Extremities Exam 1 – Muscles Practice (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

1. Which nerve supplies the adductor longus and other medial thigh muscles?

A. Obturator nerve.

B. Femoral nerve.

C. Sciatic nerve.

D. Tibial nerve.

2. What are the primary actions of the biceps brachii?

A. Elbow Extension and Forearm Pronation

B. Shoulder Abduction

C. Elbow Flexion and Forearm Supination

D. Wrist Flexion and Radial Deviation

3. Latissimus dorsi origins include which of the following structures?

A. Spinous processes of T6-L5; Thoracolumbar fascia; Iliac crest

B. Thoracolumbar fascia; Iliac crest

C. Spinous processes of T6-L5

D. Clavicle

4. What muscle is tested by the patellar reflex and what nerve supplies it?

A. Quadriceps femoris; femoral nerve

B. Hamstrings; sciatic nerve

C. Gastrocnemius; tibial nerve

D. Rectus femoris; obturator nerve

5. What is the primary action of the deltoid muscle and which nerve innervates it?

A. Abducts the Arm; Axillary Nerve

B. Flexes the Arm; Musculocutaneous Nerve

C. Extends the Arm; Radial Nerve

D. Adducts the Arm; Thoracodorsal Nerve

6. Which divisions of the sciatic nerve innervate the hamstring muscles?

A. Long head common fibular division; short head tibial division; semitendinosus tibial division; semimembranosus tibial division.

B. Long head tibial division; short head common fibular division; semitendinosus tibial division; semimembranosus tibial division.

C. Long head tibial division; short head tibial division; semitendinosus common fibular division; semimembranosus tibial division.

D. Long head tibial division; short head common fibular division; semitendinosus common fibular division; semimembranosus common fibular division.

7. Which nerve supplies the lateral two lumbricals in the hand?

A. Ulnar nerve

B. Radial nerve

C. Median nerve

D. Median and Ulnar nerves

8. Which is an action of the teres minor?

A. Medial rotation

B. Lateral rotation

C. Flexion

D. Extension

9. Which statement about the sternocostal head of the pectoralis major is true?

A. Flexes the humerus from a flexed position

B. Extends from a flexed position

C. Abducts the scapula

D. Elevates the clavicle

10. Which action stabilizes the sternoclavicular joint (prevents dislocation)?

A. Pads brachial plexus and subclavian vessel

B. Stabilizes sternoclavicular joint (prevents dislocation)

C. Anchors and depresses scapula

D. Elevates the clavicle

Answers

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

Explanations

1. Which nerve supplies the adductor longus and other medial thigh muscles?

A. Obturator nerve.

B. Femoral nerve.

C. Sciatic nerve.

D. Tibial nerve.

Obturator nerve. The medial thigh or adductor group is innervated mainly by the obturator nerve (L2–L4). It travels through the obturator canal and splits into anterior and posterior branches. The anterior branch supplies adductor longus, adductor brevis, gracilis, and often contributes to pectineus, while the posterior branch supplies obturator externus and the adductor part of adductor magnus. The tibial part of the sciatic nerve supplies the hamstring part of adductor magnus, not the adductor longus, and the femoral and sciatic nerves generally supply other muscle groups (anterior thigh and posterior thigh/leg, respectively). So the nerve best matching adductor longus and the rest of the medial thigh muscles is the obturator nerve.

2. What are the primary actions of the biceps brachii?

A. Elbow Extension and Forearm Pronation

B. Shoulder Abduction

C. Elbow Flexion and Forearm Supination

D. Wrist Flexion and Radial Deviation

This muscle crosses two joints, so its chief actions combine movements at the elbow and the forearm. When it contracts, it primarily bends the elbow (elbow flexion) and rotates the forearm to turn the palm upward (forearm supination). It's especially effective at supination when the elbow is flexed. The long head can assist with shoulder movements, but the main actions asked here are elbow flexion and forearm supination. For reference, elbow extension and forearm pronation involve other muscles, and wrist actions involve the muscles of the forearm that move the wrist.

3. Latissimus dorsi origins include which of the following structures?

A. Spinous processes of T6-L5; Thoracolumbar fascia; Iliac crest

B. Thoracolumbar fascia; Iliac crest

C. Spinous processes of T6-L5

D. Clavicle

Latissimus dorsi has a broad, multi-part origin anchored to the back and pelvis, which underpins its powerful pulling action on the arm. It arises from the spinous processes of the lower thoracic and upper lumbar vertebrae (typically around T6–L5), from the thoracolumbar fascia, and from the iliac crest. This combination gives a wide base that runs upward to insert on the intertubercular groove of the humerus, enabling extension, adduction, and medial rotation of the arm. The clavicle does not contribute to its origin.

4. What muscle is tested by the patellar reflex and what nerve supplies it?

A. Quadriceps femoris; femoral nerve

B. Hamstrings; sciatic nerve

C. Gastrocnemius; tibial nerve

D. Rectus femoris; obturator nerve

The knee-jerk patellar reflex tests the quadriceps femoris muscle group through a monosynaptic stretch reflex. Tapping the patellar tendon stretches the quadriceps, triggering muscle spindle input that travels via the femoral nerve (L2–L4) to the spinal cord and back through alpha motor neurons to force the quadriceps to contract, extending the knee. The rectus femoris is part of this same group and shares the same femoral nerve supply, so the best match is the quadriceps femoris innervated by the femoral nerve. The hamstrings are knee flexors (supplied by the sciatic nerve) and the gastrocnemius (plantarflexor) is carried by the tibial nerve, not involved in this reflex. The obturator nerve does not supply the quadriceps.

