

Practice Questions – Muscle Tissue and Skeletal Muscles

Note: choices may be used more than once or not at all.

1-5. Matching

- | | | |
|---------------------|---|-----------------|
| A) Muscle Fascicles | bundles of muscle cells | 1) <u> A </u> |
| B) Endomysium | fibrous connective tissue around muscle fascicles | 2) <u> C </u> |
| C) Perimysium | fibrous connective tissue around a skeletal muscle | 3) <u> D </u> |
| D) Epimysium | fibrous connective tissue around individual muscle cells | 4) <u> B </u> |
| E) Fascia | fibrous connective tissue around groups of skeletal muscles | 5) <u> E </u> |

6-10. Matching

- | | | |
|---------------------|--|------------------|
| A) Muscles | are grouped together as <i>clusters</i> in a muscle cell | 6) <u> B </u> |
| B) Myofibrils | are grouped together to form a muscle fascicle | 7) <u> C </u> |
| C) Muscle Cells | are grouped together to form a myofibril | 8) <u> E </u> |
| D) Muscle Fascicles | are grouped together to form a muscle | 9) <u> D </u> |
| E) Actin and Myosin | are grouped together <i>often</i> in a limb | 10) <u> A </u> |

11-15. Matching

- | | | |
|---------------------------|---|------------------|
| A) Sarcomere | neurotransmitter sensitive portion of cell membrane | 11) <u> D </u> |
| B) Sarcolemma | unit of Actin-Myosin-Myosin-Actin | 12) <u> A </u> |
| C) Sarcoplasm | cytoplasm of muscle cell | 13) <u> C </u> |
| D) Motor End Plate | muscle cell membrane | 14) <u> B </u> |
| E) Sarcoplasmic Reticulum | stores calcium | 15) <u> E </u> |

16-20. Matching

- | | | |
|------------|----------------------------|------------------|
| A) Z-line | contains myosin and actin | 16) <u> D </u> |
| B) I-band | composed mainly of actin | 17) <u> B </u> |
| C) M-line | site for joining of myosin | 18) <u> C </u> |
| D) A-band | site for joining of actin | 19) <u> A </u> |
| E) C and D | contains myosin | 20) <u> E </u> |

21-25. Matching

- | | | |
|-------------------------|---|------------------|
| A) Actin | cross bridges are bent in contracted muscle | 21) <u> B </u> |
| B) Myosin | cross bridges are straight in relaxed muscle | 22) <u> B </u> |
| C) Troponin-tropomyosin | contains binding sites that <i>catalyze</i> ATP | 23) <u> B </u> |
| D) None of the above | contains binding sites for myosin | 24) <u> A </u> |
| | covers binding sites on actin | 25) <u> C </u> |

26-30. Place the following in the order that causes muscle contraction.

- | | | |
|--|--------|------------------|
| A) Myosin <i>bends</i> and pulls actin toward center of the sarcomere | first | 26) <u> D </u> |
| B) Calcium binds to troponin and exposes <i>binding</i> sites on actin | second | 27) <u> C </u> |
| C) Calcium is released from sarcoplasmic reticulum | third | 28) <u> B </u> |
| D) Nerve sends a signal to the muscle cell | fourth | 29) <u> E </u> |
| E) Myosin binds to actin | fifth | 30) <u> A </u> |

31-35. Matching

- A) Tense scalp
- B) Elevate lips
- C) Compress lips
- D) Raise eyebrows
- E) Smile (elevate angle of mouth)

- Orbicularis Oris 31) C
- Levator Labii 32) B
- Zygomaticus 33) E
- Occipitalis 34) A
- Frontalis 35) D

36-40. Matching

- A) Retract and elevate mouth
- B) Compress cheeks
- C) Move ears
- D) Tense neck
- E) None of these

- Mentalis 36) E
- Platysma 37) D
- Buccinator 38) B
- Temporalis 39) E
- Zygomaticus 40) A

