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Degree D T

Select the best option.

1. A muscle known for tailor master:

- A. Iliacus
- B. Psoas major
- C. Sartorius**
- D. Pectineus

2. Which of the quadriceps femoris muscles performs extension as well as flexion?

- A. Vastus lateralis
- B. Vastus medialis
- C. Vastus intermedius
- D. Rectus femoris**

3. Which of the following muscles crosses two joints?

- A. Vastus lateralis
- B. Vastus medialis
- C. Vastus intermedius
- D. Rectus femoris**

4. It is the largest and longest bone of the body:

- A. Hip bone

B. Femur

C. Vertebra

D. Tibia

5. It is the union of three bones:

A. Sternum

B. Femur

C. Hip bone

D. Tibia

6. The true foot drop occurs because of:

A. Sciatic nerve

B. Common peroneal nerve

C. Tibial nerve

D. Posterior cutaneous nerve

7. Peripheral hearts are located in:

A. Thorax

B. Abdomen

C. Thigh

D. Leg

8. Which of the following structure does not take part in the formation of the knee joint?

A. Condyle of tibia

B. Head of fibula

C. Medial femoral condyle

D. Lateral femoral condyle

9. It is inserted to the quadrate tubercle:

- A. Quadriceps femoris
- B. Quadratus plantae
- C. Quadratus femoris**
- D. Rectus femoris

10. How many tarsal bones are there?

- A. 12
- B. 14
- C. 16**
- D. 18

Q1. GIVE REASONS:

- a) Why hip joint is more stable than shoulder joint?
- b) Why flexor compartment of lower limb is directed posteriorly?
- c) Why varicose veins are more common in prolonged standing working persons?

Answer # 1

Part (a)

This is because the socket is deeper and the ligaments and muscles much bigger and stronger. As a result we can get the same range of movement from our Hips as from our shoulders but in return the hip is more stable and much less likely to dislocate than the shoulder.

Part (b)

The posterior compartment of the leg contains 7 muscles, organised into two layers superficial and deep. The two layers are separated by a band of fascia.

The posterior leg is largest of three compartments. Collectively the muscles in this area plantarflex and invert the foot. They are innervated by the tibial nerve a terminal branch of sciatic nerve. In this article we shall look at the attachments, actions and inversion of the muscles in the posterior compartment of leg.

Part (c)

Prolonged standing can cause veins to over work and blood may pool in the leg veins, increasing pressure in those veins causing the valves to become weak and inefficient leading to varicose veins.

Q2. What do you know about the ligaments of hip joint?

Answer # 2

Ligaments Of Hip Joints:

The ligaments of the hip joint act to increase stability. They can be divided into two groups – intracapsular and extracapsular:

Intracapsular

The only intracapsular ligament is the ligament of head of femur. It is a relatively small structure, which runs from the acetabular fossa to the fovea of the femur.

It encloses a branch of the obturator artery (artery to head of femur), a minor source of arterial supply to the hip joint.

Extracapsular

There are three main extracapsular ligaments, continuous with the outer surface of the hip joint capsule:

Iliofemoral ligament – arises from the anterior inferior iliac spine and then bifurcates before inserting into the intertrochanteric line of the femur.

It has a 'Y' shaped appearance, and prevents hyperextension of the hip joint. It is the strongest of the three ligaments.

Pubofemoral – spans between the superior pubic rami and the intertrochanteric line of the femur, reinforcing the capsule anteriorly and inferiorly.

It has a triangular shape, and prevents excessive abduction and extension.

Ischiofemoral – spans between the body of the ischium and the greater trochanter of the femur, reinforcing the capsule posteriorly.

It has a spiral orientation, and prevents hyperextension and holds the femoral head in the acetabulum.

Q3. Write a note on the movements and stability of talocrural joint.

Answer # 3

ankle joint (or talocrural joint) is a synovial joint located in the lower limb. It is formed by the bones of the leg (tibia and fibula) and the foot (talus).

Functionally, it is a hinge type joint, permitting dorsiflexion and plantarflexion of the foot.

In this article, we shall look at the anatomy of the ankle joint; its articulating surfaces, ligaments, movements, and clinical correlations.

The ankle joint is a hinge type joint, with movement permitted in one plane.

Thus, plantarflexion and dorsiflexion are the main movements that occur at the ankle joint. Eversion and inversion are produced at the other joints of the foot, such as the subtalar joint.

Plantarflexion – produced by the muscles in the posterior compartment of the leg (gastrocnemius)

soleus, plantaris and posterior tibialis).

Dorsiflexion – produced by the muscles in the anterior compartment of the leg (tibialis anterior, extensor hallucis longus and extensor digitorum longus).

Neurovascular Supply

The arterial supply to the ankle joint is derived from the malleolar branches of the anterior tibial, posterior tibial and fibular arteries.

Innervation is provided by tibial, superficial fibular and deep fibular nerves.

Q4. Write a note on the transverse arch of the foot

Answer # 4

The transverse arch of the foot is an arch in the coronal plane formed by the three cuneiforms, the cuboid, and the bases of the five metatarsals. They are held together by the deep transverse metatarsal ligaments. The peroneus longus and tibialis posterior tendons assist in maintaining the curvature of the arch as they attach at the plantar aspect of the foot.