# ANATOMY PAPER ASSIGNMENT INSTRUCTOR: DR ATTAULLAH MAH RUKH ID:15854 (SECTION A)

- Out of the following bony landmarks to which the Ligamentum teres attached?
  - A. intertrochanteric line
  - B. trochanteric crest

# C. Fovea capitis

- D. Greater trochanter
- 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.\_<mark>135</mark>
- 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
- Regarding neck of the femur fracture the medial femoral circumflex artery can be damage 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.

- 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
- A closed femoral shaft fracture can result in \_\_\_\_\_ blood loss.
  - . ....
  - A. 10-15ml
  - B. 100-150ml
  - <u>C. 1000-1500ml</u>
  - 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

- C. Walking
- 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.

B. Axial loading

# **QUESTION 1**

# **Describe hip joint anatomy**

### **ANSWER**

# **HIP JOINT**

Hip joint is also known as acetabulum femoral joint and joint between acetabulum and femur of the pelvis.there primary functions are static and posture.

#### **ARTICULATING SURFACE**

hip joint is a type of of ball and socket joint.hip joint is formed by an articulation between the pelvic acetabulum and head of femur. The acetabulum is a cup like depression which is present in the inferolateral aspect of the pelvic

#### LIGAMENTS OF HIP JOINT

#### **INTRACAPSULAR LIGAMENT**

intracapsular ligament is present on the head of femur. It is smaller and run from acetabular fossa to the fovea of the femur

#### **EXTRACAPSULAR LIGAMENT**

it include;

- Capsular ligament
- Pubofemoral
- Ishiofemoral
- Iliofemoral
- Acetabular labrum

#### **STABILITY**

The iliofemoral, pubofemoral and ischiofemoral is stronger stability provider and reinforcing the capsule of the joint. These have unique spiral orientation.

Acetabulum is deep and encompresses which decrease the probability of head slipping out know as dislocation.

#### ARTERIAL SUPPLY

Various branches of arteries which supplied to hip joint are;

- Medial circumflex femoral artery
- Lateral circumflex femoral artery
- Obturator artery
- Superior gluteal artery
- Inferior gluteal artery

# **QUESTION:2**

# **Explain the following in detail.**

- a) <u>Cruciate</u>
- b) <u>Menisci</u>

#### ANSWER:

#### **CRUIATE LIGAMENT**

cruiate ligament are pair of ligaments.it is arrange like letter X. It connects the femur and tibia knee joint and also present in Atlanto-Axial joint of the body.

#### **ANTERIOR CRUIATE LIGAMENT:**

IT attaches at the anterior side of the intercondylar region of the tibia. It bends with the medial meniscus and prevent anterior dislocation.

#### **POSTERIOR CRUIATE LIGAMENT:**

These are very strong .It is presrent on the back side of intercondylar region of the tibia and prevent posterior dislocation of the tibia.

# **MENISCI**

It is a piece of cartilage. They are C shape attached to both end of intercondyle areaof tibia. The medial and lateral menisci are like fibrocartilage structure in the knee.

The lateral menisci is smaller and no extra attachment while the medial menisci is fix to the tibia collateral ligament ang joint capsule.

These perform two function that are;

The menisci act to disassemble the weight of body and reduce the adhesion and increase the stability of joint. As it is shock obserber by increasing the surface area.

It proctect the joint surface and absorbe the shock by activities such as walking, running, jumping etc

# **QUESTION 3**

# Write down a comprehensive note on medial and lateral ligaments of ankle joint

#### ANSWER

# **ANKLE JOINT**

the ankle joint is a synovial joint present in the lower limb it is formed by the bone leg and the talus of foot

#### **LIGAMENTS**

There are two liagments of the ankle joint

- Medial ligament
- Lateral ligament

#### **MEDIAL LIGAMENT**

the deltoid ligamentis strong and triangle band is attached to medial malleolus and is composed of deep component and superfacial

It has ligaments

- Tibiocalcaneal
- Tibionavicular
- Posterior superfacial tibio ligament
- deep
- Anterior tibiotalar ligament
- Posterior tibiotalar ligaments

#### LATERAL LIGAMENTS

It arise from the lateral malleolus. It attached to the fibula. It is a set of three ligaments that resist inversion of the ankle joint.

#### • Anterior talofibular

Spans between the lateral talus and lateral malleolus

#### • <u>Posterior talofibular</u>

Spans between lateral malleolus and the posterior aspect of talus.

#### • <u>Calcaneofibular</u>

Spans between the lateral malleolus and calenus