Certified Ophthalmic Assistant Practice Exam (Sample)

Study Guide

Everything you need from our exam experts!

Questions

1. What condition involves the eye not refracting light equally in all directions?

A. Myopia

B. Astigmatism

C. Hyperopia

D. Presbyopia

2. Which test uses a screen illuminated with filters that have red on one side and green on the other?

A. Pseudophakic test

B. Duochrome test

C. Color vision test

D. Contrast sensitivity test

3. What should be done after turning off the projector before replacing its lamp?

A. Wait a few minutes

B. Remove the lamp housing

C. Clean the projector surface

D. Test the lamp before replacement

4. The term used to refer to symptoms due to uncorrected refractive error is ...

A. Astigmatism

B. Amblyopia

C. Asthenopia

D. Diplopia

5. The calibration of an applanation tonometer should be checked at which settings?

A. 0, 2, 6

B. 1, 3, 5

C. 0, 4, 8

D. 2, 3, 4

6. Which test employs prisms to center the corneal reflex?

- **A. Hess**
- **B. Worth four dot**
- **C. Hirschberg**
- **D. Krimsky**

7. What measurement determines the distance between the optical centers of spectacle lenses?

- **A. Pupillary distance**
- **B. Optical distance**
- **C. Inter-pupillary distance**
- **D. Lateral distance**

8. What is the common use of addition in a bifocal prescription?

- **A. To correct distance vision**
- **B. To enhance near vision**
- **C. To reduce astigmatism**
- **D. To balance lens weight**

9. Which condition can be indicated by an inability to correctly identify letters on a vision chart?

- **A. Uncorrected refractive error**
- **B. Strabismus**
- **C. Astigmatism**
- **D. Amblyopia**

10. In retinoscopy, which reflex indicates that light is focusing behind the retina?

- **A. "Against" reflex**
- **B. "With" reflex**
- **C. Neutral reflex**
- **D. Contrary reflex**

Answers

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

Explanations

1. What condition involves the eye not refracting light equally in all directions?

A. Myopia

B. Astigmatism

C. Hyperopia

D. Presbyopia

Astigmatism is characterized by an irregular curvature of the cornea or the lens, which causes light rays to be refracted unequally in different directions. This results in distorted or blurred vision at various distances. In a normal eye, light is focused uniformly to create a clear image, but in astigmatism, some areas of the visual field may appear sharp while others may appear fuzzy, causing visual difficulties. Understanding this condition is crucial for effective identification and management of visual impairments. It differs from myopia, hyperopia, and presbyopia, which relate to overall focus at varying distances rather than the uneven refraction of light due to the shape of the cornea or lens. Recognizing astigmatism allows for targeted corrective measures, such as toric lenses that compensate for the uneven curvature.

2. Which test uses a screen illuminated with filters that have red on one side and green on the other?

A. Pseudophakic test

B. Duochrome test

C. Color vision test

D. Contrast sensitivity test

The Duochrome test is specifically designed to assess the patient's refractive error, particularly in distinguishing between myopia (nearsightedness) and hyperopia (farsightedness). This test employs a screen with red on one side and green on the other to help the patient determine which color appears clearer. The principle behind the Duochrome test is that a person with a refractive error will see one color more sharply than the other due to the chromatic aberration produced by the eye's lens. This characteristic of the Duochrome test makes it an effective tool in determining corrective lens needs, as it leverages the different focal lengths associated with the colors used. Thus, the use of contrasting colors on the screen is pivotal for evaluating visual acuity and refractive errors, validating its selection as the correct answer. Other options, such as the pseudophakic test, color vision test, and contrast sensitivity test, do not utilize this method of color comparison for assessing refractive error.

3. What should be done after turning off the projector before replacing its lamp?

A. Wait a few minutes

B. Remove the lamp housing

C. Clean the projector surface

D. Test the lamp before replacement

Waiting a few minutes after turning off the projector is crucial for safety and effectiveness. When a projector is in use, it generates significant heat, particularly in the lamp housing area. After powering down, the lamp and other internal components remain hot for a certain period. Allowing the projector to cool down reduces the risk of burns or injury when handling the lamp. Additionally, this time ensures that any residual electrical charge dissipates, making the replacement procedure safer. Handling the lamp immediately after turning off the projector, without allowing it to cool, could result in burns or damage to the projector or lamp. Therefore, it is standard practice in maintenance protocols to exercise patience and ensure that the device is safely cooled before attempting to replace any parts, such as the lamp.

4. The term used to refer to symptoms due to uncorrected refractive error is ...

A. Astigmatism

B. Amblyopia

C. Asthenopia

D. Diplopia

The term asthenopia is indeed the correct choice, as it refers specifically to the symptoms associated with visual strain due to uncorrected refractive errors. These symptoms can include eye fatigue, discomfort, and headaches that arise when the eyes struggle to focus properly, often as a result of vision problems like myopia (nearsightedness) or hyperopia (farsightedness). When refractive errors are untreated, the visual system may become overworked, leading to these symptoms of eye strain. Astigmatism is a type of refractive error itself rather than a term for symptoms caused by refractive issues. Amblyopia, also known as "lazy eye," is a vision development disorder that results in reduced vision in one eye and is not directly tied to uncorrected refractive error symptoms. Lastly, diplopia, or double vision, can be caused by various factors, including eye muscle issues or neurological conditions, but it is not exclusively related to uncorrected refractive errors. Therefore, asthenopia is the most appropriate term to describe the discomfort and symptoms that arise from uncorrected vision issues.

