

American Board of Ophthalmology (ABO) Practice Exam (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. What is a significant risk factor for developing glaucoma?

- A. Family history of glaucoma**
- B. Age over 50**
- C. High cholesterol levels**
- D. Excessive UV light exposure**

2. What is the effect of aging on the lens of the eye?

- A. It becomes more elastic**
- B. It generally remains unchanged**
- C. It becomes less flexible**
- D. It becomes thinner**

3. Which frame material is most hypoallergenic?

- A. Plastic**
- B. Aluminum**
- C. Titanium**
- D. Stainless Steel**

4. What ocular changes occur when reading?

- A. Pupils dilate, eyes diverge, lens flattens**
- B. Pupils constrict, eyes converge, lens accommodates**
- C. Pupils constrict, eyes diverge, lens flattens**
- D. Pupils dilate, eyes converge, lens accommodates**

5. What effect does heating a Zyl frame and then quenching it in cold water have?

- A. It makes the frame more flexible**
- B. It causes the frame to shrink**
- C. It increases the lens curvature**
- D. It changes the color of the frame**

6. A -6.50 lens decentered 2 mm results in how much prism?

- A. 0.5**
- B. 1.0**
- C. 1.3**
- D. 1.5**

7. What is a common sign of hyphema?

- A. Presence of blood in the anterior chamber**
- B. Red reflex absence**
- C. Severe headache**
- D. Cloudy cornea**

8. Which condition is often characterized by peripheral field defects?

- A. Macular degeneration**
- B. Glaucoma**
- C. Retinitis pigmentosa**
- D. Cataracts**

9. What is a possible consequence of untreated high intraocular pressure?

- A. Increased peripheral vision**
- B. Optic nerve damage**
- C. Improved eye health**
- D. Unimpaired vision**

10. What does a positive Marcus Gunn pupil test indicate?

- A. A normal optic nerve function**
- B. A relative afferent pupillary defect**
- C. Increased intraocular pressure**
- D. A posterior vitreous detachment**

Answers

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

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Explanations

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1. What is a significant risk factor for developing glaucoma?

- A. Family history of glaucoma**
- B. Age over 50**
- C. High cholesterol levels**
- D. Excessive UV light exposure**

A family history of glaucoma is considered a significant risk factor for developing the disease because genetics play a crucial role in the pathogenesis of glaucoma. When glaucoma is present in family members, the likelihood of other relatives developing the condition increases. Individuals with a first-degree relative, such as a parent or sibling, are at a much higher risk compared to those without any family history. This genetic predisposition may be attributed to inherited traits that influence intraocular pressure or structural vulnerabilities of the optic nerve, which are key elements in glaucoma development. Given the multifactorial nature of glaucoma, while other factors like age, systemic health, and environmental influences contribute to the overall risk, a family history remains one of the most potent indicators for an individual's risk of developing the condition. Age is indeed a risk factor as well, and individuals over 50 have increased rates of glaucoma, but it doesn't carry the same genetic implication as family history. High cholesterol levels and excessive UV light exposure have not been consistently demonstrated to have a significant link with glaucoma's incidence. Therefore, while various factors contribute to the risk of glaucoma, a family history stands out as a major, fixed risk that directly impacts one's likelihood of developing the disease.

2. What is the effect of aging on the lens of the eye?

- A. It becomes more elastic**
- B. It generally remains unchanged**
- C. It becomes less flexible**
- D. It becomes thinner**

As individuals age, the lens of the eye undergoes several changes that impact its flexibility and overall function. The correct choice highlights the fact that the lens becomes less flexible with age. This reduction in flexibility greatly affects the eye's ability to focus on objects at various distances, a condition known as presbyopia, which is commonly experienced in middle age and beyond. The aging process leads to biochemical changes in the lens, including an increase in the accumulation of proteins and changes in the distribution of water content. These alterations contribute to the lens becoming stiffer and less pliable over time, making it more difficult for the eye to accommodate when shifting focus from distant to near objects. In contrast, the other choices do not accurately reflect the changes that occur with aging. The lens does not become more elastic, nor does it remain unchanged; rather, it experiences a gradual decline in flexibility. Additionally, as people age, the lens does not become thinner; in fact, it may thicken due to ongoing growth, leading to the opacification seen in cataracts if they develop. Thus, stating that the lens becomes less flexible succinctly captures the primary effect of aging on this vital structure of the eye.