41-45. Matching

- A) Move mandible to side
- B) Elevate mandible
- C) Depress tongue
- D) Elevate tongue
- E) None of these

- Genioglossus 41) C
- Pterygoideus 42) A
- Styloglossus 43) D
- Temporalis 44) B
- Masseter 45) B

46-50. Matching

- A) Elevate mandible
- B) Compress cheeks
- C) Depress tongue
- D) Depress lips
- E) None of these

- Masseter 46) A
- Buccinator 47) B
- Temporalis 48) A
- Genioglossus 49) C
- Depressor Labii 50) D

51-55. Matching

- A) Move eye down
- B) Move eye laterally
- C) Move eye medially
- D) Move eye up and laterally
- E) None of the above

- Superior oblique 51) E
- Inferior oblique 52) D
- Superior rectus 53) E
- Lateral rectus 54) B
- Medial rectus 55) C

56-60. Matching

- A) Elevate larynx
- B) Depress larynx
- C) Elevate ribs / expand ribcage
- D) Depress ribs /contract ribcage

- external intercostals 56) C
- internal intercostals 57) D
- stylohyoid 58) A
- omohyoid 59) B
- Scalenes 60) C

61-65. Matching

- A) Extend head and neck
- B) Flex head and neck
- C) Depress larynx
- D) Elevate larynx
- E) None of these

- stylohyoid 61) D
- digastricus 62) D
- sternohyoid 63) C
- splenius (capitis) 64) A
- sternocleidomastoid 65) B

66-70. Matching

- A) Depress ribs / contract rib cage
- B) Elevate ribs / expand rib cage
- C) Compress abdomen
- D) A and B
- E) None of these

- Scalenes 66) B
- Internal Oblique 67) C
- External Oblique 68) C
- Internal Intercostals 69) A
- External Intercostals 70) B

71-75. Matching

- A) Origin
- B) Agonist
- C) Insertion
- D) Antagonist
- E) None of the above

- a muscle that opposes the action of another muscle 71) D
- a muscle primarily responsible for a movement 72) B
- the end of a muscle that acts as the anchor 73) A
- the end of the muscle that usually moves 74) C
- the humerus is the _____ for the deltoid 75) C

76-80. Matching

- A) Flex head
- B) Flex waist
- C) Extend head
- D) Extend thigh
- E) None of these

- sternocleidomastoid 76) A
- semispinalis capitis 77) C
- rectus abdominus 78) B
- splenius capitis 79) C
- sartorius 80) E

81-85. Matching

- A) Elevate scapula (shoulder)
- B) Depress scapula (shoulder)
- C) Abduct scapula (shoulder)
- D) Adduct scapula (shoulder)
- E) None of these

- Rhomboideus 81) D
- Pectoralis Minor 82) B
- Levator Scapulae 83) A
- Serratus Anterior 84) C
- Semispinalis Capitis 85) E

86-90. Matching

- A) Extend / adduct Humerus (upper arm)
- B) Flex / adduct Humerus (upper arm)
- C) Abduct Humerus (upper arm)
- D) Extend Ulna (lower arm)
- E) flex Radius (lower arm)

- Deltoid 86) C
- Biceps Brachii 87) E
- Pectoralis major 88) B
- Latissimus Dorsi 89) A
- Triceps Brachii Lateral Head 90) D

91-95. Matching

- A) Inserts on first metatarsal
- B) Inserts on first metacarpal
- C) Inserts on scapula
- D) Inserts on humerus
- E) None of these

- teres minor 91) D
- tibialis anterior 92) A
- rhomboides minor 93) C
- extensor carpi radialis 94) E
- abductor pollicis longus 95) B

96-100. Matching

- A) Extend Metacarpals (wrist)
- B) Extend Ulna (lower arm)
- C) Flex Metacarpals (wrist)
- D) Flex Radius (lower arm)
- E) None of these