5. The calibration of an applanation tonometer should be checked at which settings?

A. 0, 2, 6

B. 1, 3, 5

C. 0, 4, 8

D. 2, 3, 4

The calibration of an applanation tonometer is crucial for ensuring accurate intraocular pressure measurements. Checking the calibration at the settings of 0, 2, and 6 mmHg helps verify the instrument's accuracy across a range of clinically relevant pressures. Starting with 0 mmHg establishes a baseline, ensuring that the tonometer reads zero when there is no pressure applied. The intermediate points, such as 2 mmHg and then at 6 mmHg, allow for checking the accuracy at lower and middle pressure values which are frequently encountered in practice, thus providing a comprehensive assessment of the tonometer's calibration throughout this range. By using these settings, practitioners can be more confident in the reliability of the measurements taken during patient assessments. Accurate calibration is essential in diagnosing and managing ocular conditions, especially in the context of glaucoma where precise intraocular pressure readings are vital.

6. Which test employs prisms to center the corneal reflex?

A. Hess

B. Worth four dot

C. Hirschberg

D. Krimsky

The Krimsky test is designed to assess strabismus by using prisms to align the corneal reflexes. In this test, prisms are placed in front of one eye to shift the position of the corneal reflection until both reflections are centered on the same point. This allows for a direct measurement of the angle of deviation, giving valuable information about the extent and type of misalignment present. The other options are indeed used in ophthalmology, but they serve different specific purposes. The Hess test evaluates the muscles of the eyes and how they function in relation to each other, specifically assessing the field of action of each eye's muscles but does not use prisms to center the reflex. The Worth four dot test is primarily meant for testing sensory fusion and binocular vision, not for centering the corneal reflex. The Hirschberg test also assesses strabismus by observing the corneal light reflex, but it does not employ prisms as a direct means to align the reflex, rather it measures the position of the light source in relation to the corneal reflex. Thus, the correct answer is the Krimsky test, which specifically employs prisms to achieve this precise alignment of the corneal reflections.

7. What measurement determines the distance between the optical centers of spectacle lenses?

A. Pupillary distance

B. Optical distance

C. Inter-pupillary distance

D. Lateral distance

The measurement that determines the distance between the optical centers of spectacle lenses is known as the pupillary distance, often abbreviated as PD. This measurement is crucial for ensuring that the optical centers of the lenses are aligned with the patient's pupils, optimizing visual acuity and comfort. When the lens optics are properly centered over the eyes, it minimizes any potential distortion and ensures that the wearer has the best possible vision through the lenses. Pupillary distance is typically measured in millimeters and is used in the fitting of eyeglasses. The accuracy of this measurement is essential, particularly for those with stronger prescriptions, as misalignment can lead to visual discomfort or blurred vision. It is important for dispensing opticians and ophthalmic assistants to understand and measure this distance correctly. Other terms like optical distance, inter-pupillary distance, and lateral distance may be used informally or in different contexts, but pupillary distance is the specific and correct measurement used to describe the distance between the optical centers of spectacle lenses.

8. What is the common use of addition in a bifocal prescription?

A. To correct distance vision

B. To enhance near vision

C. To reduce astigmatism

D. To balance lens weight

The common use of addition in a bifocal prescription is to enhance near vision. Bifocal lenses are designed to accommodate two different visual needs—distance and near vision. The addition refers specifically to the power that is added to the lower part of the lens, allowing individuals to clearly see objects up close, such as when reading or performing close-up tasks. While distance vision correction is important in bifocal prescriptions, it is not the purpose of the addition. The addition is specifically intended for helping with close-up visibility, which is why enhancing near vision is the central function of this aspect of the lens design. Similarly, astigmatism is typically corrected with cylindrical lenses, and balancing lens weight does not pertain to the optical function of bifocals but rather to the physical attributes of the lenses. Hence, the focus of the addition is directly associated with improving near vision.

9. Which condition can be indicated by an inability to correctly identify letters on a vision chart?

A. Uncorrected refractive error

B. Strabismus

C. Astigmatism

D. Amblyopia

The inability to correctly identify letters on a vision chart is primarily associated with uncorrected refractive error. Refractive errors, such as myopia (nearsightedness) or hyperopia (farsightedness), occur when the shape of the eye prevents light from focusing directly on the retina, resulting in blurred vision. When individuals with uncorrected refractive errors attempt to read an eye chart, they often struggle to make out the letters clearly due to this focus problem. While conditions like strabismus, astigmatism, and amblyopia can also affect visual acuity, they do so in different ways and are not solely indicated by the difficulty of identifying letters on a vision chart. Strabismus involves misalignment of the eyes, leading to double vision or inhibition of depth perception rather than direct issues with clarity on a chart. Astigmatism, a specific type of refractive error, can certainly lead to problems reading the chart, but it is a distinct condition, often categorized under refractive errors in a broader sense. Amblyopia, or "lazy eye," may lead to poor vision in one eye that is not correctable with glasses or contact lenses, and while it may affect letter recognition on the chart,

10. In retinoscopy, which reflex indicates that light is focusing behind the retina?

A. "Against" reflex

B. "With" reflex

C. Neutral reflex

D. Contrary reflex

In retinoscopy, the reflex that indicates light is focusing behind the retina is the "against" reflex. When performing retinoscopy, the examiner observes the movement of the light reflex in the pupil as various lenses are introduced. If the light reflex moves in the opposite direction of the movement of the retinoscope, it indicates that the light is being focused behind the retina, which is characteristic of hyperopia (farsightedness). In this case, additional plus (convex) lenses would be required to bring the focus forward onto the retina. Understanding this is crucial for determining the appropriate corrective lenses for a patient, as it directly correlates with the way light focuses within the eye. The other terms relate to different scenarios in retinoscopy, such as when light focuses on the retina or in front of it, which informs the practitioner about the patient's refractive error.