



BRAINWARE UNIVERSITY

Term End Examination 2024-2025

Programme – B.Optomtry-2021/B.Optomtry-2022

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) Identify the condition which is characterized by a blind spot in the central field of vision and is a common cause of low vision.
 - a) Cataracts
 - b) Astigmatism
 - c) Macular degeneration
 - d) Nearsightedness
- (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) Which low vision electronic aid allows users to effectively input text and commands through a tactile system using raised dots, facilitating improved communication for individuals with visual impairments?
 - a) Braille Notetaker
 - b) Screen magnifier
 - c) Voice recognition software
 - d) Bluetooth headset
- (iv) Which optical assistive device commonly used for low vision involves the use of lenses to magnify objects and text?
 - a) Hearing aid
 - b) Wheelchair
 - c) Magnifier
 - d) Prosthetic limb
- (v) Which optical property of a lens determines its ability to refract light and focus images accurately?
 - a) Dispersion
 - b) Refraction
 - c) Reflection
 - d) Absorption
- (vi) Which principle does the LogMAR chart use to measure visual acuity?

- a) The contrast sensitivity of the eye
c) The minimum angle of resolution
- b) The peripheral vision of the eye
d) The accommodation ability of the eye
- (vii) Choose a term for a patient who has total visual loss in one eye.
- a) Monocular vision
c) Double vision
- b) Binocular vision
d) Astigmatism
- (viii) Choose the term that describes an abnormal blind spot in the visual field.
- a) Scotoma
c) Quadrantanopia
- b) Hemianopia
d) Diplopia
- (ix) In which scenario would a stand magnifier be the most effective tool?
- a) Reading labels and price tags
c) Playing sports
- b) Watching movies in a theater
d) Driving at night
- (x) Which of the following best describes the primary purpose of a video magnifier in low vision devices?
- a) Spotting distant birds
c) To convert printed text into audio format for auditory learning.
- b) To enlarge text and images for easier reading and viewing.
d) Playing musical instruments
- (xi) Which of the following factors is most critical to consider when selecting a low vision device for a child?
- a) The device's cost and availability
c) The aesthetic appeal of the device
- b) The child's age and developmental stage
d) The recommendations of the child's peers
- (xii) Filtered lenses, such as yellow or amber tints, are often chosen for which of the following purposes?
- a) Enhance visual acuity
c) Reduce glare and improve contrast
- b) Correct astigmatism
d) Improve day vision
- (xiii) Choose the primary goal of providing training and instruction on low vision devices.
- a) To sell more devices
c) To empower individuals to use the devices effectively
- b) To make individuals dependent on the devices
d) To eliminate the need for devices
- (xiv) 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
c) Functional vision assessment
- b) Visual Field Testing
d) Visual preference analysis
- (xv) 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
c) Rights of Persons with Disabilities Act, 2016
- b) Motor Vehicles Act
d) Indian Copyright Act

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Explain the advantages and disadvantages of using a hand magnifier. (3)
3. How can implementing early intervention strategies in pediatric low vision care positively impact a child's development and educational outcomes? (3)
4. How can electronic low vision devices like CCTVs and screen magnifiers be effectively utilized by individuals with low vision to enhance their daily activities? (3)

5. Describe the concepts of disorder, impairment, and disability, including their definitions and key characteristics. (3)
6. Describe the key components of history taking in low vision assessments and explain their importance. (3)

OR

Explain how the following tests are going to be performed for a 6 y/o Low vision child. a) Visual acuity (Distance and Near) b) Contrast sensitivity (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Explain the causes and types of visual field loss in individuals with low vision, and describe how this impairment affects their daily functioning. (5)
8. Explain the process of conducting a refraction procedure for low vision patients. (5)
9. Analyze the different types of low vision devices that require specialized training, and differentiate the training methods for optical aids, electronic devices, and non-optical aids. (5)
10. A 5-year-old child with eye poking and eye rubbing (oculo-digital sign) in both eyes visits the clinic. The mother complains that he avoids playing outside, often bumps into objects and has a sister (aged 9 y/o) with similar problems. Guess the possible diagnosis and plan the rehabilitation. (5)
11. How do education and vocational rehabilitation strategies facilitate individuals with low vision in analyzing their challenges and opportunities, ultimately aiding them in achieving their personal and professional goals while enhancing their independence? (5)
12. 37y/o farmer with aniridia OU visits the clinic. Explain the low vision intervention as per her needs which includes cultivating in sunlight, weeding, spraying fertilizer and separating grains. (5)

OR

Evaluate the most common eye disorders that can lead to low vision and assess their impact on an individual's visual capabilities. (5)

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