

**KMCT COLLEGE OF ALLIED HEALTH SCIENCES
MUKKAM, KOZHIKODE, KERALA
DEPARTMENT OF OPTOMETRY
THIRD YEAR OPTOMETRY
BINOCULAR VISION AND SQUINT -QUESTION BANK /ANSWER KEY
ESSAY**

1. Define binocular single vision. What are the grades of BSV. Explain the testing of the various grades of BSV using synoptophore.
2. Discuss the qualitative and quantitative methods of assessment of strabismus
3. Discuss the clinical characteristics and management of Duane's retraction syndrome.
4. Explain amblyopia. Discuss its causes and treatment methods
5. Define esodeviation, types, clinical picture, investigations and management
6. Write in detail about non-surgical management of strabismus.
7. Elaborate on the importance of stereopsis and examination techniques to assess stereopsis.
8. Define amblyopia. List the types of amblyopia. Describe the tests for evaluation of an amblyopic child.
9. Give an account on the qualitative and quantitative methods of assessing strabismus Classify esotropia. Describe the features of accommodative esotropia. Discuss the nonsurgical management of accommodative esotropia. Describe in detail about classification, etiology, clinical findings and management of accommodative esotropia
10. Describe in detail about abnormal retinal correspondence and its classification with a neat diagram
11. Describe in detail about the classification, etiology and management of amblyopia based on the PEDIG study

12. What is amblyopia. Discuss the causes, types and management of amblyopia
13. Explain anomalous retinal correspondence in detail.
14. Explain the innervational and mechanical restrictive causes of strabismus citing
15. examples. Explain the Parks three step for vertical deviation.

SHORT NOTES

1. Primary, secondary and tertiary actions of extraocular muscles
2. Horopter and its types
3. Clinical characteristics of paralytic strabismus
4. Components of convergence
5. Accommodative esotropia
6. Hess chart
7. Outline a method of detecting which muscle or muscles are at fault in a patient with diplopia
8. Non-surgical management of strabismus
9. Esodeviations
10. Tests for binocular single vision
11. Abnormal retinal correspondence
12. Discuss about A pattern esotropia (causes, presentation and management)
13. Explain the concept of Horopter.
14. Nonsurgical management of strabismus.
15. Discuss the importance of Worth 4 dot test.
16. Types of accommodation
17. Prism bar cover test
18. Microtropia
19. Longitudinal horopter
20. AV phenomenon

21. Anomalous retinal correspondence
22. Abnormal retinal correspondence
23. Management of convergence insufficiency
24. Bagolini's striated glasses
25. Treatment of amblyopia
26. Stereopsis
27. Convergence insufficiency
28. Monocular clues
29. Evolution of binocular single vision
30. Duane's retraction syndrome
31. Compare paralytic and non-paralytic squint
32. Classification of aniseikonia and its management
33. Theories of binocular vision
34. Mechanism of binocular single vision
35. Classification of nystagmus
36. Accommodative insufficiency
37. Methods of assessing stereopsis
38. Monocular cues to depth perception
39. Duane's retraction syndrome
40. Binocular fusion
41. Use of prisms in the management of strabismus
42. Angles of the eye
43. Panum's fusional area
44. Horopter
45. Worth four dot test
46. Sturm's conoid
47. Nystagmus

ANSWER BRIEFLY

1. Types of Duane's retraction syndrome
2. Worth 4 dot test
3. Define amblyopia
4. Therapeutic uses of prisms in squint
5. Four monocular clues for depth perception
6. Binocular rivalry
7. Hering's law
8. Blind spot syndrome
9. Distinguish between comitant and restrictive squint
10. Types of convergence
11. Worth four dot test
12. List of extraocular muscles
13. Corresponding points
14. Differentiate latent and manifest nystagmus
15. Cyclovertical squint
16. Types of occlusion
17. Fick's axes
18. Suppression
19. Fusion
20. Herring's law
21. State Hering's law.
22. Grades of Binocular single vision.
23. Bruckner's Test.
24. Management of amblyopia.
25. Primary, secondary and tertiary actions of superior rectus muscle

