Practice Test 2
Upper Limb

1. The axillary sheath investing the neurovascular bundle in the axilla is continuous in the posterior triangle of the neck with the:
   a. investing layer of deep cervical fascia
   b. prevertebral fascia
   c. visceral fascia
   d. a and b

2. With respect to the coracoid process of the scapula,
   a. it can be palpated above the clavicle
   b. it is oriented downward and medially
   c. three muscles attach to it
   d. it arises from the upper scapular border between the scapular notch and the vertebral border
   e. all the above statements are true

3. What do the trapezius muscle and the sternocleidomastoid muscle have in common?
   a. the investing layer of deep cervical fascia envelopes both muscles
   b. they both are innervated by the spinal accessory nerve
   c. both
   d. neither

4. Which of the following is NOT a match?
   a. dorsal scapular artery – brachial plexus
   b. phrenic nerve – fibers from three spinal cord segments
   c. thyrocervical trunk – suprascapular artery
   d. scalenus medius – anterior tubercles of transverse processes
   e. Teres minor muscle - lower subscapular nerve

5. The branch of the subclavian artery that is a major supply to the central nervous system is the:
   a. costocervical trunk
   b. internal thoracic
   c. thyrocervical trunk
   d. vertebral artery
   e. none are major contributors

6. The rami that make up the cervical plexus contain fibers which:
   a. travel in the posterior root
   b. travel in an anterior root
   c. innervate the skin over the posterior triangle of the neck
   d. a and c
   e. a, b and c

7. Which of the following are directly paired?
   a. dorsal ramus - supraclavicular nerve
   b. medial antebrachial cutaneous nerve - medial cord
   c. lateral antebrachial cutaneous nerve - lateral cord
   d. dorsal scapular nerve - upper trunk
8. Which muscle is innervated by a branch of the posterior cord of the brachial plexus?
   a. rhomboid major muscle
   b. scalenus anterior muscle
   c. supraspinatus muscle
   d. subscapularis muscle
   e. coracobrachialis muscle

9. Which relationship is **TRUE**?
   a. the phrenic nerve lies anterior to the scalenus anterior muscle immediately deep to the investing fascia
   b. the subclavian vein dives between the scalenus anterior and scalenus medius muscles
   c. the tendon of the subscapularis muscle passes anterior to the shoulder joint and therefore it is a medial rotator of the arm
   d. the anterior humeral circumflex artery travels with the axillary nerve

10. When placing a central line in the subclavian vein which of the following must the student think about:
    a. if the needle is inserted too deeply the visceral pleura of the cupola would be violated causing a pneumothorax
    b. that the subclavian artery lies posterior to the vein and care must be taken not to let the needle go too deep
    c. if not careful the vein would be missed and the needle would penetrate into the scalenus medius muscle
    d. if placement of the line is on the right side the thoracic duct could be damaged by the needle penetrating too close to the internal jugular vein

11. Which of the following pairs is matched?
    a. pronator teres muscle -- has two heads of origin and inserts midshaft on ulna
    b. flexor carpi radialis muscle -- has two heads and is innervated by radial nerve
    c. flexor carpi ulnaris muscle -- has only one head of origin and is innervated by ulnar nerve
    d. flexor digitorum profundus muscle -- is innervated by median and ulnar nerves
    e. pronator quadratus muscle -- has origin on the radius and is innervated by ulnar nerve

12. A knife wound to the medial border of the cubital fossa that completely transects the origins of the pronator teres muscle will probably also:
    a. lacerate the median nerve
    b. puncture the ulnar artery
    c. impair the patient's ability to pronate the hand
    d. reduce blood flow to the superficial palmar arch
    e. all the above

13. Under the extensor retinaculum, which of these relationships is **CORRECT**?
    a. the first compartment contains the extensor carpi radialis longus and brevis muscles
    b. the second compartment contains the abductor pollicis longus
    c. the third compartment contains the extensor pollicis brevis
    d. the fourth compartment contains two tendons that course to the index finger
    e. the fifth compartment contains a tendon that extends the wrist
14. The nerve most closely related to the radial artery through most of its course in the forearm is the
   a. anterior interosseous nerve
   b. deep branch of the radial nerve
   c. lateral antebrachial cutaneous nerve
   d. median nerve
   e. superficial branch of the radial nerve

15. A deep wound in the cubital fossa, cutting both the radial and median nerves would totally
denervate (both sensory and motor) the thumb.
   a. true
   b. false

16. You go out in the cold without gloves. The skin on your fifth digit blanches. Which of the
structures below carries a sympathetic fiber which would cause this effect?
   a. radial nerve
   b. gray ramus communicating of C8
   c. white ramus communicating of C6
   d. median nerve

17. Which of the following statement/s concerning the sympathetic system is CORRECT?
   a. all spinal nerves have white and gray communicating rami
   b. the gray communicating rami contain preganglionic fibers and sensory fibers
   c. postganglionic fibers to the smooth muscle and glands in the skin are found in
gray communicating rami
   d. b and c
   e. none of the above is correct

18. What is TRUE about the shoulder joint?
   a. the glenoid fossa of the scapula is lined with hyaline cartilage
   b. the short head of the biceps brachii muscle travels through it
   c. the capsule is related to three glenohumeral ligaments
   d. abduction of the shoulder joint is done by the deltoid and infraspinatus muscles
   e. a and c

19. The distal row of carpal bones contains the capitate bone.
   a. true
   b. false

20. The trochlea of the humerus articulates with the ulna.
   a. true
   b. false

21. The little finger is innervated by C7 and the proper digital nerves of the ulnar nerve.
   a. true
   b. false

22. C6 dermatome extends from the shoulder into the hand.
   a. true
   b. false
Questions 23 - 25 relate to the following case study.

A chemist running from his lab had the glass door swing back in his face. In an attempt to stop the door he put his right hand out to catch the door. Instead of catching the door's edge his hand smashed through the glass door. He fell to the floor with his hand bleeding profusely. After wrapping the hand in a towel he was taken to the emergency room. There he was found to have a superficial laceration on the medial side of the anterior aspect of his wrist. Examination revealed the following:

1. There was a sensory loss on the palmar aspect of one-half of the ring finger and the little finger of the right hand.
2. When a piece of paper was placed between his index and middle fingers he was unable to grip it when the physician attempted to pull it out.
3. The patient had difficulty making a fist even though the long flexors appeared to be intact.

23. Why was the sensation on the palmar lateral one-half of the ring finger intact?
   a. The skin is innervated by the median nerve, which was not affected
   b. The skin is innervated by the ulnar nerve, which was not affected
   c. The skin is innervated by the radial nerve, which was not affected

24. What caused the patient to be unable to grip the piece of paper between the fingers?
   a. innervation to the lumbrical muscle to the index finger was lost
   b. innervation to the dorsal interosseous muscle of the index finger was lost
   c. innervation to the palmar interosseous muscle of the index finger was lost
   d. innervation to the palmar interosseous muscle of the middle finger was lost

25. What other problems of movement would be expected to be observed?
   a. inability to abduct the little finger
   b. inability to flex the distal phalanx of the middle finger
   c. inability to flex the thumb
   d. inability to flex the proximal phalanx of the ring finger
   e. inability to abduct the thumb