

Mid-Term Assignment/Paper (spring -020)
Human Anatomy-II
BS Radiology Sec-A 2nd Semester)
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Time: 48-hours

Max Marks: 30

Q.1 What is cubital fossa? Write the contents of cubital fossa.

Ans. The cubital fossa or elbow pit is the triangular area on the anterior area of the elbow of human or other hominid animal. It lies anteriorly to the elbow (Cubitis) when in standard anatomical position.

Contents of Cubital Fossa:

The cubital fossa contains four main vertical structures-Lateral to Medial.

- The radial nerve is in the vicinity of the cubital fossa, located between brachioradialis and brachialis muscle. It is often dubious-discuss but not always considered part of the cubital fossa.
- The biceps brachii tendon
- The brachial artery. The artery usually bifurcates near the apex (inferior part) of cubital fossa into the radial artery and ulnar artery.
- The median nerve.

The ulnar nerve is also in the area, but is not in the cubital fossa; it occupies a groove on the posterior aspect of the medial epicondyle of the humerus.

Several veins are also in the area e.g The median cubital vein, cephalic vein and the basilic vein. But these are usually considered superficial to the cubital fossa and not part of its contents.

Q.2 Write the names of ARM, fore arm (anterior compartment and posterior compartment) and hand muscles with action.

Ans: There are four muscles in the fore arm split into the anterior and posterior compartment.

Anterior Compartment:

- Three muscle are locates in the anterior compartment of upper arm.
 1. **Biceps brachii;**
 - **Action:** Supination of the forearm, it also flex the arm at the nelbow and at the shoulder.
 2. **Costco brachialis:**
 - **Action:** Flexing of the arm at the shoulder, and weak adduction.
 3. **Brachialis:**
 - **Action:** Flexing of the arm at the elbow.

Posterior Compartment:

- The posterior compartment of the upper arm contains only one muscle.
 1. **Triceps Brachii:**
 - **Action:** Extention of the arm at the elbow.

As with the upper arm, the formarm is slip into anterior and posterior compartment.

Anterior compartments;

- The anterior compartment of the forearm is split into superficial, intermediate and deep regions.

1. **Pronators teres;**

- **Action;** Pronates the forearm

2. **Pronator Quadratus;**

- **Action;** Pronate the forearm

POSTERIOR

The posterior compartment of the forearm is split into superficial and deep regions.

1. **Anconeus;**

- **Action;** move the ulna during pronation and extends the forearm at the elbow.

2. **Brachioradialis;**

- **Action:** Flexes the forearm at the elbow

3. **Spinator;**

- **Action;** supinate the forearm

The anterior compartment of forearm is split into superficial and intermediate, deep layers.

Superficial layers;

The muscles are located in the superficial layer of the anterior compartment of the forearm.

1. **Flexor Carpi Ulnaris;**

- **Action;** Flexion and adduction at the wrist.

2. **Palmaris longus;**

- **Action;** Flexion at the wrist.

3. **Pronators teres;**

- **Action;** pronates the forearm.

InterMediate Layer:

The Is just one muscle in the intermediate layers at the anterior compartment of the forearms.

1. **Flexor Digitorum Superficialis;**

- **Action;** Flexes fingers and wrist

Deep layer:.

1. **Flexor Digitorum Profundus;**

- **Action;** flexes the wrist and the most distal regions of the fingers.

2. **Flexor pollicis longus:**

- **Action;** Primates the forearm

Posterior Compartments:

The posterior compartment of the forearm is split into superficial and deep regions.

Superficial Layers:

The superficial layes of the posterior forearm contains seven muscles

1. **Aconeus:**

- **Action:** Moves the ulna during pronation and extends the forearm at the elbow.

2. **Brachioradialis:**

- **Action;** Flexes the forearm at the elbow.

3. **Extensor Carpi Redialis longus and brevis:**

- **Action:** Extend and abduct the wrist.

4. **Extensor Digitorum:**

- **Action;** Extends fingers.

5. **Extensor Digits Minimize:**

- **Action;** Extend the later fingers and the contributews to extension at the wrist

Extensor carpi Ulnaris:

- **Action:** Extension and abduction of wrist

Deep Layer:

There are four muscle in the deep layer of the posterior compartment of the forearm.

1. **Supinator:**

- **Action:** Supinates the forearm.

2. **Abductor pollicis longus:**

- **Action:** Extends the thumb

3. **Extensor indicia proparius;**

- **Action:** Extends the index finger.

Muscles of the Hand

Thenar Muscles

1. **Opponents Pollicis:**

- **Action;** rotates the thumb toward th palm, producing opposition and improving grip.

2. **Abductor pollicis brevis:**

- **Action;** abducts the thumb

3. **Flexor pollicis brevis:**

- **Action;** Flexes the thumb

HYPOTHEBAR MUSCLES

1. **Opponens Digit Minimize;**

- **Action;** Rotates little finger toward the palm, producing opposition and improving grip.

2. **Abductor Digits Minimi:**

- **Action;** Abducts the little finger

3. **Flexor Digit Minimize Brevis:**

- **Action;** Flexes little figure

Lubricals:

These are four lumbricals in the hand, each associated with an individual finger.

- **Action;** Flexes and extends the fingers.

INTEROSSEL;

1. **Dorsal interossei;**

- **Action;** Abducted the fingers.

2. **Palmer interossei;**

- **Action;** Abduct the fingers

Other Muscles;

One other muscle in the hand is not easily grouped with the above categories,

Palmaris Brevis:

- **Action;** Wrinkles the skin and deepens the curvature of the palm improving grip.

Q.3 What is cranium? Write the number of bones in skull and face.

Ans: The bones that form the head. The cranium is made up of the cranial bones and facial bones.

Cranial bones:

- Bones that surround and protect the brain is known as **Cranial bones**.

Facial bones:

- The bones from eye socket, nose, cheeks, jaw and other parts of the face.

An opening at the base of the cranium where the spinal cord connects to the brain, also known as **Skull**.

Skull:

- **Skull** is a bony like structure that forms the head in vertebrates. It supports the structures of the face and provides a protective cavity to the brain.

The skull is composed of two parts: **Cranium** and the **Mandible**

Bones of Skull:

- Information :

There is only one movable joint in the skull. That is the joint connecting the lower jaw, or mandible, to the rest of the skull. All the other bone in the skull are firmly attached to one another by **sutures**. Sutures are rigid immovable connecting holding bones tightly to one another. Some of the suture in the skull take a few months-to-years after birth to completely form.

We have totally **28 bones** of skull in number.

Skull is consist of 3 main parts: **Cranial bones, Facial bones and Ear bones.**

- **Cranial bones:**

We have 28 Cranial bones

- * 1 Frontal
- * 1 occipital
- * 2 Parietal
- * 2 Temporal
- * 1 Sphenoid
- * 1 Ethmoid

- **Facial bones:**

We have 14 facial bones

- * 1 Mandible
- * 2 Maxilla
- * 2 Palatine
- * 2 Inferior Conchae
- * 2 Nasal
- * 2 Zygomatic
- * 2 Lacrimal

* 1 Vomer

● **Ear bones:**

There are total 6 bones in number;



2 Malleus

* 2 Incus

* 2 Stapes