5. What is the primary action of the deltoid muscle and which nerve innervates it?

A. Abducts the Arm; Axillary Nerve

B. Flexes the Arm; Musculocutaneous Nerve

C. Extends the Arm; Radial Nerve

D. Adducts the Arm; Thoracodorsal Nerve

The deltoid’s primary role is to abduct the arm, especially after the initial 15 degrees of movement opened by the supraspinatus. The middle fibers do most of the lifting, while the anterior fibers can flex and medially rotate the arm and the posterior fibers can extend and laterally rotate it. The nerve that supplies the deltoid is the axillary nerve (C5–C6), which travels with the posterior circumflex humeral artery through the quadrangular space to reach the muscle. That combination—abduction of the arm innervated by the axillary nerve—fits best. The other nerves correspond to different muscles and actions (musculocutaneous to forearm flexors, radial to extension, thoracodorsal to latissimus dorsi), so they don’t match the deltoid’s primary action and innervation.

6. Which divisions of the sciatic nerve innervate the hamstring muscles?

A. Long head common fibular division; short head tibial division; semitendinosus tibial division; semimembranosus tibial division.

B. Long head tibial division; short head common fibular division; semitendinosus tibial division; semimembranosus tibial division.

C. Long head tibial division; short head tibial division; semitendinosus common fibular division; semimembranosus tibial division.

D. Long head tibial division; short head common fibular division; semitendinosus common fibular division; semimembranosus common fibular division.

The hamstrings are supplied by the tibial division of the sciatic nerve for the most part, with one notable exception. The long head of the biceps femoris, along with the semitendinosus and semimembranosus, receive tibial division input. The short head of the biceps femoris, however, is innervated by the common fibular division of the sciatic nerve. So the correct pattern is long head of the biceps femoris by tibial division, short head by common fibular division, and both semitendinosus and semimembranosus by tibial division.

7. Which nerve supplies the lateral two lumbricals in the hand?

A. Ulnar nerve

B. Radial nerve

C. Median nerve

D. Median and Ulnar nerves

In the hand, the innervation of the lumbricals splits by position. The two on the radial (lateral) side, attached to the tendons of the flexor digitorum profundus for the index and middle fingers, are supplied by the median nerve. The two on the ulnar (medial) side are supplied by the ulnar nerve. The radial nerve does not innervate these intrinsic hand muscles. So the lateral pair receives input from the median nerve, which is why that nerve is the correct choice.

8. Which is an action of the teres minor?

A. Medial rotation

B. Lateral rotation

C. Flexion

D. Extension

Teres minor is a rotator cuff muscle that mainly external rotates the shoulder. When it contracts, it turns the humerus outward and helps stabilize the head of the humerus in the glenoid during arm movement. It doesn't primarily flex or extend the shoulder; those actions come from other muscles. Medial (internal) rotation is more the domain of subscapularis and teres major, whereas external rotation is the key action of teres minor. So the best match is external (lateral) rotation of the arm.

9. Which statement about the sternocostal head of the pectoralis major is true?

A. Flexes the humerus from a flexed position

B. Extends from a flexed position

C. Abducts the scapula

D. Elevates the clavicle

The sternocostal head of the pectoralis major can extend the arm from a flexed position. This part originates from the sternum and upper costal cartilages and inserts on the humerus. When the arm is already flexed (raised in front), contracting this head pulls the humerus backward toward the body, effectively extending the arm back from its flexed posture. That contrasts with the clavicular head, which is more involved in flexing the arm from a neutral position. The sternocostal head also handles adduction and medial rotation, but its ability to bring a flexed arm into extension is the key reason this statement is true. It does not elevate the clavicle or abduct the scapula.

10. Which action stabilizes the sternoclavicular joint (prevents dislocation)?

A. Pads brachial plexus and subclavian vessel

B. Stabilizes sternoclavicular joint (prevents dislocation)

C. Anchors and depresses scapula

D. Elevates the clavicle

Stability of the sternoclavicular joint comes from its capsule and the surrounding ligaments that limit movement and keep the joint from dislocating. The costoclavicular ligament anchors the clavicle to the first rib and tightens when the medial end of the clavicle tries to rise, helping prevent dislocation. The interclavicular ligaments connect the two clavicles at the top of the sternum to resist downward splaying, and the anterior and posterior sternoclavicular ligaments reinforce the joint capsule to block forward and backward dislocations. An articular disc adds to congruence and stability during movement. Because the essential action here is preventing dislocation through these stabilizing structures, the option that describes stabilization as preventing dislocation best fits. The other choices either refer to protecting nearby neurovascular structures, moving the scapula, or elevating the clavicle, which do not capture how the joint is stabilized.

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.

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

https://extremities1muscles.examzify.com

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