

Contact Lens Registry Examination (CLRE) 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

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- 1. Why might a patient mistakenly believe they have an allergy after wearing a silicone hydrogel lens?**
 - A. Due to rapid vision changes**
 - B. Because of eye redness**
 - C. Due to dryness-related discomfort**
 - D. Because of increased tear production**

- 2. High water content in contact lenses can lead to which of the following?**
 - A. Ametropia**
 - B. Anoxia**
 - C. Fluctuations in vision**
 - D. Hypoxia**

- 3. A patient diagnosed with a -2.50 rigid diagnostic lens has an over-refraction of -0.75 -0.25 x 98. What lens power should be ordered?**
 - A. -3.00**
 - B. -2.50**
 - C. -3.50**
 - D. -3.25**

- 4. What is the main advantage of using bifocal contact lenses?**
 - A. Cost-effectiveness**
 - B. Elimination of glasses**
 - C. Improved visual acuity**
 - D. Better comfort**

- 5. What is a disadvantage of using daily contacts?**
 - A. You have a fresh pair on contacts every day**
 - B. Yearly cost**
 - C. Reduced cleaning time**
 - D. Comfort**

6. How would you express the base curve of 39.50 diopters in millimeters?

- A. 8.54
- B. 6.52
- C. 7.50
- D. 7.18

7. Which gas permeable lens material was approved by the FDA in 1979?

- A. PMMA
- B. Variable acrylate
- C. Silicone acrylate
- D. Cellulose Acetate Butyrate

8. How many types of regular astigmatism are recognized?

- A. 5
- B. 10
- C. 3
- D. 2

9. What element is assessed using K Reading during a contact lens fitting?

- A. Corneal curvature
- B. Pupil size
- C. Eye pressure
- D. Lens thickness

10. What term describes a moderate to high refractive difference in powers?

- A. A. Myopia
- B. B. Aniridia
- C. C. Hyperopia
- D. D. Anisometropia

Answers

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

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Explanations

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1. Why might a patient mistakenly believe they have an allergy after wearing a silicone hydrogel lens?

- A. Due to rapid vision changes**
- B. Because of eye redness**
- C. Due to dryness-related discomfort**
- D. Because of increased tear production**

Silicone hydrogel lenses are designed to allow more oxygen to reach the cornea than traditional hydrogel lenses, enhancing comfort and wear times. However, some patients may experience dry eye symptoms when using these lenses due to a mismatch between the lens material's properties and the individual's tear film. Dryness-related discomfort can lead to sensations that mimic allergic reactions, such as itching or a scratchy feeling, which may cause the patient to conclude that they have developed an allergy to the lenses. This confusion can arise because the symptoms of dryness are often similar to those experienced during an allergic reaction. Understanding this aspect is crucial, as it enables practitioners to distinguish between discomfort caused by lens wear and true allergic responses. This recognition is important for providing appropriate advice and management strategies, ensuring that patients can enjoy the benefits of silicone hydrogel lenses without misunderstanding the nature of their symptoms.

2. High water content in contact lenses can lead to which of the following?

- A. Ametropia**
- B. Anoxia**
- C. Fluctuations in vision**
- D. Hypoxia**

High water content in contact lenses is primarily associated with the balance of oxygen transmission and moisture retention. Lenses with high water content tend to allow more oxygen to pass through to the cornea, which is beneficial. However, they can also lead to fluctuations in vision due to changes in the lens shape and stability when they absorb moisture from the environment or tear film. This can create variable optical properties, causing transient changes in the clarity or focus of vision. The correct choice reflects the reality that while higher hydration levels can provide certain benefits, they can also contribute to optical instability as hydration can affect the refractive index and surface characteristics of the lens. Fluctuations in vision associated with high water content lenses may also occur owing to dehydration during wear, which is particularly common in dry environments or extended wear scenarios. Other options like anoxia and hypoxia refer to the deficiency of oxygen, typically linked with low oxygen permeability and lens materials rather than high water content. Ametropia pertains to issues related to refractive errors and is not directly influenced by the water content of the lenses.

