MUSCLES

SELECT THE MUSCLE THAT DOES NOT BELONG WITH THE INDICATED GROUP.

1. Musculotendinous (Rotator) Cuff of the Arm: (a) Infraspinatus (b) Pectoralis minor (c) Teres minor (d) Subscapularis (e) Supraspinatus

2. Anterior Arm: (a) Brachialis (b) Biceps brachii (c) Coracobrachialis (d) Triceps brachii

3. Posterior Forearm: (a) Brachioradialis (b) Brachialis (c) Extensor carpi ulnaris (d) Extensor digitorum (e) Extensor pollicis longus

4. Posterior Forearm: (a) Extensor carpi radialis longus (b) Extensor carpi radialis brevis (c) Extensor digiti minimi (d) Palmaris longus (e) Supinator

5. Posterior Forearm: (a) Extensor pollicis brevis (b) Extensor indicis (c) Abductor pollicis longus (d) Abductor digiti minimi (e) Anconeus

6. Anterior Forearm: (a) Pronator teres (b) Flexor digitorum profundus (c) Flexor carpi radialis (d) Extensor carpi radialis longus (e) Palmaris longus

7. Anterior Forearm: (a) Pronator teres (b) Flexor digitorum profundus (c) Flexor carpi radialis (d) Coracobrachialis (e) Palmaris longus

8. Anterior Forearm: (a) Pronator quadratus (b) Flexor digitorum superficialis (c) Flexor carpi ulnaris (d) Flexor pollicis longus (e) Brachioradialis

9. Attaches Scapula to Axial Skeleton: (a) Serratus anterior (b) Rhomboid major (c) Rhomboid minor (d) Levator scapulae (e) Latissimus dorsi

10. Attaches Scapula to Axial Skeleton: (a) Trapezius (b) Supraspinatus (c) Pectoralis minor (d) Levator scapulae (e) Rhomboid minor

MATCH THE MUSCLES WITH THEIR ATTACHMENTS TO THE SCAPULA.

11. Subscapularis a. medial border
12. Rhomboid major & minor, Levator scapulae, Serratus anterior b. lateral border
13. Infraspinatus c. anterior surface
14. Teres major and minor d. posterior surface below spine
15. Supraspinatus e. posterior surface above spine
16. Triceps brachii (long head) a. coracoid
17. Biceps brachii (long head) b. supraglenoid tubercle
18. Biceps brachii (short head), Pectoralis minor, Coracobrachialis c. infraglenoid tubercle
19. Trapezius, Deltoid d. spine and acromion

MATCH THE MUSCLES WITH THEIR ATTACHMENTS TO THE HUMERUS.

20. Supraspinatus, Infraspinatus, Teres minor a. greater tubercle
21. Subscapularis b. lesser tubercle
22. Deltoid c. crest of greater tubercle
23. Pectoralis major d. crest of lesser tubercle
24. Teres major e. deltid tuberosity
REVIEW QUESTIONS: UPPER LIMB

25. Pronator teres, Palmaris longus, Flexors carpi radialis & ulnaris, a. anterior surface
   Flexor digitorum superficialis b. posterior surface
26. Extensors: carpi radialis longus & brevis, digitorum, digiti minimi, c. medial epicondyle
   & carpi ulnaris d. lateral epicondyle
27. Brachialis and Coracobrachialis e. floor of intertubercular groove
28. Latissimus dorsi
29. Triceps brachii: medial and lateral heads

MATCH THE MUSCLES WITH THEIR ATTACHMENTS.
30. Biceps brachii a. radius: tuberosity
31. Brachialis b. ulna: olecranon process
32. Triceps brachii c. ulna: coronoid process and tuberosity
33. Pectoralis major, Trapezius, Deltoid, Sternocleidomastoid, d. clavicle
     Subclavius

