

# Muscular System and Skeletal System Practice Test (Sample)

## Study Guide



**Everything you need from our exam experts!**

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# Introduction

Preparing for a certification exam can feel overwhelming, but with the right tools, it becomes an opportunity to build confidence, sharpen your skills, and move one step closer to your goals. At Examzify, we believe that effective exam preparation isn't just about memorization, it's about understanding the material, identifying knowledge gaps, and building the test-taking strategies that lead to success.

This guide was designed to help you do exactly that.

Whether you're preparing for a licensing exam, professional certification, or entry-level qualification, this book offers structured practice to reinforce key concepts. You'll find a wide range of multiple-choice questions, each followed by clear explanations to help you understand not just the right answer, but why it's correct.

The content in this guide is based on real-world exam objectives and aligned with the types of questions and topics commonly found on official tests. It's ideal for learners who want to:

- Practice answering questions under realistic conditions,
- Improve accuracy and speed,
- Review explanations to strengthen weak areas, and
- Approach the exam with greater confidence.

We recommend using this book not as a stand-alone study tool, but alongside other resources like flashcards, textbooks, or hands-on training. For best results, we recommend working through each question, reflecting on the explanation provided, and revisiting the topics that challenge you most.

**Remember:** successful test preparation isn't about getting every question right the first time, it's about learning from your mistakes and improving over time. Stay focused, trust the process, and know that every page you turn brings you closer to success.

Let's begin.

# How to Use This Guide

**This guide is designed to help you study more effectively and approach your exam with confidence. Whether you're reviewing for the first time or doing a final refresh, here's how to get the most out of your Examzify study guide:**

## **1. Start with a Diagnostic Review**

**Skim through the questions to get a sense of what you know and what you need to focus on. Your goal is to identify knowledge gaps early.**

## **2. Study in Short, Focused Sessions**

**Break your study time into manageable blocks (e.g. 30 - 45 minutes). Review a handful of questions, reflect on the explanations.**

## **3. Learn from the Explanations**

**After answering a question, always read the explanation, even if you got it right. It reinforces key points, corrects misunderstandings, and teaches subtle distinctions between similar answers.**

## **4. Track Your Progress**

**Use bookmarks or notes (if reading digitally) to mark difficult questions. Revisit these regularly and track improvements over time.**

## **5. Simulate the Real Exam**

**Once you're comfortable, try taking a full set of questions without pausing. Set a timer and simulate test-day conditions to build confidence and time management skills.**

## **6. Repeat and Review**

**Don't just study once, repetition builds retention. Re-attempt questions after a few days and revisit explanations to reinforce learning. Pair this guide with other Examzify tools like flashcards, and digital practice tests to strengthen your preparation across formats.**

**There's no single right way to study, but consistent, thoughtful effort always wins. Use this guide flexibly, adapt the tips above to fit your pace and learning style. You've got this!**

## Questions

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- 1. Which level comes after tissue in the hierarchy of organization?**
  - A. Cell**
  - B. Tissue**
  - C. Organ**
  - D. Organ System**
  
- 2. Which bone tissue forms the hard outer surface of bones?**
  - A. Spongy Bone**
  - B. Marrow**
  - C. Periosteum**
  - D. Compact Bone**
  
- 3. Which joint type allows the greatest range of motion?**
  - A. Immovable joint**
  - B. Ball and socket joint**
  - C. Hinge joint**
  - D. Gliding joint**
  
- 4. Which bone is larger of the two bones in the lower leg?**
  - A. Fibula**
  - B. Radius**
  - C. Tibia**
  - D. Ulna**
  
- 5. Which joint allows bones to glide over one another?**
  - A. Gliding joint**
  - B. Hinge joint**
  - C. Ball and socket joint**
  - D. Immovable joint**
  
- 6. This type of joint allows a wide circular motion, is located at the hip and shoulder.**
  - A. Hinge joint**
  - B. Gliding joint**
  - C. Immovable joint**
  - D. Ball and socket joint**

