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BRAINWARE UNIVERSITY

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Term End Examination 2025-2026

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

Course Name – Low Vision Aids & Visual Rehabilitation

Course Code - BOPTOC503

(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) Which of the following best describes the term "low vision"?
- a) Visual impairment that cannot be corrected with glasses b) Complete blindness
- c) Normal vision with no restrictions d) Temporary vision loss
- (ii) Select the type of visual function impairment that is associated with a reduced ability to perceive hues.
- a) Impaired contrast sensitivity b) Photosensitivity
- c) Color vision deficiency d) Hemianopia
- (iii) Select the conditions that is a leading cause of low vision and blindness globally.
- a) Glaucoma b) Retinitis Pigmentosa
- c) AMD d) Cataract
- (iv) According to the World Health Organization (WHO), what percentage of low vision and blindness is considered avoidable or preventable?
- a) Less than 10% b) Approximately 25%
- c) Approximately 50% d) Approximately 75%
- (v) Which of the following eye disorders is characterized by a progressive loss of peripheral vision, often resulting in tunnel vision?
- a) Cataracts b) Glaucoma
- c) Amblyopia d) Macular degeneration
- (vi) Calculate the magnification required if a person has BCVA of 6/36 and wants to read 6/9 line of visual acuity chart?
- a) 6X b) 3X
- c) 1X d) 4X
- (vii) Identify the spherical lens power needed to elicit an appreciable change in clarity if the visual acuity of the patient is 6/60.
- a) 0.50 D b) 1.50 D

- c) 2.00 D
d) 0.60 D
- (viii) Select the common type of low vision electronic aid that magnifies text and images on a screen.
- a) CCTV
b) Braille display
c) Speech-to-text software
d) Hearing aid
- (ix) Which of the following terms best describes the process of assessing a child's functional vision and determining their specific visual needs?
- a) Visual acuity test
b) Visual Field Testing
c) Functional vision assessment
d) Visual preference analysis
- (x) Identify the type of low vision device that is commonly utilized to magnify text in books and on screens specifically for children with low vision. Which of the following options best describes this device?
- a) Monocular telescope
b) Hearing aid
c) Magnifying glasses
d) Tactile marker
- (xi) What is the role of lighting when using low vision aids effectively?
- a) It reduces glare.
b) It enhances contrast.
c) It creates shadows.
d) It has no effect.
- (xii) If a person has difficulty reading small print, which device would best assist them?
- a) A stand magnifier
b) A calculator
c) A protractor
d) A ruler
- (xiii) Select the type of low vision aid that is commonly used to assist with distance viewing, such as watching television.
- a) Handheld magnifiers
b) Telescopic lenses
c) Reading glasses.
d) White canes
- (xiv) Which of the following laws in India provides legal provisions for the rights and welfare of persons with disabilities, including those with low vision?
- a) Indian Penal Code
b) Motor Vehicles Act
c) Rights of Persons with Disabilities Act, 2016
d) Indian Copyright Act
- (xv) Select the key principle of low vision rehabilitation.
- a) Promoting dependence on others
b) Enhancing the use of remaining vision
c) Avoiding the use of any assistive devices
d) Focusing solely on psychological counseling

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Explain Angular magnification with examples. (3)
3. What are the common causes of low vision in case of elderly patients? (3)
4. Calculate the magnification required for a patient having visual acuity of 6/36 and wants to read 6/6 optotype. (3)
5. Describe the psycho-social impacts that individuals with low vision may experience. (3)
6. A 3-year-old boy diagnosed with oculocutaneous albinism associated with nystagmus is referred for low vision services at your clinic. What will be your rehabilitation plan. (3)

OR

A 24-year-old patient diagnosed with Retinitis Pigmentosa is referred for low vision services at your clinic. What will be your rehabilitation plan. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Define Blindness and explain its types. (5)
8. Elaborate about any three visual field enhancing devices. (5)
9. Compare and contrast the key characteristics and benefits of optical aids like magnifiers, telescopes, and filters. How do these characteristics and benefits influence the selection of (5)

these aids for addressing specific low vision needs?

10. Plan a training strategy for a child using a telescope for the first time. (5)
11. A patient reads N24 at 40cm and wants to read N6 for sustained near tasks. (a) Calculate (5)
the required total magnification to reach N6. assume target working distance as 25 cm. (b)
Calculate the spectacle lens power that would provide the needed magnification. (c) If
lenses are available in steps of +4 D, state the closest power you would prescribe.
12. Apply your understanding of visual field defects to suggest suitable rehabilitation strategies (5)
for a patient with peripheral field defect due to advanced glaucoma.

OR

Write a note on Heredomacular degeneration. How can a patient with Heredomacular (5)
degeneration patient be rehabilitated?

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