CHOOSE THE MUSCLE(S) RESPONSIBLE FOR THE LISTED ACTIONS.
34. Flexion of arm at shoulder a. Brachialis, Biceps brachii, Brachioradialis
35. Flexion of forearm at elbow b. Flexors carpi radialis & ulnaris, Palmaris longus
36. Flexion of hand at wrist c. Flexors digitorum superficialis & profundus
37. Flexion of digits 2-5 d. Coracobrachialis, Biceps brachii, Deltoid
38. Flexion of pollex e. Flexors pollicis longus & brevis
39. Extension of arm at shoulder a. Triceps brachii
40. Extension of forearm at elbow b. Latissimus dorsi, Deltoid
41. Extension of hand at wrist c. Extensors pollicis longus & brevis
42. Extension of digits 2-5 d. Extensors: digitorum, indicis, and digiti minimi
43. Extension of pollex e. Extensors: carpi radialis longus & brevis and ulnaris
44. Abduction of arm at shoulder a. Pectoralis major, Latissimus dorsi, Teres major
45. Adduction of arm at shoulder b. Supraspinatus, Deltoid
46. Abduction of hand at wrist c. Flexor carpi radialis, Ext carpi radialis longus & brevis
47. Adduction of hand at wrist d. Flexor carpi ulnaris, Extensor carpi ulnaris
48. Lateral rotation of arm at shoulder a. Supinator, Biceps brachii
49. Medial rotation of arm at shoulder b. Subscapularis, Pectoralis major
50. Medial rotation of forearm & hand c. Pronator teres, Pronator quadratus
51. Lateral rotation of forearm & hand d. Teres minor, Infraspinatus
52. Protraction & rotation of scapula a. Trapezius
53. Retraction & rotation of scapula b. Rhomboids major & minor
54. Elevation, depression, retraction of shoulder c. Serratus anterior

MATCH EACH MUSCLE GROUP WITH ITS PRIMARY FUNCTIONS.
55. Anterior arm muscles a. Flexion of hand and digits; pronation
56. Posterior arm muscles b. Extension of hand and digits; supination
57. Posterior forearm muscles c. Flexion of arm and forearm
58. Anterior forearm muscles d. Extension of arm and forearm
59. Thenar muscles a. Pollex: abduction, adduction, flexion, opposition
60. Hypothenar muscles b. Digit 5: flexion, opposition, abduction
61. Dorsal interossei c. Digits 2-4: Abduction
62. Palmar interossei d. Digits 2,4,5: Adduction
63. Lumbricales e. Digits 2-5: Flexion at metacarpophalangeal joints; extension at
     interphalangeal joints
BLOOD VESSELS

Multiple Choice

64. The subclavian arteries primarily supply the ___?___. (a) lower limbs (b) head and neck (c) upper limbs (d) abdominal cavity (e) thoracic walls

65. The right subclavian artery is usually a branch of the ___?___. (a) ascending aorta (b) aortic arch (c) right common carotid (d) brachiocephalic trunk (e) right external carotid

66. The left subclavian artery is usually a branch of the ___?___. (a) ascending aorta (b) aortic arch (c) right common carotid (d) brachiocephalic trunk (e) right external carotid

67. The internal thoracic artery ___?___. (a) is a branch of the subclavian artery (b) runs along the internal edge of the sternum (c) supplies anterior intercostal arteries to intercostal spaces 3-11 (d) all of these (e) none of these

68. The internal thoracic artery ___?___. (a) may be used in coronary bypass surgery (b) is also called the internal mammary artery orIMA (c) ends by dividing into a musculophrenic artery to the Diaphragm and a superior epigastric artery to the abdominal wall (d) all of these (e) none of these

69. The anterior intercostal arteries ___?___. (a) are branches of the internal thoracic arteries (b) supply the intercostal spaces (c) anastomose with the posterior intercostal arteries (d) all of these (e) none of these

70. Which branch of the subclavian artery supplies parts of the brain? (a) vertebral (b) internal thoracic (c) costocervical (d) thyrocervical

71. The vertebral arteries ___?___. (a) run through the transverse foramina of the cervical vertebrae (b) enter the cranial cavity through the foramen magnum (c) merge to form the basilar artery (d) are branches of the subclavian arteries (e) all of these

72. As it crosses over the first rib, the subclavian artery becomes the ___?__ artery. (a) axillary (b) brachial (c) vertebral (d) thoracic (e) ulnar

73. As it crosses the lower border of Teres major, the axillary artery enters the arm and becomes the ___?__ artery. (a) radial (b) ulnar (c) brachial (d) subclavian (e) subscapular

74. The boundary between the subclavian artery and the axillary artery is the ___?___. (a) first rib (b) second rib (c) lower edge of Teres major (d) inferior edge of Pectoralis major (e) the clavicle

75. The boundary between the axillary artery and the brachial artery is the ___?___. (a) first rib (b) second rib (c) lower edge of Teres major (d) inferior edge of Pectoralis major (e) the clavicle

76. Which branch of the axillary artery supplies branches to pectoralis minor and major, deltoid, the acromion, the clavicle and the acromioclavicular joint ___?__ (a) thoracoacromial (b) lateral thoracic (c) anterior circumflex humeral (d) subscapular (e) posterior circumflex humeral

77. Which branch of the axillary artery supplies branches to the scapular region and Latissimus dorsi ___?__ (a) thoracoacromial (b) lateral thoracic (c) anterior circumflex humeral (d) subscapular (e) posterior circumflex humeral

