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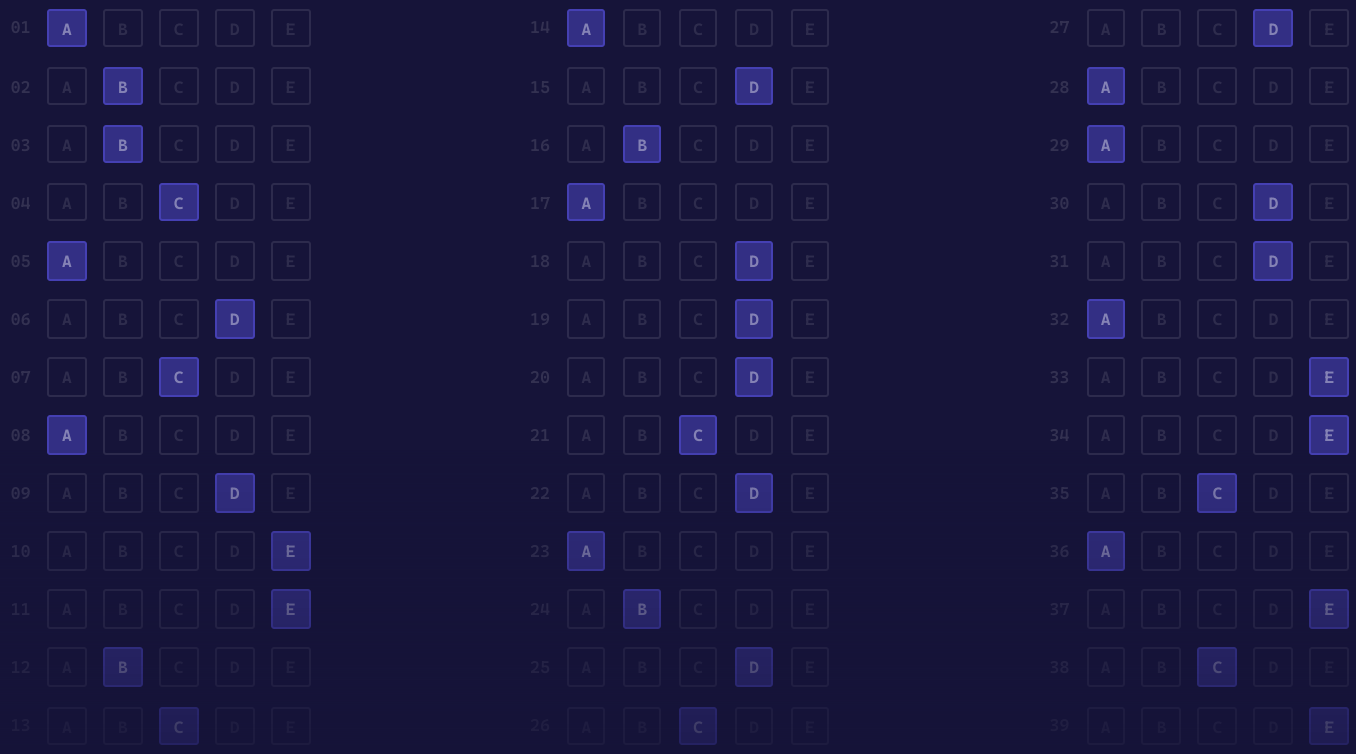

PRACTICE QUESTIONS

American Board of Opticianry And National Contact Lens Examiners (ABO NCLE) (ABOB)

ABOAC

National Opticianry Competency Exam Advanced - NOCE Advanced

EDITION	QUESTIONS	FORMAT
Demo	9	Limited Edition PDF

Before you begin

What this is

9 practice questions for American Board of Opticianry And National Contact Lens Examiners (ABO NCLE) (ABOB) `ABOAC`, each with its answer key and an explanation. Answer a question before you read its key — the explanation is worth more once you have committed.

If something looks wrong

Send us three things and we will check it:

- the exam code, `ABOAC`
- the question number
- the email address on your order

Write to **support@mometrix.net**. We reply within one business day.

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QUESTION 1 SINGLE CHOICE

While neutralizing a pair of spectacles with a lensometer, the optician finds that the add power differs between the two eyes (OD: +2.25 D; OS: +1.50 D). Which finding is most consistent with this prescription?

A **Anisometropic presbyopia correction**

B Bifocal decentration error

C Vertical imbalance of the segment

D Incorrect base curve measurement

ANSWER **A**

WHY Unequal add powers between the eyes is a normal clinical finding when the patient's near demands or reading add differs between the eyes, often related to anisometropia or differing near vision needs. Bifocal decentration, vertical imbalance, or base curve issues would not change the measured add power between lenses.

QUESTION 2 SINGLE CHOICE

According to ANSI Z80.1 standards for spectacle lenses, which measurement on a finished pair of glasses must be verified and documented by the optician before dispensing?

A Vertex distance of the spectacles

B Pantoscopic tilt angle of the frame

C **Lens base curve using a Geneva lens measure**

D Frame eye size in millimeters

ANSWER **C**

WHY ANSI Z80.1 establishes tolerances for finished spectacle lenses, and verification of the lens base curve with a Geneva lens measure (lens clock) is a documented fabrication check. Vertex distance and pantoscopic tilt are fitting parameters, not Z80.1 fabrication tolerances, and frame eye size is a frame specification.

