



**AMREF INTERNATIONAL UNIVERSITY  
SCHOOL OF MEDICAL SCIENCES  
DEPARTMENT OF REHABILITATIVE MEDICINE  
BACHELOR OF SCIENCE IN PHYSIOTHERAPY**

**END OF TRIMESTER EXAMINATIONS JANUARY TO APRIL 2025**

**UNIT CODE: PHT 123**

**UNIT NAME: ANATOMY UPPER & LOWER LIMBS (Main Exam) 4<sup>th</sup> Year**

**DATE: 7th April 2025**

**TIME: 9AM-11AM**

**INSTRUCTIONS**

1. All students will have two (2) hours to complete the examination
2. This is a **physical exam**, Attempt all questions as per the instruction
3. It is the student's responsibility to report any page and number missing in this paper.
4. Check that the paper is complete
5. Total number of pages is **8** including the cover.
6. Read through the paper quickly before you start.

**Section A - 40 Multiple choice questions (40 marks)**

1. As a result of injury of the ulnar nerve at the wrist:
  - a. Marked wasting (atrophy) of the thenar eminence.
  - b. The thumb cannot be abducted.
  - c. The thumb cannot be adducted.
  - d. Loss of sensation over the thumb.
  - e. e. A and B are correct.
2. Relations of the ulnar artery at the wrist:
  - a. Lies anterior to the flexor retinaculum.
  - b. Lies lateral to the pisiform bone.
  - c. Lies medial to the ulnar nerve.
  - d. All of the above.
  - e. A and B only.
3. The following muscles are innervated by the median nerve EXCEPT:
  - a. Pronator teres.
  - b. Pronator quadratus.
  - c. Adductor pollicis.
  - d. Flexor pollicis longus.
  - e. Opponens pollicis.
4. Branches of the ulnar artery in the forearm include:
  - a. Common interosseous artery.
  - b. Anterior ulnar recurrent artery.
  - c. Superficial palmar branch.
  - d. A and B only.
  - e. All of the above.
5. Regarding the bicipital aponeurosis, one is incorrect:
  - a. It is an extension from the tendon of the biceps.
  - b. It blends with the deep fascia covering the extensor muscles of the forearm.
  - c. Passes over the brachial artery.
  - d. Crosses the front of the median nerve.
  - e. Separates the median nerve from the median cubital vein.
6. Branches of the radial artery at the wrist include:
  - a. 1st dorsal metacarpal artery.
  - b. 2nd dorsal metacarpal artery.
  - c. 3rd dorsal metacarpal artery.
  - d. All of the above.
  - e. None of the above.

7. Structure crossing superficial to the flexor retinaculum:
  - a. Median nerve.
  - b. Ulnar nerve.
  - c. Flexor digitorum superficialis.
  - d. Flexor pollicis longus.
  - e. None of the above.
8. The distal row of the carpal bones consists of:
  - a. Scaphoid.
  - b. Lunate.
  - c. Triquetral.
  - d. Pisiform.
  - e. None of the above.
9. The ulnar nerve supplies all of the following muscles EXCEPT:
  - a. Adductor pollicis.
  - b. Interossei muscles.
  - c. Flexor pollicis longus.
  - d. Hypothenar muscles.
  - e. Medial 2 lumbricals.
10. One of the following is not a branch of the radial artery:
  - a. Radial recurrent artery.
  - b. Common interosseous artery.
  - c. Palmar (anterior) carpal.
  - d. Dorsal (posterior) carpal.
  - e. Deep palmar arch.
11. Regarding the median nerve, all are correct EXCEPT:
  - a. Arises from both the medial and lateral cords of the brachial plexus.
  - b. It crosses the brachial artery at the insertion of the coracobrachialis.
  - c. In the cubital fossa, it lies lateral to the brachial artery.
  - d. It enters the hand in the carpal tunnel.
  - e. Injury of the nerve causes ape-like hand.
12. Regarding the ulnar nerve, all are correct EXCEPT:
  - a. Carries fibers from C6, C7 and C8.
  - b. Is the largest branch of the medial cord of the brachial plexus.
  - c. Has no branches in the arm.
  - d. It enters the hand superficial to the flexor retinaculum.
  - e. Injury of the nerve causes partial claw hand.
13. The proximal row of the carpal bones consists of all of the following EXCEPT:
  - a. Scaphoid.
  - b. Lunate.
  - c. Trapezium.
  - d. Pisiform.
  - e. Triquetral.

14. The lesser tuberosity of the humerus gives attachment to the:
- Supraspinatus.
  - Subscapularis.
  - Infraspinatus.
  - Teres minor.
  - Teres major.
15. The constriction below the greater and lesser tuberosities of the humerus is called:
- Anatomical neck.
  - Surgical neck.
  - Humeral shaft.
  - Humeral ring.
  - None of the above.
16. 57. Muscles innervated by the musculocutaneous nerve:
- Brachialis.
  - b. Coracobrachialis.
  - c. Biceps.
  - d. All of the above.
  - e. Triceps.
17. The anterior compartment of the arm contains all of the following EXCEPT:
- Biceps.
  - Triceps.
  - Brachialis.
  - Coracobrachialis.
  - Brachial artery
18. The cubital fossa is bounded by the:
- Pronator quadratus.
  - Brachioradialis.
  - Coracobrachialis.
  - Biceps tendon.
  - a and b only.
19. In movements of the arm, the coracobrachialis assists in:
- Flexion.
  - Exatension.
  - Abduction.
  - Rotation.
  - Supination.
20. The direction of the nutrient foramen of the humerus is:
- Upward.
  - Medially.
  - Downward.
  - Laterally.
  - None of the above.

