Dr. Long Strength and Conditioning Test 2 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. What is the key factor in making an athlete better?

- **A. Intensity**
- **B. Volume**
- **C. Frequency**
- **D. Type**

2. A catabolic hormone is best described as one that:

- **A. Breaks down energy stores and degrades proteins**
- **B. Builds tissue**
- **C. Increases immune function**
- **D. Regulates circadian rhythm**

3. Why is anaerobic exercise emphasized as you age?

- **A. It increases only cardiovascular endurance**
- **B. It helps prevent loss of muscle tissue**
- **C. It has no effect on muscle mass**
- **D. It decreases bone density**

4. Power is defined as what?

- **A. Work divided by time**
- **B. Force multiplied by velocity**
- **C. Mass times acceleration**
- **D. Distance divided by time**

5. Exercise economy refers to?

- **A. Efficiency is increased and the fatigue of contractile mechanisms is delayed**
- **B. Increased heart rate during activity**
- **C. Greater force variability**
- **D. More oxygen consumption at a given workload**

6. Weightlifting does not improve which of the following areas?

- **A. Cardio**
- **B. Strength**
- **C. Bone density**
- **D. Metabolic rate**

7. What is the primary function of endocrine glands?

A. Release hormones into the bloodstream

B. Release digestive enzymes into the stomach

C. Produce neurotransmitters

D. Store hormones

8. Which two workout variables are most associated with the highest hormonal response?

A. Heavy lifting and multi-joint exercises

B. High reps and single-joint exercises

C. Low-intensity cardio

D. Isometric holds

9. For every pound of muscle, how many additional daily calories are recommended?

A. 10-15 calories

B. 25-30 calories

C. 40-50 calories

D. 60-70 calories

10. At what age do most women go through menopause?

A. 40-45

B. 45-50

C. 50-55

D. 55-60

Answers

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

Explanations

1. What is the key factor in making an athlete better?

A. Intensity

B. Volume

C. Frequency

D. Type

Increasing the stress of the workout—intensity—is the main driver of improvement. When you push workouts to higher levels of effort, the body must recruit more motor units, fire neural pathways more efficiently, and generate greater mechanical tension on muscles and tendons. This combination sparks the strongest adaptations for strength, power, and speed. You can pile on volume or train more often, but without raising the workout's demands to challenging levels, the body doesn't have a strong enough stimulus to produce meaningful gains. The type of work and how often you train shape the specific adaptations and how quickly you progress, but the magnitude of improvement hinges on pushing intensity to appropriate, progressive levels while allowing adequate recovery.

2. A catabolic hormone is best described as one that:

A. Breaks down energy stores and degrades proteins

B. Builds tissue

C. Increases immune function

D. Regulates circadian rhythm

Catabolic hormones drive breakdown to supply energy and substrates. They promote processes like glycogenolysis, lipolysis, and proteolysis, meaning they break down stored energy and reduce body proteins to release amino acids for energy and glucose production. That verbal description—breaking down energy stores and degrading proteins—directly captures the primary action of catabolic hormones, making it the best fit. In contrast, hormones that build tissue (anabolic) promote synthesis and growth, which is the opposite action. Hormones that mainly influence immune function or govern circadian timing aren't defining features of catabolic hormones, even though they can interact with those systems in various ways.

3. Why is anaerobic exercise emphasized as you age?

A. It increases only cardiovascular endurance

B. It helps prevent loss of muscle tissue

C. It has no effect on muscle mass

D. It decreases bone density

A key issue as we age is losing muscle mass, known as sarcopenia. Anaerobic exercise, especially resistance training, directly stimulates muscle protein synthesis and muscle fiber adaptations, helping to maintain and even increase lean muscle tissue. This preserves strength, functional ability, and metabolic health, making daily activities easier and reducing risk of falls. The other statements mischaracterize the effects: anaerobic work does more than just improve cardiovascular endurance, it does affect muscle mass, and it typically supports bone health rather than decreasing it.

4. Power is defined as what?

A. Work divided by time

B. Force multiplied by velocity

C. Mass times acceleration

D. Distance divided by time

Power is the rate at which work is done. Work is the energy transferred by a force acting through a distance, and the average power over a time interval is the work divided by the time it takes (P = W/t). This makes work divided by time the general definition of power. Instantaneous power can also be expressed as the dot product of force and velocity (P = F · v), which equals F v when the force points in the same direction as motion. The other ideas aren't general definitions of power: mass times acceleration is force, and distance divided by time is velocity, not power.

