# Certified Ophthalmic Assistant Practice Exam (Sample)

## Study Guide


**Everything you need from our exam experts!**

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# Questions

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**1. What is Acanthamoeba as noted in the ophthalmic context?**

**A. A parasite found in soil and water causing severe keratitis**

**B. A type of eye surgery**

**C. An eye drop solution**

**D. A type of corneal implant**

**2. The color vision test that consists of a series of plates with a gray background and colored circles, crosses, and triangles is the**

**A. Hardy-Rand-Ritter**

**B. Ishihara**

**C. Schirmer**

**D. Titmus/Wirt**

**3. The state of pupillary contraction is known as**

**A. mydriasis**

**B. miosis**

**C. pupillary dilation**

**D. iris constriction**

**4. A disadvantage of chemical-based contact lens care systems is**

**A. Deposits of proteins**

**B. Irritation**

**C. Decreased permeability**

**D. Increased comfort**

**5. The an unaccommodated emmetropic eye focuses parallel light rays from a distance source**

**A. behind the retina**

**B. in front of the retina**

**C. on the cornea**

**D. on the retina**

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**6. Which instrument is best suited to evaluate the refractive state of the eye?**

- **A. Slit lamp**
- **B. Ophthalmoscope**
- **C. Phoropter**
- **D. Retinoscope**

**7. Why should impact-resistant glasses be worn in an industrial environment?**

- **A. To enhance vision clarity**
- **B. To comply with regulations**
- **C. To prevent ocular injury**
- **D. To reduce glare**

**8. What is the term for an area of complete or partial blindness in an otherwise normal visual field?**

- **A. Paracentral**
- **B. Retrobulbar**
- **C. Scotoma**
- **D. Staphyloma**

**9. What is the spherical equivalent of +2.00 +5.00 X 180?**

- **A. +3.50**
- **B. +4.50**
- **C. +5.50**
- **D. +6.50**

**10. The thickest layer of the cornea is called the**

- **A. stroma**
- **B. canthi**
- **C. aquous humor**
- **D. iris**

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# Answers

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

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# Explanations

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## 1. What is Acanthamoeba as noted in the ophthalmic context?

**A. A parasite found in soil and water causing severe keratitis**

**B. A type of eye surgery**

**C. An eye drop solution**

**D. A type of corneal implant**

**Acanthamoeba is a parasite found in soil and water that can cause severe keratitis in the ophthalmic context. It is important for ophthalmic professionals to be aware of this organism as it can lead to significant eye infections if proper precautions and treatment are not taken. The other options are not related to Acanthamoeba - B refers to a type of eye surgery, C refers to an eye drop solution, and D refers to a type of corneal implant, which are not associated with Acanthamoeba in ophthalmic practice.**

## 2. The color vision test that consists of a series of plates with a gray background and colored circles, crosses, and triangles is the

**A. Hardy-Rand-Ritter**

**B. Ishihara**

**C. Schirmer**

**D. Titmus/Wirt**

**The correct answer is Hardy-Rand-Ritter. This test is also known as the HRR test. It is used to assess color vision deficiency and consists of plates with a gray background and colored circles, crosses, and triangles. These plates are specifically designed to test for red-green color deficiencies. The Ishihara test is a different type of color vision test that uses plates with numbers or patterns made up of colored dots. Schirmer test is used to measure tear production, and the Titmus/Wirt test is used for binocular vision assessment.**

## 3. The state of pupillary contraction is known as

**A. mydriasis**

**B. miosis**

**C. pupillary dilation**

**D. iris constriction**

**The state of pupillary contraction is known as miosis. Miosis refers to the constriction or shrinking of the pupil size. This can occur in response to bright light, when the parasympathetic nervous system is activated. The other options are incorrect: A. Mydriasis refers to pupillary dilation or the enlargement of the pupil. C. Pupillary dilation is the widening of the pupil, the opposite of miosis. D. Iris constriction is not a specific term related to the size of the pupil, so it is not the correct answer in this context.**

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## 4. A disadvantage of chemical-based contact lens care systems is

**A. Deposits of proteins**

**B. Irritation**

**C. Decreased permeability**

**D. Increased comfort**

**Chemical-based contact lens care systems can sometimes lead to irritation because certain individuals may have sensitivities or reactions to the chemicals present in these solutions. This can cause discomfort, redness, or itching for the wearer. It is important to assess each patient's needs and consider alternative solutions if they experience irritation with a particular contact lens care system. The other options are not disadvantages commonly associated with chemical-based contact lens care systems.**

