**Mid-Term Assignment/Paper (spring -020)**

**Human Anatomy-II**

**BS Radiology Sec-A 2ndSemester)**

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**Time: 48-hours Max Marks: 30**

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

**ANSWER:**

**CUBITAL FOSSA:** The cubital fossa is a depression on the anterior surface of the elbow joint. And it is the transition between the anatomical arm and the forearm. It is triangular in shape and has three border.

MEDIAL BORDER: Medial border of the brachioradialials muscle.

LATERAL BORDER: Lateral border of the pronator teres muscle.

SUPERIOR BORDER: Is between the epicondyles of the humerus.

FLOOR: Brachial and supinetor muscle.

 ROOF: Superficil fascia, Deep fascia.

 **CONTAINS OF CUBITAL FOSSA:**

* THE MEDIAN NERVE: Disappears by entering the forearm between the two head of pronator teres muscle.
* THE BRACHIAL ARTERY: Bifurcates into the ulnar artery and the radial artery.
* THE BRACHIAL ARTERY: Is over the brachialis muscle.
* THE ULNAR ARTERY: Leaves the fossa by going under the deep head of the pronator teres muscle.
* THE RADIAL ARTERY: Descends laterally and is overlapped by the brachioradialis muscle.
* BICEPS TENDON: Is lateral to the brachial artery within the cubital fossa. Thebiceps tenden has one main insertion laterally to the radial tuberosity and anther insertion going medilly to the biciptal aponeurosis.
* SUPERFICIAL RADIAL NERVE: Below the brachioradialls muscle.

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

**ANSWER:**

**MUSCLE OF THE ARM:** Humerus within the arm.

**ANTERIOR: (Ventral)**

* CORACOBRACHIACHIALIS
* BRACHIALIS
* BICEPS BRACHII

**POSTERIOR: (Dorsal)**

* TRICEPS BRACHII
* ANCONEUS

**BICEPS BRACHII:**

**ORIGIN:**

* **Long head:** Supraglenoid tubercle of scapula.
* **Short head:** Coracoid process of the scapula.

**INSERTION: (For both)** Radial tuberosity of the radius.

* Antebrachial fascia

**ACTION:**

* Flexion of the forearm at the albow joint
* Supination of the forearm
* Long head assists in abduction
* Short head facilitates in adduction
* Internal rotation

**INNERVATION:**

* Musculocutaneous nerve

**CORACOBRACHIALIS MUSCLE:**

**ORIGIN:**

* Coracoid process of the scapula.

**INSERTION:**

* Anteromedial surface of the humerus

**ACTION:**

* Flexion, adduction, internal rotation.

**INNERVATION:**

* Musculocutaneous nerve.

**BRACHIALIS MUSCLE:**

**ORIGIN:**

* Anterior aspect of the humerus

**INSERTION:**

* Ulnar tuberosity

**ACTION:**

* Flexion of the forearm at the albow joint.

**INNERVATION:**

* Musculocutaneous nerve.
* Radial nerve.

**POSTERIOR COMPARTMENT OF (ARM)**

**TRICEPS BRACHII MUSCLE:**

**ORIGIN:**

* **Long head:** Infraglenoid tubercle of the scapula.
* **Medial head:** Posterior surface of the humerus.
* **Lateral head:** Posterior surface of the humerus.

**INSERTION:**

* Flat common tendon and olecranon of the ulna process of ulna.

**ACTION:**

* Extention of the forearm at albow joint.
* Extension and abduction of the arm at the shoulder joint.

**INNERVATION:**

* Radial nerve.

**ANCONEUS MUSCLE:** Small triangular shaped muscle.

**ORIGIN:**

* Lateral epicondyle of the humerus.

**INSERTION:**

* Olecranon of the ulna.

**ACTION:**

* Extenstion of the forearm at the albow joint.

**INNERVATION:**

* Radial nerve.

**MUSCLES OF( FOREARM):** Ulna radius within the foream.

**ANTERIOR COMPARTMENT:**

**SUPERFICIAL:**

* PRONATO TERES.
* FLEXOR CARPI ULNARIS
* PALMARIS LONGUS
* FLEXOR CARP RAIALIS
* FLEXOR DIGITORUM SUPERFICIALIS

**DEEP:**

* FLEXOR DIGITORUM PROFUNDUS
* FLEXOR POLLICIS LONGUS
* PRONATOR QUADRATUS

**POSTERIOR COMPARTMENT:**

**SUPERFICIAL:**

* ANCONEUS
* BRACHIORADIALIS
* EXTENSOR CARPI RADIALIS LONGUS
* EXTENSOR CARPI RADIALIS BREVIS
* EXTENSOR DIGITORUM
* EXTENSOR DIGITORUM MINIMI
* EXTENSOR CARPI ULNARIS

**DEEP:**

* ABDUCTOR POLLICIS LONGUS
* EXTENSOR POLLICIS BREVIS
* EXTENSOR INDICIS
* SUPINATOR

**ANTERIOR COMPARTMENT OF ( FOREARM ) MUSCLE:**

**SUPERFICIAL MUSCLE ACTION:**

**PRONATOR TERES:**

**ORIGIN:**

* Medial epicondyle of the humerus.

**INSERTION:**

* Lateral surface of the radius.

