

## Course: Personal Trainer

Name : \_\_\_\_\_

Date : \_\_\_\_\_

1. Which of the following has the thickest wall?

- a) Right ventricle
- b) Left ventricle
- c) Right atrium
- d) Left atrium

2. Blood enters into the heart because of muscles of \_\_\_\_\_

- a) atria relax
- b) ventricles contract
- c) ventricles relax
- d) atria contract

3. The opening of right atrium into right ventricle is guarded by \_\_\_\_\_

- a) mitral valve
- b) tricuspid valve
- c) bicuspid valve
- d) aortic semilunar valve

4. Mitral valve is present between \_\_\_\_\_

- a) right atrium and left ventricle
- b) right and left ventricle
- c) left ventricle and aorta
- d) left atrium and left ventricle

5. The volume of blood each ventricle pumps out during a cardiac cycle is about \_\_\_\_\_

- a) 70 ml
- b) 5000 ml
- c) 7 L
- d) 1200 ml

6. Maximum amount of oxygen is exchanged from blood in \_\_\_\_\_

- a) Arteries of the body
- b) Capillaries surrounding the alveoli
- c) Left auricle of the heart
- d) Arteries of the body

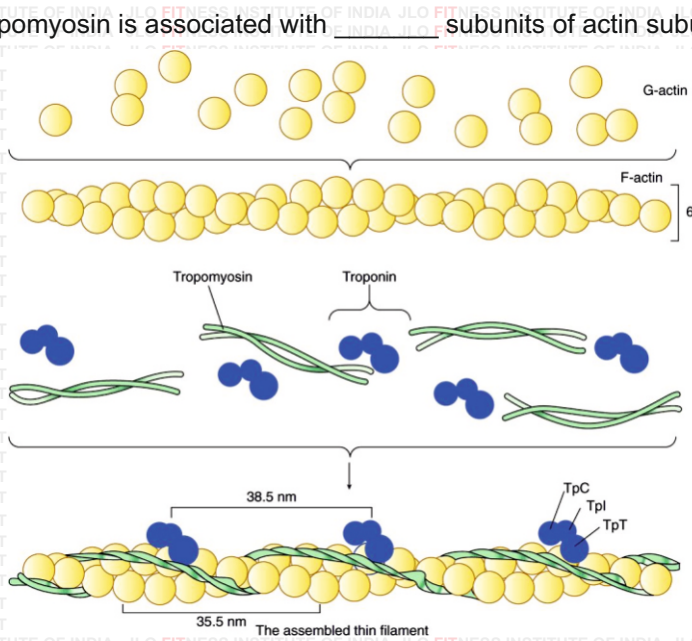
7. What is the correct path through the circulatory system which describes the passage of blood originating in the left leg?

- a) Vena cava → left atrium → right atrium → lungs → left ventricle → right ventricle → aorta
- b) Vena cava → right atrium → right ventricle → lungs → left atrium → left ventricle → aorta
- c) Vena cava → left atrium → left ventricle → lungs → right atrium → right ventricle → aorta

