KIN 158 Chapter 02 Questions for Quizzes and Exams

1. If a muscle crosses the hip joint anteriorly with a vertical direction to its fibers, it can _______ the thigh at the hip joint.
2. If a muscle crosses the hip joint posteriorly with a vertical direction to its fibers, it can _______ the thigh at the hip joint.
3. If a muscle crosses the hip joint laterally with a vertical direction to its fibers, it can _______ the thigh at the hip joint.
4. If a muscle crosses the hip joint medially with a vertical direction to its fibers, it can _______ the thigh at the hip joint.
5. Medial rotators of the thigh wrap around the femur from _______ to _______ to the hip joint.
6. Lateral rotators of the thigh wrap around the femur from _______ to _______ to the hip joint.
7. If a muscle crosses the knee joint anteriorly with a vertical direction to its fibers, it can _______ the leg at the knee joint
8. If a muscle crosses the knee joint posteriorly with a vertical direction to its fibers, it can _______ the leg at the knee joint.
9. If a muscle wraps around the knee joint, it can rotate the knee joint (the knee joint can only rotate if it is first flexed). Medial rotators attach to the _______ side of the leg.
10. The biceps femoris is the only lateral rotator and attaches to the _______ side of the leg.
11. If a muscle crosses the ankle joint anteriorly with a vertical direction to its fibers, it can _____ the foot at the ankle joint.
12. If a muscle crosses the ankle joint posteriorly with a vertical direction to its fibers, it can _____ the foot at the ankle joint.
13. If a muscle crosses the subtalar joint laterally, it can _____ the foot at the subtalar joint.
14. If a muscle crosses the subtalar joint medially, it can _____ the foot at the subtalar joint.
15. The common name for the glenohumeral joint is the _____ joint.
16. If a muscle crosses the glenohumeral joint _______ with a vertical direction to its fibers, it can flex the arm at the glenohumeral joint.
17. If a muscle crosses the glenohumeral joint _______ with a vertical direction to its fibers, it can extend the arm at the glenohumeral joint.
18. If a muscle crosses the glenohumeral joint _______ (superiorly, over the top of the joint), it can abduct the arm at the glenohumeral joint.
19. If a muscle crosses the glenohumeral joint _______ (inferiorly, below the center of the joint), it can adduct the arm at the glenohumeral joint.
20. Medial rotators of the arm wrap around the humerus from _____ to _____ to the glenohumeral joint.
21. Lateral rotators of the arm wrap around the humerus from _____ to _____ to the glenohumeral joint.
22. The anterior deltoid crosses the glenohumeral joint _____ and attaches to the _____ proximally.
23. The middle deltoid crosses the glenohumeral joint _____ and attaches to the _____ proximally.
24. The posterior deltoid crosses the glenohumeral joint _____ and attaches to the _____ proximally.
25. The _____ fibers (of the deltoid) are multipennate.
26. The _____ head of the pectoralis major crosses the glenohumeral joint anteriorly with the fibers running somewhat vertically.
27. The _____ head of the pectoralis major crosses the glenohumeral joint in such a way (with its fibers running in the sagittal plane) that if the arm is already in a position of flexion, these fibers can pull the arm, which is more anterior, posteriorly back toward the chest.
28. The _____ and _____ attachments of the latissimus dorsi are all via the thoracolumbar fascia, a layer of fascia that covers the deeper muscles of the thoracic and lumbar regions.
29. The _____ and _____ fibers of the deltoid are longitudinal (nonpennate).
30. The coracobrachialis attaches onto the _____ on the medial side.
31. The proximal attachment of the coracobrachialis is the _____.
32. The teres major is sometimes called the little brother or the little helper of the latissimus dorsi, because the run together between the _____ and the _____.
33. Because of its location between the _____ and the _____, the supraspinatus' distal tendon is the most commonly injured tendon of the rotator cuff musculature.
34. Because of its muscle fiber orientation, the infraspinatus is _____.
35. Because of its muscle fiber orientation, the teres minor is _____.
36. Because of its muscle fiber orientation, the subscapularis is _____.
37. If a muscle crosses the elbow joint _____ with a vertical direction to its fibers, it can flex the forearm at the elbow joint.
38. If a muscle crosses the elbow joint _____ with a vertical direction to its fibers, it can extend the forearm at the elbow joint.
39. If a muscle crosses the radioulnar joints _____ with a horizontal orientation to its fibers, it will pronate the forearm at the radioulnar joints.