78. Which branch of the axillary artery supplies branches to the serratus anterior, subscapularis and pectoralis muscles and the breast ___?__ (a) thoracoacromial (b) lateral thoracic (c) anterior circumflex humeral (d) subscapular (e) posterior circumflex humeral

79. The anterior and posterior circumflex humeral arteries ___?___. (a) form a ring around the surgical neck of the humerus (b) supply deltoid and the shoulder joint (c) could be injured in fractures of the surgical neck of the humerus (d) all of these (e) none of these
80. Branches of the brachial artery supply __?__. (a) the muscles of the arm (b) the skin of the arm (c) the humerus (d) the elbow joint (e) all of these

81. The deep brachial (profunda brachii) artery __?__. (a) is a branch of the brachial artery (b) runs with the radial nerve (c) supplies the posterior compartment of the arm (d) all of these (e) none of these

82. At the elbow, the brachial artery ends by dividing into the __?__ arteries. (a) radial and ulnar (b) axillary and subclavian (c) anterior and posterior interosseous (d) palmar and dorsal digital (e) none of these

83. The ulnar and radial arteries supply the __?__ of the forearm and the hand. (a) skin (b) muscles (c) bones (d) joints (e) all of these

84. The common interosseous artery is a branch of the __?__ artery. (a) subclavian (b) axillary (c) brachial (d) radial (e) ulnar

85. The anterior and posterior interosseous arteries __?__. (a) are branches of the common interosseous artery (b) run along the anterior and posterior surfaces of the interosseous membrane (c) supply the deep flexor compartment muscles and all of the extensor compartment muscles of the forearm (d) all of these (e) none of these

86. In the hand, the ulnar artery ends as the __?__. (a) princeps pollicis artery (b) superficial palmar arch (c) deep palmar arch (d) digital arteries (e) none of these

87. The radial artery __?__. (a) curves around the lateral side of the wrist (b) pierces the adductor pollicis muscle and enters the palm of the hand (c) ends as the deep palmar arch (d) all of these (e) none of these

88. The princeps pollicis artery __?__. (a) is a branch of the radial artery (b) is a branch of the ulnar artery (c) supplies the thumb (d) a and c (e) b and c

89. The palmar arterial arches give off metacarpal arteries that run distally along the metacarpals. (a) true (b) false

90. At the webs of skin between digits 2-3, 3-4, and 4-5, the arteries from the palmar arches split in two and run along either side of each digit. (a) true (b) false

91. The network of arteries around the elbow is formed by __?__. (a) collateral branches of the brachial and deep brachial arteries (b) recurrent branches of the radial and ulnar arteries (c) both of these (d) none of these

92. The deep veins of the upper limb have the same names as the arteries they accompany. (a) true (b) false

93. Which of the following is not a superficial vein of the upper limb __?__ (a) cephalic (b) median cubital (c) basilic (d) axillary (e) median vein of the forearm

94. The cephalic vein __?__. (a) empties into the axillary vein (b) is a superficial vein (c) starts on the lateral side of the hand (d) is located on the lateral side of the forearm and arm (e) all of these

95. The basilic vein __?__. (a) is a superficial vein of the upper limb (b) arises from the medial side of the dorsal venous network of the hand (c) generally runs up the medial aspect of the forearm and lower arm (d) merges with the brachial vein to form the axillary vein (e) all of these

96. At the elbow, the median cubital vein usually connects the __?__ veins. (a) radial and ulnar (b) basilic and cephalic (c) brachial and axillary (d) axillary and subclavian (e) none of these

97. Which sequence best describes the route of a red blood cell leaving the left ventricle and traveling towards the right arm __?__ (a) aortic arch > ascending aorta > subclavian a. > axillary a. > brachial a. (b) ascending aorta > aortic arch > brachiocephalic trunk > subclavian a. > axillary a. > brachial a.
98. Which sequence best describes the route of a red blood cell leaving the ascending aorta and traveling to the left posterior arm (a) aortic arch > subclavian a. > axillary a. > brachial a. > profunda brachii a. (b) aortic arch > brachiocephalic a. > subclavian a. > axillary a. > brachial a. > profunda brachii a.

99. Which sequence best describes the route of a red blood cell traveling to the lateral side of the forearm (a) subclavian a. > axillary a. > brachial a. > radial a. (b) subclavian a. > axillary a. > brachial a. > radial a. > ulnar a.

100. Which sequence best describes the route of a red blood cell traveling to the deep muscles of the forearm (a) axillary a. > radial a. > common interosseous a. > anterior and posterior interosseous aa. (b) axillary a. > brachial a. > ulnar a. > common interosseous a. > anterior and posterior interosseous aa.