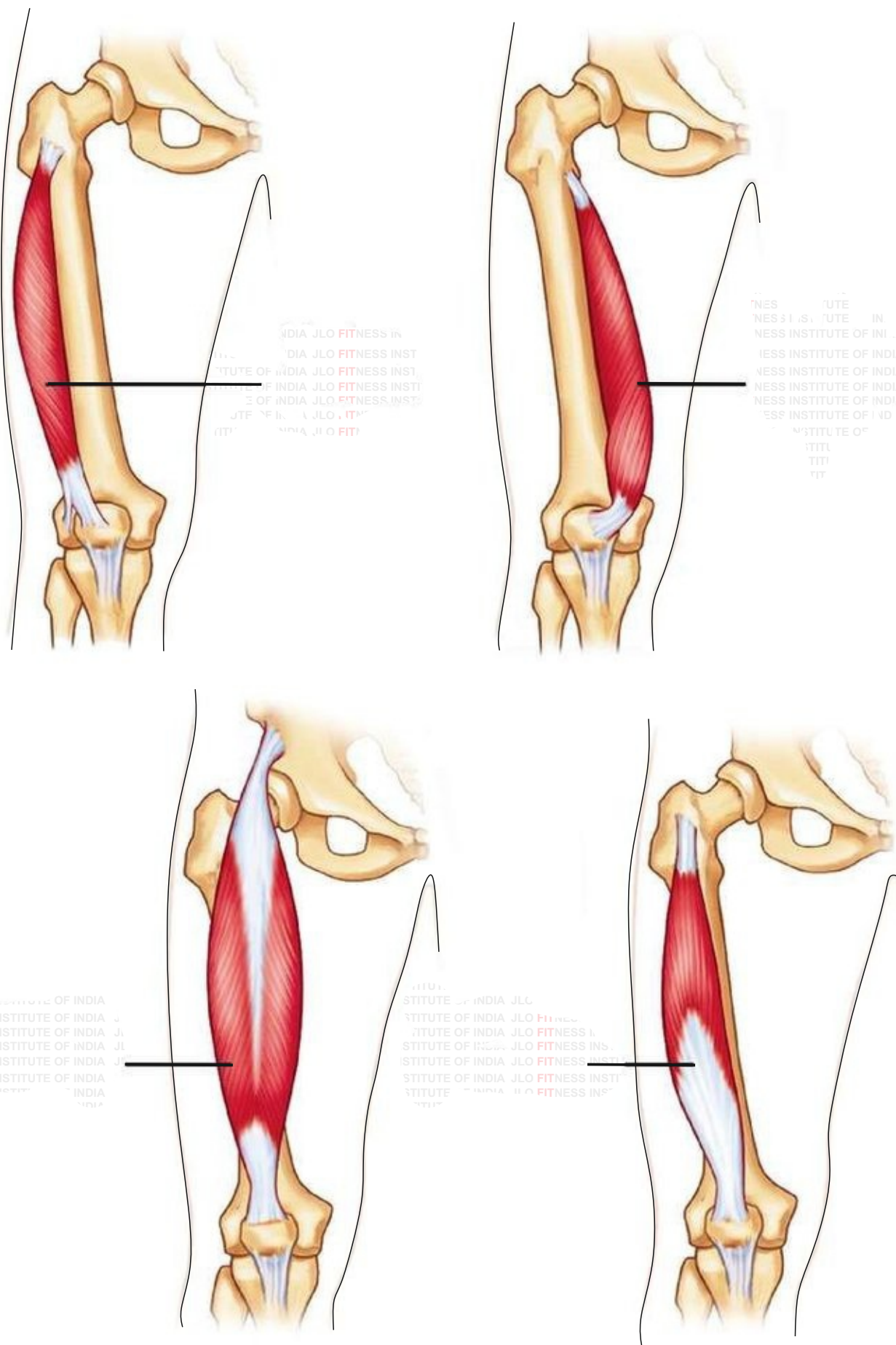
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8. When a muscle fibre shortens, the following also shortens:
- a) Sarcomere
  - b) Actin filament
  - c) Myosin filament
  - d) Z-line
9. What is the role of acetylcholine in calcium release?
- a) Stimulates cellular contraction by opening voltage-gated ion channels
  - b) Stimulates postsynaptic acetylcholine receptors to release intracellular calcium
  - c) Binds to sarcoplasmic reticulum, causing calcium release
  - d) Binds to the T-tubules, causing calcium release
10. The space between two Z lines constitutes the:
- a) Sarcolemma
  - b) Sarcophagus
  - c) Sarcoplasm
  - d) Sarcomere
11. Calcium, during muscle contraction binds with
- a) Tropomyosin
  - b) TpC/TnC
  - c) Tpl
  - d) TpT
12. Where does the stimulation of muscle fibers by a motor neuron take place
- a) myofibril
  - b) transverse tubules
  - c) sarcoplasmic reticulum
  - d) neuromuscular junction

