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BRAINWARE UNIVERSITY

Term End Examination 2024-2025

Programme – M.Optomtry-2024

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) What is visual discrimination in the context of learning?
 - a) The ability to distinguish between different colors only.
 - b) The ability to interpret visual information such as shapes, letters, and numbers.
 - c) The process of avoiding visual distractions.
 - d) The ability to see and memorize images without understanding their meaning.
- (ii) How does visual processing disorder affect learning?
 - a) It makes reading and writing difficult because of trouble processing visual information.
 - b) It improves memory retention.
 - c) It leads to enhanced social interaction skills.
 - d) It affects physical coordination, but not learning.
- (iii) Create an intervention strategy to support children with learning disabilities related to vision.
 - a) Provide only auditory-based teaching methods.
 - b) Ensure that the classroom is well-lit, provide large print materials, and use assistive technology like text-to-speech software.
 - c) Allow children to sit far away from the board to reduce visual stress.
 - d) Limit visual aids completely to focus on verbal instructions.
- (iv) 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
- (v) Which part of the brain is primarily responsible for processing visual information?

- a) Frontal lobe
c) Temporal lobe
- b) Occipital lobe
d) Parietal lobe
- (vi) When do infants usually start to recognize faces and differentiate between familiar and unfamiliar faces?
- a) At birth
c) 6-8 months
- b) 3-4 months
d) 12 months
- (vii) Analyze the role do the parietal and temporal lobes play in visual processing development.
- a) They process basic visual features like color and brightness.
- b) They integrate visual information with spatial awareness and object recognition, allowing individuals to perceive movement and identify objects in space.
- c) They are responsible for encoding visual memories for long-term storage.
- d) They are primarily involved in controlling eye movements for tracking visual stimuli.
- (viii) The following are signs of accommodation excess, EXCEPT:
- a) Low MEM finding
c) Low Negative Relative Accommodation
- b) Normal AC/A ratio
d) Monocular accommodative facility fails minus(-) lens
- (ix) The cause of sensory esotropia is _____.
- a) Squint surgery.
c) congenital cataract.
- b) high hypermetropia.
d) congenital fibrosis of the medial rectus muscle.
- (x) Head nodding is the key feature of _____.
- a) Infantile Nystagmus Syndrome (INS)
c) Manifest Latent Nystagmus (MLN)
- b) Spasmus nutans
d) All of these
- (xi) Identify two vergence disorders out of the following:
- a) AI and AE.
c) CI and FVD.
- b) AIF and spasm of accommodation.
d) Presbyopia and paralysis of accommodation.
- (xii) A 45-year-old male presents with sudden vision loss in one eye. He reports that the vision loss was painless and occurred within the last 12 hours. Which of the following conditions should be considered first in the differential diagnosis?
- a) Acute angle-closure glaucoma
c) Optic neuritis
- b) Retinal detachment
d) Anterior ischemic optic neuropathy (AION)
- (xiii) Analyze which of the following is most often associated with oculomotor palsy.
- a) Loss of vertical gaze
c) Bilateral anisocoria
- b) Inability to adduct the affected eye
d) Loss of accommodation reflex
- (xiv) Analyze which of the following best describes the role of the vestibular system in individuals with TBI.
- a) It plays a role in hearing loss due to brain injury.
c) It regulates blood pressure during physical activity.
- b) It helps in balancing and controlling eye movements.
d) It controls voluntary movements of the limbs.
- (xv) Evaluate the primary function of a read analyzer in the context of vision rehabilitation for TBI.
- a) To assess visual field loss
c) To evaluate reading speed and accuracy
- b) To detect issues with eye alignment
d) To test contrast sensitivity

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Explain dyslexia. (3)
3. A 17 years old patient come to your clinic with complaints of difficulty with focusing problem at distance after 1 hour of continuous near work. MAF OD and OS is 1.5 cpm, BAF is 0.5 cpm, and difficulty with both plus and minus lens. Based on the given data, write your diagnosis. (3)
4. Explain " CANINE TOOTH SYNDROME". (3)
5. Evaluate the difference between DVD and inferior oblique overaction. (3)
6. Analyze the relationship between Visual Learning and Cognitive Development. (3)

OR

Analyze the difficulties raised due to the damage to the dorsal visual pathway. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. What do "pupillary light reflex abnormalities" indicate in CNS disorders? (5)
8. Evaluate the role of "convergence insufficiency" in evaluating CNS function. (5)
9. Evaluate how saccadic dysmetria reflects dysfunction in the central nervous system. (5)
10. Discuss congenital motor nystagmus and sensory nystagmus. (5)
11. Evaluate the patient with nystagmus. (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)

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