21. The medial compartment of the thigh:
- contains obturator internus
  - contains the adductor canal
  - is supplied mainly by the obturator artery
  - contains the femoral triangle
  - is limited superiorly by the obturator membrane
22. Adductor longus is inserted onto the:
- upper half of the linea aspera of the femur
  - upper two thirds of the linea aspera of the femur
  - upper one third of the linea aspera of the femur
  - lower two thirds of the linea aspera of the femur
  - lower half of the linea aspera of the femur
23. Which of the following bursae is most likely to communicate with the knee joint?
- suprapatellar bursa
  - deep infrapatellar bursa
  - superficial infrapatellar bursa
  - prepatellar bursa
  - semimembranosis bursa
24. In the popliteal fossa, the deepest of these structures is:
- popliteal vein
  - popliteal artery
  - tibial nerve
  - sural nerve
  - plantaris muscle
25. The anterior cruciate ligament:
- lies within the synovial membrane of the knee joint
  - attaches from the anterior tibial plateau to the medial condyle of the femur
  - prevents forward displacement of the femur on the tibial plateau
  - produces lateral rotation of the femur in the 'screw home' position of full extension
  - none of the above
26. Which of the following is correctly paired?
- adductor brevis – femoral nerve
  - adductor longus – sciatic nerve
  - adductor magnus – saphenous nerve
  - adductor longus – obturator nerve
  - adductor magnus – femoral nerve
27. Regarding the foot, all of the following statements are true EXCEPT:
- calcaneal branches of the deep peroneal nerve supply the skin of the heel
  - the tibialis posterior muscle inverts and adducts the forefoot
  - the tibialis posterior muscle plantarflex the ankle joint
  - the tibialis anterior muscle dorsiflex the ankle and inverts the foot
  - all interossei muscles are supplied by the lateral plantar nerve

28. The iliotibial tract is the conjoined aponeurosis of the tensor fasciae latae and:
- gluteus minimus
  - gluteus medius
  - gluteus maximus
  - Camper's fascia
  - Scarpa's fascia
29. Fourth lumbar nerve root supplies:
- hip flexors
  - tibialis anterior
  - skin on the big toe
  - flexor longus digitorum
  - flexor accessories (quadratus plantae)
30. Passing through the greater sciatic notch deep to the sciatic nerve is which of the following?
- internal pudendal vessels and nerve
  - inferior gemellus muscle
  - posterior cutaneous nerve of the thigh
  - nerve to quadratus femoris
  - none of the above
31. The femoral vein lies ..... to the femoral artery in the femoral sheath:
- lateral
  - medial
  - anterior
  - posterior
  - femoral vein is not in the femoral sheath
32. The superior gluteal nerve supplies:
- gluteus medius
  - gluteus minimus
  - tensor fascia latae
  - none of the above
  - all of the above
33. The hamstring muscles originate from:
- ischial tuberosity
  - body of the ischium
  - ramus of the pubis
  - iliac crest
  - symphysis pubis

34. Which of the following is found in the popliteal fossa?
- sciatic nerve
  - femoral vein
  - common peroneal nerve
  - femoral artery
  - saphenous nerve
35. The only muscle to cross the anterior tibial artery is:
- extensor hallucis longus
  - extensor digitorum brevis
  - extensor hallucis brevis
  - extensor digitorum longus
  - tibialis anterior
36. Features of the fibula include which of the following?
- it is on the medial side of the tibia
  - its medial surface is grooved for the origin of tibialis posterior
  - it is ossified from five centres
  - it does not provide origin for flexor digitorum longus
  - its lower third is rough for the origin of soleus
37. The chief dorsiflexor of the ankle joint:
- peroneus tertius
  - tibialis anterior
  - extensor longus hallucis
  - extensor longus digitorum
  - none of the above
38. The nerve supply to the knee joint comes from:
- sciatic
  - femoral
  - obturator
  - all of these
  - none of these
39. The popliteal artery:
- is superficial to the tibial nerve
  - supplies the cruciate ligaments
  - extends from the hiatus in adductor longus
  - enters the popliteal fossa on lateral aspect of the femur
  - has four genicular branches in fossa
40. Regarding the femoral artery:
- its branches include the superficial epigastric artery and the deep external pudendal artery
  - it enters the thigh directly beneath the deep inguinal ring
  - it lies lateral to the femoral nerve in the femoral sheath
  - it gives rise to the profunda femoris artery which pierces the femoral sheath
  - does not contribute to the trochanteric anastomosis

**Section B (Structured - short answer questions (20))**

1. Explain the ankle Joint (10 Marks)
2. Explain the Knee (10 Marks)

**Section C (Structured - long answer question (20 marks))**

1. Describe the Shoulder girdle (20 Marks)

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