**ACTION:**

* Pronation of the forearm.
* Flexion of the forearm.

**FLEXOR CARPI ULNARIS:**

**ACTION:**

* Flexion and abducts the head.

**PALMARIS LONGES:**

**ACTION:**

* Flexion the wrist and tightens the palmar aponeurosis.

**FLEXOR CARPI RADIALIS:**

**ACTION:**

* Flexion and abduction of wrist.

**FLEXOR DIGITORUM SUPERFICIALIS:**

**ACTION:**

* Fix of all joints at crosses.

**DEEP MUSCLE ACTION:**

**FLEXOR DIGITORUM PROFUNDUS:**

**ACTION:**

* Flexor of DIP, PIP, MP, wrist.

**FLEXOR POLLICIS LONGUS:**

**ACTION:**

* Flexion of proximal and distal phalng of the thumb.

**PRONATOR QUADRATUS:**

**ACTION:**

* Pronation.

**POSTERIOR COMPARTMENT OF (FOREARM) MUSCLE:**

**SUPERFICIAL MUSCLE:**

**ANCONEUS:**

**ACTION:**

* Extension of forearm.

**BRACHIORADIALIS:**

**ACTION:**

* Latral aspect of distal radius proximal to the styloid process.

**EXTENSOR CARPI RADIALIS LONGUS:**

**ACTION:**

* Extends and abducts the head.

**EXTENSOR CARPI RADIALIS BREVIS:**

**ACTION:**

* Extends and abduct the wrist.

**EXTENSOR DIGITORM:**

**ACTION:**

* Extension at MCP,PIP, Joints ext of wrist when the fingers areextended.

**EXTENSOR DIGITORUM MINIMI:**

**ACTION:**

* Ext of fifth digit at MC, PIP extension of wrist when little finger in extension.

**EXTENSOR CARPI ULNARIS:**

**ACTION:**

* Extends and adducts the hand.

**DEEP MUSCLE:**

**ABDUCTOR POLLICIS LONGUS:**

**ACTION:**

* Abducts extends lat as the thumb at carpometacarpal joint and abductes the wrist.

**EXTENSOR POLLICIS BREVIS:**

**ACTION:**

* Extension of the metacarpophalangeal joint of tumb.

**EXTENSOR INDICIS:**

**ACTION:**

* Extension of inder finger and wrist.

**SUPINATOR:**

**ACTION:**

* Supination.

**EXTENSOR POLLICIS LONGUS:**

**ACTION:**

* Extends distal phalanx of the thumb at M joint IP joint and it can contribute abduction of the thumb.

**HAND MUSCLE:**

**THENER MUSCLES:**

* ABDUCTOR POLLICIS BREVIS
* FLEXOR POLLICIS BREVIS
* OPPONENS POLLICIS
* ADDUCTOR POLLICIS

**HXPOTHENER MUSCLES:**

* PALMARIS BREVIS
* ABDUCTOR DIGITI MINIMI
* FLEXOR DIGITI MINIMI
* OPPENENS DIGITI MINIMI

**THENER MUSCLES: ( ACTION)**

**ABDUCTOR POLLICIS BREVIS:**

**ACTION:**

* Abduction of carpometaccrpal, MP, joint.

**FLEXOR POLLICIS BREVIS:**

**ACTION:**

* Flexes the phalanx of the thumb of MCP and med rotation at carpometacarpal joint.

**OPPONENS POLLICS:**

**ACTION:**

* Opposition of the thumb in combination of flexion and med rotation.

**ADDUCTOR POLLICIS:**

**ACTION:**

* Adducts the phalanx of thumb.

**HXPOTHENER MUSCLES: (ACTIONS)**

**PALMARIS BREVIS:**

**ACTION:**

* Helps in gripping by wrimkling of skin over it.

**ABDUCTOR DIGTIM INMI:**

**ACTION:**

* Aducts the fifth digit.

**FLEXOR DIGITI MINIMI:**

**ACTION:**

* Flexion the phalanx of fifth digit at MCP joint.

**OPPOENENS DIGITI MINIMI:**

**ACTION:**

* Abducts flexion lat rotates the fifth metacarpal.

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

**ANSWER:**

**CRANIUM:**

**DIFINATION:** Cranium is a bony box which protects our brain and contains cells membranes called meninges.

* The cranium is the skeletal of head that supports the face and protects the brain. Its includes the Frontal, parietal, occipital temporal, sphenoid and ethmoid bone.
* **Anatomically,** The cranium can be subdivided into a **roof** known as the calvarium and a base.
* **Calvarium:** Comprised of the frontal, occipital, and two parietal bones.
* **Cranial base:** Comprised of six bones the frontal, sphenoid, ethmoid, occipital, parietal and temporal bones.

**SUKLL: 8 BONES:**

* FRONTAL BONE
* PARIETAL BONES (2)
* OCCIPITAL BONE
* TEMPORAL BONES (2)
* SPHENOID BONE
* ETHMOID BONE

**FACE: 14 BONES:**

* INFERIOR NASAL CONCHA BON (2)
* LACRIMAL BONES (2)
* MANDIBLE BONE
* MAXILLA BONES (2)
* NASAL BONES (2)
* PALATINE BONES (2)
* VOMER BONE
* ZYGOMATIC BONES (2)

 **THE END**