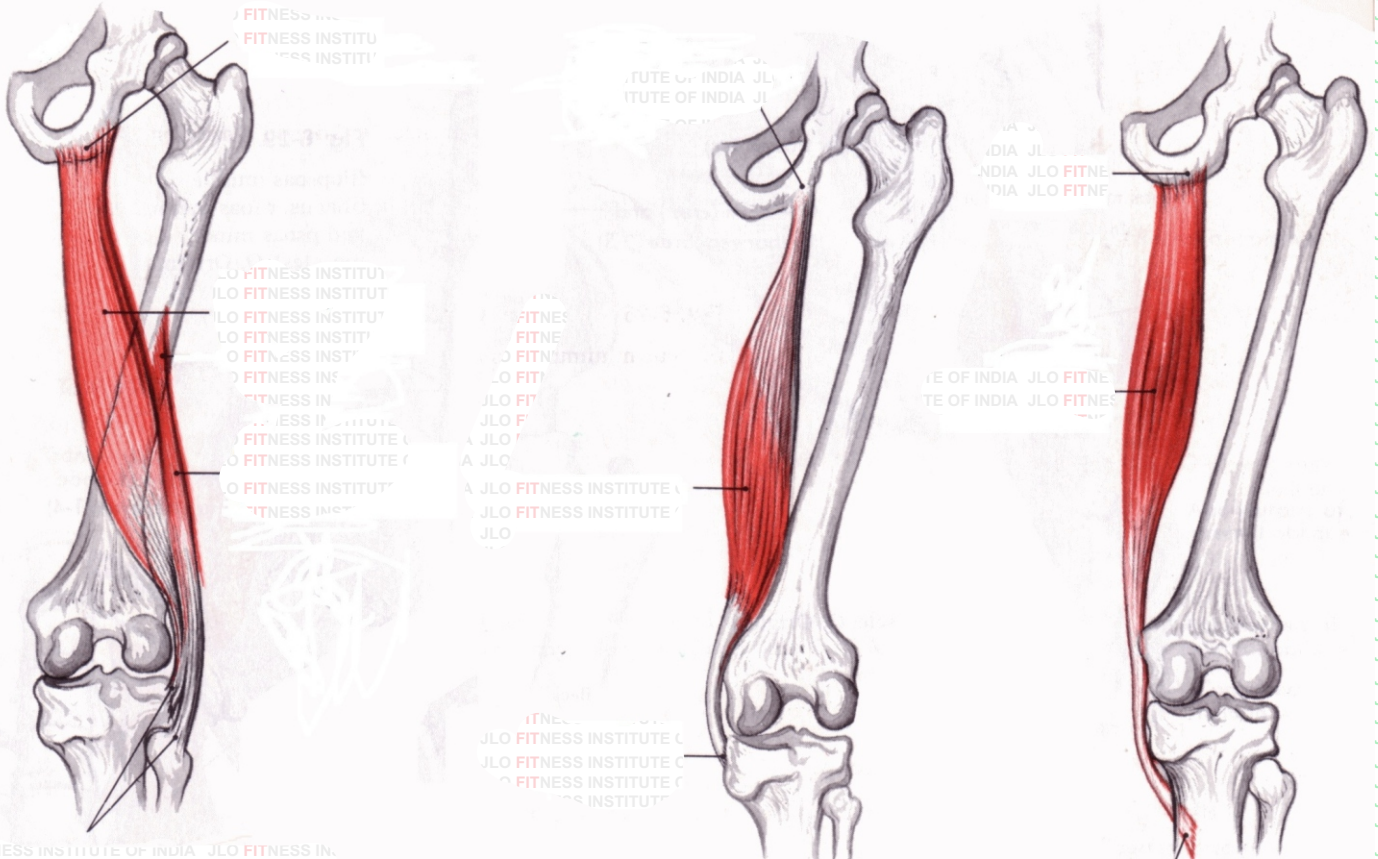
13. The striated appearance of muscle fibers is due to
- a) nucleus
  - b) sacromeres
  - c) sarcoma
  - d) myoblasts
14. Each tropomyosin is associated with \_\_\_\_\_ subunits of actin subunits.
- a) 2
  - b) 3
  - c) 7
  - d) 9



