Topic Name	***The Muscular System – Part 1***
Text Book Chapter	***Chapter 6***

Short Answer Questions

1. Complete the following table in which we compare skeletal, smooth, and cardiac muscles in terms of their body location, microscopic anatomy, regulation of contraction, and speed of contraction.

	Skeletal Muscle	Cardiac Muscle	Smooth Muscle
Body Location			
Microscopic Anatomy			
Regulation Of Contraction			
Speed Of Contraction			

Fill in the blanks:

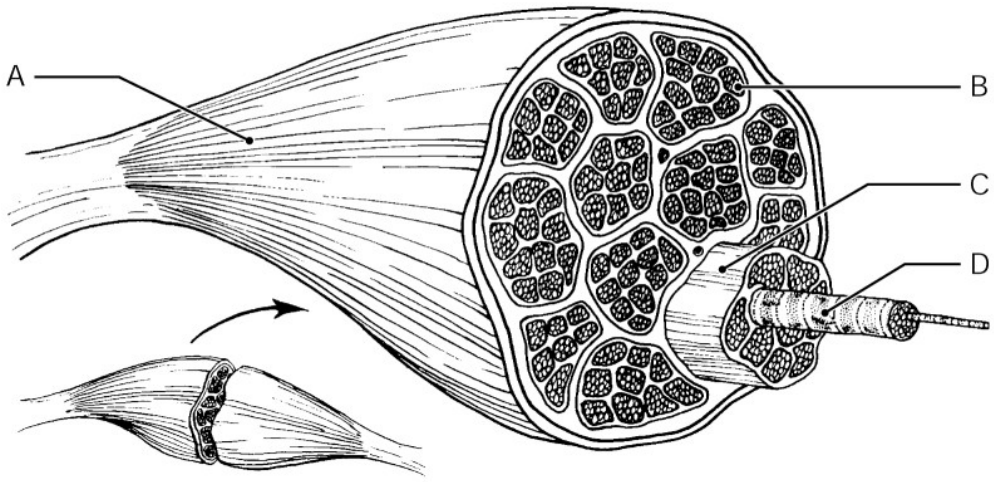

Figure 6.2

1. **Use Figure 6.2 to match following:**

   a) **The connective tissue "overcoat" that wraps the entire muscle is indicated by letter _____.**

   b) **The connective tissue that wraps a fascicle, or bundle of muscle fibers, is indicated by letter _____**

   c) **The muscle fibre is indicated by letter _____.**

   d) **The endomysium that wraps individual muscle fibers is indicated by letter _____.**

2. **The muscle tissue that normally exhibits voluntary contractions is _____ muscle**

3. **The gap between the motor neuron and the muscle fibre it supplies at the neuromuscular junction is called the _____**

Multiple Choice Questions

1. **The plasma membrane of a muscle cell is called the:**
    a) sarcolemma
    b) sarcomere
    c) myofilament
    d) sarcoplasm
    e) sarcoplasmic reticulum

2. **What type of membrane wraps a fascicle.**
    a) endomysium
    b) epimysium
    c) aponeuroses
    d) perimysium
    e) tendons

3. **Which of the following is NOT a function of the muscular system:**
    a) production of movement
    b) maintenance of posture
    c) stabilization of joints
    d) generation of heat
    e) hematopoiesis

4. **Which of the following NOT describe cardiac muscle tissue?**
    a) Uninucleate
    b) Striations
    c) Involuntary
    d) rhythmic contractions
    e) attached to bones

5. **A sarcomere is:**
    a) the nonfunctional unit of skeletal muscle
    b) the contractile unit between two Z discs
    c) the area between two intercalated discs
    d) the wavy lines on the cell, as seen in a microscope
    e) a compartment in a myofilament

6. **Acetylcholine is:**
    a) an ion pump on the postsynaptic membrane
    b) a source of energy for muscle contraction
    c) a component of thick myofilaments
    d) an oxygen-binding protein
    e) a neurotransmitter that stimulates skeletal muscle

7. **Which of these events must occur first to trigger the skeletal muscle to generate an action potential and contract**
    a) sodium ions rush into the cell
    b) acetylcholine (ACh) causes temporary permeability to sodium
    c) diffusion of potassium ions out of the cell
    d) operation of the sodium-potassium pump
    e) acetylcholinesterase (AchE) breaks down acetylcholine (ACh)

8. **Which one of the following muscle actions would NOT be classified as an ISOTONIC contraction**
    a) pushing against a stationary wall
    b) lifting a glass of water to your mouth
    c) writing a letter
    d) tying your shoe
    e) throwing a ball

True/False – circle true or false for each of the following questions

1. **The epimysium covers individual muscle fibers.**
    TRUE / FALSE

2. **A nerve cell and all the muscle cells that it stimulates are referred to as a motor unit.**
    TRUE / FALSE

3. **Thick filaments are made of a protein called actin.**
    TRUE / FALSE

4. **One of the important functions of skeletal muscle is to generate heat**
    TRUE / FALSE

5. **An aponeurosis is a ropelike piece of muscle fascia that forms indirect connections to muscles of the leg**
    TRUE / FALSE