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BRAINWARE UNIVERSITY

Term End Examination 2025-2026

Programme – B.Optomety-2021/B.Optomety-2022/B.Optomety-2023

Course Name – Contact Lens - II

Course Code - BOPTOC601

(Semester VI)

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) Which of these solutions is most commonly used to clean and store contact lenses?
 - a) Tap water
 - b) Saline solution
 - c) Hydrogen peroxide-based solution
 - d) Alcohol-based solution
- (ii) Select the correct primary ion involved in the process of endothelial pump mechanism
 - a) Sodium (Na⁺)
 - b) Potassium(K⁺)
 - c) Calcium(2⁺)
 - d) Chloride(Cl⁻)
- (iii) Choose the flattest base curve measured among the following
 - a) 8.2 mm
 - b) 9.0 mm
 - c) 8.6 mm
 - d) 8.8 mm
- (iv) For a contact lens fitting, a steeper base curve indicates-
 - a) more curvature
 - b) less curvature
 - c) more diameter
 - d) less diameter
- (v) Indicate the common clinical indications for using RGP contact lens among the following
 - a) dry eye syndrome
 - b) severe astigmatism
 - c) presbyopia
 - d) corneal ulcers
- (vi) What is the ideal way to remove a soft contact lens from the eye?
 - a) Use a pinching motion with two fingers
 - b) Pull the eye down and remove with a cotton swab
 - c) Use a lens remover tool
 - d) Slide the lens to the white part of the eye and pinch it gently
- (vii) Choose the correct option from the following that should be kept in mind while fitting the soft contact lens.
 - a) TD should be >1.5-2.0 mm than HVID
 - b) BC should be 0.80-1.00 mm flatter than flattest k reading
 - c) Lens power=spherical power+1/2 cylinder power,VD correction
 - d) each of the options are correct

- (viii) While checking vision after fitting a trial soft contact lens if the patient says that image of the chart is getting cleared immediately after blink then it indicates-
- High riding lens
 - flat fit
 - steep fit
 - a decentred lenses
- (ix) Match the correct wearing time which is generally recommended at the time of wearing RGP lens .
- 8-10 hours per day
 - 12-14 hours per day
 - 16-18 hours per day
 - 20-24 hours per day
- (x) What is the main advantage of using a preservative-free contact lens solution?
- It is more effective in killing bacteria.
 - It reduces the risk of toxicity and irritation for sensitive eyes.
 - It extends the shelf life of contact lenses.
 - It allows for faster cleaning and disinfection.
- (xi) Which of the following is a primary concern when fitting a patient with contact lenses after corneal refractive surgery (e.g., LASIK)?
- Reduced risk of infection
 - Increased risk of dryness and irritation
 - Over-correction of refractive error
 - Increased likelihood of rejection of the lens
- (xii) What is the main advantage of using a hybrid contact lens (combining a rigid gas permeable center with a soft lens skirt)?
- Improved comfort and stability
 - Easier cleaning process
 - Longer wear time without irritation
 - Lower cost compared to standard RGP lenses
- (xiii) While evaluating the refractive errors it is found that silicone hydrogel wearers slightly produce _____ in eye.
- astigmatic
 - hyperopic
 - myopic
 - no change of refractive status
- (xiv) It has been inferred that CL wearing myopes accommodates _____ than spectacles.
- more
 - less
 - remains same
 - remains same at the beginning then gradually increases
- (xv) Which of the following is the most likely cause of "contact lens intolerance" after many years of successful wear?
- Sudden eye infections
 - Progressive changes in tear film or dryness due to aging
 - A change in lens prescription
 - Infection from frequent lens wear

Group-B

(Short Answer Type Questions)

3 x 5=15

- Name two ocular conditions where RGP lenses are particularly beneficial for vision correction. (3)
 - Explain the significance of tear film composition for evaluating RGP lens comfort. (3)
 - Describe about the impact of pupil size in case of the selection of contact lens diameter? (3)
 - Explain about the role of patient education and expectations incase of pre-fitting assessment process for RGP lenses. (3)
 - Illustrate any one method for evaluating Ocular Dominance . (3)
- OR**
- Illustrate the risk factors of Corneal Hypoxia due to contact lens wear. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

- Evaluate how corneal topography plays a part in providing important information for the pre-fitting evaluation of RGP lenses. (5)

8. What characteristics can you identify in lipid-deposited RGP CL surfaces? (5)
9. Illustrate about how contact lens warpage can be managed. (5)
10. List out the main reasons for Soft Contact Lens Dropouts. (5)
11. Differentiate between papillae and Follicles with respect to Contact Lens wear (5)
12. Describe and analyze the static fluorescein fitting pattern observed when fitting an RGP spherical lens over a toric lens in patients with rule astigmatism exceeding 3 diopters. How does this pattern guide clinical adjustments in lens parameters? (5)

OR

Using dynamic and static fit assessments, how would you determine if an RGP lens is loose (5)
or tight, and what clinical implications do these characteristics have on lens selection and adjustment?

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