3. A patient diagnosed with a -2.50 rigid diagnostic lens has an over-refraction of -0.75 -0.25 x 98. What lens power should be ordered?

- A. -3.00**
- B. -2.50**
- C. -3.50**
- D. -3.25**

To determine the appropriate lens power to order for this patient, it is important to analyze both the prescription for the rigid diagnostic lens and the over-refraction results. The patient was initially fitted with a -2.50 rigid lens. The over-refraction indicates that when the patient was tested with that lens, they needed an additional correction of -0.75 for sphere power and -0.25 for cylinder power at an axis of 98 degrees. When calculating the new lens prescription, you begin with the original lens power of -2.50. Adding the sphere component from the over-refraction directly to this value: - Start with the original lens: -2.50 - Add the over-refraction sphere: $-2.50 + (-0.75) = -3.25$ At this point, we also consider the cylinder power from the over-refraction (-0.25), but since the lens powers are combined for the final prescription and don't alter the spherical equivalent, we focus on the spherical result. Therefore, the new lens prescription for the patient would be -3.25 for the spherical component. This calculation accurately reflects the total lens power that would be required for optimal vision correction based on the diagnostic fit and the

4. What is the main advantage of using bifocal contact lenses?

- A. Cost-effectiveness**
- B. Elimination of glasses**
- C. Improved visual acuity**
- D. Better comfort**

The primary advantage of using bifocal contact lenses is the elimination of glasses. Bifocal contact lenses provide a convenient solution for individuals who need corrective vision for both distance and near sight. Traditionally, individuals with presbyopia often faced the inconvenience of switching between reading glasses and distance correction lenses. Bifocal contact lenses are designed to accommodate both visual needs in a single lens, allowing for seamless transitions between seeing far away and reading up close without the need for additional eyewear. By using these contact lenses, patients experience greater freedom and flexibility, as they don't have to constantly put on or take off glasses. This aspect is particularly important for those who lead active lifestyles and prefer the aesthetic and functional advantages of contacts over glasses. The design of bifocal lenses specifically addresses the challenges of presbyopia while ensuring that wearers can maintain their activities without visual hindrance. Other considerations such as cost-effectiveness, improved visual acuity, and better comfort are important as well but do not encapsulate the defining benefit of bifocal contact lenses, which fundamentally lies in their ability to reduce or eliminate reliance on glasses.

5. What is a disadvantage of using daily contacts?

- A. You have a fresh pair on contacts every day
- B. Yearly cost**
- C. Reduced cleaning time
- D. Comfort

The choice regarding yearly cost as a disadvantage of using daily contacts is accurate because daily disposable lenses tend to be more expensive over time compared to reusable lenses. While daily contacts provide the benefit of convenience and comfort, as users put in a fresh pair each day and avoid cleaning solutions, this convenience comes with a higher overall cost. Each day requires a new lens, which can quickly add up, especially for individuals who wear contact lenses regularly. In contrast, the other options represent benefits of daily contacts rather than disadvantages. Having a fresh pair each day ensures optimal hygiene and comfort, eliminating the accumulation of debris and allergens that can affect vision and comfort. Reduced cleaning time is another significant advantage, as daily disposable lenses do not require cleaning or storage, simplifying the lens-wearing routine. Comfort is often enhanced with daily lenses as they are made with modern materials that promote moisture retention and reduced dehydration throughout the day. Therefore, while the initial cost of daily disposables may seem justifiable for hygiene and convenience, it leads to higher annual expenses when compared to other lens options.

6. How would you express the base curve of 39.50 diopters in millimeters?

- A. 8.54**
- B. 6.52
- C. 7.50
- D. 7.18

To convert the base curve of a contact lens from diopters to millimeters, one must use the formula that relates the curvature to the power of the lens. The base curve in millimeters (BC) can be calculated using the formula:
$$BC \text{ (mm)} = \frac{1000}{Power \text{ (D)}}$$
 In this case, the power is 39.50 diopters. Plugging in the value, the calculation becomes:
$$BC \text{ (mm)} = \frac{1000}{39.50} \approx 25.31 \text{ mm}$$
 However, the answer provided is related to the radius of curvature measured in millimeters, which involves a different understanding of how the base curve relates to the shape of the lens. To clarify, the base curve is typically expressed in terms of the radius of curvature of the lens surface, which is often considered when fitting lenses to the eye. Circumstances and configurations can convert diopter values into corresponding millimeter base curves, and meticulous understanding of these relationships is crucial. For the answer choice provided, if option A is 8.54, it is one of the closest values representative of practical base curves. This figure would represent a very steep lens curvature.

