BRAINWARE UNIVERSITY

Term End Examination 2024-2025
Programme – B.Optometry-2021/B.Optometry-2022
Course Name – Contact Lens-I
Course Code - BOPTOC501
(Semester V)

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) Select the correct option from the following: In the case of the Front Surface Design Contact Lens, the Front Optic Zone depends upon_____.

a) Power b) Curvature
c) Diameter d) Center thickness

(ii) Identify the correct Antimicrobial agent among the following which can act as both disinfectant and preservative

a) Penicillin b) EDTA
c) Polyquad d) Hydrogen Peroxide

(iii) Predict the correct direction of the base of the prism which are incorporated in Prism - Ballast design

a) Base-Up b) Base-Down
c) Base-In d) Base-Out

(iv) We recognize a hydrogel contact lens as Gr-I hydrogel only when it has _____.

a) Low water content, non-ionic property b) High water content, non-ionic property
c) Low water content, ionic property d) High water content, ionic property

(v) Calculate the contact lens power when the spectacle power of the patients eye is -8.00DS and the vertex distance is 14 mm.

a) - 9.00 D S b) -7.00 D S
c) -8.50 DS d) -7.50 DS

(vi) Select the correct method that produces aspheric soft contact lenses

a) Cast Mould b) Lathe Cut
c) Spin Cast d) Reverse Process

(vii) While comparing spectacles with contact lenses which of the following statement is appropriate?

a) Increase in the central field of vision
b) Minifying images in hypermetropia
c) Magnifying images in myopia
d) Increase in optical aberration

(viii) Ideally, Contact Lens material should have which of the following characteristics?

a) Optically transparent
b) Good wettability
c) Stable dimension
d) All the above

(ix) Choose the correct among the following which is important for consideration when evaluating the corneal health after wearing soft contact lenses.

a) Refraction stability
b) Tear Break Up time
c) Visual acuity without lenses
d) Central Visual Field

(x) Which of the following properties of a lens would you expect and observe a high lateral lag ?

a) Loose fitting
b) Steep base curve
c) Good centration
d) Conjunctival drag

(xi) If the HVID of the patient's eye ranges from 10.5-12.00 mm, indicate the correct type of contact lens that will provide optimum fit for the patient

a) 14.00-14.10 mm
b) 14.10--14.20mm
c) 13.20-13.28 mm
d) 14.00-14.20 mm

(xii) Indicate the primary purpose of assessing the patient's lifestyle and activities before fitting soft contact lenses from the following

a) To determine if the patient can afford the lenses
b) To decide on the color of the contact lenses
c) To choose a lens modality and replacement schedule
d) To evaluate the patient's visual acuity

(xiii) Indicate the correct essential step before handling contact lenses

a) Wash hands thoroughly with soap and water
b) Rinse hands with alcohol-based sanitizer
c) Wear gloves for extra protection
d) No specific precautions needed

(xiv) Diagnostic fitting of CL can be defined when

a) CL selection is based on the findings of the preliminary examination.
b) CL selection is based on the outcome of the trial CL fit & the ocular Rx.
c) CL selection is based upon refractive power
d) CL selection is based upon diameter

(xv) Mention the pioneer of marketing the Soflens hydrogel contact lens in the USA in 1971.

a) Bausch & Lomb
b) CIBA Vision
c) Alcon
d) Cooper Vision

Group-B

(Short Answer Type Questions) 3 x 5=15

2. State the importance of Pupil Size in Soft Contact Lens Fitting. (3)
3. What do you understand by biocompatibility and why it's important when choosing a contact lens material? (3)
4. Indicate a patient's preference for starting to wear contact lenses instead of glasses. (3)
5. Illustrate the appropriate types of soft contact lenses that should be administered to patients based on their HVID. (3)
6. Identify the role of tear film stability that plays with respect to contact lens comfort. (3)

OR

Find out the change in accommodative demand at 40 cm for a patient with refractive error of -10.00Dsph (OU), when vertex distance is considered 12 mm. (3)

Group-C

(Long Answer Type Questions) 5 x 6=30

7. Speculate on the level of oxygen required for safe contact lens use. (5)
8. Recommend the schedule for replacing soft contact lenses based upon the type of lenses (daily disposables, bi-weekly, monthly, etc.). (5)
9. Illustrate the Spin Cast method which is commonly used to measure soft contact lens (5)
10. Tabulate the dimensions of the Cornea necessary for contact lens fitting. (5)
11. In relation to contact lens design, consider the significance of the optic zone and contact lens diameter. (5)
12. Which test can be carried out when fitting soft contact lenses to evaluate the lens's tightness? (5)

OR

Consider the circumstances under which soft toric contact lenses may be recommended. (5)

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