord there are two points of enlargement represent two regions of cerebral cortex.

The spinal meninges are three membranes that surround the spinal cord.

The dura mater

Arachnoid mater

pia mater

They contain cerebrospinal fluid which is support and protect the spinal cord.

They are analogous with the cranial meninges.

On the posterior aspect there is a slightly shallow depression the posterior median sulcus.

pharynx:-

The pharynx is the part of throat behind the mouth and nasal cavity and above the esophagus and larynx the tube going down to the stomach and the lungs. It is found in vertebrate and invertebrate though its structure varies across species.

In human the pharynx is part of the digestive system and the conducting zone of respiratory system.

The conducting zone which also includes the nostrils of the nose the larynx trachea bronchi and bronchioles factor.

The human pharynx is conventionally divided into three parts.

Neospharynx .

Oropharynx .

Laryngopharynx .

its is also important
in ~~and~~ vocalization .

In lumen two sets of
of pharyngeal muscles from
the pharynx to determine
the shape of its lumen .
They are arranged as
in inner layer of
longitudinal muscles and
an outer circular layer .

Constrictor names .

→ Superior constrictor

→ Middle constrictor

→ Inferior constrictor

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