

Final-Term Assignment/Paper (spring -020)

Human Anatomy-II

BS Radiology Sec-A 2nd Semester)

Instructor: Dr. M.Jaffar

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)

Q2. Define the following (10).

- (a) Endocrine gland
- (b) Exocrine gland
- (c) Thalamus
- (d) femoral triangle

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

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

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

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Subject. Anatomy

Department. Radiology

Section A.

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Question 2

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Answer. A

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An organ that makes hormones that are released directly into the blood and travel to tissues and organs all over the body. Endocrine glands help control many body functions, including growth and development, metabolism, and fertility. Some examples of endocrine glands are the pituitary, thyroid, and adrenal glands.

Answer. B

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Exocrine glands are glands that secrete substances onto an epithelial surface by way of a duct. Examples of exocrine glands include sweat, salivary, mammary, ceruminous, lacrimal, sebaceous, prostate and mucous.

Answer. C

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The thalamus is a small structure within the brain located just above the brain stem between the cerebral cortex and the midbrain and has extensive nerve connections to both. The main function of the thalamus is to relay motor and sensory signals to the cerebral cortex.

Answer. D

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The femoral triangle (or Scarpa's triangle) is an anatomical region of the upper third of

the thigh. It is a subfascial space which appears as a triangular depression below the inguinal ligament when the thigh is flexed, abducted and laterally rotated

Question 5.

Answer.

The cerebrum is the largest part of the brain. ... The cerebrum is made up of the two cerebral hemispheres and their cortices (the outer layers of grey matter), and the underlying regions of white matter. Its subcortical structures include the hippocampus, basal ganglia and olfactory bulb.

Each side of your brain contains four lobes. The frontal lobe is important for cognitive functions and control of voluntary movement or activity. The parietal lobe processes information about temperature, taste, touch and movement, while the occipital lobe is primarily responsible for vision.

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Question 3.

The extraocular muscles are the six muscles that control movement of the eye and one muscle that controls eyelid elevation (levator palpebrae). The actions of the six muscles responsible for eye movement depend on the position of the eye at the time of muscle contraction.

Involuntary means you do not control the movement. The beating of your heart and movement of your digestive tract are both examples of involuntary muscle action. You can voluntarily blink your eyes; however, sometimes blinking your eyes is involuntary.

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Question 4.

Answer.

The arches of the foot, formed by the tarsal and metatarsal bones, strengthened by ligaments and tendons, allow the foot to support the weight of the body in the erect posture with the least weight. They are categorized as longitudinal and transverse arches.

The medial longitudinal arch in particular creates a space for soft tissues with elastic properties, which act as springs, particularly the thick plantar aponeurosis, passing from the heel to the toes. Because of their elastic properties, these soft tissues can spread ground contact reaction forces over a longer time period, and thus reduce the risk of musculoskeletal wear or damage, and they can also store the energy of these forces, returning it at the next step and thus reducing the cost of walking and, particularly,

running, where vertical forces are higher

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Question 1.

Answer.

There are four muscles in the deep compartment of the posterior leg. One muscle, the popliteus, acts only on the knee joint. The remaining three muscles (tibialis posterior, flexor hallucis longus and flexor digitorum longus) act on the ankle and foot

The posterior compartment of the leg contains seven muscles, organised into two layers – superficial and deep. The two layers are separated by a band of fascia.

The posterior leg is the largest of the three compartments. Collectively, the muscles in this area plantarflex and invert the foot. They are innervated by the tibial nerve, a terminal branch of the sciatic nerve.

In this article, we shall look at the attachments, actions and innervation of the muscles in the posterior compartment of the leg.

The posterior compartment of the thigh is one of the fascial compartments that contains the knee flexors and hip extensors known as the hamstring muscles, as well as vascular and nervous elements, particularly the sciatic nerve.

Structure and Function. The function of the anterior compartment of the thigh is to extend the leg at the knee joint. Three major muscles (actually, two muscles and one muscle group) comprise the anterior compartment of the thigh – the pectineus, sartorius and quadriceps femoris.

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Thanks so much sir.