## 5. The an unaccommodated emmetropic eye focuses parallel light rays from a distance source

**A. behind the retina**

**B. in front of the retina**

**C. on the cornea**

**D. on the retina**

**An unaccommodated emmetropic eye is one that is normally shaped and has perfect refractive power. In this case, when parallel light rays from a distant source enter the eye, they are focused directly on the retina. This alignment occurs because the eye's optics—specifically the cornea and lens—are well calibrated for an eye with a normal shape and curvature, allowing it to accurately converge light from far away sources. As a result, the image is clearly perceived at the correct location, which is the retina, ensuring that vision is sharp and clear. In contrast, focusing light behind or in front of the retina indicates a refractive error, such as hyperopia or myopia, respectively, whereas focusing on the cornea would imply that the incoming light has not been effectively refracted to form an image. Thus, the function of an emmetropic eye is to ensure that light rays converge precisely on the retina for optimal vision.**

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## 6. Which instrument is best suited to evaluate the refractive state of the eye?

**A. Slit lamp**

**B. Ophthalmoscope**

**C. Phoropter**

**D. Retinoscope**

**The retinoscope is the instrument best suited for evaluating the refractive state of the eye because it measures how light is refracted as it passes through the eye. By projecting a beam of light into the eye, the retinoscope allows the examiner to observe the reflex and determine the refractive error. This is crucial for accurately diagnosing conditions such as myopia, hyperopia, and astigmatism. During the examination, the retinoscope helps the ophthalmic assistant or clinician assess how light reflects off the retina, which directly correlates to the eye's focus ability. This method is particularly useful when determining the appropriate prescription for corrective lenses. While the slit lamp is primarily used for examining the anterior segment of the eye, and the ophthalmoscope is used to view the interior structures such as the retina and optic nerve, neither of these instruments focuses specifically on measuring the refractive state. The phoropter, on the other hand, is utilized to refine and measure the refractive error after an initial evaluation, but the retinoscope is the initial tool that provides fundamental refractive assessment.**

## 7. Why should impact-resistant glasses be worn in an industrial environment?

**A. To enhance vision clarity**

**B. To comply with regulations**

**C. To prevent ocular injury**

**D. To reduce glare**

**Impact-resistant glasses should be worn in an industrial environment primarily to prevent ocular injury. In industrial settings, there is an increased risk of debris, chemicals, or objects that could potentially impact the eyes. Regular eyeglasses may not provide sufficient protection against such hazards, which is why impact-resistant glasses are recommended to help safeguard the eyes from injury. While wearing impact-resistant glasses may indirectly lead to enhanced vision clarity by preventing injuries that could compromise vision, the primary and most crucial reason for wearing such glasses in this environment is to protect against possible eye injuries. Compliance with regulations and reducing glare are also important issues but are not the primary reasons for choosing impact-resistant glasses in an industrial work environment.**

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## 8. What is the term for an area of complete or partial blindness in an otherwise normal visual field?

**A. Paracentral**

**B. Retrobulbar**

**C. Scotoma**

**D. Staphyloma**

**A scotoma is the correct term for an area of complete or partial blindness in an otherwise normal visual field. A paracentral describes a location near the center but not exactly at the center of the vision; retrobulbar refers to behind the globe of the eye; and staphyloma is an abnormal protrusion in the wall of the eye.**

## 9. What is the spherical equivalent of +2.00 +5.00 X 180?

**A. +3.50**

**B. +4.50**

**C. +5.50**

**D. +6.50**

**The spherical equivalent is calculated by combining the spherical power with half of the cylindrical power. In this case, the spherical power is +2.00, and the cylindrical power is +5.00 at axis 180 degrees. So, the calculation would be: +2.00 + (+5.00/2) = +2.00 + (+2.50) = +4.50 Therefore, the spherical equivalent for +2.00 +5.00 X 180 is +4.50, which corresponds to option B.**

## 10. The thickest layer of the cornea is called the

**A. stroma**

**B. canthi**

**C. aquous humor**

**D. iris**

**The thickest layer of the cornea is called the stroma. The cornea is made up of five layers: epithelium, Bowman's layer, stroma, Descemet's membrane, and endothelium. The stroma is the middle and thickest layer of the cornea, comprising about 90% of its thickness. It is primarily made up of collagen fibers arranged in a specific way to maintain transparency and strength in the cornea. The other options are incorrect because: - Canthi are the corners of the eye where the upper and lower eyelids meet; they are not a layer of the cornea. - Aqueous humor is the clear fluid filling the space in the front of the eye, behind the cornea and in front of the lens; it is not a layer of the cornea. - The iris is the colored part of the eye that controls the size of the pupil and the amount of light entering the eye; it is not a layer of the cornea.**

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