40. If a muscle crosses the radioulnar joints _____ with a horizontal orientation to its fibers, it will supinate the forearm at the radioulnar joints.
41. If a muscle crosses the wrist joint anteriorly with a vertical direction to its fibers, it can _____ the hand at the wrist joint.
42. If a muscle crosses the wrist joint posteriorly with a vertical direction to its fibers, it can _____ the hand at the wrist joint.
43. If a muscle crosses the wrist joint on the radial side (_____ ) with a vertical direction to its fibers, it can radially deviate (abduct) the hand at the wrist joint.
44. If a muscle crosses the wrist joint on the ulnar side (_____ ) with a vertical direction to its fibers, it can ulnar deviate (adduct) the hand at the wrist joint.
45. Which of the following is/are force(s) that influence the movement of a projectile when it is in the air?
46. Which of the following describe "a change in a factor" that would increase a projectile's maximum vertical height?
47. Which of the following describe "a change in a factor" that would increase a projectile's maximum horizontal distance?
48. Which of the following describe "a change in a factor" that would increase a projectile's time in the air?
49. Fill in the blank: "A body's total _______ is the result of an optimal combination of individual joint linear speeds"
50. During a jump, ankle plantar flexion results in an increase in linear speed of the following joints
51. During a jump, knee extension results in an increase in linear speed of the following joints
52. During a jump, hip extension results in an increase in linear speed of the following joints
53. "The linear distance from the joint's axis of rotation to the point of interest on the rotating body component" is the definition of...
54. "The straight-line speed of a point on a rotating body component" is the definition of...
55. "The speed of joint/body rotation" is the definition of...
56. When hip extension is performed the body component being moved is composed of...
57. Based on the "Linear Speed -- Angular Velocity Principle" which of the following describes "a change in a factor" that would increase the linear speed of a point on a rotating body?
58. The Angular Impulse -- Momentum Principle is the application of which of Newton's laws?
59. $\Sigma T_t$ is known as...
60. $I(\Delta \omega)$ is known as...
61. Based on the "Angular Impulse -- Momentum Principle" which of the following describes "a change in a factor" that would increase the angular velocity of a body segment?
62. "The effect of a muscle force to cause a joint rotation" is the definition of...
63. "The linear distance from the line of pull of the muscle force to the axis of rotation of the joint" is the definition of...
64. Based on the "Joint Torque Principle" which of the following describes "a change in a factor" that would increase joint torque?
65. "The property of a body component to resist changes in its angular motion" is the definition of...
66. "The quantity of matter that makes up the body component: how much bone, muscle, fat, skin, internal organs, and water are in the body component" is the definition of...
67. The linear distance from the body component's axis of rotation to the center of mass of the body component" is the definition of...
68. Based on the "Angular Inertia Principle" which of the following describe "a change in a factor" that would decrease a body segment's angular inertia (i.e., its resistance to angular motion)?
69. The Action - Reaction Principle is derived from of which of Newton's laws?
70. "For any muscle to create its greatest amount of muscle force, an oppositely directed external force of equal magnitude must exist" is an interpretation of...
71. Fill in the blank: "Whenever your body is in contact with the ground, there are two ________ (one vertical and one horizontal) that can oppose the muscle forces create inside the body".
72. Fill in the blank: "______ is the horizontal ground reaction force between the soles
of your shoes and the ground”.

73. The coefficient of friction is a number that represents the material properties of the soles of your shoes that influence friction force. The coefficient of friction is influenced by the following:

74. Based on the "Friction Force Principle" which of the following describes "a change in a factor" that would increase Friction Force?

75. Which of the following factors does not affect the magnitude of the friction force generated between the soles of your shoes and the ground?

76. Assuming the vertical ground reaction force does not change, the largest amount of friction would be generated by shoe sole materials that are

77. How does pushing downward against the ground during running increase the friction force between the soles of your shoes and the ground?