1. The types of muscles that appear in humans include:

   A. cardiac  
   B. smooth  
   C. skeletal  
   D. All of the choices are correct.

2. Choose the following that is NOT a function of skeletal muscles.

   A. allows movement of bones  
   B. aids in body temperature regulation  
   C. stabilizes joints and encourages venous blood flow  
   D. moves substances through the digestive tract

3. A muscle which does most of the work of a specific action is called the:

   A. antagonist  
   B. prime mover  
   C. synergist

4. Which of the following attaches muscle to bone?

   A. ligaments  
   B. joints  
   C. tendons  
   D. fibrils

5. The triceps brachii are described as antagonistic to the biceps brachii because:

   A. they both pull on the humerus  
   B. they both go across the same joint  
   C. one raises and the other lowers the forearm  
   D. they both pull on the humerus and both go across the same joint
6. Of the following, which muscle raises the arm at the shoulder?
   A. deltoid
   B. gastrocnemius
   C. triceps brachii
   D. tibialis anterior

7. Which muscle or muscle group extends the forearm?
   A. triceps brachii
   B. flexor carpi group
   C. biceps brachii
   D. extensor carpi group

8. Which large buttock muscle is associated with walking upright?
   A. gastrocnemius
   B. sartorius
   C. quadriceps femoris
   D. gluteus maximus

9. Rigor mortis:
   A. resolves when lysosomes break down the bonds between muscle fibers
   B. is the sustained contraction of muscles at death
   C. occurs at death because muscles cannot relax without ATP
   D. All of the choices are correct.

10. What muscle is called the "kissing" muscle?
    A. masseter
    B. orbicularis oris
    C. orbicularis oculi
    D. deltoid
11. The contractile unit of a muscle fiber is called:

A. myosin  
B. actin  
C. sarcomere  
D. sarcolemma  
E. None of the choices are correct.

12. During muscular contraction:

A. both actin and myosin filaments slide  
B. myosin filaments slide but not actin  
C. actin filaments slide but not myosin  
D. neither myosin nor actin filaments slide

13. Which muscle filament utilizes ATP?

A. myosin  
B. actin  
C. both myosin and actin  
D. neither myosin nor actin

14. A sarcomere:

A. is a section of actin  
B. gets shorter when it contracts  
C. is myelinated  
D. has intercalated discs

15. Nerve impulses travel to the muscles from the spinal cord through:

A. motor muscle channels  
B. motor activators  
C. motor neurons  
D. active neurons  
E. muscle neurons
16. When Botox is injected into tissues, it prevents muscles contractions. The exact mechanism is:

A. to prevent uptake of the neurotransmitter at synapses
B. to prevent release of ACH
C. to prevent nerve impulses from traveling past the cell body of a neuron
D. to prevent calcium ion release
E. unknown

17. Because the response of a muscle cell to a stimulus is complete, not partial, it is described as:

A. the all-or-none reaction
B. tone
C. tetanus
D. the latent period

18. The maximum force of contraction a muscle can generate is called:

A. all-or-none reaction
B. tone
C. tetanus
D. tonus

19. The sarcoplasmic reticulum of a muscle cell stores:

A. calcium
B. sodium
C. potassium
D. iron
E. hemoglobin

20. Choose the following that is NOT a physiological benefit of exercise.

A. improved muscular strength, endurance, flexibility
B. improved cardiorespiratory endurance
C. increased bone density and strength
D. relief from depression and increased HDLs
E. All of the choices are correct.
21. Choose the following that is an ATP forming reaction that requires oxygen.

A. fermentation
B. creatine phosphate breakdown
C. cellular respiration
D. None of the choices are correct.

22. Choose the following substance, which is the end product of glycolytic fermentation.

A. carbon dioxide and water
B. creatine
C. lactate
D. glucose
E. None of the choices are correct.

23. Choose the following substance(s) that is (are) the end product(s) of cellular respiration.

A. carbon dioxide, water, and ATP
B. creatine
C. lactate
D. glucose
E. None of the choices are correct.

24. _____ are sudden and involuntary muscle contractions.

A. Strains
B. Sprains
C. Spasms
D. Dystrophies

25. Which of the following best illustrates the conversion that supplies the required energy for muscle contraction?

A. ATP → ADP + P
B. AMP → ATP
C. glucose → water + lactic acid
D. oxygen → lactic acid + carbon dioxide
26. Choose the following which is cited as a possible detrimental side effect from anabolic steroids.

A. liver cancer
B. kidney disease
C. sterility
D. All of the choices are correct.