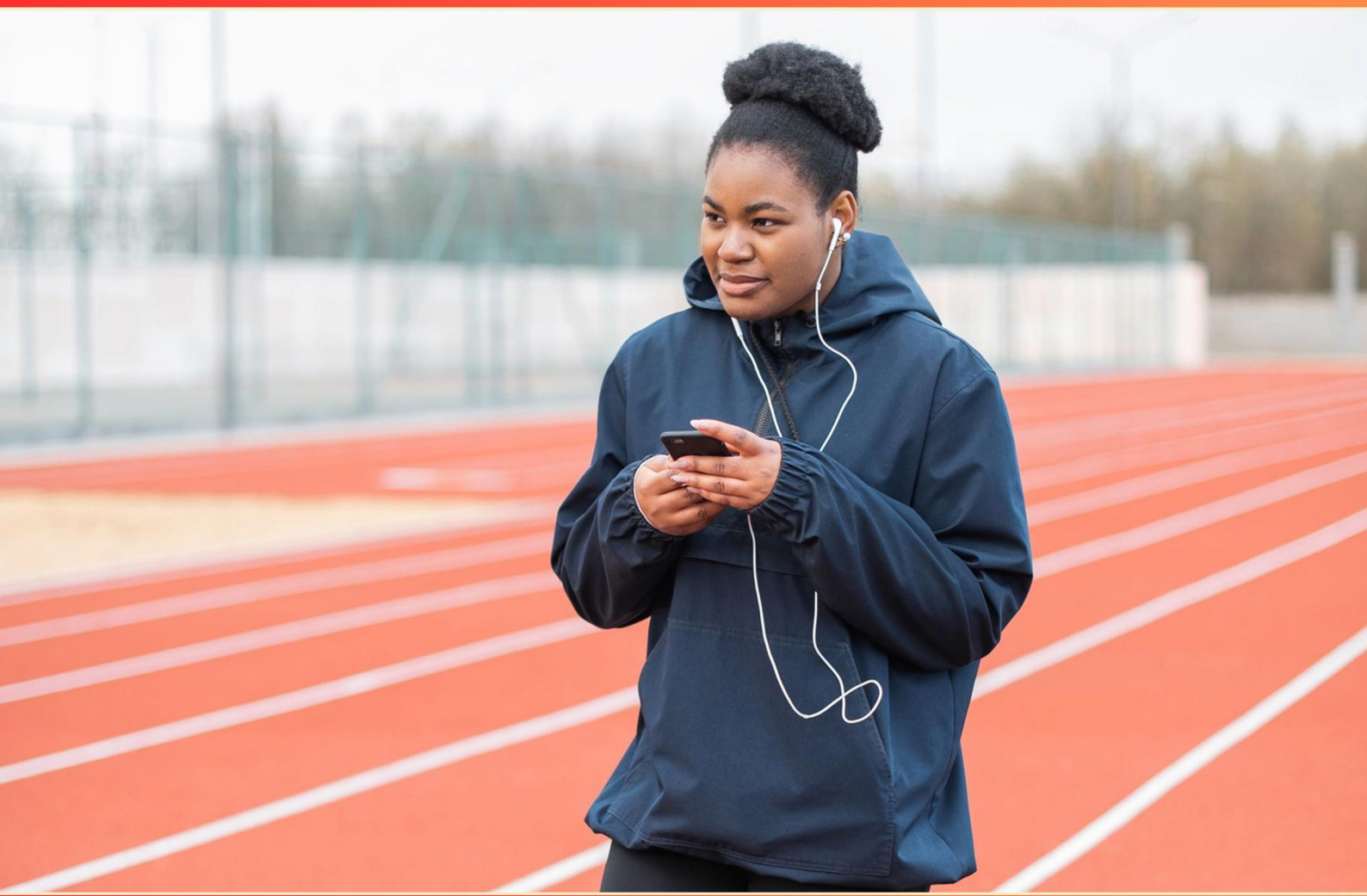
NSCA SPRINTING AND RUNNING PRACTICE TEST (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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https://nscasprintingrunning.examzify.com

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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. During maximum velocity sprinting, the mouth and jaw posture should be:

A. Open, sag

B. Closed, clenched

C. Slightly open, tense jaw

D. Mouth closed, lips pressed

2. Start and Acceleration error: Hands too wide apart in four-point stance. What is the identified cause?

A. Misunderstanding of movement.

B. Improper weight distribution.

C. Hips too high or low.

D. Excessive knee bend.

3. What is the cause of a 'bouncing' with marked vertical swaying at maximum velocity?

A. Push-off force directed too vertically.

B. Inadequate knee drive.

C. Slow arm swing.

D. Foot strike too far in front of center of mass.

4. Which set of terms completes the Sprinting Goal statement: high stride frequency and optimal stride length, with explosive horizontal push-off and minimal vertical impulse?

