**Final-Term Assignment/Paper (spring -020)**

**Human Anatomy-II**

**BS Radiology Sec-A 2nd Semester)**

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**Class : Radiology section A**

**Time: 6-hours (9am-3pm) Max Marks: 50**

Q1. Write anterior compartment of thigh and posterior compartment of leg muscles with origin, insertion and action. (10)

Ans 1) Anterior Compartment of thigh:

\* Flexor of the hip:

1)Sartorius

2) Pectineus.

3) psoas major.

4) illiacus.

\* Extensors of knee:

1) Rectus femoris.

2) Vastus lateralis.

3) Vastus medialis.

\*Nerve Supply:

Femoral nerve.

\* Origin:

Greater trochanter.

\* Insertion:

Tibial tuberosity via patellar ligament, part of quadriceps femoris.

ACTION:

Extend leg at knee.

\* Posterior Compartment Of Legs:

\*Deep group of muscles:

\* Popliteus.

\* Flexor digitorum longus.

\* Flexor hellucis longus.

\* Tibialis posterior.

\* ORIGIN:

From the lateral surface of lateral condyle of femur.

\* Insertion:

Posterior surface of shaft of tibia above soleal line.

Nerve Supply:

Tibial nerve.

\* Action:

\* Flexes leg at knee joint.

\* Unblock knee joint by later rotation of femur on Tibia.

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Q2. Define the following (10).

1. Endocrine gland
2. Exocrine gland
3. Thalamus
4. femoral triangle

Ans 2) Exocrine Glands:

\* Glands that have ducts.

\* Secretes hormones through ducts.

\* Located near the gland or organ it effects.

EXAMPLE:

\* Liver

\* Gallbladder

\* Sweat glands.

\* Pancrease.

Endocrine Glands:

\* Ductless

\* Secrete hormones directly into the blood stream.

EXAMPLE:

\* Pituitary glands.

\* Thyroid glands.

\* Adrenal glands.

C) THALAMUS:

Thalamus is one of the brain structures for initiating and processing fear response.

\* It is also responsible foe spatial learning.

\* Evidence \_rats with demaged thalamic regions showed no improved in formation of repetitive maze task.

D) FEMORAL TRIANGLE:

\* The superficial fascia overlying the roof includes.

 \_Superficial beanches of the femoral artery and accompanying veins.

\_upper part of great saphenous vein.

\_Superficial inguinal lymph nodes.

\_Femoral branch of the genitofemorak nerve, and the branches of the illionguinal nerve.

\* The inguinal ligaments acts as a flexor retinaculum, supporting the contents of the femoral triangle during flexion at the hip.

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Q3. Write the Extraocular muscles. Enlist both voluntary and involuntary. (10)

Ans 3) Extraocular Muscles:

1) Voluntary Mucsles:

\* Superior rectus.

\* inferior rectus.

\* Medial rectus.

\* Lateral rectus.

\* Superior oblique.

\* Inferior oblique.

2) Involuntary Muscles:

\* Superior tarsal of Muller,s Muscles.

\* Inferior tarsal muscles.

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Q4. Describe the arches of foot and functions of arches. (10)

Ans 4) Arches of the Foot:

\* Bones of the foot are arranged to form three strong arches.

\* Arches are fully developed by age 12 or 13.

 \_Two longitudinal (Lateral and medial)

\_One transverse.

Function of Arches:

\* Arches help the foot support and distribute the weight of the body and provide leverage during walking.

Types of Arches of foot:

1)Transverse Arches:

2) Medial Longitudinal Arches.

3) Lateral Arches

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Q5. Write a note on cerebrum, its lobes and functions. (10)

Ans 5): CEREBRUM:

 STRUCTURE:

\* It is divided into 2 halves called cerebral hemisphere.

\* They communicate via corpus coliosum.

\* Cerebral cortex is the outer region cerebrum.

LOBES OF CEREBRUM:

1)Frontal lobe:

Most interior portion of the cerebrum separate frontal and periatal lobe.

\* Control motor function, persosonality, and speech.

\*Its also called as, Motor Cortex.

2) PARIETAL LOBE:

The most superior portion of the cerebrum.

\* Receives and interprets nerve impulses from sensory receptors and interprets language

\* Receives sensory input from the skin. (touch etc).

3) Occipital lobe :

The most posterior portion of the cerebrum.

\* Receives input from the eyes and controls vision.

4) Temporal lobe:

The left and right lateral portion of the cerebrum.

\* Controls hearing and smell.

FUNCTION OF CEREBRUM:

\* It helps in movement.

\* it controls speech

\* it is responsible for sensory processing.

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