

ASSIGNMENT 14

Material Covered:
***Parts of Units 7.3 and 7.4 (p234 – 380) of Module 7
of the IACLE Contact Lens Course***

ASSIGNMENT 14

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

1. **Which statement regarding the aqueous phase of human tears is NOT true?**
 - a. Approximately 0.1 μm thick
 - b. Consists mainly of water (about 98%)
 - c. Derived from the lacrimal gland, as well as the glands of Krause and Wolfring
 - d. A vehicle for oxygen transfer to the cornea

2. **What percentage of rigid gas permeable (RGP) lens wearers are reported to experience at least occasional lens adherence with extended wear?**
 - a. 34%
 - b. 48%
 - c. 84%
 - d. 95%

3. **According to Fonn et al. (1996), the average palpebral aperture size of rigid lens wearers is 9.76 mm, while that of non-wearers is:**
 - a. 9.48 mm
 - b. 9.66 mm
 - c. 10.10 mm
 - d. 10.24 mm

4. **Which statement regarding the normal human tear film is NOT true?**
 - a. Produced at an average rate of 0.5 to 1.78 $\mu\text{L}/\text{min}$
 - b. pH of 7.5 to 8.83
 - c. Total thickness of 3 to 12 μm
 - d. Refractive index of 1.3357 to 1.3370

5. **All of the following result in reduced tear mucin secretion, EXCEPT:**
 - a. Riley-Day syndrome
 - b. Xerophthalmia
 - c. Keratoconjunctivitis sicca
 - d. Dystichiasis

6. **Which statement regarding spectacle blur in rigid lens wearers is NOT true?**
 - a. Vision with contact lenses is relatively good prior to lens removal
 - b. Blurred vision is experienced with spectacles worn after lens removal
 - c. May be due a change in corneal shape
 - d. Severity is reduced if contact lenses are worn for many years

7. **All of the following contribute to the lipid layer of the tear film, EXCEPT:**
 - a. Glands of Zeis
 - b. Meibomian glands
 - c. Glands of Krause
 - d. Glands of Moll

8. **Which one of the following factors is LEAST likely to cause or contribute to RGP lens warpage?**
 - a. Inadequate lens thickness
 - b. Lens cleaning in the palm of the hand
 - c. Dry lens storage
 - d. Using a lens case with a flat bottom

9. **What is the total volume of the human tear film considered to be?**
 - a. 3.2 to 4.4 μL
 - b. 4.5 to 6.3 μL
 - c. 6.5 to 8.5 μL
 - d. 8.8 to 12.5 μL

10. **All of the following would typically improve RGP lens comfort, EXCEPT:**
 - a. Minimizing front surface junction angles
 - b. Reducing the total lens diameter
 - c. Minimizing the axial edge lift
 - d. Rounding the anterior lens edge

11. **Which one of the following conditions is the MOST common aetiology of dry eye syndrome?**
 - a. Aqueous deficiency
 - b. Mucin deficiency
 - c. Lipid abnormalities
 - d. Lid surfacing abnormalities

12. **Which one of the following is NOT typical of RGP lens adherence?**
 - a. Conjunctival redness
 - b. Most common in nasal quadrant
 - c. Corneal indentation caused by adherent lens edge
 - d. Adherent front surface debris

13. **The mucous layer of the tears is derived from all of the following, EXCEPT:**
 - a. Goblet cells of the conjunctiva
 - b. Crypts of Henle
 - c. Glands of Zeis
 - d. Glands of Manz

14. ***In rigid lens corneal warpage, approximately what percentage of the measurable refractive error change can be attributed to corneal curvature changes?***
- 50%
 - 60%
 - 75%
 - 90%
15. ***Which one of the following signs is NOT consistent with the condition of dry eye?***
- Debris in the tear menisci
 - Increased maximum blink interval
 - Reduced tear meniscus
 - Rose Bengal staining of damaged epithelia
16. ***All of the following are appropriate in the management of RGP lens adherence, EXCEPT:***
- Fit larger lenses with slight apical clearance
 - Revert to daily wear if persistent lens binding
 - Use ocular lubricants before sleep and upon awakening
 - Educate patients regarding self-assessment and lens mobilization upon awakening
17. ***Which one of the following is NOT a normal effect of aging on the tears?***
- Decreased lacrimal gland secretion
 - Increased tear viscosity
 - Decreased tear osmolality
 - Reduced Meibomian gland function
18. ***Which statement regarding Sjögren's Syndrome is NOT true?***
- A chronic autoimmune disorder
 - Leukocyte infiltration of the lacrimal and salivary glands
 - Often associated with rheumatoid arthritis
 - Reflex tearing is unaffected
19. ***What is the average temperature range of the normal human cornea?***
- 34.2 to 34.8°C
 - 34.9 to 35.3°C
 - 35.4 to 36.3°C
 - 36.4 to 36.9°C
20. ***Which one of the following statements regarding corneal warpage in rigid lens wearers is NOT true?***
- Subjective refraction is variable with no clear end point
 - Vision typically returns to normal upon lens removal
 - Keratometry mires are distorted
 - The chief underlying cause is poor corneal physiology