33. Muscle Tissue Podcast
Study Guide
BIO 122 – Principles of Modern Biology

I. Introduction

A. Location

1. General

2. Examples

B. Composition

1. Actin

2. Myosin

C. Contractile nature

II. Classification

A. Skeletal

1. Location and function

2. Pattern of actin and myosin

3. Nuclei

4. Mitochondria

5. Sarcoplasmic reticulum

6. Voluntary control

B. Smooth

1. Pattern of actin and myosin

2. Shape

3. Location

4. Nuclei

5. Voluntary control

C. Cardiac

1. Location

2. Striations

3. Nucleus

4. Branching

5. Intercalated disks

6. Ability to conduct impulse

Questions:

1. How is muscle tissue different from epithelial and connective tissues?

2. Which of the three types (skeletal, smooth, cardiac) striated? Explain.

3. Which of the three types of muscle under voluntary control?

4. Do all three muscle types have cells composed of a single nucleus?

5. What are intercalated disks in cardiac muscle, and how do they function?

6. Why are mitochondria so plentiful in muscle tissue?