Subject: Anatomy II

Mid Term Assignments.

Semester: DPT 2nd.

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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?**
2. intertrochanteric line
3. trochanteric crest
4. Fovea capitis
5. Greater trochanter
6. **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.**
7. 156
8. 170
9. 135
10. 101
11. **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?**
12. Greater trochanter
13. Lesser trochanter
14. The intertrochanteric line
15. Trochanteric crest.
16. **\_\_\_\_\_\_\_\_\_\_\_\_is the site of attachment for iliopsoas muscle.**
17. Greater trochanter
18. Lesser trochanter
19. The intertrochanteric line
20. Trochanteric crest.
21. **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\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
22. Medially rotated
23. Externally rotated
24. No rotation occurs
25. None of the above
26. **Regarding neck of the femur fracture the medial femoral circumflex artery can be damage in\_\_\_\_\_\_\_\_\_\_**
27. Intracapsular fracture
28. Shaft fracture
29. Extracapsular fracture
30. Femoral epicondylar fracture
31. **The shaft of the femur descends in slight\_\_\_\_\_\_\_\_\_\_\_\_ for stability.**
32. Lateral direction
33. Medial direction
34. Posterior direction
35. Diagonal direction
36. **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?**
37. Contusion
38. Hairline Fracture
39. Multiple Fracture
40. Simple Fracture
41. **A closed femoral shaft fracture can result in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_blood loss.**
42. 10-15ml
43. 100-150ml
44. 1000-1500ml
45. 10000-15000ml
46. **Which of the following is the medial bone of lower leg?**
47. Patella
48. Fibula
49. Tibia
50. Medial cuboid
51. **The shaft of the tibia is prism-shaped, with\_\_\_\_\_\_\_\_\_\_\_**
52. One border and one surface
53. Two borders and one surface
54. Three borders and two surfaces
55. Three borders and three surfaces
56. **The calcaneus is often fractured as a result of \_\_\_\_\_**
57. Distraction
58. Axial loading
59. Walking
60. Setting
61. **The depth of the acetabulum is raised by the\_\_\_\_\_\_**
62. Fovea captious
63. Capsule of hip joint
64. acetabular labrum
65. ischial Bursae
66. **The most powerful ligament of hip joint is?**
67. Iliofemoral ligament
68. Pubofemoral ligament.
69. Ischiofemoral ligament.
70. Transverse acetabular ligament
71. **The hip joint is supplied by the branches of the following arteries EXCEPT**:
72. Medial circumflex femoral artery.
73. Lateral circumflex femoral artery.
74. Radial artery.
75. Superior gluteal artery.

**Section B**

***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****).*

**ANS: Hip joint :**

It is the ball and socket joint which connect the leg to the trunk of the body. In this joint the head of the thigh bone meet into the socket of the hip joint.

**Function:** It is a joint which is scientifically reffered to as acetabulofemoral joint.

**ART COXAE)** the joint between the femur and acetabulam of pelvis and this joint function is the support the weight of body in both state

**Example)** Walking and running position

**Articulating Surface of Hip JOINT)** It is the hip joint which consist of articulation between head and femur which acetabulam the pelvis.It is cup like depression which is located on inferolateral aspect of pelvis, which attach to acetabulam proximally

**Ligament Definition)** It connect the ball to the socket and provide tremendous stability. They are divided to following groups

**1)Intracapsular)** That type of ligament in which the head of femur is sa\mall structure that is totally runs from the fossa and a minor source of arterial supply to hip joint

**2)Extracapsular)** In the extracapsular there are three extra capsule ligament the capsule is continuous with outer surface of hip joint

**Iliofemoral Ligament)** The iliac spine arises from interior and inferior then divided before inserting into the intertrochantric line of femurand that is Y shape

**Pubofemoral)** The pubofemoral is a ligament which spans between the superior pubic rami and intertrochantric line of femur reinforcing the capsule on both side.

The pubofemoral ligament is triangular shape

**Ischiofemoral):** ISchiofemoral ligament that is spread between body of ischium the greater trochanter of the femur

**Stabilising Factor)** The first or foremost function of hip joint is to amount of weight and there aremany factors that increasestability

**Blood and Nerve supply)** The sciatic, femoral, and obturator nerve that is innervated primarily the knee is innervate by these nerves and also medial and lateral circumflex femoral arteries are the major blood supply.

***Q:2*** *Explain the following in detail.*

1. *Cruciate ligaments*

**ANS:** Anterior cruciate ligament is the four major ligamentof the knee joint that connects the femor of the thigh bone to the tibia of the shin bone that help to stabilize the knee joint.

That ligament is the most stabilizing ligament in knee joint that joint is the strongest lope like structure, the ligament is located in knee of the centre that runs from the femur to tibia.

**Causes)** An ACL injury that most commonly occur during plays sports that over extending the knee . An ACL can be injured in many forms.

1. Sudden directional changes in the body or joints.
2. Slowing down while running.

**Symptoms)** Knee may will swell due to the bleeding from vessels and weakness and instability, you may notice that the knee feels unstable or seems to give way

1. *Menisci*

**Answer) Menisci**

The menisci consist of two edge shape of cartilage which disorientated between the thigh bone and the shin bone. Their though and lubbery stability enables them to work as a shock absorber for the knee.

The most common knee injury is Meniscal tears.

Those athletes and particularly those people who play contact sports are at greater risk if the meniscus does not heal on its own sugerery maybe sometimes necessary.

**Causes and symptoms:**

As although meniscal tears can happen to anyone but two populations have higher risk of tearing the meniscus than average.

Those athletes who squats and twist their knee may causes tears in them.it may be also occure due to rough contact.

Older people have more likely weekend and worn cartilage

Pain in knee

Swelling

Knee locking.

**Diagnosis and treatment:**

Mc Murray is the most common test for a meniscal tears.

In this test doctor will try to straighten your knee and bend and rotate it.the dicking sound will produce if there is tears.

X-ray

MRI

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

**Ankle joint :**

It is a synovial joint present in the lower limb. It consist of bones of foot and leg functionally.

It is a hinge type joint and produce planter flextion and dorsi flexion of foot.

**Ligament:**

It consist of two ligaments.

**1: Medial ligament :**

This ligament is adjunct to the medial malleolus a bony prominence arising from the medial aspect of distal tibia.

This ligament consists of four ligaments which move out from the malleolus, adjunsting to the talus, calcaneus and navicular bones. The main function of medial ligaments is to resist over-eversion of foot.

**2: Lateral ligament:**

This ligament arises from the lateral malleolus a bony prominence arising from the lateral aspect of distal fibula.

It reject over-inversion of the foot and consist of three distinct and separate ligaments.

**Anterior talofibular:**

Spread between the lateral malleolus and lateral aspect of talus

**Posterior:**

Spread between the lateral malleolus and the posterior aspect of the talus.

**Calcaneofibular:**

Spread between the lateral malleolus and calcaneus.