QUESTION 3 SINGLE CHOICE

A patient wearing a new progressive addition lens (PAL) reports clear central vision but notices that objects in the mid-range appear to 'swim' when they turn their head quickly. Which PAL design characteristic most likely needs adjustment?

A Increase the patient's vertex distance

B Reduce the corridor length to provide a wider intermediate zone

C Lengthen the corridor to provide a wider reading zone

D Switch to a single-vision occupational lens

ANSWER B

WHY A shorter corridor in a PAL design produces a wider intermediate zone at the expense of a shorter reading area. Patients sensitive to peripheral distortion during head movement often benefit from a wider intermediate region. Lengthening the corridor narrows the intermediate zone and is not the appropriate adjustment for this complaint.

QUESTION 4 SINGLE CHOICE

When dispensing a high-minus spectacle lens (e.g., -10.00 D) close to the eye, the optician must consider that moving the lens closer to the eye causes the effective power to:

A Increase in minus power

B Decrease in minus power

C Remain unchanged regardless of vertex distance

D Convert to a plus equivalent

ANSWER A

WHY For minus lenses, decreasing the vertex distance (moving the lens closer to the eye) increases the effective minus power reaching the retina. The opposite is true for plus lenses. This is the basis for vertex distance compensation formulas used with high-powered lenses.

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QUESTION 5 SINGLE CHOICE

A prescription reads OD: -3.00 -1.00 x 90 with 3Δ BI, OS: -3.00 -1.00 x 90 with 3Δ BI. The optician notes that the total horizontal prism is 6Δ BI base-in. Which dispensing consideration is most important?

A The patient must be fit with frame PD matching the geometric center distance exactly

B The patient must be refit because binocular prisms are contraindicated

C The lenses should be decentered equally so that the optical centers match the patient's pupils to avoid unwanted vertical imbalance

D A slab-off prism must be ground onto the left lens to equalize vertical imbalance

ANSWER C

WHY When yoked or equal horizontal prism is prescribed, the optician must still position the optical centers at the patient's pupils to avoid introducing unwanted vertical or torsional imbalance. Slab-off is used for unequal vertical imbalance in anisometropic prescriptions, not for equal bilateral horizontal prism.

QUESTION 6 SINGLE CHOICE

When adjusting a frame for a patient with a high-plus prescription, the optician increases pantoscopic tilt. What is the optical effect of increasing pantoscopic tilt for a plus lens?

A Introduces base-down prism effect in primary gaze

B Introduces base-up prism effect in primary gaze

C Eliminates the need for a slab-off

D Reduces induced cylinder in the horizontal meridian

ANSWER A

WHY When the pantoscopic tilt of a frame is increased, the optical center of a plus lens sits below the pupil, causing the patient to look through the upper portion of the lens. Looking down through a plus lens below its optical center produces base-down prism in primary gaze, which can affect reading posture.

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QUESTION 7 SINGLE CHOICE

An optician is neutralizing a finished lens and obtains mires that show three lines clearly focused but the other lines blurred, with the axis wheel set at 90 degrees. The prescription being verified is: -2.00 -1.50 x 90. What finding does this represent?

A **The cylinder power is correctly -1.50 D**

B The axis is rotated 90 degrees from the correct cylinder axis

C The sphere power is incorrect

D The prescription contains no cylinder power

ANSWER **A**

WHY Three focused lines indicate the presence of cylinder power. With the axis wheel at 90 and the focused meridian corresponding to the axis, the cylinder power measured at 90 degrees of -1.50 D is consistent with a prescription of -2.00 -1.50 x 90. The other two lines will appear blurred until the axis is properly aligned.

QUESTION 8 SINGLE CHOICE

Under ANSI Z80.1 tolerances for finished spectacle lenses, which parameter has the tightest tolerance for a standard Rx lens?

A Sphere power tolerance

B **Cylinder axis tolerance**

C Cylinder power tolerance

D Prism imbalance tolerance

ANSWER **B**

WHY ANSI Z80.1 specifies that cylinder axis has the tightest tolerance of the listed parameters because small axis errors are visually more noticeable than comparable power errors. Axis tolerance becomes even tighter as cylinder power increases.

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QUESTION 9 MULTIPLE CHOICE

A patient adapting to new progressive addition lenses reports 'swimming' sensations and peripheral blur when walking. Which fitting and design adjustments may reduce these complaints? (Choose two.)

A **Select a PAL design with a wider peripheral zone and shorter corridor**

B Reduce pantoscopic tilt to better align the fitting cross with the pupil

C Increase the vertex distance to provide a wider field of view

D **Verify and adjust the frame to match the patient's actual pantoscopic tilt and vertex distance**

E Steepen the base curve to reduce oblique aberrations

ANSWER **A · D**

WHY A PAL design with a wider peripheral zone and shorter corridor can reduce swimming sensations in mobile patients, and verifying that frame pantoscopic tilt and vertex distance match the design assumptions is essential. Reducing pantoscopic tilt would misalign the fitting cross; increasing vertex distance generally narrows the field of view; and base curve selection is not the primary fix for swimming complaints.

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