NBEO BINOCULAR VISION PRACTICE TEST (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

VISIT US ONLINE FOR THE FULL VERSION STUDY GUIDE

https://nbeobinocularvision.examzify.com

Copyright © 2026 by Examzify - A Kaluba Technologies Inc. product.

ALL RIGHTS RESERVED.

No part of this book may be reproduced or transferred in any form or by any means, graphic, electronic, or mechanical, including photocopying, recording, web distribution, taping, or by any information storage retrieval system, without the written permission of the author.

Notice: Examzify makes every reasonable effort to obtain accurate, complete, and timely information about this product from reliable sources.

SAMPLE

Table of Contents

Copyright 1

Table of Contents 2

Introduction 3

How to Use This Guide 4

Questions 5

Answers 8

Explanations 10

Next Steps 15

SAMPLE

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.

SAMPLE

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!

SAMPLE

Questions

SAMPLE

1. **According to the phi phenomenon, during a subjective cover test, a patient with an eso deviation would view the paddle motion in which direction relative to the deviation?**

   A. Same direction

   B. Opposite direction

   C. No movement

   D. Upward

2. **Anisometropia with astigmatism as an amblyogenic factor is defined by a diopter difference greater than what value between the eyes?**

   A. -2.00D

   B. -1.50D

   C. -0.50D

   D. -3.00D

3. **Which statement correctly describes the condition of measuring Hirschberg under binocular conditions and Angle lambda under monocular conditions?**

   A. Hirschberg is binocular; Angle lambda is monocular

   B. Hirschberg is monocular; Angle lambda is monocular

   C. Hirschberg is binocular; Angle lambda is binocular

   D. Hirschberg is monocular; Angle lambda is binocular

4. **Isometropia Astigmatism as an amblyogenic factor is characterized by a prescription greater than how many diopters in BOTH eyes?**

   A. -3.00D

   B. -2.50D

   C. -1.50D

   D. -2.00D

5. **Severe amblyopia is classified based on which VA range?**

   A. 20/100 to 20/400

   B. 20/20 to 20/60

   C. 20/40 to 20/100

   D. 20/80 to 20/160

SAMPLE

6. In brain injury-related neglect, which visual field is more commonly neglected?

A. Right hemifield

B. Left hemifield

C. Both equally

D. Neither

7. Which visual field defect is most common after severe traumatic brain injury?

A. Nasal step

B. Bitemporal VF defect

C. Homonymous hemianopsia

D. Central scotoma

8. Which anomalous correspondence type is associated with the highest tendency to diplopia when angle is equal: PAC 2?

A. HAC

B. UHAC

C. PAC 1

D. PAC 2

9. Which CN palsy is the closest differential to Divergence Insufficiency?

A. CN 3 Palsy

B. CN 6 Palsy

C. CN 4 Palsy

D. CN 5 Palsy

10. Which statement best describes a hallmark of attention-related deficits after brain injury?

A. Attentional neglect of one side of space

B. Enhanced color discrimination

C. Improved night vision

D. Increased depth perception

SAMPLE

Answers

SAMPLE

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

SAMPLE

Explanations

SAMPLE

1. According to the phi phenomenon, during a subjective cover test, a patient with an eso deviation would view the paddle motion in which direction relative to the deviation?

A. Same direction

B. Opposite direction

C. No movement

D. Upward

The test relies on the phi phenomenon, where the perceived motion of a light target is opposite to the direction the eye actually moves to re-fixate. In an eso deviation, the eye turns inward and then moves to re-fixate toward the nose. Because of phi, the paddle's motion is perceived in the opposite direction—outward relative to the deviation. So the paddle appears to move in the opposite direction to the eye's misalignment. The other directions don't fit this perceptual illusion: the motion isn't in the same direction as the deviation, it isn't absent, and vertical movement isn't implied by a horizontal inward turn.

2. Anisometropia with astigmatism as an amblyogenic factor is defined by a diopter difference greater than what value between the eyes?

A. -2.00D

B. -1.50D

C. -0.50D

D. -3.00D

Anisometropia refers to a different refractive power between the two eyes. When astigmatism is present as an amblyogenic factor, the risk of developing amblyopia rises even at smaller differences because the blur differs by meridian between the eyes, making binocular fusion harder during development. The clinically used threshold for defining amblyogenic anisometropia in this context is an interocular difference of more than 1.50 diopters. So if the eyes differ by more than 1.50 D, this situation is considered amblyogenic anisometropia with astigmatism. The other values don't fit this criterion, since they are either smaller than the amblyogenic threshold or not the commonly cited cutoff in this scenario.

3. Which statement correctly describes the condition of measuring Hirschberg under binocular conditions and Angle lambda under monocular conditions?

A. Hirschberg is binocular; Angle lambda is monocular

B. Hirschberg is monocular; Angle lambda is monocular

C. Hirschberg is binocular; Angle lambda is binocular

D. Hirschberg is monocular; Angle lambda is binocular

The main idea is understanding how each measurement is obtained. Hirschberg uses the corneal light reflex to estimate eye alignment while both eyes are fixating on a target, so you're observing how the reflexes line up under binocular viewing. In contrast, the angle lambda refers to the offset between the visual axis and the pupillary axis, which is assessed under monocular conditions (often with one eye occluded or tested during unilateral fixation). Therefore, Hirschberg is binocular and angle lambda is monocular. The other pairings don't match how these measurements are actually performed.

SAMPLE

4. Isometropia Astigmatism as an amblyogenic factor is characterized by a prescription greater than how many diopters in BOTH eyes?