## 15. Name Quadriceps Muscles & Their Origins & Insertions.



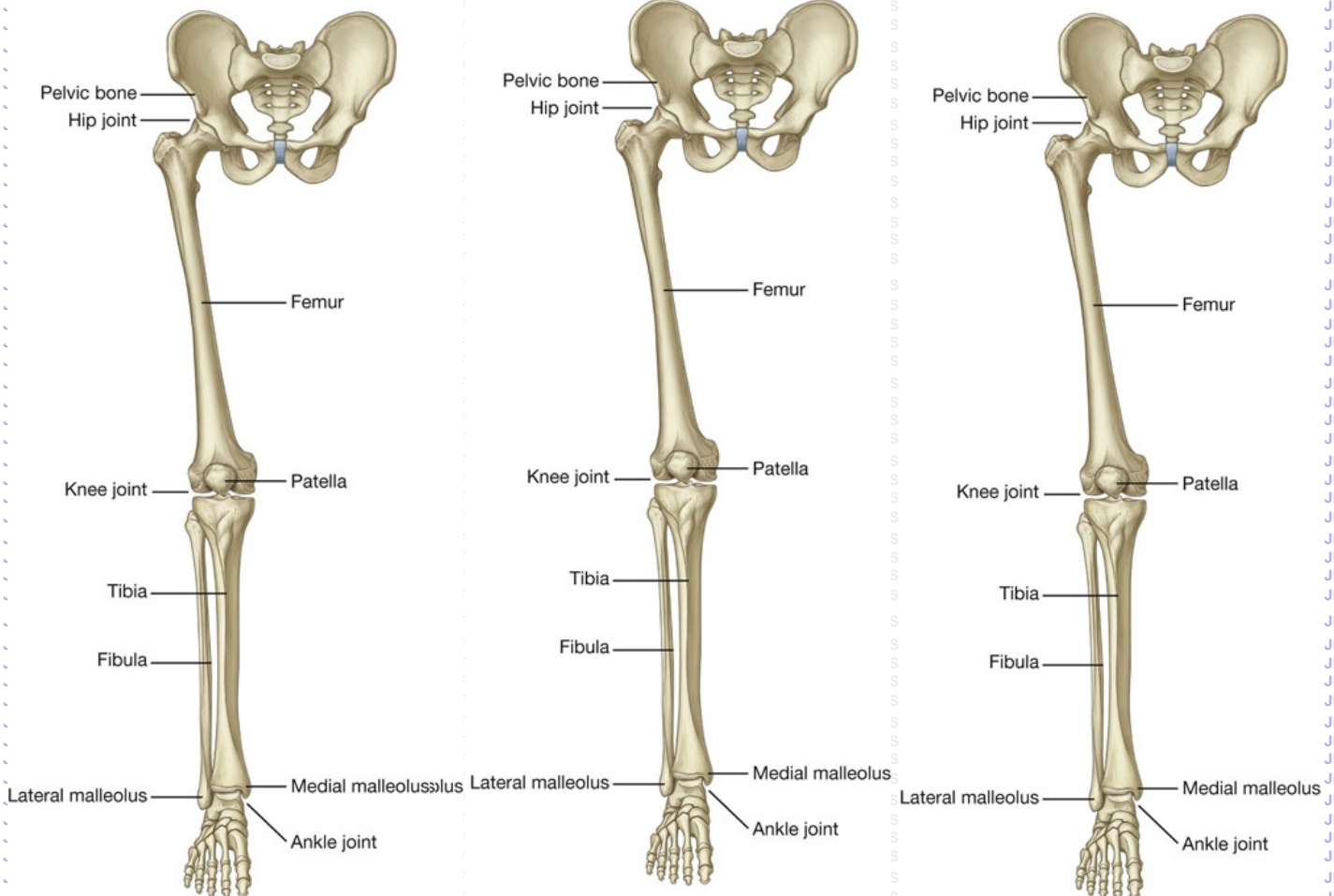
## 16. Name Hamstring Muscles & Their Origins & Insertions.