A. High stride frequency; stride length; horizontal push-off; vertical impulse

B. Stride length; stride frequency; vertical impulse; horizontal push-off

C. Stride frequency; stride length; vertical impulse; horizontal push-off

D. Stride length; stride frequency; horizontal push-off; vertical impulse

5. In sprinting biomechanics, which phase includes eccentric braking and concentric propulsion?

A. Single-leg support

B. Flight

C. Recovery

D. Start in Sprinting

6. Forward body lean during acceleration decreases from less than which degree range to less than which degree range as stride length increases?

A. <45 to <5 degrees

B. <30 to <10 degrees

C. <60 to <15 degrees

D. <20 to <2 degrees

7. In Maximum Velocity sprinting, which phases are included in the cycle?

A. Flight non-support phase, forward support phase, rear support phase

B. Flight phase and push-off phase

C. Ground contact phase only

D. Recovery phase only

8. In forward support phase, body weight is balanced such that only which part of the foot touches the ground?

A. Ball

B. Heel

C. Arch

D. Toes

9. The support phase includes which actions?

A. Eccentric braking and concentric propulsion

B. Recovery and ground preparation

C. Start and acceleration

D. Flight and rest

10. In sprint start, arm action has which of the following?

A. No functions

B. Limited functions

C. Important functions

D. Variable functions

Answers

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

Explanations

1. During maximum velocity sprinting, the mouth and jaw posture should be:

A. Open, sag

B. Closed, clenched

C. Slightly open, tense jaw

D. Mouth closed, lips pressed

During maximum velocity sprinting, breathing demands are extremely high, so the mouth should be open and the jaw relaxed. An open, relaxed jaw minimizes facial and neck muscle tension, helping keep the head stable and allowing quick, efficient airflow to meet the body's oxygen needs. Clenching or tensing the jaw adds unnecessary muscle activity in the neck and face, which can disrupt breathing rhythm and head position, reducing efficiency. Closing the mouth or keeping the jaw tense wastes energy and can restrict airflow when it's most needed. Keeping the mouth open with a relaxed jaw best supports breathing and head stability at top speed.

2. Start and Acceleration error: Hands too wide apart in four-point stance. What is the identified cause?

A. Misunderstanding of movement.

B. Improper weight distribution.

C. Hips too high or low.

D. Excessive knee bend.

Understanding proper hand placement in the four-point start is being tested here. When the hands are too wide, the root issue is a misunderstanding of how the start setup should be arranged for an efficient first move. The hands should be under the shoulders, roughly shoulder-width apart, with the body aligned in a straight line and the weight balanced over a stable base. If the hands are spread too far, the setup becomes unstable, the center of mass shifts outward, and it hinders a powerful, quick drive forward. This issue points to how the start is supposed to be positioned rather than to weight distribution, hip height, or knee bend, which affect other aspects of the sprint but don't directly explain why the hands end up too wide.

3. What is the cause of a 'bouncing' with marked vertical swaying at maximum velocity?

A. Push-off force directed too vertically.

B. Inadequate knee drive.

C. Slow arm swing.

D. Foot strike too far in front of center of mass.

At max-sprint speed you want the ground reaction force to push you forward rather than lift you up. When the push-off is directed too vertically, most of that force goes into raising the body's center of mass rather than driving it forward. The result is a pronounced vertical bounce and a swaying of the body with each step, which wastes energy and reduces forward velocity. That's why a vertical push-off best explains the described pattern. Inadequate knee drive would limit forward propulsion but doesn't inherently cause the repeated vertical bouncing. Slow arm swing can affect tempo and coordination but isn't the primary driver of vertical oscillation. Foot strike too far in front of the center of mass tends to create braking, hindering forward progress rather than producing the vertical bounce seen at maximum velocity.

4. Which set of terms completes the Sprinting Goal statement: high stride frequency and optimal stride length, with explosive horizontal push-off and minimal vertical impulse?

