

1. **Fibular shaft has**
  1. Four borders
  2. Two borders two surfaces
  3. Four borders four surfaces
  4. Four surfaces
  5. Two borders four surfaces

Which of the following is true?

  - A. 1 and 4
  - B. 2, 3 and 4
  - C. 1, 3 and 4
  - D. 1,3,4 and 5
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. **Patella is the bone of \_\_\_\_\_**
  - A. Leg
  - B. Foot
  - C. Only distal end of leg
  - D. Both a and c
5. **Metatarsal bones form the \_\_\_\_\_**
  - A. Hind foot
  - B. Mid foot
  - C. Fore foot
  - D. Both b and c
6. **Which of the following metatarsals usually has its growth plates situated proximally**
  - A. First metatarsal
  - B. First and second metatarsals
  - C. Second and third metatarsals
  - D. Third metatarsal
7. **The shaft of the femur descends in slight \_\_\_\_\_ for stability.**
  - A. Lateral direction
  - B. Medial direction
  - C. Posterior direction
  - D. Diagonal direction
8. **Which structure/s connects the apex of patella to the tibial tuberosity?**
  - A. Patellar Ligament
  - B. Patellar Tendon
  - C. Distal portion of the common tendon of the quadriceps femoris
  - D. Both A and B
  - E. All of the above
9. **Below , the tibia articulates with \_\_\_\_\_**
  - A. Distal end of fibula only
  - B. Distal end of fibula and talus bone
  - C. Distal end of fibula, talus bone and a small portion of calcaneus
  - D. All are true
10. **Which of the following is the medial bone of lower leg?**
  - A. Tibia
  - B. Fibula
  - C. Medial cuboid
  - D. Both a and c
11. **Which of the following ligaments is fully covered by synovial membrane?**
  - A. Iliofemoral ligament
  - B. Pubofemoral ligament
  - C. Ischiofemoral ligament
  - D. Transverse Acetabular ligament
  - E. Ligament of the head of femur
12. **The calcaneus is often fractured as a result of \_\_\_\_\_**
  - A. Distraction
  - B. Axial loading
  - C. Twisting
  - D. Walking
  - E. Sitting
13. **The depth of the acetabulum is raised by the \_\_\_\_\_**
  - A. Acetabular fat pad
  - B. Capsule of hip joint
  - C. Acetabular labrum
  - D. Ischial Bursa
  - E. Both b and c
14. **The most powerful ligament of hip joint is?**
  - A. Iliofemoral ligament

- B. Pubofemoral ligament. Ko
- C. Ischiofemoral ligament.
- D. Transverse acetabular ligament
- E. All are powerful as they are ligaments of hip joint

15. **Sartorius muscle helps in the movement of**

- A. Flexion
- B. Flexion and abduction
- C. Flexion, abduction and lateral rotation
- D. All are true

### SECTION

**NO 2: Q/Ans**

**Max Marks: 15**

**Q:1** Describe ankle mortise in your own words.

Ans. ANKLE MORTISE:

- It refers to the bony arch formed by the distal tibial articular surface and the two malleoli
- The ankle joint, tibia and fibula are connected by a strong tibiofibular ligament as they form a rectangular socket called "mortise".

MOVEMENTS OF ANKLE MORTISE:

- Following are the movements of ankle mortise .
- Planterflexion and dorsiflexion

LIGAMENTS:

- The ligament which stabilize the ankle joint are medial and lateral collateral ligaments.
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**Q:2** A patient comes to your clinic with gait imbalance. You ask him to stand upright from a sitting position and then rotate his left leg towards his left side. Which of the hip joint

muscles of the left side become active during this whole movement?

Ans. **LATERAL ROTATOR GROUP OF HIP:**

The hip contains many muscles group for the external rotation which composed of :

- Piriformis
- Gemellous superior and inferior
- Obturator internus and externus
- Quadratus femoris

**Case:**

A patient have gait imbalance . When we rotate his left leg to left side in standing upright position the external rotation occurs .

**Active muscles of hip :**

During the external rotation of the left leg the following muscles of the hip becomes activated :

- Piriformis
- Gemellous superior and inferior
- Obturator internus and externus
- Gluteous Maximus and minimus and medius
- Majorly the guleteous Maximus and medius and minimus takes part

**3** Write down a note on:

- a) Articulations of calcaneus
- b) Difference in the size and shape of femoral condyles
- c) Weight bearing status of fibula

**Ans.(a) CALCANEUS:**

- Calcaneus is also called calcaneum or heel bone
- It is the major and largest bone of the hindfoot which is laterally flat ,medially consist of tubercle

And posteriorly form heel bone

**ARTICULATION OF CALCANEUS:** Calcaneus articulate superiorly with Talus and inferiorly with Cuboid .

**ANTERIOR ARTICULATION:** The anterior surface is small and provides the articulation surface for Cuboid bone.

**SUPERIOR ARTICULATION:** the superior surface provide the articulation surface for the Talus.

**(B)ans: FEMORAL CONDYLES;** the lower portion of femur consists of two condyles i.e medial And lateral condyles .

**DIFFERENCE BETWEEN MEDIAL AND LATERAL CONDYLES:.** Following are the difference between medial and lateral condyle .

**MEDIAL CONDYLE:.**

- **The medial condyle is greater and in oval shape .**
- **It is more prominent than lateral condyle.**
- **It provides attachment to the upper end of medial collateral ligament.**
- **Provide the attachment site for the insertion of the ischial head of adductor Magnus .**

**LATERAL CONDYLE:.**

- The lateral condyle is smaller and circular in shape .
- It is less prominent but is stronger than medial condyle.

- Provides attachment with the fibular collateral ligament.
- Attachment to lateral head of gastrocnemius and popliteus.

**Ans(C): FIBULA:** Fibula is the medial bone having two surfaces and four borders which originates

Just below the lateral tibial plateau and extends distally to form lateral malleolus.

**WEIGHT BEARING STATUS OF FIBULA:** FIBULA. Is the non\_weight bearing bone .

- The fibula does not bear weight at all as it plays a minor role in the weight bearing and transfer force as the ankle hits the ground during walking .
- Fibula is non weight bearing bone compared to tibia which bears about 80% of body weight.