- Extensor Carpi Radialis 96) A
- Flexor Carpi Ulnaris 97) C
- Extensor Digitorum 98) E
- Palmaris Longus 99) C
- Brachioradialis 100) D

101-105. Matching

- A) Laterally rotate humerus (upper arm)
- B) Medially rotate humerus (upper arm)
- C) Laterally rotate femur (thigh)
- D) Pronate wrist
- E) Evert ankle

- Piriformis 101) C
- Teres Minor 102) A
- Teres Major 103) B
- Infraspinatus 104) A
- Pronator Teres 105) D

106-110. Matching

- A) Laterally rotates humerus
- B) Medially rotates humerus
- C) Adducts femur
- D) Abducts femur
- E) Flex femur

- Iliopsoas 106) E
- Teres major 107) B
- Infraspinatus 108) C
- Gluteus medius 109) D
- Adductor Magnus 110) C

111-115. Matching

- A) Originates on humerus
- B) Originates on scapula
- C) Originates on femur
- D) None of these

- biceps brachii long head 111) B
- biceps brachii short head 112) B
- triceps brachii long head 113) B
- biceps femoris short head 114) C
- triceps brachii lateral head 115) A

116-120. Matching

- A) Flex Femur (thigh)
- B) Extend Femur (thigh)
- C) Abduct Femur (thigh)
- D) Adduct Femur (thigh)
- E) None of Femur (thigh)

- Iliopsoas 116) A
- Gluteus Medius 117) C
- Gluteus Maximus 118) B
- Adductor Magnus 119) D
- Tensor Fascia Latae 120) C

121-125. Matching

- A) Flex Tibia (lower leg)
- B) Extend Tibia (lower leg)
- C) None of these

- Rectus Femoris 121) B
- Vastus Muscles 122) B
- Biceps Femoris 123) A
- Semitendinosus 124) A
- Semimembranosus 125) A

126-130. Matching

- A) Flex lower leg
- B) Extend lower leg
- C) Extend lower arm
- D) Adduct/flex upper arm
- E) Adduct/extend upper arm

- Latissimus Dorsi 126) E
- Pectoralis Major 127) D
- Rectus Femoris 128) B
- Biceps Femoris 129) A
- Triceps brachii 130) C

131-135. Matching

- A) Evert foot
- B) Extend digits
- C) Dorsiflex foot
- D) Plantar flex foot
- E) None of these

- Flexor Hallucis Longus 131) E
- Fibularis Longus 132) A
- Tibialis anterior 133) C
- Gastrocnemius 134) D
- Plantaris 135) D

136-140. Matching

- A) Plantar flex foot
- B) Dorsiflex foot
- C) None of these

- Soleus 136) A
- Gastrocnemius 137) A
- Tibialis Anterior 138) B
- Quadriceps muscles 139) C
- Extensor Digitorum Longus 140) C

141-145. Matching

- A) Inserts on first metatarsal
- B) Inserts on first metacarpal
- C) Inserts on humerus
- D) Inserts on scapula
- E) None of these

- Deltoid 141) C
- Tibialis anterior 142) A
- Rhomboideus minor 143) D
- Extensor carpi radialis 144) E
- Abductor pollicis longus 145) B

146-150. Matching

- A) Triceps Brachii Lateral Head
- B) Triceps Brachii Long Head
- C) Biceps Femoris
- D) Biceps Brachii
- E) A and B

- inserts on the Tibia 146) C
- inserts on the Radius 147) D
- originates on the Femur 148) C
- originates on the Scapula 149) B
- originates on the Humerus 150) A

151-155. Matching

- A) Inserts on the medial border of the scapula
- B) Inserts on the tibial tuberosity
- C) Inserts on the calcaneus bone
- D) Inserts in the fifth metacarpal
- E) None of the above

- Gastrocnemius 151) C
- Serratus Anterior 152) A
- Fibularis Longus 153) E
- Quadriceps Muscles 154) B
- Flexor Carpi Ulnaris 155) D