7. Which gas permeable lens material was approved by the FDA in 1979?

- A. PMMA**
- B. Variable acrylate**
- C. Silicone acrylate**
- D. Cellulose Acetate Butyrate**

The FDA approved silicone acrylate as a gas permeable lens material in 1979. This material was significant because it allowed for increased oxygen permeability compared to traditional materials, significantly improving corneal health and comfort for contact lens wearers. The incorporation of silicone into the acrylate polymer matrix enhanced oxygen transmission rates, which are crucial for maintaining corneal clarity and preventing hypoxia-related complications. Silicone acrylate lenses became the foundation for many modern gas permeable lenses, as they provided a better balance between rigidity for optical performance and flexibility for comfort. The advancement represented a pivotal shift in contact lens technology, paving the way for further innovations in lens materials and designs.

8. How many types of regular astigmatism are recognized?

- A. 5**
- B. 10**
- C. 3**
- D. 2**

The correct understanding of regular astigmatism recognizes two primary types, which are myopic astigmatism and hyperopic astigmatism. Regular astigmatism is characterized by the fact that the meridians of the eye that are affected have consistent curvature differences. This means that the principal meridians are perpendicular to each other. The two forms of regular astigmatism provide distinct visual challenges and require specific approaches for correction, typically through the prescription of cylindrical lenses that match the curvature and orientation of the cornea. While there are various classifications and types of astigmatism in total, the classification within regular astigmatism specifically identifies these two types based on the refractive error. Therefore, the recognition of two distinct types aligns with standard clinical understanding in optometry and vision science.

9. What element is assessed using K Reading during a contact lens fitting?

A. Corneal curvature

B. Pupil size

C. Eye pressure

D. Lens thickness

The assessment of corneal curvature using K Reading is vital during a contact lens fitting process. K Reading refers to the measurement of the corneal radius of curvature, which is typically obtained through keratometry. This measurement helps contact lens practitioners determine the appropriate lens curvature that will match the shape of the patient's cornea. Understanding the corneal curvature is essential for achieving optimal lens fit, comfort, and visual acuity. A well-fitted contact lens should conform to the natural curvature of the cornea, ensuring that it sits correctly on the eye without causing discomfort or adverse effects. In contrast, pupil size, eye pressure, and lens thickness, while important in their own right for overall eye health and contact lens selection, are not directly related to the curvature of the cornea. Pupil size influences how much light enters the eye, eye pressure is critical for diagnosing glaucoma and other ocular conditions, and lens thickness can impact the weight and handling properties of the lens but does not specifically relate to the corneal fit. Therefore, K Reading's focus on corneal curvature makes it a crucial element in the fitting process for contact lenses.

10. What term describes a moderate to high refractive difference in powers?

A. A. Myopia

B. B. Aniridia

C. C. Hyperopia

D. D. Anisometropia

The term that describes a moderate to high refractive difference in powers between the two eyes is anisometropia. This condition occurs when the two eyes have significantly different refractive errors, which can manifest as differences in nearsightedness (myopia), farsightedness (hyperopia), or astigmatism. Anisometropia can lead to problems such as depth perception issues, visual discomfort, or binocular vision difficulties, as the brain struggles to fuse differing images from each eye. Clinicians need to be aware of this condition when fitting contact lenses, as it can influence lens selection and the overall approach to vision correction. In contrast, myopia refers specifically to nearsightedness, hyperopia relates to farsightedness, and aniridia is a congenital condition involving the absence of the iris. While each of these terms describes a specific aspect of vision or eye anatomy, only anisometropia encompasses the concept of differing refractive powers between the two eyes.

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://contactlensregistry.examzify.com>

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

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