

ASSIGNMENT 4

Material Covered:
***Units 2.4, 2.5 and 2.6 of Module 2
of the IACLE Contact Lens Course***

ASSIGNMENT 4

Read the questions carefully and record your answers on the answer sheet provided.

- 1. Each of the following instruments can be used to measure the overall diameter of a rigid gas permeable (RGP) lens, EXCEPT:**
 - a. V-gauge
 - b. Radiuscope
 - c. Moiré fringe deflectometer
 - d. Magnification loupe

- 2. In altering the fit of a soft contact lens on the eye, which of the following statements is NOT true?**
 - a. Increasing the total lens diameter will decrease the sagittal height
 - b. Reducing the back optic zone radius (BOZR) will tighten the lens fit
 - c. Reducing the total lens diameter will loosen the lens fit
 - d. Increasing the BOZR of the lens will decrease the sagittal height

- 3. When designing an RGP lens, how much flatter than the BOZR is the back peripheral radius typically made?**
 - a. 1.6 mm
 - b. 2.5 mm
 - c. 3.8 mm
 - d. 6.0 mm

- 4. Which of the following types of soft contact lenses would MOST likely result in pervaporation staining of the cornea?**
 - a. Thick, low water content lenses
 - b. Thick, high water content lenses
 - c. Thin, medium water content lenses
 - d. Thin, high water content lenses

- 5. In evaluating the fluorescein pattern of an alignment fitting RGP lens, approximately how wide should the edge clearance ideally be?**
 - a. 0.05 mm
 - b. 0.25 mm
 - c. 0.50 mm
 - d. 1.00 mm

- 6. What is the MOST important reason for wanting an RGP contact lens material to show good wettability?**
 - a. Adequate oxygen permeability
 - b. Good optical regularity
 - c. Dimensional stability
 - d. Adequate lens centration

7. **Which of the following parameter changes would shift the centre of gravity of a contact lens more posteriorly?**
- Reducing in overall lens diameter
 - Increasing the BOZR
 - Decreasing the lens thickness
 - Adding more minus power
8. **What is the desired amount of axial edge lift of an alignment fitting RGP lens with a peripheral curve width of 0.30 – 0.50 mm?**
- 0.05 mm
 - 0.10 mm
 - 0.50 mm
 - 1.00 mm
9. **Which of the following RGP lens parameters is NOT affected when altering the overall diameter of a contact lens?**
- Back optic zone radius (BOZR)
 - Axial edge lift
 - Peripheral curve width
 - Centre of gravity
10. **According to Holden and Mertz (1984), what should the average thickness of a 38% water daily wear contact lens theoretically be, in order to eliminate daytime oedema?**
- 0.009 mm
 - 0.023 mm
 - 0.033 mm
 - 0.046 mm
11. **According to La Hood (1988), which of the following RGP lens edge shapes would result in the MOST comfortable lens?**
- Square profile both anterior and posterior
 - Round profile both anterior and posterior
 - Square profile anterior, round profile posterior
 - Round profile anterior, square profile posterior
12. **All of the following are true of aspheric RGP lenses as compared to spherical RGPs, EXCEPT:**
- Better corneal alignment is achieved
 - More difficult to manufacture
 - Provide better vision
 - More difficult to verify
13. **Which of the following factors would likely have the LEAST effect on the flexure of an RGP lens on the eye?**
- Permeability of the lens material
 - Lens thickness
 - Corneal toricity
 - Young's modulus of the lens material

- 14. In which of the following lens wear modalities is lens adherence MOST likely to occur?**
- Soft lens extended wear
 - RGP lens extended wear
 - Soft lens daily wear
 - RGP lens daily wear
- 15. Which statement regarding the Korb “lid attachment” philosophy of RGP lens fitting is NOT true?**
- A modified front surface edge design provides a broader contact band with the upper eyelid
 - Typically a smaller overall diameter is used (range of 8.60 mm – 9.40 mm)
 - A thinner lens design is used to decrease lens mass
 - The lens is fitted steeper than usual
- 16. What is the accepted tolerance in the verification of the back optic zone diameter of a tricurve RGP lens with a medium blend between transition zones?**
- 0.10 mm
 - 0.20 mm
 - 0.30 mm
 - 0.40 mm
- 17. Which of the following should ideally be done prior to RGP lens verification?**
- Lens hydration in distilled water for 4 – 6 hours
 - Polishing of the lens front surface
 - Dry storage of the lens for 8 hours
 - Lens hydration in a soaking solution for 12 – 24 hours
- 18. What is the MOST important reason for wanting a soft contact lens to show adequate movement on the eye?**
- To increase the comfort of the lens on the eye
 - To improve oxygen transmission through the contact lens
 - To remove metabolic waste and debris from under the lens
 - To ensure adequate tear mixing with each blink
- 19. An RGP lens has a mid-peripheral zone that is flatter than the cornea, and it shows excessive edge lift on the eye. Which of the following is MOST likely to occur?**
- Corneal indentation
 - Reduced lens movement
 - Minimal tear exchange with the blink
 - Poor centration
- 20. Which of the following modifications to an RGP lens could NOT be made on an existing lens, and would require a new lens to be ordered?**
- Reducing of the overall lens diameter
 - Flattening of the peripheral curves
 - Steepening the back optic zone radius (BOZR)
 - Adding –0.50 DS to the lens power