



BRAINWARE UNIVERSITY

Term End Examination 2025-2026

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

Course Name – Myopia Control

Course Code - BOPTOE608A

(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) Peripheral hyperopic defocus will be created by which of the following lens powers?
 - a) -2.00 Dsph at the center, -3.00 Dsph at the periphery
 - b) -2.00 Dsp at the center, -1.00 Dsph at the periphery
 - c) -1.00 Dsph at the center, +3.00 Dsph at the periphery
 - d) -3.00 Dsph with aspheric lens design
- (ii) Full form of C.A.R.E in myopia control is
 - a) Cylindrical Automatic Refractive Element
 - b) Cylindrical Annular Reflective Element
 - c) Cylindrical Annular Refractive Element
 - d) Corneall Annular Refractive Element
- (iii) What are optical aberrations?
 - a) Errors in the eye's anatomy
 - b) Distortions in visual perception
 - c) Imperfections in the optics of the eye
 - d) Abnormalities in pupil size
- (iv) What is the endpoint of subjective refraction?
 - a) Achieving maximum visual acuity with varying amount of accommodation
 - b) Achieving maximum visual acuity with accommodation at rest
 - c) Achieving maximum visual acuity maximum accommodation
 - d) Achieving maximum visual acuity with minimum accommodation
- (v) Which of the following conditions may require A-scan biometry?
 - a) Myopia
 - b) Hypermetropia
 - c) High degree anisometropia
 - d) Each of them
- (vi) What is the term used to describe the process of gradually reducing the ortho-K lens wear time once the desired effect is achieved?
 - a) Ortho-K tapering
 - b) Ortho-K weaning
 - c) Ortho-K reduction
 - d) Ortho-K titration
- (vii) What is the typical age range for initiating myopia control options?
 - a) 0-5 years old
 - b) 6-12 years old
 - c) 13-18 years old
 - d) 19-25 years old

- (viii) Which of the following statements is true regarding emmetropization in infants?
- Emmetropization occurs rapidly within the first few weeks of life
 - Infants are typically born emmetropic
 - Myopia is the most common refractive error in infants
 - Emmetropization continues throughout childhood and adolescence
- (ix) What role do genetics play in the development of myopia in children?
- Genetics have no influence on myopia development
 - Children with myopic parents are more likely to develop myopia
 - Genetics only influence farsightedness
 - Genetics influence only outdoor activities
- (x) Which of the following statements is true regarding the progression of myopia in children?
- Myopia progression typically slows down after puberty
 - Myopia progression is faster in children with hyperopic parents
 - Myopia progression is reversible with age
 - Myopia progression is not influenced by near work
- (xi) Which of the following is a modifiable risk factor for childhood myopia?
- Genetics
 - Time spent indoors
 - Age
 - Gender
- (xii) What role does ethnicity play in the risk of childhood myopia?
- Ethnicity has no influence on myopia risk
 - Children of Asian ethnicity are more likely to develop myopia
 - Children of Caucasian ethnicity are more likely to develop myopia
 - Ethnicity only influences hyperopia
- (xiii) What is dynamic retinoscopy?
- A technique used to measure the static refractive error of the eye
 - A technique used to assess the accommodative response of the eye
 - A technique used to evaluate corneal curvature
 - A technique used to measure intraocular pressure
- (xiv) Which of the following surgical procedures is commonly used for myopia correction?
- Cataract surgery
 - Glaucoma surgery
 - RD surgery
 - Phakic IOL implant
- (xv) What is the primary mechanism of action in LASIK surgery?
- Removal of the corneal epithelium
 - Application of ultraviolet light
 - Ablation of corneal tissue with an excimer laser
 - Insertion of an intraocular lens

Group-B

(Short Answer Type Questions)

3 x 5=15

- Discuss the concept of induced myopia (3)
- Write a short note on the Duo-Chrome test. (3)
- How do Hoya Miyosmart lenses fit into a comprehensive myopia management strategy, and what are the potential benefits of incorporating them into clinical practice? (3)
- Emphasise on the non optical strategies for myopia management. (3)
- Explain the clinical significance of "spherical equivalent = zero" (3)

OR

What is the current prevalence of myopia and how has it changed from early 2000s ? Discuss the key reasons. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Discuss the importance of patient education and communication during the cycloplegic refraction process, including informing patients about potential side effects and the temporary nature of cycloplegia. (5)
8. What are the potential risks and side effects associated with Orthokeratology? (5)
9. Write a report on the prevalence of myopia in various countries worldwide. (5)
10. Discuss the concept of relative hyperopic defocus and its association with growth of AL. (5)
11. List the disadvantages of conventional single vision lenses over new technologies available in the lens market. (5)
12. Discuss, how optical aberrations influence myopia control. (5)

OR

Analyse the role of atropine treatment in myopia control. (5)

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