

**Mid-Term Assignment/Paper (spring -020)**  
**Human Anatomy-II**  
**BS Radiology Sec-A 2<sup>nd</sup> Semester)**  
**Instructor: Dr. M.Jaffar**

Name : *Hoorain Khan*

ID: 16018

Time: 48-hours

Max Marks: 30

---

**Q.1 What is cubital fossa?**

**(Ans)**

- This is an area of transition between the anatomical arm and the forearm.
- It is located as a depression on the anterior surface of the elbow joint.

**Write the contents of cubital fossa.**

(B) From the medial to lateral side are as follows:

**Median Nerve:**

- It leaves the fossa by passing between 2 heads of pronators teres.

**Brachial artery:**

- It ends in the fossa in the level of neck of radius by splitting into radial and ulnar arteries. The radial artery is superficial and makes the fossa in the apex. The ulnar artery is deep and enters deep to the pronators teres.

**Biceps tendon:**

- It enters backwards and laterally to be connected on the radial tuberosity.

### **Radial nerve:**

It is located in the gap between brachialis medially and brachioradialis laterally.

- At the level of lateral epicondyle it breaks up into 2 terminal branches.
- (a) superficial radial nerve, enters downwards under the cover of brachioradialis.
- (b) deep radial nerve, vanishes in the substance of supinator muscles.

### **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 upper arm split into an anterior and posterior compartment.

#### **Anterior Compartment:-**

- Three muscles are located in the anterior compartment of the upper arm.
- Biceps Brachii:-
- The 1 Biceps Brachii.
- Action: supination of the forearm. It also flexes the arm at the elbow 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.  
Triceps Brachii:-

- The 1.Triceps Brachii.
- Action: Extension of the arm at the elbow forearm

As with the upper arm,the forearm is split into anterior and posterior compartments.

### Anterior Compartment:

- 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:** Moves the ulnaa during pronation and extends the forearm at the elbow.
- **2.Brachioradialis:**
  - **Action:**Flexes the forearm at the elbow.
- **3.Supinator:**
  - **Action:**Supinates the forearm.

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

- **Superficial layers:-**
  - Three muscles are located in the superficial layers of the anterior compartment of the forearm.
- **Flexor Carpi Ulnaris:**
  - **Action:** Flexion and adduction at the wrist.
- **Palmaris longus:-**
  - **Action:** Flexion at the wrist.
- **Flexor Carpi Radialis:-**
  - **Action:** Flexion and abduction at the wrist.
- **Pronator teres:-**
  - **Action:** Pronates the forearm.

### **Intermediate Layers:-**

There is just one muscle in the intermediate layers of the anterior compartment of the forearm.

- **Flexor Digitorum Superficials:-**
  - **Action:** Flexes fingers and wrist.

### **Deep Layers:-**

There are three muscles in the deep layer of the anterior compartment of the forearm

- **Flexor Digitorum Profundus:-**
  - **Action:** Flexes the wrist and the most distal regions of the fingers.
- **Flexor pollicis longus:**
  - **Action:-** Pronates the forearm.

➤ **Posterior Compartment:**

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

➤ **Superficial Layer's:-**

- The superficial layers of the posterior forearms contains seven muscles.

➤ **Aconeus:**

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

➤ **Brachioradialis:-**

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

➤ **Extensor Carpi Radialis longus and Brevis:-**

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

➤ **Extensor Digitorum:-**

- **Action:** Extends Fingers.

➤ **Extensor Digits Minimize:-**

- **Action:** Extend the later fingers and the contributes to extension at the wrist

➤ **Extensor Carpi Ulnaris:**

- **Action:** Extension and adduction of wrist.

➤ **Deep Layers.**

- There are four muscles in the deep layer of the posterior compartment of the forearm.
- Supinator:-
- Action:Supinate the forearm.
- **Abductor pollicis longus:-**
  - Action:Abduct the thumb.
- **Extensor Pollicis Brevis:-**
  - Action:Extends the thumb.
- **Extensor indicia Proprius:**
  - Action:Extends the index finger.

#### ❖ **MUSCLES OF THE HAND**

Thenar Muscles

##### 1. **Opponents Pollicis:-**

- Action: rotates the thumb toward the 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. **Oppenens Digiti Minimize:**

- **Action:**Rotates little figure towards the palm,producing opposition and improving grip.

##### 2. **Abductor Digits Minimi:**

- **Action:** Abducts the little figner

### 3. Flexor Digiti Minimize Brevis:

- **Action:** Flexes little finger.

### Lumbricals

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

**Action:** Flexes and extends the fingers.

### INTEROSSEL

#### 1. Dorsal interossei:

- **Actions:** abducted the fingers.

#### 2. Palmar Interossei:

- **Action:** adduct 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?

Ans:- **Cranium:**

- The bones of the skull which contains the brain. The brain case.
- The part of the skull that enclosed the brain. The skull In vertebrate animals protecting the brain.

**Write the number of bones in skull and face.**

**Ans:-**

**Skull:-**

**28 cranial bones.**

- 1 frontal ,
- 1 occipital,
- 2. Parietal,
- 2 temporal,
- 1 sphenoid,
- 1 Ethmoid,

**14 Facial Bones:-**

- 1 Mandible
- 2 Maxilla,
- 2 Palatine,
- 2 Inferior conchae,
- 2 Nasal,
- 2 Zygomatic,
- 2 Lacrimal,
- 1 Vomer,

**6 Ear Bones:-**

- 2 Malleus,
- 2 Incus,
- 2 stapes,



### **13 Facial Bones:-**

- 2 Maxilla,
- 2 Zygomatic,
- 2 palatine,
- 2 Inferior Nasal Conchs,
- 1 Mandible,
- 2 Lacrimal,
- 2 Nasal,
- 1 Vomer,