A. High stride frequency; stride length; horizontal push-off; vertical impulse

B. Stride length; stride frequency; vertical impulse; horizontal push-off

C. Stride frequency; stride length; vertical impulse; horizontal push-off

D. Stride length; stride frequency; horizontal push-off; vertical impulse

Speed in sprinting comes from a balance of how often you cycle your legs and how long each step is, while the energy should be directed forward rather than upward. So the goal is to have a high stride frequency and an optimal stride length, with an explosive horizontal push-off and minimal vertical impulse. The set that fits this description is high stride frequency; stride length; horizontal push-off; vertical impulse. It mirrors first prioritizing rate and length, then the direction of force application, and finally reducing vertical motion for efficiency. Other orders shift the emphasis in a way that doesn't align with the stated goal.

5. In sprinting biomechanics, which phase includes eccentric braking and concentric propulsion?

A. Single-leg support

B. Flight

C. Recovery

D. Start in Sprinting

During sprinting, the leg that is in contact with the ground goes through both braking and propulsion within the same stance phase. When the foot lands, the muscles work eccentrically to absorb force and slow the body's forward momentum (eccentric braking). Almost immediately, they switch to concentric action to push off and propel the body forward for the next step (concentric propulsion). This sequence happens during the single-leg support portion of stance, when one leg is bearing the body's weight. The other phases don't involve this combination. The flight phase has no ground contact, so there's no braking or propulsion, and the recovery or swing phase is the leg moving forward in the air. Start in sprinting refers to beginning acceleration from blocks, which isn't the continuous stance where braking followed by propulsion occurs.

6. Forward body lean during acceleration decreases from less than which degree range to less than which degree range as stride length increases?

A. <45 to <5 degrees

B. <30 to <10 degrees

C. <60 to <15 degrees

D. <20 to <2 degrees

During acceleration you start with a fairly pronounced forward lean to maximize horizontal force production, then gradually become more upright as stride length increases and you drive more upward and backward with each step. That progression is captured by leaning less than 45 degrees initially and reducing to less than 5 degrees as you lengthen your stride. The other ranges don't reflect this gradual shift toward an upright posture as acceleration continues.

7. In Maximum Velocity sprinting, which phases are included in the cycle?

A. Flight non-support phase, forward support phase, rear support phase

B. Flight phase and push-off phase

C. Ground contact phase only

D. Recovery phase only

In maximum velocity sprinting, the cycle alternates between flying off the ground and being in contact with it. The ground-contact portion isn't a single chunk; it's split into two parts: forward support, where the body moves over the foot and there's early braking and initial propulsion, and rear support, where the foot stays in contact longer and provides the main propulsive push before leaving the ground again. The push-off is contained within this late stance, not as a separate phase. So the full cycle includes the flight non-support phase, the forward support phase, and the rear support phase. The other options miss one of these essential parts: they either omit the flight, or omit one of the stance phases.

8. In forward support phase, body weight is balanced such that only which part of the foot touches the ground?

A. Ball

B. Heel

C. Arch

D. Toes

During forward support, the leg is positioned under the body's center of mass and the body weight is carried mainly by the ball of the foot, with the heel lifted off the ground. This forefoot loading allows a quick, efficient push-off and helps minimize braking forces, which is key for rapid sprint progression. The arch and toes aren't the primary contact during this moment, and keeping the heel off the ground enables that stable ball-of-foot support.

9. The support phase includes which actions?

A. Eccentric braking and concentric propulsion

B. Recovery and ground preparation

C. Start and acceleration

D. Flight and rest

During the support phase, the body is on the ground with one leg bearing weight from initial contact to toe-off. The key actions are braking and propulsion. Eccentric braking occurs as the leg absorbs impact and controls the body's forward descent, lengthening muscles under tension to slow the motion. Then, as the person prepares to push off, the same muscles switch to concentric propulsion, shortening to generate push-off force and propel the body into the next flight phase. This sequence of absorbing impact and then accelerating forward is what defines the support phase. Recovery, ground preparation, start and acceleration, and flight are related to other parts of the sprint cycle, not the primary actions of the support phase.

10. In sprint start, arm action has which of the following?

A. No functions

B. Limited functions

C. Important functions

D. Variable functions

Arm action in the sprint start plays important roles for balance, momentum, and coordinated propulsion. As you explode out of the blocks, the arms help drive the body forward and keep the torso aligned with the track, preventing a backward tilt that can waste energy. The forward and backward swing of the arms creates a rhythm and timing that reinforce the leg drive, aiding quick acceleration and a strong, compact posture. This arm action also helps stabilize the upper body under the rapid forces of a sprint start, so the hips can extend smoothly and the athlete can maintain a powerful forward lean into the first steps. While the exact movement can vary by athlete, the functions are consistently important for a fast start, not merely incidental or limited.

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://nscasprintingrunning.examzify.com

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