5. Exercise economy refers to?

A. Efficiency is increased and the fatigue of contractile mechanisms is delayed

B. Increased heart rate during activity

C. Greater force variability

D. More oxygen consumption at a given workload

Exercise economy is about how efficiently the body uses energy to produce a given amount of work. When economy improves, you can perform the same workload with less energy, which often means a lower oxygen cost and a slower onset of fatigue. The statement that best fits this is that efficiency is increased and the fatigue of contractile mechanisms is delayed—better efficiency means the muscles work more economically, so the metabolic strain is reduced and fatigue develops later. The other ideas don't capture this efficiency angle: heart rate alone isn't a direct measure of energy cost, force variability relates to neuromuscular control rather than energy efficiency, and consuming more oxygen at the same workload signals worse, not better, economy.

6. Weightlifting does not improve which of the following areas?

A. Cardio

B. Strength

C. Bone density

D. Metabolic rate

Weightlifting builds capacity in several ways: it strengthens muscles through adaptations in neural activation and muscle fibers, increases bone density by placing mechanical loads on the skeleton, and raises resting metabolic rate by increasing lean mass and the energy cost of daily activities. Cardio fitness, however, centers on how efficiently the heart and lungs deliver oxygen during sustained aerobic activity. That specific endurance adaptation is developed most effectively through continuous rhythmic aerobic work (like running, cycling, or swimming). Weightlifting can influence heart rate and overall health, and circuit-style lifting can offer some cardiovascular stimulus, but it does not optimize the cardio adaptations as directly or effectively as dedicated cardio training.

7. What is the primary function of endocrine glands?

A. Release hormones into the bloodstream

B. Release digestive enzymes into the stomach

C. Produce neurotransmitters

D. Store hormones

Endocrine glands release hormones into the bloodstream, and these chemical messengers travel to distant targets to regulate processes like metabolism, growth, and stress responses. Hormones bind to specific receptors on target cells, eliciting appropriate physiological actions that help keep the body in balance. This differs from exocrine secretions, which are released into ducts to reach a specific site, such as digestive enzymes into the stomach. Storing hormones isn't the primary role of these glands, and neurotransmitters are produced by neurons rather than endocrine glands.

8. Which two workout variables are most associated with the highest hormonal response?

A. Heavy lifting and multi-joint exercises

B. High reps and single-joint exercises

C. Low-intensity cardio

D. Isometric holds

The strongest hormonal response comes from lifting heavy loads that involve multiple joints. When you push heavy, compound movements—like squats, deadlifts, bench presses, and pulls—you're recruiting large muscle groups, generating high mechanical tension, and demanding substantial neural drive. That combination triggers a bigger acute release of anabolic hormones such as testosterone and growth hormone after the workout, reflecting the body's signal to adapt to a high-load, high-mressive-stress stimulus. In contrast, high reps with single-joint exercises use lighter weights and target smaller muscles, so the stress signal isn't as strong, leading to a smaller hormonal surge. Low-intensity cardio doesn't provide the same resistance-based stimulus to drive large hormonal changes, and is more about endurance adaptations. Isometric holds can elevate some acute responses, but they generally don't produce as robust a hormonal spike as heavy, multi-joint resistance work. So, combining heavy lifting with multi-joint exercises best explains the highest hormonal response.

9. For every pound of muscle, how many additional daily calories are recommended?

A. 10-15 calories

B. 25-30 calories

C. 40-50 calories

D. 60-70 calories

Muscle tissue is metabolically active, so adding muscle raises your daily energy expenditure even at rest. A practical guideline is about 25-30 extra calories per day for every pound of muscle you've gained. This range accounts for the maintenance costs of new tissue, including protein turnover and glycogen storage, helping you support growth without gaining excessive fat. Individual factors like age, sex, hormones, training intensity, and total activity can shift the exact number, but 25-30 calories per pound is a widely used starting point for lean-mass goals. If progress slows or fat gains appear, you can adjust upward or downward based on how your body responds.

10. At what age do most women go through menopause?

A. 40-45

B. 45-50

C. 50-55

D. 55-60

Menopause is reached when a woman has gone 12 consecutive months without a menstrual period, signaling the end of natural childbearing. The age at which this occurs varies, but most women go through menopause in the late 40s to early 50s, with the average around 51. Among the given ranges, 45-50 best captures where the majority begin menopause, since it sits in the central portion of that pattern. Some women experience it a bit earlier or later, but earlier or later ranges would miss many who fall into 45-50.

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://drlongstrengthconditioning2.examzify.com

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