



BRAINWARE UNIVERSITY

Term End Examination 2025-2026

Programme – M.Optomtry-2025

Course Name – Binocular Vision and Neuro-Optometric Rehabilitation

Course Code - MOP20109

(Semester II)

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) Analyze the relationship between visual attention and the ability to process information during learning.

- | | |
|--|---|
| a) Visual attention does not influence the ability to process information. | b) Strong visual attention supports better concentration, leading to improved information processing and learning outcomes. |
| c) Visual attention only affects visual learning, not verbal learning. | d) Excessive visual attention can lead to distractions, reducing learning effectiveness. |

(ii) At what age do babies typically begin to track moving objects with their eyes?

- | | |
|---------------|---------------|
| a) 1-2 months | b) 3-4 months |
| c) 6-7 months | d) 12 months |

(iii) At what age do children typically develop the ability to perceive depth (3D vision)?

- | | |
|--------------|--------------|
| a) 2 months | b) 6 months |
| c) 12 months | d) 18 months |

(iv) A child with Visual Information Processing Disorder struggles with reading comprehension and frequently misinterprets graphs and charts. Evaluate the cognitive functions that is most likely impaired in this child.

- | | |
|------------------------------|------------------------|
| a) Visual-spatial processing | b) Auditory processing |
| c) Visual memory | d) Executive function |

(v) A therapist working with an individual diagnosed with Visual Information Processing Disorder notices difficulty in interpreting complex patterns and spatial relationships. Evaluate the area of the brain is most likely involved in this disorder.

- | | |
|------------------|-------------------|
| a) Frontal lobe | b) Occipital lobe |
| c) Temporal lobe | d) Parietal lobe |

- (vi) Which of the following best describes the primary cognitive challenge faced by individuals with Visual Information Processing Disorder (VIPD)?
- Difficulty in distinguishing between different shapes and colors
 - Impaired ability to recall visual stimuli despite adequate visual input
 - Difficulty in recognizing facial expressions due to impaired motor function
 - Inability to perceive objects in the peripheral vision
- (vii) A 30-year-old patient has an intermittent exotropia of 40Δ for distance and 10Δ for near. After an occlusion of 45 minutes, the near deviation increased to 20Δ . After Analyzing the condition probable diagnosis is _____.
- basic exotropia.
 - true-divergence excess type exotropia.
 - pseudo-divergence excess type exotropia.
 - convergence insufficiency type exotropia.
- (viii) Select the correct meaning of right jerk horizontal nystagmus.
- Eye movement increase in left gaze
 - Eye movement increase in right gaze
 - Eye movement same in all gaze
 - All of these
- (ix) Head nodding is the key feature of _____.
- Infantile Nystagmus Syndrome (INS)
 - Spasmus nutans
 - Manifest Latent Nystagmus (MLN)
 - All of these
- (x) Select the possible cause of peripheral vestibular nystagmus.
- Lesions of the fifth cranial nerve.
 - Lesions of the seventh cranial nerve.
 - Lesions of the eighth cranial nerve.
 - Lesions of the ninth cranial nerve.
- (xi) Analyze the condition that can be treated with accommodative flippers out of the following:
- Accommodative excess
 - Accommodative infacility
 - Accommodative insufficiency
 - All of these
- (xii) Select the condition that is characterized by reduced amplitude of accommodation.
- Accommodative excess
 - Accommodative insufficiency
 - Accommodative spasm
 - Paralysis of accommodation
- (xiii) Select which of the following findings are present in Convergence excess.
- Esophoria for near.
 - Reduced NFV for near.
 - Reduced Vergence facility.
 - All of these.
- (xiv) In Monocular Elevation Deficiency (MED) syndrome, the involved muscles are _____.
- inferior rectus and inferior oblique
 - superior rectus and inferior oblique
 - superior rectus and inferior rectus
 - superior rectus and superior oblique
- (xv) A forced duction test is used to identify _____.
- restrictive strabismus
 - palsy
 - abnormal head posture
 - diplopia

Group-B

(Short Answer Type Questions)

3 x 5=15

- Evaluate the significance of differentiating MED from third nerve palsy. (3)
- Explain the limitations of visual perception tests. (3)
- Describe the advantages and disadvantages of a stereoscope. (3)
- Explain the importance of patch test in the diagnosis of exotropia. (3)
- Analyze the role of the frontal eye field (FEF) in the control of eye movements. (3)

OR

Analyze the function of the medial longitudinal fasciculus (MLF) in coordinating conjugate eye movements. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Write in details about the Fresnel prism trial and its fitting Procedures. (5)
8. Discuss the interplay between the visual and vestibular systems in TBI and the implications for postural control and gaze stabilization. (5)
9. Evaluate the potential limitations or challenges of using the Test of Visual Perceptual Skills (TVPS) as a diagnostic tool. (5)
10. Analyze the importance of the Birch Belmont Auditory-Visual Integration test for diagnosing sensory processing or developmental disorders. (5)
11. 4-year-old with esotropia for 2 months. Full deductions and versions. Cycloplegic refraction +3.50 OU. Without correction: Distance: ET 25; Near ET 55. Evaluate the condition and it's management. (5)
12. Analyze the various goals and treatment guidelines for amblyopia. (5)

OR

Analyze the role of the dorsal and ventral visual streams along with their clinical relevance. (5)

LIBRARY
Brainware University
Barasat, Kolkata -700125