BSC 181Exam Three:

Chapters 8, 9, and 10

1. Which of the following is a gomphosis?
2. teeth
3. pubic symphysis
4. intervertebral disc
5. elbow joint
6. knee
7. The connective tissue that covers each skeletal muscle cell (muscle fiber) is
	1. endomysium
	2. epimysium
	3. perimysium
	4. sarcolemma
	5. sarcoplasmic reticulum
8. Which of the following is **not** a synovial joint?
9. saddle
10. condyloid
11. ball and socket
12. suture
13. gliding
14. In which **two** places would you find a **synchondrosis**?
	* 1. where the first rib articulates with the sternum
		2. between the tibia and fibula
		3. between vertebral bodies
		4. in the long bones at the growth plates
		5. at the pubic symphysis
	1. 1 and 2
	2. 2 and 3
	3. 3 and 5
	4. 2 and 5
	5. 1 and 4
15. This motion of the foot is
16. plantarflexion
17. inversion
18. elevation
19. dorsiflexion
20. protraction
21. What is the function of a bursa?
	1. Promotes nutrition to the synovium
	2. Prevents overheating of the pannus
	3. Reduces the amount of friction at a joint
	4. Increases the activity of the chondrocytes
	5. Encourages synovial expansion
22. A sheet-like extension of the epimysium that connects muscle to muscle is
23. aponeurosis
24. fascicle
25. sarcoplasmic reticulum
26. tendon
27. ligament
28. The term “ankylosis” was used in describing a result of Rhematoid arthritis. What does ankylosis mean?
	1. Inflammation of the synovium
	2. Flattened sheets of tissue
	3. Erosion of bone
	4. Dislocation
	5. Fusion of bone
29. This muscle “X” is responsible for plantar flexion
	1. Soleus
	2. Gastrocnemius
	3. Fibularis posterior
	4. Semitendinosus
	5. Semimembranosus
30. This muscle “Z” lies deep to the muscle in question 9.
It is also responsible for plantar flexion
31. Soleus
32. Gastrocnemius
33. Fibularis posterior
34. Semimembranosus
35. Semitendinosus
36. In a resting skeletal muscle cell the myosin binding sites are blocked by \_\_\_\_\_\_\_\_
37. actin
38. myosin
39. calcitonin
40. calcium
41. tropomyosin
42. The joint between C1 and C2 uses the dens to create which type of joint motion
	1. Circumduction
	2. Rotation
	3. Flexion
	4. Extension
	5. supination
43. This muscle “Q” is one of the muscles of the rotator cuff
44. Subscapularis
45. Supraspinatus
46. Infraspinatus
47. Teres Major
48. Levator Scapulae
49. This muscle “R” is responsible for extension
at the shoulder and medial rotation
50. Trapezius
51. Latissimus Dorsi
52. Quadratus Lumborum
53. Teres Major
54. Rhomboid major
55. Smooth muscle cells can contract as a unit due to the presence of
56. dense bodies
57. gap junctions
58. dystrophin
59. motor end plates
60. intercalated discs
61. The perimysium can be found
62. Wrapped around a muscle like the triceps
63. Wrapped around a fascicle
64. Wrapped around a motor unit
65. Wrapped around an individual muscle fiber
66. Wrapped around a myosin
67. What is SR: Sarcoplasmic reticulum?
68. The region in muscle responsible for the production of ATP
69. Smooth endoplasmic reticulum in a muscle cell responsible for the distribution of calcium
70. Rough endoplasmic reticulum in a muscle cell responsible for high energy outputs
71. Endoplasmic reticulum in a muscle cell responsible for creating mitochondria
72. The shortest functional unit within a muscle fiber
73. What unique characteristic of smooth muscle allows your stomach to stretch as you eat and not contract immediately to expel food?
74. Hyperplasia
75. peristalsis
76. slow contraction
77. single unit contraction
78. stress-relaxation response
79. Synergistic muscles that immobilize a joint are also classified as \_\_\_\_\_\_\_\_.
80. agonists
81. fixators
82. prime movers
83. antagonists
84. agonists
85. This muscle “H” is one of the
prime movers for mastication.
86. Temporalis
87. Zygomaticus
88. Buccinator
89. Masseter
90. Mentalis
91. Which muscles are part of the hamstring group?
92. Biceps femoris
93. Gracilis
94. Semimembranosus
95. Semitendinosus
96. Vastus Lateralis
	1. 1, 2, 5
	2. 1, 3, 4
	3. 3, 4, 5
	4. 2, 4
	5. 1, 2, 4, 5
97. As the actin and myosin filaments slide past one another, they generate a contraction. The smallest contractile unit in a skeletal muscle is called
	1. T tubule
	2. Sarcomere
	3. Myoplex
	4. Sarcoplasmic reticulum
	5. Z band
98. Calveoli are present in
99. T tubules
100. Mitochondria of cardiac muscles
101. The dorsum of the foot and are responsible for toe flexion
102. The plasma membranes of smooth muscle cells
103. Actin and myosin arrangements
104. A fascicle is defined as
105. An individual muscle fiber
106. A muscle fiber innervated by the somatic nervous system
107. The membrane that surrounds a large muscle group
108. A small bundle of muscle fibers
109. The functional unit of the myofibril
110. The prime mover in **abduction** of the arm is \_\_\_\_\_\_\_\_\_\_.
111. Triceps brachii
112. Deltoid
113. Biceps brachii
114. Latissimus dorsi
115. Levator scapulae
116. A muscle that allows us to shrug our shoulders is \_\_\_\_\_\_\_\_\_\_. (Prime mover for shoulder elevation.)
117. Latissimus dorsi
118. Subclavius
119. Trapezius
120. Pectoralis major
121. Teres major
122. Which arthritis is being described: This type of arthritis commonly presents as pain in the big toe. It can be aggravated by dietary factors and if left untreated, the bones can fuse together.
	1. Rheumatoid arthritis
	2. Gouty arthritis
	3. Bursitis
	4. Osteoarthritis
	5. Synoarthritis
123. This muscle “J” is responsible for head flexion when activated bilaterally or lateral flexion if activated alone.
124. Suprascapularis
125. Sternocleidomastoid
126. Splenius capitis
127. Anterior scalene
128. Flexor mentalis profundus
129. This muscle “K” shares its
name with a larger counterpart
130. Deltoid
131. Subscapularis
132. Pectoralis minor
133. Omohyoid
134. External intercostals
135. This muscle “L” can help to stabilize the scapula as well as pull the scapula forward. Its jagged appearance contributes to its name.
136. Teres minor
137. Stylohyoid
138. Internal intercostals
139. Subscapularis
140. Serratus Anterior
141. A motor unit is
	1. The distance between sarcomeres
	2. The distance between Z lines
	3. The skeletal muscle fibers that are innervated by a single nerve fiber
	4. The bundle of nerve fibers that run to smooth muscle
	5. The bundle of muscle cells surrounded by epimysium
142. This muscle “Y” acts as a synergist that helps to stabilize the
elbow during flexion
143. Brachialis
144. Biceps brachii
145. Palmaris longus
146. Brachioradialis
147. Extensor carpi digitorum
148. This type of joint uses both concave and convex joint surfaces to create a large range of motion. It is seen at the thumb.
	1. Condyloid
	2. Elliptical
	3. Hinge
	4. Ball and socket
	5. Saddle
149. Carla is doing bicep curls. What type of contraction is being demonstrated by her biceps?
150. Myotonic
151. Hyperplastic
152. Hypertrophic
153. Isotonic
154. Isometric
155. Which muscle is the prime mover for **flexion** at the shoulder?
156. pectoralis major
157. biceps brachii
158. triceps brachii
159. brachialis
160. brachioradialis
161. Identify the true statement
162. Muscle contractions are an efficient process that result in minimal heat production
163. Muscle contraction releases more work energy than heat
164. Muscle contraction release more heat than work energy
165. Work energy and heat are produced equally by muscle contractions
166. Muscle contractions use heat to produce work energy
167. Peristalsis is
168. Seen only in skeletal muscles
169. Seen only in cardiac muscles
170. Seen only in smooth muscles
171. Related to the diagonal muscle arrangement of the fibers
172. Related to the irregularly space muscle fibers



