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PAPER

ANATOMY

Submitted to

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QUESTION No 1

ANSWER

Human EAR STRUCTURE

→ human ear, organ of hearing and equilibrium that detects and analyzes sound by transduction

→ or conversion of sound waves into electrochemical impulses) and maintains the sense of balance (equilibrium)

→ The human ear like that of other mammals, contain sense organs that serve two different functions - that of hearing and postural equilibrium and coordination of the head and eye.

Movements

- Anatomically the ear has three distinguishable parts

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outer, middle, inner ear.

- The outer ear consists of the visible portion called the auricle, or pinna, which projects from the side of the head and short external auditory canal, the inner end of which is closed by the tympanic membrane commonly called eardrum.

- The function of outer ear is to collect sound waves and guide them to the tympanic membrane.

- The middle ear is a hollow air filled cavity in the temporal bone. It is spanned by a chain of three tiny bones → the malleus, Incus, stapes (stirrup) collectively called auditory ossicles → ossicular chain conducts sound from the tympanic membrane to the inner

Ear,

The inner ear consists of two functional units the vestibular apparatus, consisting of the vestibule and semicircular canals, which contains the sensory organs of postural equilibrium and the snail shell like cochlea, which contains sensory organs of hearing. These sensory organs are highly specialized endings of the eighth cranial nerve also called vestibulo-cochlear nerve.

QUESTION NO 2

what do you know about sub mandibular and sub lingual gland

SUBLINGUAL GLAND

- The sublingual gland is the smallest of the three major salivary glands, which also include the parotid and submandibular glands.
- The sublingual glands lie between the muscles of the oral cavity floor which include the geniohyoid muscle, hyoglossus muscle medially, and the mylohyoid muscle inferiorly.

FUNCTION

The sublingual glands lie directly under the mucous membrane covering the floor of the mouth beneath the tongue. A slight fold called sublingual papilla from which the ducts of the submandibular salivary glands open.

SUBMANDIBULAR GLAND

The submandibular gland is the second largest of the three main salivary glands, which also include the parotid and sublingual glands.

- The submandibular glands are paired major salivary glands that lie in the submandibular triangle.
- The glands have a superficial and deep lobe separated by the mylohyoid muscle.

FUNCTION

- The submandibular gland and other salivary glands are essential for digestion and for maintaining a healthy mouth.
- Saliva contains enzymes that begin to break down food before it passes to your stomach and it moistens food so that it slips easily down the esophagus.

QUESTION No 3

ANSWER

Stone formation most commonly occur in the submandibular gland than other salivary gland due to several reasons.

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The concentration of calcium in saliva produced by the submandibular gland is twice that the saliva produced by the parotid gland.

• The submandibular gland saliva is also relatively alkaline and mucous.

QUESTION NO 4

what do u know about vertebra's
of the human skeleton.
Explain in details

ANSWER:-

- vertebrae are the 33 individual bones that articulate with each other to form the spinal column.
- The vertebrae are numbered and divided into regions cervical, thoracic, lumbar, sacrum and coccyx.

on the top 24 bones are moveable the vertebrae of the sacrum and coccyx are fused.

CERVICAL NECK (C1 - C7)

The main function of the cervical spine is to support the weight of

head (about 10 pounds).

The Seven cervical vertebrae are numbered C1 to C7

- The neck has the greatest range of motion because of two specialized muscles of vertebrae that connect to the skull.

- The first vertebra (C1) is the ring-shaped atlas that connects directly to the skull (allow motion of the head)

The second vertebrae (C2) is the peg shaped axis which have a projection called odontoid that the atlas pivots around. (this joint don't allow motion).

THORACIC (MID NECK) (T1-T12)

The main function of the thoracic spine is to hold the rib cage and protect the heart and lungs.

- The Twelve thoracic vertebrae are numbered T1 to T12. The range of motion in the thoracic spine is limited.

LUMBAR (LOW BACK) (L1-L5)

The main function of the lumbar spine is to bear the weight of the body.

- lumbar spine is to bear the weight of the body

The five lumbar vertebrae (L1 to L5)

These vertebrae are much larger in size to absorb the stress of lifting and carrying heavy objects

SACRUM

The main function of the sacrum is to connect the spine to the hip bones (iliac)

- There are five sacral vertebrae, which are fused together.

- Together with the iliac bones they form a ring called the pelvic girdle.

Coccyx REGION :- The four fused bones of the coccyx or tailbone provide attachment for ligaments and muscles of the pelvic floor.

- While vertebrae has unique regional features every vertebra has three main functional parts.

- A drum-shaped body designed to bear weight and withstand compression (purple)
- An arch-shaped bone that protects the spinal cord (green)
- Star-shaped processes designed as outriggers for muscle attachment (tan)

QUESTION NOS

RADIOLOGY IMPORTANCE IN MEDICAL FIELD

- Radiology is now the key diagnostic tool for many diseases
- Radiology having important role in monitoring and predicting outcomes.
- It has a number of imaging modalities in its armamentarium which have different differing physical properties of varying complexity
- Radiology play huge role in disease management by giving physicians more options tools, and techniques

For detection and treatment

- Diagnostic Imaging allows for detailed information about structural or disease-related changes.

with the ability to diagnose during the early stages, patients may be saved.

Without the imaging technique, the patient's treatment is also incomplete.