101. Which sequence best describes the route of a red blood cell traveling to the pollex (a) brachial a. > ulnar a. > superficial palmar arch > common palmar digital a. > princeps pollicis a. (b) brachial a. > radial a. > ulnar a. > common interosseous a. > anterior and posterior interosseous aa.

102. If a red blood cell was traveling to the arterial anastomoses around the elbow through which of the following sets of arteries could it travel (a) superior & inferior ulnar collaterals of the brachial a. (b) radial and middle collaterals of the profunda brachii a. (c) recurrent branches of the radial and ulnar aa. (d) any of these (e) none of these

103. If a red blood cell was traveling to the middle finger, which of the following routes could it take (a) ulnar a. > superficial palmar arch > common palmar digital a. > proper palmar digital a. (b) radial a. > deep palmar arch > palmar metacarpal a. > common palmar digital a. > proper palmar digital a. (c) either of these (d) neither of these

104. Through which branch of the axillary artery could a red blood cell travel to reach any of the following destinations: pectoralis minor and major, deltoid, the acromion, the clavicle and the acromioclavicular joint (a) thoracoacromial (b) lateral thoracic (c) anterior circumflex humeral (d) subscapular (e) posterior circumflex humeral

105. Which sequence describes a valid route for a red blood cell leaving the hand and traveling to the right atrium (a) ulnar v. > brachial v. > axillary v. > subclavian v. > brachiocephalic v. > SVC (b) radial v. > brachial v. > axillary v. > subclavian v. > brachiocephalic v. > SVC (c) both (d) neither

106. Which sequence describes a valid route for a red blood cell leaving the medial end of the dorsal venous network of the hand and traveling to the right atrium (a) cephalic v. > axillary v. > subclavian v. > brachiocephalic v. > SVC (b) basilic v. > axillary v. > subclavian v. > brachiocephalic v. > SVC (c) basilic v. > median cubital v. > cephalic v. > axillary v. > subclavian v. > brachiocephalic v. > SVC (d) a and b (e) b and c

NERVES

Match the nerves with the muscles they supply.

107. Dorsal scapular n. a. Latissimus dorsi
108. Long thoracic n. b. Supraspinatus & Infraspinatus
109. Suprascapular n. c. Rhomboid major & minor
110. Thoracodorsal n. d. Serratus anterior
111. Superior & inferior subscapular nn. e. Subscapularis & Teres major

Multiple Choice

112. The brachial plexus is formed by the anterior rami of spinal nerves (a) T1-T12 (b) C5-T1 (c) C8-T5 (d) L1-L4 (e) L5-S2.

113. Which nerve is not a branch of the brachial plexus (a) radial (b) musculocutaneous (c) ulnar (d) median (e) posterior auricular
114. The cords of the brachial plexus (a) are located in the axilla (b) are formed from the divisions of the trunks (c) are named for their positions around the axillary artery (d) all of these (e) none of these

115. The (a) nerve supplies the anterior or flexor compartment of the arm (b) musculocutaneous (c) median (d) ulnar (e) axillary

116. The (a) nerve supplies the posterior compartments of the arm and forearm (b) musculocutaneous (c) median (d) ulnar (e) radial (f) axillary

117. The (a) nerve supplies one and a half muscles in the anterior forearm (b) flexor carpi ulnaris and the parts of (c) flexor digitorum profundus to digits 4 and 5) and all the muscles in the hand except five (the three thenar muscles and the two lateral lumbrical muscles). (a) musculocutaneous (b) median (c) ulnar (d) radial (e) axillary

118. The (a) nerve supplies all the muscles in the forearm except one and a half (b) flexor carpi ulnaris and the parts of (c) flexor digitorum profundus to digits 4 and 5) and five muscles in the hand (d) the three thenar muscles and the two lateral lumbrical muscles). (a) musculocutaneous (b) median (c) ulnar (d) radial (e) axillary

119. The (a) nerve supplies Deltoid and Teres minor. (a) musculocutaneous (b) median (c) ulnar (d) radial (e) axillary

120. Injury to which nerve could affect supination and extension of the forearm, hand, and digits? (a) musculocutaneous (b) median (c) ulnar (d) radial (e) axillary

121. Injury to which nerve could affect flexion of the forearm? (a) musculocutaneous (b) median (c) ulnar (d) radial (e) axillary

122. Injury to which nerve could result in weakened abduction and lateral rotation of the arm? (a) musculocutaneous (b) median (c) ulnar (d) radial (e) axillary

123. Injury to which nerve could weaken pronation; flexion and abduction of the hand; and flexion of the digits, especially thumb and index and middle fingers? (a) musculocutaneous (b) median (c) ulnar (d) radial (e) axillary