

## 作业 11

内容涉及

**IACLE 接触镜教材第六册 6.1 – 6.5 单元:**

## 作业 11

仔细阅读题目，将答案写在答题纸上

1. ***The eye as a whole receives most of its oxygen supply from:***
  - a. The bulbar conjunctival vessels
  - b. The limbal vasculature
  - c. The ophthalmic artery
  - d. The atmosphere
  
1. 眼部获得氧气的主要来源是：
  - a. 球结膜血管
  - b. 角巩膜缘血管
  - c. 眼动脉
  - d. 空气
  
2. ***Which one of the following does the conjunctiva demonstrate during an episode of Contact Lens-induced Papillary Conjunctivitis (CLPC)?***
  - a. An increase in the number of granulocytes
  - b. A decrease in the number of mast cells
  - c. An increase in the number of PolyMorphoNuclear leukocytes (PMNs)
  - d. A decrease in the number of eosinophils
  
2. 在接触镜所致的巨乳头性结膜炎(CLPC)中，结膜可出现下述何种表现：
  - a. 粒细胞数量增加
  - b. 乳头状细胞数量减少
  - c. 多形核白细胞数量增加
  - d. 嗜酸细胞数量减少
  
3. ***With each blink, the tear exchange capability of the 'tear pump' under a soft contact lens is approximately:***
  - a. 0.55%
  - b. 1%
  - c. 11%
  - d. 20 %

3. 配戴软镜时，在瞬目时通过“泪液泵”的功能交换的泪液大约为：
- 0.55%
  - 1%
  - 11%
  - 20%
4. **Which one of the following techniques is NOT a means of estimating corneal oxygen demand?**
- Clark-type polarographic oxygen sensor
  - Rate of epithelial cell mitosis
  - Confocal microscopy
  - Aesthesiometry
4. 下述哪种技术不是用来估算角膜氧供需的？
- Clark-type 极谱氧感受仪
  - 上皮细胞分裂的速率
  - 共焦显微镜
  - 触觉测量法
5. **According to Harvitt and Bonanno (1999), to prevent anoxia across the entire cornea, the following contact lens transmissibilities are required in the open and closed eye conditions respectively:**
- $9.9 \times 10^{-9}$  and  $17.9 \times 10^{-9}$
  - $23 \times 10^{-9}$  and  $89 \times 10^{-9}$
  - $24.1 \times 10^{-9}$  and  $87.0 \times 10^{-9}$
  - $35 \times 10^{-9}$  and  $125 \times 10^{-9}$
5. 根据 **Harvitt and Bonanno (1999)**的研究结果，要避免角膜的缺氧，在睁眼和闭眼的情况下，接触镜的氧传导性必须达到下述哪点：
- $9.9 \times 10^{-9}$  和  $17.9 \times 10^{-9}$
  - $23 \times 10^{-9}$  和  $89 \times 10^{-9}$
  - $24.1 \times 10^{-9}$  和  $87.0 \times 10^{-9}$
  - $35 \times 10^{-9}$  和  $125 \times 10^{-9}$
6. **Estimates of human corneal oxygen consumption vary between:**
- 1.6 and  $4.9 \mu\text{L per cm}^2$  per hour
  - 1.6 and  $10.9 \mu\text{L per cm}^2$  per hour
  - 2 and  $16 \mu\text{L per cm}^2$  per hour
  - 4.9 and  $10.9 \mu\text{L per cm}^2$  per hour

6. 估算的人角膜的氧耗变化范围为：
- 1.6 ~ 4.9  $\mu\text{L} / \text{cm}^2 \cdot \text{hour}$
  - 1.6 ~ 10.9  $\mu\text{L} / \text{cm}^2 \cdot \text{hour}$
  - 2 ~ 16  $\mu\text{L} / \text{cm}^2 \cdot \text{hour}$
  - 4.9 ~ 10.9  $\mu\text{L} / \text{cm}^2 \cdot \text{hour}$
7. **Regardless of water content, the overnight corneal swelling resulting from the wearing of a conventional hydrogel contact lens during sleep is most likely to be:**
- 0.5 to 3%
  - 3 to 5%
  - 4 to 7.5%
  - 8 to 12%
7. 不考虑含水量，戴传统型软镜睡眠后角膜的水肿可能为：
- 0.5 至 3%
  - 3 至 5%
  - 4 至 7.5%
  - 8 至 12%
8. **Contact Lens-induced Acute Red Eye (CLARE) is usually associated with:**
- Significant bacterial colonization of the cornea and conjunctiva
  - High numbers of Gram-positive bacteria on the lens
  - High numbers of Gram-negative bacteria on the lens
  - Fungal colonization of the contact lens
8. 接触镜导致的急性红眼(CLARE)通常与下述哪点有关：
- 角膜、结膜的细菌菌落
  - 镜片表面高数量的 Gram 阳性菌
  - 镜片表面高数量的 Gram 阴性菌
  - 镜片表面的霉菌
9. **Which statement regarding Chlamydiae is CORRECT?**
- Has an outer membrane similar to Gram-positive bacteria
  - Can synthesize its own DNA, RNA, and protein
  - Can synthesize ATP
  - Is a relatively large micro-organism
9. 下述哪点关于衣原体的描述是正确的？
- 外膜与 Gram 阳性菌相似
  - 能合成自己的 DNA, RNA 和蛋白质
  - 能合成 ATP
  - 是相当大的微生物