## 17. Draw Rectus Femoris.

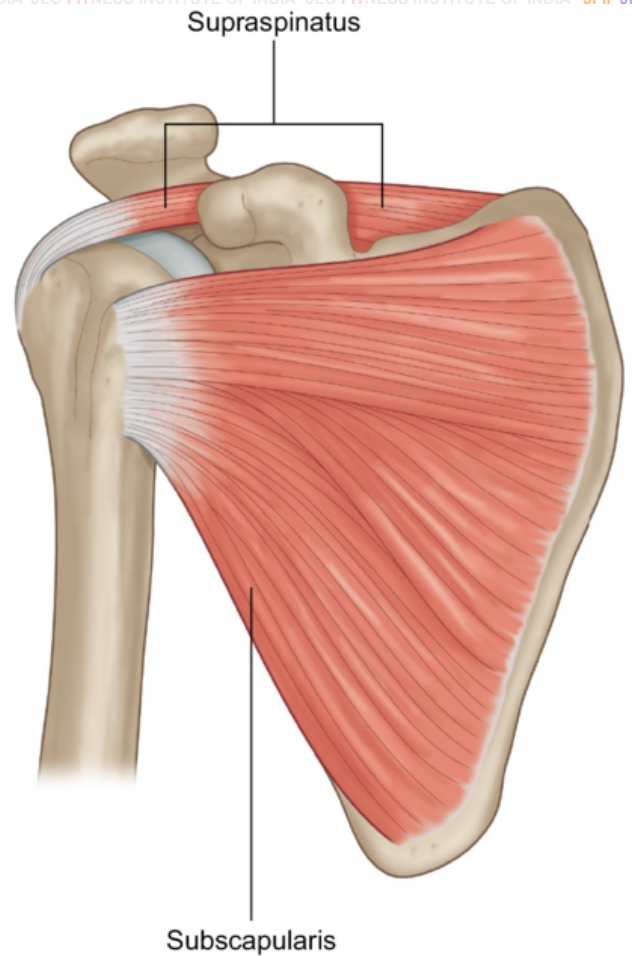
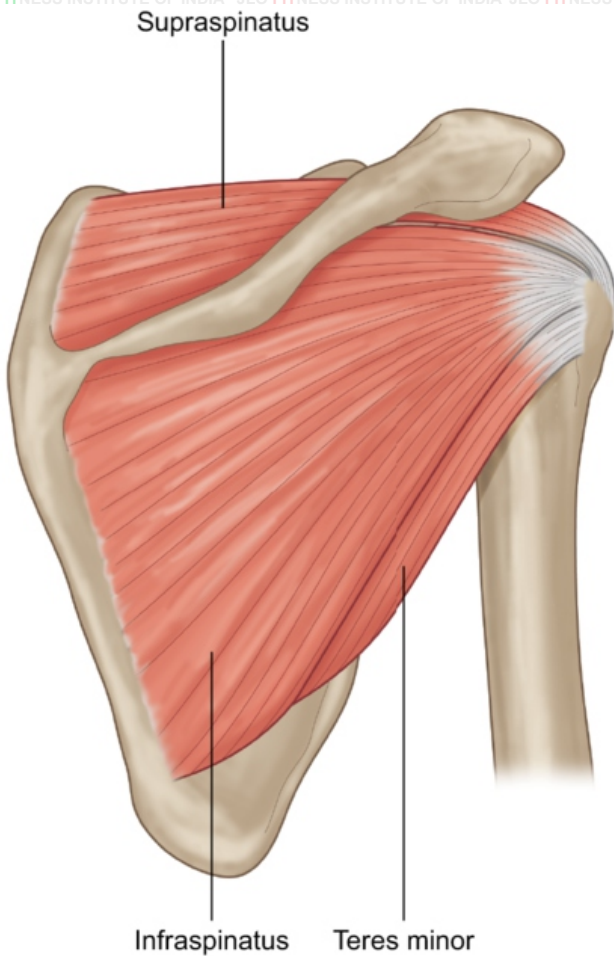
## 18. Draw Vastus intermedius.