A. -3.00D

B. -2.50D

C. -1.50D

D. -2.00D

Isometropic amblyopia happens when both eyes have similarly high refractive errors, so the visual input from either eye is consistently blurred during a child's development. Because the brain isn't getting clear, balanced input from both eyes, the neural pathways for vision don't develop normally, leading to reduced visual acuity that can affect both eyes. The threshold used for identifying this amblyogenic risk is about 2.50 diopters in each eye. In other words, when both eyes have roughly 2.50 D (or more) of ametropia, the image quality is sufficiently degraded to disrupt normal binocular development. The key point is the magnitude being similar in both eyes, not the direction of the error. So, the 2.50 diopter value represents the cutoff used to define this condition.

5. Severe amblyopia is classified based on which VA range?

A. 20/100 to 20/400

B. 20/20 to 20/60

C. 20/40 to 20/100

D. 20/80 to 20/160

The level of visual acuity in the affected eye after correction tells you how severe the amblyopia is. When the amblyopic eye reads at about 20/100 up to 20/400, that indicates a substantial loss of vision, which is categorized as severe amblyopia. At 20/100, the patient sees much worse detail than normal for distance, and at 20/400 the detail that a person with normal vision could see at 400 feet is only clear at 20 feet, showing a deep reduction in acuity. This range is used clinically to distinguish severe amblyopia from milder forms and to inform treatment intensity and prognosis. Values better than 20/100 imply less severe impairment, while vision worse than 20/400 would indicate an even more profound deficit.

6. In brain injury-related neglect, which visual field is more commonly neglected?

A. Right hemifield

B. Left hemifield

C. Both equally

D. Neither

Neglect after brain injury is an attentional deficit, not a basic sensory loss. The commonly observed pattern is contralesional neglect—attention fails for the side opposite the brain lesion. The vast majority of cases involve damage to the right hemisphere, especially the right parietal region, which disrupts awareness of the left side of space. Because the right hemisphere naturally helps attend to both sides, its impairment leaves a person largely unaware of stimuli on the left, even though their eyes and retina are functioning normally. So the left visual field is the side most often neglected. In some scenarios, neglect can involve both sides or be milder on the right, but the typical presentation is left-field neglect following right-hemisphere damage.

SAMPLE

7. Which visual field defect is most common after severe traumatic brain injury?

A. Nasal step

B. Bitemporal VF defect

C. Homonymous hemianopsia

D. Central scotoma

When trauma damages the visual pathways behind the optic chiasm, the most common outcome is a homonymous hemianopsia—the same half of the visual field is lost in both eyes. This occurs because the fibers after the chiasm carry information from the opposite side of space, so a lesion in the left occipital lobe or left optic radiations produces a right homonymous hemianopia, and a right-side injury produces a left one. In severe brain injury, contusions or diffuse axonal injury often involve the posterior cerebral structures where these post-chiasmal fibers reside, making this defect the typical post-injury pattern. By contrast, a bitemporal defect would imply chiasmal involvement, a central scotoma points to macular or retinal/optic nerve issues, and a nasal step aligns more with glaucoma or anterior pathway damage rather than post-chiasmal injury.

8. Which anomalous correspondence type is associated with the highest tendency to diplopia when angle is equal: PAC 2?

A. HAC

B. UHAC

C. PAC 1

D. PAC 2

Anomalous retinal correspondence (ARC) changes how the brain maps images from the two eyes, altering which retinal points are treated as corresponding. The more extreme the ARC, the less reliable the brain's fusion becomes when the eyes are aligned, so diplopia is more likely even at an equal angle. PAC 2 represents the strongest or most disruptive form of anomalous correspondence among the options, so it carries the highest tendency to diplopia when the angle is equal. PAC 1 would have a milder mismatch and thus less diplopia, while HAC and UHAC are other ARC variants, but their impact on diplopia at equal alignment is not as pronounced as PAC 2.

9. Which CN palsy is the closest differential to Divergence Insufficiency?

A. CN 3 Palsy

B. CN 6 Palsy

C. CN 4 Palsy

D. CN 5 Palsy

Divergence insufficiency occurs when the eyes have a reduced ability to diverge, so the muscle system most central to the problem is the lateral rectus and its nerve supply. The sixth cranial nerve powers the lateral rectus, which abducts the eye and enables divergence. When this nerve's function is impaired, divergence is directly limited, producing a pattern that closely resembles divergence insufficiency on examination. That direct link to lateral rectus function makes a sixth nerve palsy the most relevant differential, because other cranial nerve palsies involve different muscles or systems and don't reproduce the same divergence deficit. Third nerve palsy disrupts multiple muscles including the medial rectus and levator, often with ptosis; fourth nerve palsy affects the superior oblique and yields vertical/torsional diplopia that varies with gaze; fifth nerve involvement relates to sensation or mastication, not ocular divergence. So the closest differential to divergence insufficiency is a sixth nerve palsy, reflecting a primary issue with the muscle responsible for divergence.

SAMPLE

10. Which statement best describes a hallmark of attention-related deficits after brain injury?

A. Attentional neglect of one side of space

B. Enhanced color discrimination

C. Improved night vision

D. Increased depth perception

Neglect of one side of space is a hallmark of attention problems after brain injury. This means the person may ignore stimuli on the side opposite the brain injury, not because their eyes can't see them, but because attention and spatial awareness are impaired. It's a higher-level issue of how the brain assigns attention to different parts of space, often seen after right-hemisphere damage, which frequently leads to left-sided neglect. The other options describe sensory or perceptual changes (color discrimination, night vision, or depth perception) that aren't the typical attention-driven deficit seen after brain injury.

SAMPLE

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://nbeobinocularvision.examzify.com

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

SAMPLE