3. Which frame material is most hypoallergenic?

- A. Plastic
- B. Aluminum
- C. Titanium**
- D. Stainless Steel

Titanium is recognized as the most hypoallergenic frame material among the options provided. This is primarily due to its unique properties that make it highly biocompatible, meaning it is unlikely to cause allergic reactions or skin irritations. Titanium is often used in medical implants and other applications where compatibility with body tissues is crucial, reinforcing its reputation for being hypoallergenic. Additionally, titanium does not contain nickel, which is a common allergen found in many metal alloys used in eyewear, such as stainless steel. The absence of nickel significantly reduces the risk of allergy, making titanium frames a safe choice for individuals with sensitivities. Other materials like plastic can sometimes contain additives or colorants that may cause allergic reactions in sensitive individuals. Aluminum also may lead to allergies due to its potential for skin irritation, while stainless steel, despite being durable and lightweight, frequently contains nickel and other alloys that could provoke allergic responses. Thus, titanium stands out as the optimal choice for those looking for hypoallergenic eyewear.

4. What ocular changes occur when reading?

- A. Pupils dilate, eyes diverge, lens flattens
- B. Pupils constrict, eyes converge, lens accommodates**
- C. Pupils constrict, eyes diverge, lens flattens
- D. Pupils dilate, eyes converge, lens accommodates

When reading, a series of ocular changes occur that facilitate the ability to focus on close objects. Pupils constrict to allow less light to enter the eye, improving depth of field and enhancing the clarity of the visual image. This is a response known as the pupillary light reflex, which also helps reduce aberrations and improves the overall sharpness of the vision. At the same time, the eyes converge to direct the line of sight from each eye towards the object being read. This inward movement of the eyes ensures that both eyes are focused on the same point, allowing for binocular vision and a clearer image. Additionally, the lens accommodates by changing its shape, becoming more convex to increase its refractive power. This adjustment is crucial for focusing on nearby text, and it allows the eye to bring the image into sharp focus on the retina. These coordinated adjustments—pupil constriction, eye convergence, and lens accommodation—work together seamlessly to provide optimal vision for close-up tasks like reading.

5. What effect does heating a Zyl frame and then quenching it in cold water have?

- A. It makes the frame more flexible**
- B. It causes the frame to shrink**
- C. It increases the lens curvature**
- D. It changes the color of the frame**

Heating a Zyl (zylonite or cellulose acetate) frame followed by quenching in cold water leads to an effect known as thermal shock. When the heated material is suddenly cooled, it contracts rapidly, causing the frame to shrink. This process is utilized to alter the fit of eyewear, making it tighter or adapting it to the wearer's face shape. In the context of eyewear adjustment, this shrinkage can be beneficial for achieving a snugger fit on the wearer's face. The other effects listed, such as flexibility, lens curvature, or color change, do not typically result from the heating and quenching process for Zyl frames. Instead, those effects would require different methods or materials to be realized. The frame's primary response to this thermal treatment is the reduction in size due to the rapid cooling, which is why the answer is accurate regarding the behavior of Zyl frames under these conditions.

6. A -6.50 lens decentered 2 mm results in how much prism?

- A. 0.5**
- B. 1.0**
- C. 1.3**
- D. 1.5**

To determine how much prism is induced when a lens is decentered, you can use the formula for prism diopters, which is calculated as the power of the lens (in diopters) multiplied by the distance the lens is decentered (in centimeters). In this case, the lens has a power of -6.50 diopters. When the lens is decentered by 2 mm, we first convert that measurement to centimeters, which means 2 mm equals 0.2 cm. The formula for calculating prism is: Prism (in prism diopters) = Lens power (in diopters) × Decentration distance (in cm). By applying the values: Prism = -6.50 diopters × 0.2 cm = -1.3 prism diopters. When considering prism in practical terms, we take the absolute value, so it becomes 1.3 prism diopters. This means that the decentered -6.50 lens when forced out of the optically centered position creates a prismatic effect of 1.3 prism diopters. This calculation highlights how the power of the lens and the amount of decentration directly correlate to the amount of prism created. Therefore, the calculated