## 19. Draw Vastus medialis & lateralis.



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20. Name the Angles, Borders & Processes



21. The trapezius muscle extends from the \_\_\_\_\_ to the middle of the back.

- (a) Base of the skull
- (b) Middle of the neck
- (c) Base of the neck
- (d) Upper back

22. What is the insertion of the Biceps Brachii?

- (a) Calcaneus bone via achilles tendon
- (b) Clavicle & Scapula
- (c) Radial tuberosity of radius
- (d) Tibia & Fibula

23. What is the insertion of the Biceps Femoris?

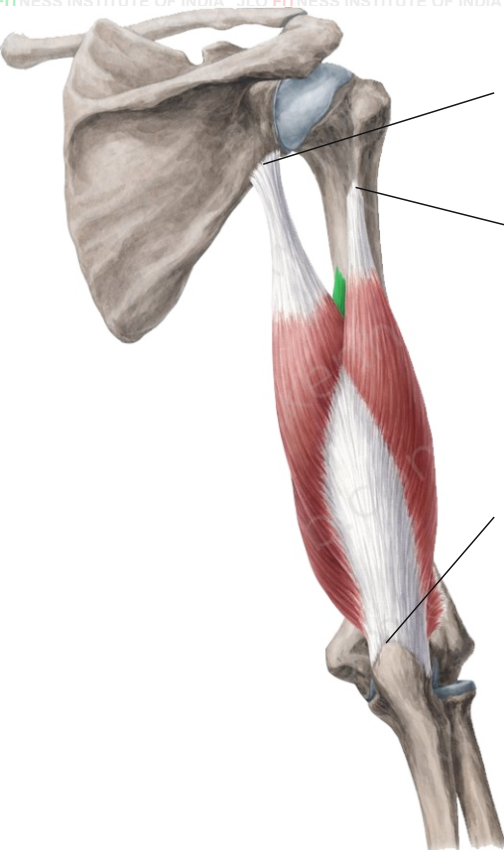
- (a) Femur
- (b) Tibia & Fibula
- (c) Zygomatic bone & maxilla
- (d) Olecranon process of ulna

24. What is the insertion of the Gastrocnemius?

- (a) Mandible
- (b) Scapula & Humerus
- (c) Calcaneus bone via achilles tendon
- (d) Radial tuberosity of radius

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25. Name Triceps Origin & Insertion for Longhead & Shorthead.



26. What is the insertion of the Triceps Brachii

- a. Olecranon process of ulna
- b. Radial tuberosity of radius
- c. Scapula & Humerus
- d. Lower portion of vertebral column.

27. What is the origin of the Latissimus Dorsi?

- a. Humerus
- b. T7 - L5 (Thorocolumbar Aponeurosis)
- c. Iliac Crest & Inferior angle of Scapula
- d. b and C

28. What is the insertion of the Latissimus Dorsi

- a. The Bicipetal Groove
- b. Radial tuberosity of radius
- c. Scapula & Humerus
- d. Lower portion of vertebral column.

29. Circle the Olecranon process of ulna In Given Picture.

30. The pelvis consists.....

- a. Paired hipbones + sacrum and the coccyx
- b. Paired hipbones + Lumbar and the coccyx
- c. Paired hipbones + Lumbar and the Sacrum
- d. Paired hipbones + Gluteus Maximus