1. This muscle “T” is responsible for thigh flexion
2. Iliocostalis
3. Iliopsoas
4. Biceps femoris
5. Rectus femoris
6. Quadriceps
7. This muscle “U” assists in leg extension
8. Vastus Lateralis
9. Vastus intermedius
10. Gluteus medius
11. Vastus medialis
12. Sartorius
13. Smooth muscles lack \_\_\_\_ but they have \_\_\_\_
14. Actin; myosin
15. Troponin; calmodulin
16. Sarcoplamic reticulum; calveoli
17. Myosin; ATP
18. Nuclei; nucleoli
19. Which type of muscular dystrophy is being described: The disorder is sex-linked and presents between the ages of 2 and 10. The muscle groups most affected are the legs/extremities; victims often die from respiratory failure in their early 20’s
20. Myotonic dystrophy
21. Myocardial dystrophy
22. Duchenne’s dystrophy
23. Fascioscapulohumeral dystrophy
24. Dirksen’s dystrophy
25. This muscle “O” is found in the anterior compartment and is
responsible for dorsiflexion
26. Fibularis Anterior
27. Fibularis
28. Tibialis Anterior
29. Sartorius
30. Extensor digitorum longus
31. This muscle “P” is located in the anterior compartment
and is responsible for extension of the second
through the fifth toes.
32. Extensor carpi ulnaris
33. Extensor fibularis
34. Extensor hallicus longus
35. Extensor digitorum longus
36. Extensor tibialis brevis
37. Which of the following is **not** an intrinsic muscle of the hand?
38. Flexor pollicis brevis
39. Opponens digiti minimi
40. Opponens hallicus
41. Palmar interossei
42. Lumbricals
43. What term is used for muscle fibers that have a circular arrangement?
44. Pennate
45. Scaphoid
46. Orbicularis
47. Ocular
48. Simplex
49. The metacarpophalangeal joint is composed of an ovoid surface that fits into a depression to create which joint type?
	1. Saddle joint
	2. Condyloid joint
	3. Ball and socket joint
	4. Suture
	5. Synchondrosis
50. Which of the following is a syndesmoses?
	1. Teeth
	2. C1-Occiput
	3. Interphalangeal joints
	4. Radius-ulna
	5. Patella-femur
51. Describe circumduction
	1. a movement that causes an increases in the joint angle
	2. a movement anchored at one point, free at another that describes a cone in space
	3. movement that creates a spinning or pivoting around the long axis
	4. a movement away from midline
	5. lifting a structure
52. Which structures are involved in the act of opposition?
	1. Biceps/triceps
	2. Pollux and fifth digit
	3. Abdominal muscles and erector spinae muscles
	4. Patella and femur
	5. Humeral head and glenoid fossa
53. Hyperplasia is seen \_\_\_\_\_\_ during \_\_\_\_\_\_\_\_\_\_\_.
	1. Skeletal muscle; muscle contraction
	2. Cardiac muscle; ventricular diastole
	3. Smooth muscle; pregnancy
	4. Skeletal muscle; oxygen debt
	5. Smooth muscle; reflexive contractions

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