**7. What is the breast bone called?**

- A. Clavicle**
- B. Ribs**
- C. Sternum**
- D. Scapula**

**8. Which bone is the upper thigh bone and the largest bone in the body?**

- A. Tibia**
- B. Pelvis**
- C. Radius**
- D. Femur**

**9. Which muscles do we control voluntarily?**

- A. Involuntary muscles**
- B. Smooth muscles**
- C. Voluntary muscles**
- D. Cardiac muscles**

**10. Which term describes a joint that is immovable?**

- A. Pivot joint**
- B. Fixed joint**
- C. Cranium**
- D. Mandible**

## **Answers**

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1. C
2. D
3. B
4. C
5. A
6. D
7. C
8. D
9. C
10. B

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## **Explanations**

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**1. Which level comes after tissue in the hierarchy of organization?**

- A. Cell
- B. Tissue
- C. Organ**
- D. Organ System

Tissues are groups of similar cells that work together. When different tissues come together in a defined structure to perform a specific task, that structure is an organ. So the level that comes after tissue is organ. Examples like the heart or stomach illustrate how multiple tissues—muscle, connective, epithelium, etc.—work in concert to carry out a complex function. Organs then team up into organ systems to accomplish broader bodily processes, placing organ in the middle of the hierarchy.

**2. Which bone tissue forms the hard outer surface of bones?**

- A. Spongy Bone
- B. Marrow
- C. Periosteum
- D. Compact Bone**

Dense, tightly packed bone tissue forms the hard outer surface of bones. This compact bone, or cortical bone, is organized into osteons with concentric lamellae around a central channel, giving the exterior its great strength and rigidity to resist weight and bending. Inside the bone, spongy bone has a lighter, porous lattice (trabeculae) that supports tissue and houses marrow. Marrow itself fills internal cavities and produces blood cells, while the periosteum is a protective membrane covering the outside of the bone, involved in nourishment and repair but not bone tissue itself.

**3. Which joint type allows the greatest range of motion?**

- A. Immovable joint
- B. Ball and socket joint**
- C. Hinge joint
- D. Gliding joint

Maximum range of motion comes from how freely a joint can move in multiple directions. Ball-and-socket joints do this best because a spherical head fits into a cup-like socket, allowing movement in many planes: flexion and extension, abduction and adduction, rotation, and even circular motion (circumduction). That multi-axial freedom means these joints can move in more directions than any other type. Immovable joints don't move at all, hinge joints are limited to movement in one plane (like bending and straightening), and gliding joints permit only small sliding motions between surfaces. So the ball-and-socket joint offers the greatest range of motion, as seen in the shoulder and hip.

#### 4. Which bone is larger of the two bones in the lower leg?

- A. Fibula
- B. Radius
- C. Tibia**
- D. Ulna

In the lower leg, the larger bone is the tibia. It's the main weight-bearing bone, thick and strong, designed to carry most of the body's weight from the knee down to the ankle. The fibula runs alongside it but is much thinner and mainly serves for muscle attachment and ankle stability, not for bearing the body's weight. The radius and ulna are forearm bones, not part of the lower leg. The tibia also forms the knee joint with the femur and the ankle joint with the talus, highlighting its central role in transferring forces during movement.

#### 5. Which joint allows bones to glide over one another?

- A. Gliding joint**
- B. Hinge joint
- C. Ball and socket joint
- D. Immovable joint

Gliding joints let bones slide past one another across relatively flat surfaces, producing a small, gliding movement rather than bending or rotating bones. This type of joint has flat or slightly curved articular surfaces and is stabilized by ligaments, which allows the bones to translate past each other in small directions. Examples include the tiny movements between carpal bones in the wrist and the tarsal bones in the foot. In contrast, hinge joints allow movement in one plane (like bending and straightening), ball-and-socket joints permit movement in multiple directions including rotation, and immovable joints barely move at all. So, the ability to slide past one another is the defining feature of this joint type.

