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QUESTION (1)

(A) PART :-

HUMEROULNAR JOINT :-

It is composed of two bones, the humerus and ulna. The Humeroulnar joint is the part of elbow joint. The Humeroulnar joint is the junction of trochlear notch of the ulna and the trochlear of the Humerus. It is also known as modifying Hing joint.

MOVEMENT OF HU JOINT:-

- (1) Flexion
- (2) Extension
- (3) circumduction.

FLEXOR :- It is the muscle which bends

(2)

or flexes a limb (arm, leg) when contracts, is called a flexor.

EXAMPLE:-

Biceps of our upper arm.

EXTENSOR:-

It is the muscle which extend or straighten a limb when contracts.

EXAMPLE:-

Triceps of our upper Arm.

CIRCUMDUCTION:-

Circumduction is the movement of a body region in a circular manner.

EXAMPLE:-

Movement of limb or hand ~~to~~ fingers in a circular pattern. using the sequential combination of flexion, extension, adduction and abduction motions.

(B) PART:-

HUMEROREDIAL JOINT:-

The Humeroredial joint is the part of the elbow joint composed of two bones Humerus and radius. Humeroredial is joint between the capitulum of the Humerus

3

Articulate with the fovea on the head of the radius. It is limited ball socket joint hing type of synovial joint.

MOVEMENT OF HUMERORADIAL Joint.

It allows flexion, extension, pronation and supination. In full flexion the movement of radial head is hampered by the compression of the surrounding soft parts so that the freest rotatory movement of radius on the humerus pronation and supination occurs in semiflexion.

PART (C)

CARRYING ANGLE AND IMPORTANT.

Carrying angle is a small degree of cubitus valgus, formed between the axis of a radially deviated forearm and the axis of a humerus.

IMPORTANT:-

Carrying angle is important for lifting objects. This angle allows your forearm to clear your hips when you swing your arm, such during walking. It is also important when carrying objects.

(4)

QUESTION (2)

A(PART)

WRIST JOINT:-

The wrist is a complex joint that bridge the hand to the forearm it is actually the collection of multiple bones and joints the bones comprising they wrist include the distal ends of the radius and ulna, carpal bones and proximal end of five metacarpal bones.

JOINTS OF WRIST COMPLEX:-

The wrist complex consist of two compound joint.

- (1) Radiocarpal joints. (composed of radioulnar disk, scaphoid, lunate.)
- (2) Metacarpal joint. (composed of scaphoid, lunate, and triquetrum with trapezoid and capitale and humate).

CONTRIBUTION:-

At control length tension relationship in hand muscles.

RANGE OF MOTION:-

- (1) The wrist complex is ~~bi~~ biaxial motions of extension flexion.
- (2) ulnar deviation or medial deviation.

5

Normal range are:

65 to 85 of flexion.

60 to 85 of extension.

15 to 21 of deviation.

20 to 45 of ulnar deviation.

PART (B):-

CARPAL TUNNEL SYNDROME:-

When the median nerve become compressed with in carpal tunnel a neuropathy know as carpal tunnel syndrome is a common condition that cause pain, numbness and tingling in the hand and arm. the condition occur when one of the major nerve to the hand - the median nerve - is squeezed or compressed as it travels through the wrist.

SYMPTOM:-

- paesthesia, Hypoesthesia, pain
- (1) weakness in your hand and trouble holding things.
 - * Shock like feeling that move into your fingers.

PREVENTION:-

keep your wrist straight keep your hand warm.
keep ^{put} your hand and wrist in the right position while you work.

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QUESTION "3"

PART(A) :-

The mechanical response of a muscle to a single stimulus of its motor nerve known as a twitch.

Muscle twitching is also called muscle fasciculation. Twitching involves small muscle contraction in the body. Your muscles are made up of fibers that your nerves control. Most muscle twitches go unnoticed and are not cause for concern.

SUMMATION:-

When mechanical responses to successive stimuli are added to an initial response, the result is known as summation.

REFRACTORY PERIOD:-

If a second stimulus occurs during the latency period of the first muscle twitch, it produces a second twitch and the muscle is said to be completely refractory.

It produces great tension in the muscle.

PART(B)

TYPES OF MUSCLE:-

There are three types of muscles.



- (1) Isometric.
- (2) Isotonic
- (3) Isoinertial contraction.

ISOMETRIC :- CONTRACTION

Isometric exercises are contraction of a particular muscle or group of muscles. During isometric exercises the muscle does not strengthen. An isometric contraction of muscle generates tension without changing length. An example can be found when the muscle of the hand and forearm grip an object the joints of the hand do not move, but muscles generate sufficient force to prevent the object from being dropped.

ISOTONIC :- CONTRACTION

Isotonic contraction the tension in the muscle remains constant despite a change in muscle length. This occurs when a muscle's force of contraction matches the total load on the muscle.

ISOINERTIAL CONTRACTION :-

Isoinertial denotes a type of resistance used in exercise training which maintains a constant inertia throughout the range of motion.

PART (C) :-

ANSWERS:- Minimum to no pain. Significant loss of function. Complete loss of

8

Function.

Complete rupture of a muscle or tendon these can present with a palpable defect in the muscle or tendon. These injuries some time require surgery to reattach the damaged muscle and tendon.

Q4

A (PART)

CRANIAL NERVE:- & SPINAL NERVE:-

Cranial nerves are the nerves that emerge directly from the brain (including the brainstem). In contrast, spinal nerves emerge from segments of the spinal cord. Cranial nerves relay information b/w the brain and part of the body, primarily to and from regions of the head and neck.

A spinal nerve is mixed nerve, which carries motor, sensory, and autonomic signals between the spinal cord and the body. In the human body there are 31 pairs of spinal nerve, one on each side of the vertebral column.

PART (B)

NEUROPRAXIA:-

Is a type of peripheral nerve injury, and is known as the mildest form of nerve injury. It is classified as a transient conduction

90

block of motor or sensory function without nerve degeneration.

AXONOTMESIS:-

The second degree in which the axon is damaged but the surrounding connecting tissue remains in tact is called axonotmesis.

NEUROTMESIS:-

The last degree in which both the axon and the connective tissue are damaged is called neurotmesis.

QUESTION NO'S

WOLF'S LAW:-

Wolf's law states that bones develop a structure most suited to resist the force acting upon them adapting both the internal conformation to the change in external loading conditions.

The internal architecture in density and in disposition of the external conformation in term of ~~sp~~ shape and dimensions.

(B) PART :-

HOW FRACTURE REPAIR:-

10

Bones can heal by wearing a cast, others require more invasive treatment 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. It's also known as an open reduction.