**10. Protozoans are typically classified by reference to their:**

- a. Means of movement (motility)
- b. Preferred habitat
- c. Ability to encyst under adverse conditions
- d. Potential to cause disease

10. 原虫根据下述哪种特性可分类：

- a. 活动方式
- b. 习性
- c. 在不利条件下形成包囊的能力
- d. 致病性

**11. Which statement is NOT correct?**

- a. Fungal cells have a nuclear membrane
- b. Bacteria have membrane-bound organelles
- c. Viruses are acellular, non-living biological entities
- d. Bacterial cells do not have a nuclear membrane

11. 下述哪个陈述是不正确的？

- a. 霉菌有核膜
- b. 细菌有膜样细胞器
- c. 病毒是非细胞结构、非活性的生物体
- d. 细菌没有核膜

**12. Contact lens-related Microbial Keratitis (MK) is most commonly associated with which organism?**

- a. *Fusarium solani*
- b. *Staphylococcus aureus*
- c. *Candida albicans*
- d. *Pseudomonas aeruginosa*

12. 接触镜导致的微生物性角膜炎与下述哪种微生物关系最密切：

- a. 镰刀菌
- b. 葡萄球菌
- c. 白色念珠菌
- d. 绿脓杆菌

**13. Which one of the following is NOT a major tear protein?**

- a. Lysozyme
- b. Lipocalin
- c. Albumin
- d. Lactoferrin

13. 下述哪种不是主要的泪液蛋白？

- a. 溶菌酶
- b. 胰脂酶
- c. 白蛋白
- d. 乳铁蛋白

**14. Which one of the following is a real effect of contact lens wear?**

- a. Lactoferrin concentrations increase
- b. Mucin concentrations decrease
- c. Lysozyme concentrations remain substantially unaltered
- d. Cytokine levels rise with continued wear

14. 下述哪点是接触镜配戴所导致的结果：

- a. 乳铁蛋白含量增加
- b. 黏液蛋白含量下降
- c. 溶菌酶含量保持不变
- d. 随镜片长戴细胞分裂水平上升

**15. Contact Lens-induced Peripheral Ulcers (CLPUs) are often associated with:**

- a. Gram-positive bacteria, especially *Staphylococcus aureus*
- b. Central corneal infiltrates
- c. Gram-negative bacteria, especially *Pseudomonas aeruginosa*
- d. Fungal contamination of the lens storage case

15. 接触镜导致的边缘性角膜溃疡通常与下述哪点有关：

- a. Gram 阳性菌，尤其是葡萄球菌
- b. 中央角膜浸润
- c. Gram 阴性菌，尤其是绿脓杆菌
- d. 镜片储存盒的霉菌污染

**16. The minimum oxygen requirement to prevent the suppression of mitosis in the corneal epithelium is:**

- a. 5%
- b. 9%
- c. 16%
- d. 21%

16. 防止角膜上皮有丝分裂抑制的最低氧供为？

- a. 5%
- b. 9%
- c. 16%
- d. 21%

17. **During open eye conditions, oxygen tension is highest at the...**

- a. Palpebral conjunctiva
- b. Corneal endothelium
- c. Canal of Schlemm
- d. Corneal epithelium

17. 在睁眼情况下，氧分压最高的区域是：

- a. 睑结膜
- b. 角膜内皮
- c. Schlemm 管
- d. 角膜上皮

18. **What temperature is typically used by manufacturers and researchers when calculating the oxygen permeability (Dk) of a contact lens material?**

- a. 18° C
- b. 21° C
- c. 34° C
- d. 37° C

18. 在何种温度下，制造者和研究者测试接触镜材料的透氧性能：

- a. 18° C
- b. 21° C
- c. 34° C
- d. 37° C

19. **Which statement regarding the oxygen permeability of a contact lens material is INCORRECT?**

- a. Independent of lens thickness
- b. Based on the diffusion (D) and solubility (k) coefficients of the material
- c. Temperature dependent
- d. Can be measured through the coulometric technique

19. 下述哪点有关接触镜材料透氧率的描述是不正确的？

- a. 与镜片的厚度无关
- b. 根据材料的弥散系数(D)和溶解系数 (k) 而定
- c. 与温度有关
- d. 可通过 coulometric 技术测定

20. **What is the oxygen transmissibility of a contact lens which has the following properties?**

**$Dk = 34 \times 10^{-11} \text{ (cm}^2\text{/sec)(mIO}_2\text{/ml x mm Hg)}$ ; Lens thickness = 0.12 mm**

- a.  $28 \times 10^{-9}$
- b.  $40 \times 10^{-9}$
- c.  $28 \times 10^{-11}$
- d.  $40 \times 10^{-11}$

20. 镜片  $Dk = 34 \times 10^{-11} \text{ (cm}^2/\text{sec)(mlO}_2\text{/ml x mm Hg)}$ ; 镜片厚度 = 0.12 mm , 则镜片的氧传导率为 :

- a.  $28 \times 10^{-9}$
- b.  $40 \times 10^{-9}$
- c.  $28 \times 10^{-11}$
- d.  $40 \times 10^{-11}$