

Subject: Anatomy II

Mid Term Assignments. NAME : MOHAIMAN ALAM

Semester: DPT 2nd. ID : 16439

Dr. Attaullah

Section A.

Note: Highlight the correct option of the given MCQs from section A. attempt all 3 questions from section B.

1. Out of the following bony landmarks to which the Ligamentum teres attached?

- A. intertrochanteric line
- B. trochanteric crest
- C. Fovea capitis
- D. Greater trochanter

2. Neck of the femur connects the head of the femur with the shaft. It is cylindrical, projecting in a superior and medial direction. It is set at an angle of _____degrees to the shaft.

- A. 156
- B. 170
- C. 135
- D. 101

3. The proximal area of the femur forms the hip joint with the acetabulum of the pelvis. It consists of a head and neck, and two bony processes the greater and lesser trochanters. There are also two bony ridges connecting the two trochanters; the intertrochanteric line anteriorly and the trochanteric crest posteriorly. Out of all these proximal bony landmarks which one is the most lateral palpable bony landmark?

- A. Greater trochanter
- B. Lesser trochanter
- C. The intertrochanteric line
- D. Trochanteric crest.

4. _____is the site of attachment for iliopsoas muscle.

- A. Greater trochanter
- B. Lesser trochanter
- C. The intertrochanteric line

D. Trochanteric crest

5. Neck of femur fractures are increasingly common and tend to be sustained by the elderly population as a result of low energy falls in the presence of osteoporotic bone. Classically, the distal fragment is pulled upwards and _____

- A. Medially rotated
- B. Externally rotated
- C. No rotation occurs
- D. None of the above

6. Regarding neck of the femur fracture the medial femoral circumflex artery can be damaged in _____

- A. Intracapsular fracture
- B. Shaft fracture
- C. Extracapsular fracture
- D. Femoral epicondylar fracture

7. The shaft of the femur descends in slight _____ for stability.

- A. Lateral direction
- B. Medial direction
- C. Posterior direction
- D. Diagonal direction

8. Mr. A met with an accident and his right femur broke at 3 different places. The cut was a clean break and the four pieces were put back together in their original place. What kind of fracture did he have?

- A. Contusion
- B. Hairline Fracture
- C. Multiple Fracture
- D. Simple Fracture

9. A closed femoral shaft fracture can result in _____ blood loss.

- A. 10-15ml
- B. 100-150ml
- C. 1000-1500ml
- D. 10000-15000ml

10. Which of the following is the medial bone of lower leg?

- A. Patella
- B. Fibula
- C. Tibia
- D. Medial cuboid

11. The shaft of the tibia is prism-shaped, with_____

- A. One border and one surface
- B. Two borders and one surface
- C. Three borders and two surfaces
- D. Three borders and three surfaces

12. The calcaneus is often fractured as a result of _____

- A. Distraction
- B. Axial loading
- C. Walking
- D. Setting

13. The depth of the acetabulum is raised by the_____

- A. Fovea captious
- B. Capsule of hip joint
- C. acetabular labrum
- D. ischial Bursae

14. The most powerful ligament of hip joint is?

- A. Iliofemoral ligament
- B. Pubofemoral ligament.
- C. Ischiofemoral ligament.
- D. Transverse acetabular ligament

15. The hip joint is supplied by the branches of the following arteries EXCEPT:

- A. Medial circumflex femoral artery.
- B. Lateral circumflex femoral artery.
- C. Radial artery.
- D. Superior gluteal artery.

Q:1 Describe Hip joint anatomy. (your answer should cover these headings, (Articular surfaces of hip joint, Ligaments of joint, Stability of hip joint, Blood and nerve supply).

Answer:

Hip Joint:

Hip joint is stable joint of the body as shoulder but shoulder joint is more stable and the movement is slightly restricted. Hip joint consist of ball and socket joint and synovial joint which connects lower limb to the pelvic girdle.

