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Viva : Regional and Radiological Anatomy

Question. 1

Answer

"Structure of human Ear"

Ear has major three division :

1: External Ear.
2: Middle Ear.
3: Inner Ear.

External Ear

. The ear can be split into

three parts: external, middle and inner. This article is about the external ear.

- The external ear can be functionally and structurally split into sections: the auricle (or pinna) and external acoustic meatus.
- The external acoustic meatus ends at the tympanic membrane. The tympanic membrane has double layered structure covered with skin on the outside and a mucus membrane on inside.

Middle Ear

The middle ear can be split into two tympanic cavity and epitympanic recess.

The tympanic cavity lies medially to the tympanic membrane.
The epitympanic recess is found superiorly, near the mastoid air cells.

The middle ear lies within the temporal bone and extends from tympanic membrane to the lateral wall of internal ear.

The main function of middle ear is to transmit vibration from tympanic membrane to the inner ear - it does this via the three bones of the ear.

Inner Ear

The inner ear is the most distal part of the ear, housing the vestibulocochlear organs.

It has two main functions:

- To convert mechanical signals from the middle ear into electrical signals, which can transfer information to the auditory pathway in the brain.

- To maintain balance by detecting position and motion.

The inner ear includes:

- oval window- connects to the middle ~~ear~~ ear with the inner ear.

- Cochlea - spiral-shaped organ of hearing, transforms sounds into signals that get sent to the brain.

- Auditory tube - drains fluid from the middle ear into the throat behind the nose.

Question-2

Answer

Submandibular Gland

The submandibular Gland are bilateral salivary glands located in the face. They mixed serous and mucous secretions are important

for the lubrication of food during mastication to enable effective swallowing and aid digestion.

Anatomical position

The submandibular gland is located within anterior part of submandibular traingle.

Superiorly: Inferior body of the digastric mandible.

Anteriorly: Anterior belly of digastric muscle.

Posteriorly: Posterior belly of the digastric muscle.

Submandibular Gland function :

The submandibular gland and the other salivary glands are essential for maintaining a healthy mouth. Saliva contains enzymes that begin to before it passes to your stomach, and it moistens food so that it slips easily down the esophagus. Saliva contains minerals that reduce the levels of harmful acids in the mouth.

Sublingual Gland

The sublingual glands are almond-shaped and lie on the floor of the oral cavity. They are situated underneath the tongue, ~~by~~ bordered

laterally by the mandible and medially by genioglossus muscle of the tongue. The glands form shallow groove on medial surface of mandible known as the sublingual fossa.

Function of Sublingual Gland :

That in turn prevents cavity formation and enamel wear. Saliva also lubricates food as you chew it to help the food pass from your esophagus to your stomach. You create saliva in three salivary glands found on the

palate, cheeks and mouth floor.

Question-3

Answer

Stone formation occurs most commonly in the submandibular gland for several reasons. The concentration of calcium in saliva produced by the submandibular gland is twice that of the saliva produced by parotid gland. The submandibular gland saliva is also relatively alkaline and mucous.

Question - 4

Answer

Vertebra's of the human Skeleton

The portion of the axial skeleton consisting of vertebrae joined together by intervertebral disk and fibrous tissue. It form the main supporting axis of the body, encloses and protects the spinal cord and attaches the appendicular skeleton and muscles for moving the various body parts.

The body spine. A curved column of bones called vertebrae.
The vertebral column also called spinal cord or spine, consists of a series of vertebrae connected by ligaments. it provides a supporting axis for body and protects the spinal cord.

function of Vertebra's:

- Permits movement although limited movement between individual vertebrae.

- Encloses and protects the spinal cord.

- Provides points of attachment for the ribs (bones) and muscles of the torso, especially muscles of the back.

Name of the bone in vertebra of human skeleton :

Vertebrae are 33 individual bones that interlock with each other to form the spinal cord.
The vertebrae are numbered and divided into regions: cervical, thoracic, lumbar, sacrum and coccyx.
only 24 bones are moveable, the vertebrae

of the sacrum and coccyx are fused.

Structure of Vertebrae

All vertebrae share a basic common structure. They each consist of an anterior vertebral body, and a posterior vertebral arch.

Vertebral Body:

The Vetebral body forms the anterior part of each vertebrae.

The superior and inferior aspects of vertebral body are lined with hyaline cartilage, Adjacent

Vertebral bodies are separated by a fibrocartilaginous intervertebral disc.

Vertebral Arch:

The Vetebral arch forms the lateral and posterior aspect of each vertebrae.
In combination with vertebral body, the vertebral arch forms an enclosed hole - the vertebral foramen.
The foramina of all vertebrae lie up to form the vertebral ~~colon~~ canal, which encloses the spinal cord.

Question-5

Answer

Importance of radiology in medical field:

Radiology plays a huge role in disease management by giving physicians more options, tools, and techniques for detection and treatment.

The medical field of radiology is specially that involves both diagnostic and interventional elements. It is directly connected to almost every other hospital

department.

- X-ray. Radiology started with the x-ray which changed the field of medicine fosever. The ability to use imaging to see.

- Other imaging. Although with x-ray radiology has grown to include other imaging technology such as CT, MRI.

- Doctors Rely on Radiographers. in today's medicial field, doctors rely heavily on.