7. What is a common sign of hyphema?

- A. Presence of blood in the anterior chamber**
- B. Red reflex absence**
- C. Severe headache**
- D. Cloudy cornea**

A common sign of hyphema is the presence of blood in the anterior chamber of the eye. Hyphema occurs when there is bleeding in the space between the cornea and the iris, leading to accumulation of blood which can cause varying degrees of vision impairment, depending on the amount of blood present. Clinically, this is identifiable upon examination, where the blood may appear as a layer in the lower part of the anterior chamber if the patient is upright. Presence of blood in the anterior chamber is the defining feature of hyphema and is critical for diagnosis. The accumulation of blood can be a result of trauma, certain medical conditions, or complications of eye surgery, making the identification of this sign essential for appropriate management and treatment.

8. Which condition is often characterized by peripheral field defects?

- A. Macular degeneration**
- B. Glaucoma**
- C. Retinitis pigmentosa**
- D. Cataracts**

Peripheral field defects are primarily associated with retinitis pigmentosa, a hereditary retinal dystrophy. This condition causes progressive degeneration of photoreceptors, particularly the rods which are responsible for peripheral and night vision. As the disease progresses, individuals typically experience a narrowing of their visual field, leading to significant peripheral vision loss, which can resemble a "tunnel vision" effect. In contrast, while glaucoma can also lead to peripheral vision loss, especially in its later stages, the defects are usually due to optic nerve damage rather than a primary retina problem. Macular degeneration primarily affects the central vision and does not typically cause peripheral field defects. Cataracts lead to clouding of the lens, affecting vision clarity but not typically causing peripheral field defects. Thus, retinitis pigmentosa is best known for its characteristic peripheral vision loss, making it the correct choice.

9. What is a possible consequence of untreated high intraocular pressure?

- A. Increased peripheral vision
- B. Optic nerve damage**
- C. Improved eye health
- D. Unimpaired vision

Untreated high intraocular pressure can lead to optic nerve damage, which is a key feature of glaucoma, a condition characterized by progressive vision loss. The optic nerve is responsible for transmitting visual information from the retina to the brain. Elevated intraocular pressure exerts stress on the optic nerve fibers, which can result in their degeneration over time. This damage can cause a range of visual disturbances, primarily affecting peripheral vision initially, potentially leading to complete vision loss if not addressed. In contrast, the other options suggest outcomes that do not align with the realities of high intraocular pressure. Increased peripheral vision is contrary to what happens with conditions like glaucoma, where peripheral vision often diminishes. Improved eye health is not a possible outcome of high intraocular pressure; rather, it suggests that pressure would need to be controlled to maintain good eye health. Similarly, unimpaired vision is often not the case, as untreated high intraocular pressure commonly results in progressive vision loss. Hence, the accurate consequence of untreated high intraocular pressure is indeed damage to the optic nerve.

10. What does a positive Marcus Gunn pupil test indicate?

- A. A normal optic nerve function
- B. A relative afferent pupillary defect**
- C. Increased intraocular pressure
- D. A posterior vitreous detachment

A positive Marcus Gunn pupil test indicates a relative afferent pupillary defect (RAPD). This test is often performed when assessing the function of the optic nerve. When a light is swung between the eyes, if one pupil constricts less than the other in response to the light stimulus, it indicates a defect in the afferent pathway for that eye. This is typically due to damage or dysfunction in the optic nerve or severe retinal pathology. In contrast, normal optic nerve function would not produce any relative afferent pupillary defect, as both pupils would respond appropriately to light stimuli. Increased intraocular pressure is associated with conditions such as glaucoma and does not specifically indicate a Marcus Gunn pupil. Lastly, a posterior vitreous detachment may lead to symptoms like flashes or floaters but does not directly manifest as a relative afferent pupillary defect. Therefore, the identification of a positive Marcus Gunn pupil is specifically and accurately linked to the presence of a relative afferent pupillary defect.

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://abo-ophthalmology.examzify.com>

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

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