



BRAINWARE UNIVERSITY

Term End Examination 2023-2024

Programme – B.Optomety-2021

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 method that produces aspheric soft contact lenses

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

(ii) Manufacturing soft contact lenses by Spin cast method shows the lenses are -

- | | |
|----------------------------------|----------------------|
| a) thick and aspheric | b) thin and aspheric |
| c) medium thickness and aspheric | d) spherical lenses |

(iii) Recall the correct date from the following when disposable contact lens were first introduced

- | | |
|---------|---------|
| a) 1976 | b) 1977 |
| c) 1978 | d) 1984 |

(iv) 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 |

(v) Identify the correct type of Soft Toric Lens Design that will correct the Corneal Astigmatism

- | | |
|------------|----------------|
| a) Atoric | b) Front Toric |
| c) Bitoric | d) Aspheric |

(vi) 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 |

(vii) Choose the correct option from the following

- a) In 1508, Leonardo Da Vinci was the first who described about contact lenses b) In 1508, Orlando Battista gave the idea about contact lenses
- c) In 1994, Leonardo Da Vinci first described about contact lenses d) In 1507, Orlando Battista gave the idea about contact lenses
- (viii) Depending upon FDA classification, we classify Hydrogel lenses into-
- a) 4 categories b) 1 category
- c) 2 categories d) 3 categories
- (ix) For soft contact lenses, we indicate the parameter of base curves within the range of
- a) 3.1-5.1 mm b) 8.1-9.1 mm
- c) 10.1-12.1 mm d) 4.1-6.1 mm
- (x) Choose the correct option from the following: During open eye conditions, carbon dioxide usually pass out through _____ in open eye conditions.
- a) tear film b) aqueous humor
- c) lacrimal system d) anterior chamber
- (xi) Select the correct Front Apical radius of Cornea from the following options-
- a) 6.5mm b) 6.7mm
- c) 7.1mm d) 7.8mm
- (xii) Regardless of Contact Lens Power, it can be summarised that CI has _____ distance that brings light into focus rather than spectacles.
- a) larger b) shorter
- c) increased d) decreased
- (xiii) While checking the Vertical Lens Movement (VLM) of the soft lens if there is around 0.20 mm or less movement in the primary gaze, the nature of movement can be identified as
- a) optimum fit b) steep fit
- c) flat fit d) upgaze lag on movement
- (xiv) 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
- (xv) Identify from the following the contraindications for soft contact lenses
- a) Autoimmune diseases b) Use of Antihistamine
- c) Irregular Astigmatism d) Occasional wearer

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Compare between 'hydrogel' and 'silicone hydrogel' lenses (3)
3. Compare the Difference Between "Cylinder" and "Axis" in Soft Toric Contact Lenses (3)
4. State the importance of Pupil Size in Soft Contact Lens Fitting. (3)
5. Illustrate the physiological conditions being addressed by toric contact lenses? (3)
6. Evaluate the lid margin and blink pattern relevant to the pre-fitting process of soft contact lenses. (3)

OR

Summarise the basic trial lens set which is available to initiate the power selection for the trial contact lens. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Which test can be carried out when fitting soft contact lenses to evaluate the lens's tightness? (5)
8. Estimate the physical properties of the contact lens materials. (5)
9. Write down the preventative measures that soft contact lens wearers take to lessen the possibility of dryness or discomfort? (5)
10. Explain with demonstration the importance of TBUT test in case of contact lens practice . (5)
11. Tabulate the dimensions of the Cornea necessary for contact lens fitting. (5)
12. Analyze the significance of accommodation and Convergence with respect to the person who will be wearing contact lenses. (5)

OR

Justify the importance of over refraction in case of contact lens fitting. (5)
