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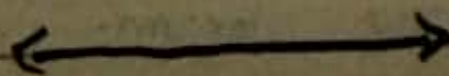
Q: NO 1
(A)

Humeroulnar joint :-

It is part of the elbow-joint. It is composed of two bones, the humerus and ulna, and is the junction between the trochlear notch of ulna and trochlea of the humerus.

Explain Different movement at HU joint?

While flexion and extension are the only movements that can occur at the elbow joint itself, movement is also afforded at the proximal radioulnar joint, which contributes to the elbow joint. Movements at the hip joint are called Pronation and Supination.



(B) What is humeroradial joint? Explain different Movements at this joint?

Ans:-

Humeroradial joint :-

The humeroradial joint is the part of the elbow joint where the capitulum of the humerus articulate with the fovea on the head of the radius.

Different Movements :-

The movements at the elbow joint involve movement of the forearm at the elbow joint. Flexion of the forearm at the elbow joint involve decreasing the angle between the forearm and the arm at elbow joint. Extension allowed involve increase the angle between the arm and forearm.



(C) What is carrying angle?
Why it is important.

Ans:-

Carrying angle :-

Carrying angle is a small degree of cubitus valgus, formed between the axis of radially deviated forearm and the axis of humerus. It helps the arm to swing without hitting the hips while walk.

Why it is important?

It is also important when carrying objects. Certain fractures of the elbow can increase the carrying angle of the elbow, causing the arms to stick out too much from the body. This is called an excessive carrying angle.



Q: NO 2

(A)

What is Wrist complex?

The wrist joint is also known as radiocarpal joint is a synovial joint in the upper limb, marking the area of transition between the forearm and the hand.

Explain joints, contribution and ROM of wrist complex?

Joints :-

The wrist is a complex joint that bridges the hand to the forearm. It is actually a collection of multiple bone and joints.

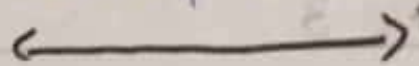
The bones comprising the wrist include the distal ends of radius of and ulna, 8 carpal bones and the proximal portion of the 5 Metacarpal bones.

Contribution :-

The major contribution of wrist complex is to control length tension relationship in multiarticular hand muscles & allow fine adjustment of grip. When muscle are designed for balance & control rather than maximizing torque production.

ROM :-

The ROM of entire complex is a variable & reflect differences in carpal kinematics which could be due to ligamentous laxity. The shape of articular surfaces.



(B) Carpal Tunnel Syndrome :-

Ans:-

Carpal tunnel syndrome is a common condition that cause pain, numbness, and tingling in the hand and arm. The condition occurs when one of the major

Nerves to the hand, the median nerve - is squeezed or compressed as it travels through the wrist.

In most patients, carpal tunnel syndrome get worse over time, so early diagnosis and treatment are important. Early on, symptoms can often be relieved with simple measure like wearing a wrist splint or avoiding certain activities.



Q: No 3

Defination of Muscle Twitch:-

Ans: Involuntary contractions of groups of muscle fibres.

Also known as fasciculations.

fasciculations can occur in

normal individuals without an

associated disease or condition

and can occur as a

as a result of itness, (A such) a
Muscle cramp. (A)

Summation :-

To obtain maximum force with any movement where many muscles are used. In way they allowed maximal force generation - In this way the total force is a sum of the total individual muscles added together.

Refractory Period :-

In ~~Physi~~ Refractory period a short period after a nerve cell fires during which the cell cannot respond to additional stimulation.



Q: No 3
(B)

Muscles contraction:-

Muscle contraction is defined by changes in the length of muscle during contraction.

Types :-

Isometric :-

A muscular contraction in which the length of the muscle does not change e.g. The muscles does not change length, joints not move.

Isotonic :-

A muscular contraction in which the length of the muscles changes. e.g. Muscle Maximal force of contraction exceeds the total load.

Eccentric :-

An isotonic contraction where the muscle lengthen. e.g. During an eccentric, the muscle elongates while tension.

Concentric :-

An isotonic contraction where the muscle shortens.

(C) In Grade III Muscle strain why we can't feel pain?

Ans- In Grade III Muscle we feel pain because the muscle separated from the muscle belly or the muscle belly is actually torn in 2 parts. Severe swelling and pain and a complete loss of function are characteristics of this type of strain. These strain tears the muscle all the way through sometime causing a 'pop' sensation as the muscle rips into two separate pieces.



Qs No 4 (A)

Difference between Cranial and Spinal Nerve?

Cranial Nerve :-

Are the nerves that emerge directly from the brain, of which they are conventionally considered twelve pairs. Cranial nerves relay information between brain and parts of the body.

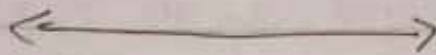
Spinal Nerve :-

Spinal Nerve, a part of the peripheral nervous system, are mixed nerves that send motor, sensory and autonomic signals between the CNS and the body.

How Ventral and dorsal rami form from ventral and dorsal root

Ans:- Shortly after a spinal nerve forms from the dorsal

and ventral roots of the spinal cord it branches into the dorsal rami and ventral rami. spinal nerves are mixed nerves that carry both sensory and motor information.



Q: No: 4

(B)

Difference between Neuropraxia, Axonotmesis and Neurotmesis?

Ans:- Neuropraxia :-


is a disorder of the peripheral nervous system in which there is a temporary loss of motor and sensory function due to blockage of nerve conduction, usually lasting an average of six to eight weeks before full recovery.

Axonotmesis :-

Axonotmesis is more severe than neuropraxia, with complete internal disruptions of axons, loss of axon continuity, and demyelination.

Neurotmesis :-

is defined as an injury in which the nerve is completely divided. The result is complete paralysis, the resultant atrophy of muscle innervated by the nerves cutaneous distribution.

Q8  No 5
(A)

Wolf's Law :-

"Every change in the function of bone is followed by certain definite changes in its internal architecture and its external conformation."

of many theories proposed to explain how mechanical forces communicate with

the cells responsible for bone formation and resorption. During bone remodeling, specialized bone cells called osteoclasts absorb old or damaged bone tissue, which include things like calcium and collagen.



Q8 No 5 (B)

How fracture repairs?

Ans:-

while some bones can heal by wearing a cast, others may require more invasive treatments, such as bone fracture repair. Bone fracture repair is a surgery to fix a broken bone using metal screws, pins, rods, or plates to hold the bone in place.

Different stages of fracture repair :-

There are four stages in the repair of a broken bone.

- i) The formation of hematoma at the break.
- ii) The formation of a fibrocartilaginous callus.
- iii) The formation of a bony callus.
- iv) Remodeling and addition of compact bone.