#### 6. This type of joint allows a wide circular motion, is located at the hip and shoulder.

- A. Hinge joint
- B. Gliding joint
- C. Immovable joint
- D. Ball and socket joint**

Ball-and-socket joints allow the widest range of motion because a rounded bone fits into a cup-like socket, letting movement occur in multiple directions, including flexion, extension, abduction, adduction, rotation, and circumduction. The hip and shoulder are classic examples, which is why they can perform wide circular movements. Hinge joints mainly bend and straighten in one plane (like the knee or elbow), gliding joints allow small sliding motions, and immovable joints don't move at all.

## 7. What is the breast bone called?

- A. Clavicle
- B. Ribs
- C. Sternum**
- D. Scapula

The breast bone is the sternum, a flat, elongated bone along the midline of the chest that forms the front part of the rib cage. It protects the heart and lungs and provides attachment for the ribs via costal cartilages as well as for the clavicles at the sternoclavicular joints. The sternum has three parts—the manubrium, the body, and the xiphoid process—which together anchor the rib cage and contribute to its flexibility and stability. The other bones listed have different roles: the clavicle is the collarbone, the scapula is the shoulder blade, and the ribs are the curved bones that form the cage but are not called the breast bone.

## 8. Which bone is the upper thigh bone and the largest bone in the body?

- A. Tibia
- B. Pelvis
- C. Radius
- D. Femur**

The main idea here is identifying the bone by location and size. The upper thigh bone is the femur, and it's the largest bone in the body. It runs from the hip to the knee and carries most of the body's weight, plus the forces generated during movement like walking and running. Its strong design—the long shaft of dense bone, a rounded head that fits into the hip socket, and muscular attachments around the neck and greater/lesser trochanters—lets it withstand huge stresses. The other options aren't in the thigh region: the tibia is the shin bone in the lower leg, the radius is in the forearm, and the pelvis is a group of bones forming the hip region rather than a single long bone.

## 9. Which muscles do we control voluntarily?

- A. Involuntary muscles
- B. Smooth muscles
- C. Voluntary muscles**
- D. Cardiac muscles

We control skeletal muscles—the voluntary muscles. These are the muscles we consciously decide to move, like when we walk, pick up objects, or smile. They attach to bones and are controlled by the somatic (voluntary) nervous system, which lets us decide each movement. In contrast, smooth muscles are found in walls of hollow organs and blood vessels and operate automatically without our conscious control. Cardiac muscle makes up the heart and also works involuntarily, beating rhythmically under autonomic control. So the muscles we can actively decide to move are the skeletal (voluntary) muscles.

**10. Which term describes a joint that is immovable?**

**A. Pivot joint**

**B. Fixed joint**

**C. Cranium**

**D. Mandible**

**Immovable joints are fixed joints, a type of synarthrosis. They're held together by dense fibrous tissue so there's no movement between the bones. In the skull, the sutures are fixed joints, keeping the cranium rigid to protect the brain. That's why fixed joint is the term for an immovable joint. By contrast, a pivot joint allows rotation; the mandible forms a movable jaw joint with the skull; and the cranium refers to the skull bones themselves, not a joint.**

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# Next Steps

**Congratulations on reaching the final section of this guide. You've taken a meaningful step toward passing your certification exam and advancing your career.**

**As you continue preparing, remember that consistent practice, review, and self-reflection are key to success. Make time to revisit difficult topics, simulate exam conditions, and track your progress along the way.**

**If you need help, have suggestions, or want to share feedback, we'd love to hear from you. Reach out to our team at [hello@examzify.com](mailto:hello@examzify.com).**

**Or visit your dedicated course page for more study tools and resources:**

**<https://muscularsyskeletalsys.examzify.com>**

**We wish you the very best on your exam journey. You've got this!**

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