

Applied Human Structure and Function PAS701-3**Upper Limb and Thorax – 100 Points****August 11, 2021****PART I. Circle the number for each statement that is true. (20 pts (½ pt ea))**

1. The scapular anastomosis provides adequate blood supply to the upper extremity during acute ligation of the axillary artery proximal to the subscapular artery. (True)
2. Abducting the arm from anatomical position to 180 degrees recruits the suprascapular, axillary, spinal accessory, and long thoracic nerves. (True)
3. Nociceptive signalling from the heart projects to the same spinal cord levels as does cutaneous sensation from the medial aspect of the arm and forearm. (True)
4. Disruption of the grey ramus that communicates with the T2 spinal nerve causes flushing, warmth, dryness, and loss of "goose bumps" along the medial aspect of much of the upper limb. (True)
5. The median cubital vein passes deep to the bicipital aponeurosis. (False)
6. The dorsum of the hand receives cutaneous innervation by branches of the ulnar, median, and radial nerves. (True)
7. Lymphogenous spread of breast cancer occurs at the superficial inguinal lymph nodes. (True)
8. The retromammary space is deep to the deep layer of superficial breast fascia and superficial to the pectoral fascia. (True)
9. The lower subscapular nerve innervates two muscles and each of these muscles laterally rotate the arm. (False)
10. A lesion of the radial nerve at the spiral groove causes loss of extension at the elbow. (False)
11. Complete injury to the C5 root of the brachial plexus weakens retraction, protraction, elevation, and rotation of the scapula. (True)
12. Injury to the upper subscapular nerve weakens medial rotation of the arm and protraction of the scapula. (False)
13. The coracoid process is a site of origin for two muscles and a site of insertion for one muscle. (True)
14. The long head of the triceps defines a medial border of the quadrangular space and a lateral border of the triangular space. (True)
15. The inferior ulnar collateral artery anastomoses with the anterior ulnar recurrent artery within the cubital fossa. (True)
16. The median nerve passes deep to the humeral head and superficial to the ulnar head of pronator teres. (True)
17. The ulnar nerve enters the forearm by entering the cubital canal and passing between the heads of origin of flexor carpi ulnaris. (True)

18. The radial artery enters the dorsum of the hand by circling the scaphoid bone deep to the tendons of abductor pollicis longus and extensor pollicis brevis. (True)
19. The palmar branch of the median nerve does not pass through the carpal tunnel and, thus, is spared in the case of carpal tunnel syndrome. (True)
20. Injury to the ulnar nerve within the cubital tunnel causes less clawing of the fingers than does ulnar nerve injury within the ulnar canal (Guyon canal). (True)
21. The palmar proper digital nerves supply the dorsum of the fingers at the nail beds. (True)
22. The posterior interosseous nerve enters the posterior arm with the posterior interosseous artery by passing the superior free edge of the interosseous membrane. (False)
23. Brachioradialis flexes at the elbow and extends at the wrist. (False)
24. The conoid ligament is medial to the trapezoid ligament and lateral to the superior transverse scapular ligament. (True)
25. Supination and pronation occurs at the proximal radioulnar joint. (True)
26. Ulnar nerve injury at the cubital canal causes the resting position of the wrist to be abducted and extended. (True)
27. Median nerve injury within the axilla cause the resting position of the wrist to be adducted and extended. (True)
28. The two-finger procedure involves placing two fingers in parallel to the ribs defining an intercostal space and then placing the needle between the two fingers. This procedure avoids injuring the intercostal vessels and nerves and the collateral vessels. (True)
29. Coarctation of the aorta changes the normal pattern of collateral circulation so that the posterior intercostal arteries supply retrograde blood flow to the descending aorta. (true)
30. A transverse penetration of the inferior cervical region, near the thoracic inlet, can cause pneumothorax. (True)
31. The parietal pleura is adhered to the thoracic walls by endothoracic fascia and the visceral pleura is held to the parietal pleura by surface tension and negative pressure. (True)
32. Perturbation of the visceral and parietal pericardium (pericarditis) refers pain to the medial aspect of the upper limb and to the base of the neck (supraclavicular nerve territory) and. (True)
33. The phrenic nerve and pericardiophrenic vessels run anterior to the root of the lung in the pericardial sac, between the fibrous and serous parietal layer of pericardium.
34. The left coronary artery gives rise to the anterior interventricular artery and this artery, in turn, supplies the anterior two thirds of the interventricular septum (widow maker). (True)
35. Blockage of the right coronary artery proximal to the sinuatrial branch indicates the need to implant a pacemaker. (True)
36. Chordae tendineae from a single papillary muscle span multiple cusps. (True)
37. A patent foramen ovale (PFO) might be asymptomatic. Nonetheless, a PFO increases the probability of stroke secondary to venous thrombosis. (True)

38. An aneurysm of the aortic arch may first become symptomatic as hoarseness secondary to paralysis of the left vocal cord. (True)
39. The pericardiophrenic arteries are branches of the internal thoracic arteries.
40. The right posterior intercostal arteries, but not the left, cross the anterior margin of the thoracic vertebral bodies. (True)