

**MID TERM ASSIGNMENT PAPER 2020**

**SUBJECT : BIOMACHANICS**

**SEMESTER :2<sup>ND</sup> DPT (SECTION A)**

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**QUESTION/ANSWER**

**Note:** Draw a table including all the muscles and their actions of the following joints?

**QUESTION NO :1**

**Shoulder joint muscles and there actions?**

**Ans :**

<b><u>EXTRINSIC MUSCLES</u></b>			
<b><u>SUPERFICIAL</u></b>		<b><u>DEEP</u></b>	
<b><u>TRAPEZIUS</u></b>	<b><u>FUNCTION</u></b>	<b><u>LEVATOR SCAPULAE</u></b>	
<ul style="list-style-type: none"><li>• <b><u>Upper Fibers</u></b></li></ul>	<ul style="list-style-type: none"><li>• Elevation of Scapula</li><li>• Upward rotation</li></ul>	<b><u>FUNCTION</u></b>	Elevation of Scapula
<ul style="list-style-type: none"><li>• <b><u>Middle Fibers</u></b></li></ul>	<ul style="list-style-type: none"><li>• Retraction of Scapula</li></ul>	<b><u>RHOMBOID MAJOR</u></b>	
<ul style="list-style-type: none"><li>• <b><u>Lower Fibers</u></b></li></ul>	<ul style="list-style-type: none"><li>• Depression of Scapula</li><li>• Upward rotation</li></ul>	<b><u>FUNCTION</u></b>	Retraction of Scapula
<b><u>LATISSIMUS DORSI</u></b>	<b><u>FUNCTION</u></b>	<b><u>RHOMBOID MINOR</u></b>	
	<ul style="list-style-type: none"><li>• Adduction</li><li>• Extension</li><li>• Depression of Scapula</li><li>• Internal rotation</li></ul>	<b><u>FUNCTION</u></b>	Retraction of Scapula

<u>INTRINSIC MUSCLES</u>	
<u>ROTATOR CUFF MUSCLES</u>	<u>FUNCTION</u>
• <u>Supraspinatus</u>	Abduction
• <u>Infraspinatus</u>	External rotation
• <u>Subscapularis</u>	Internal rotation
• <u>Teres minor</u>	Internal rotation
• <u>Teres major</u>	External rotation
<u>DELTOID.</u>	<u>FUNCTION</u>
<ul style="list-style-type: none"> <li>• Anterior</li> <li>• Middle</li> <li>• Posterior</li> </ul>	<ul style="list-style-type: none"> <li>• Flexion, internal rotation</li> <li>• Abduction</li> <li>• Extension, external rotation</li> </ul>

**OTHERS:-**

<u>Others Shoulder muscles</u>	<u>Function</u>
• <u>Sarratus anterior</u>	• Protection
• <u>Pectorallis Major</u>	<ul style="list-style-type: none"> <li>• Horizontal Adduction</li> <li>• Horizontal flexion</li> <li>• Medial rotation</li> </ul>
• <u>Pectorallis Minor</u>	<ul style="list-style-type: none"> <li>• Protection of Scapula</li> <li>• Elevation of ribs during breathing</li> </ul>

**QUESTION NO :2**

**The elbow joint muscles and their actions?**

**Ans:**

<u>MUSCLES</u>	<u>ACTIONS</u>
<ul style="list-style-type: none"> <li>• <u>Bicep brachii</u></li> <li>• <u>Brachialis</u></li> <li>• <u>Brachoradialis</u></li> </ul>	Flexion
<ul style="list-style-type: none"> <li>• <u>Tricep brachii</u></li> <li>• <u>Anconeus</u></li> </ul>	Extension
<ul style="list-style-type: none"> <li>• <u>Pronator teres</u></li> <li>• <u>Pronator quadratus</u></li> </ul>	Pronation
<ul style="list-style-type: none"> <li>• <u>Supinator</u></li> <li>• <u>Biceps Brachii</u></li> </ul>	Supination

**QUESTION NO :3**

**Wrist joint muscles and their actions?**

**Ans:**

<b><u>MUSCLES</u></b>	<b><u>ACTIONS</u></b>
<ul style="list-style-type: none"><li>• <b>Flexor carpi ulnaris</b></li><li>• <b>Flexor carpi radialis</b></li><li>• <b>Flexor digitorum Superficialis</b></li></ul>	Flexion
<ul style="list-style-type: none"><li>• <b>Extensor carpi radialis Longus brevis</b></li><li>• <b>Extensor carpi ulnaris</b></li></ul>	Extension
<ul style="list-style-type: none"><li>• <b>Extensor carpi ulnaris</b></li><li>• <b>Flexor carpi ulnaris</b></li></ul>	Adduction
<ul style="list-style-type: none"><li>• <b>Abduction pollicis longus</b></li><li>• <b>Flexor carpi radialis</b></li><li>• <b>Extensor carpi radialis Longus brevis</b></li></ul>	Abduction