Articular surfaces of hip joint:

The head of the femur articulate with the acetabulum of hip bone to form hip joint.

The acetabulum present is like a horse shoe shaped.

Ligaments of joint:

Following are the ligaments of hip joint.

Capsular ligament:

Capsular ligament is attached on the hip bone.

Anterosuperiorly the capsule is thick and firmly attached.

Posteriorly the capsule is thin and loosely attached to bone.

Iliofemoral ligament:

It is Y-shaped ligament lies anteriorly.

It is one of the strongest ligament of the body which is triangular in shape.

Pubofemoral ligament:

It support the joint inferomedially.

This ligament is also triangular in shape.

Ischiofemoral ligament:

This ligament covers the joint posteriorly.

It extend from the ischium to the acetabulum.

Ligamentum teres femoris:

It is round and flat ligament of the head of the femur.

To the fovea capitis an apex is attached there.

Acetabular labrum:

A fibrocartilaginous rim which is attached to the margins of the acetabulum.

It holds the head of femur in a position.

Stability of hip joint:

Hip joint have high degree of stability and its stability depends upon following factors;

Tension and strength of ligaments helps in stability of hip joint.

It has some powerful ligaments which helps in the stability of the hip joint.i.e the iliofemoral ligament and the pubofemoral ligament.

Bones of the hip remains intact due tho the muscles attached tho them.

It has acetabulum labrum which helps in raising the depyh of the acetabulum.

Nerve supply:

Femoral nerve.

Obturator nerve.

Sciatic nerve.

Superior gluteal nerve.

Blood supply:

Obturator artery.

Medial circumflex artery.

Lateral circumflex artery.

Two gluteal arteries.

Q:2 Explain the following in detail.

Answer:

A. Cruciate Ligaments:

The two ligaments that cross each other. These ligaments connects the femur and tibia. They are arranged like the letter "X" i-e they cross each other.

Types of cruciate ligaments:

There are two types of cruciate ligaments.

Anterior cruciate ligament:

A type of cruciate ligament that is attached to the anterior intercondylar region of the tibia and connects the femur to the tibia.

Function:

It stabilizes the knee joint and prevent the anterior dislocation of the tibia on femur.

Posterior cruciate ligaments:

A type of cruciate ligament that is attached to posterior intercondylar region of the tibia.

Function:

Helps in stablization as anterior cruciate ligament and also resist posterior translation onto femur. It also restricts posterior displacement of the tibia.

B. Menisci:

Between the two bones of knee a cartilage is present known as menisci. i is present between the knee joint. Menisci is the plural of "Meniscus".

Types of menisci:

There are two types of menisci.

1. Medial meniscus.
2. Lateral meniscus.

Medial meniscus:

A fibrocartilage structure located between the medial condyle of femur and tibia.

It is C-shaped.

Lateral meniscus:

A fibrocartilage structure which has circular shape as compare to medial meniscus and donot have any extra attachments.

Functions of Meniscus:

Reduce friction during movement of the bones.

It increases the stability of the joint.

Act as the major shock absorber of the body because it increases the surface area to dissipate forces furthermore.

?

Q:3 Write down a comprehensive note on medial and lateral ligaments of ankle joint

Answer:

Medial ligament of Ankle joint:

The medial or deltoid ligament is a strong triangular bond attached to the medial malleolus and present on inside of the ankle.

Medial ligaments consist of four further ligaments. These ligaments span out from the medial malleolus and then attaches to the talus and also to the calcaneus and navicular bones.

Function:

It is responsible for stabilization and passive joint movement.

Also helps in resisting the over eversion of the foot.

Lateral ligament of ankle joint:

The lateral ligament of ankle joint attaches to the lateral malleolus. As compare to medial ligament the lateral ligament is present outside of the ankle.

Function:

Helps in stabilization of the ankle joint.

Lateral ligaments attaches the lateral malleolus to the bones below the ankle joint which helps in action motion.

Also helps in over inversion of the foot.

Helps in internal rotation.