26. Sherrington's law of ocular motility
27. Double Maddox rod test
28. Grades of binocular single vision
29. Horopter
30. Brown's superior oblique sheath syndrome
31. Corresponding points
32. Panum's space
33. Etiology for pseudostrabismus
34. Aniseikonia
35. Suppression
36. Versions
37. Types of exotropia
38. Four uses of synoptophore
39. Strabismus fixus
40. List the motor adaptations to squint
41. List the variable association with essential infantile esotropia
42. Need for binocular single vision
43. How do differentiate true and pseudo divergence excess
44. Panum's space
45. Name any four vision therapy for convergence insufficiency
46. Aniseikonia.
47. Pre-requisites of binocular vision
48. Types of diplopia
49. Define nystagmus
50. Types of amblyopia
51. Explain global stereopsis with an example
52. Angle kappa

53. List any four prerequisites for development of binocular single vision
54. Define A and V pattern with an example
55. Modified Krimsky test
56. Explain about any test for stereopsis
57. Worth's classification of grades of binocular vision
58. List any four sensory and motor obstacles for binocular single vision
59. Retinal rivalry
60. Find out the paralytic muscle using Parks 3 step in the following scenario:-

step 1: Hyperopia is greater in right eye in primary gaze,

step 2: Hyperopia increase in left gaze

step 3: Hyperopia increases in right head tilt

61. Angle kappa
62. Corresponding points
63. Monocular estimation method
64. Define fixation axis
65. Accommodative insufficiency
66. Fixation disparity
67. Significance of cover-uncover test
68. List the extra ocular muscles
69. Any one binocular balance test
70. Convergence insufficiency
71. Grades in binocular vision
72. Latent vs manifest strabismus
73. Flippers
74. Pseudostrabismus

- 75. Uses of prisms
- 76. Define cyclovertical deviation
- 77. What is AV pattern
- 78. What is vision therapy
- 79. Define monocular cues
- 80. Cover uncover test

ONE WORD ANSWERS

- 10.----- is the hallmark of retinal disparity
- 11. In anomalous retinal correspondence the subjective angle is ----- the objective angle
- 12.----- is an active cortical inhibition to avoid binocular diplopia
- 13. Random dot test is used to quantify -----
- 14. The abducens nerve innervates the ----- muscle
- 10. Involuntary to and fro movements of the eyes are called saccades.
- 11. According to Hering's law, right medial rectus and left lateral rectus receives equal innervations.
- 12. Seeing two images of two objects are called diplopia.
- 13. Near point of accommodation can be measured with Royal Air Force ruler.
- 14. Uncrossed diplopia is seen in lateral rectus palsy.
- 10. Outward deviation of the eyes is called
- 11. is a condition in which the refractive error is unequal in the two eyes
- 12. Conjugate eye movements refers to motion of both eyes in the direction
- 13. If a patient fuses images even when the strabismus is only partially corrected, then the patient is said to have

14.Hess screen test is used to detect

10.The _____ angle formed at the nodal point between the optic and visual axis.

11.The increased effectivity of the lens during accommodation for _____ is produced by a contraction of the ciliary muscle.

12.Amplitude of accommodation is about_____ at the age of 35 years.

13.The cheiroscope is a useful instrument for _____ exercises.

14.In Hirschberg method, corneal reflection is on _____, so the angle of deviation is 25° .

10._____ phoria is common in myopia.

11.Microtropia is also known as _____

12.Double Maddox rod is used to measure _____

13.Lesion of 6th cranial nerve paralysis affects _____ muscle

11.The is a series of red cylinders that distort a point of light into a fine red band

12.Binocular eye movements in which both eyes move in the same direction is termed as

.....

13.The instrument used to measure strabismus and assess the grades of binocular vision is

.....

14..... is an abnormal condition in which there is a misalignment of the visual axes
14.Constriction of pupil, convergence of eyes and change in curvature of crystalline lens is known as near triad (TRUE/FALSE)

10._____ is the result of wide nasal bridge

11._____ is the third grade of binocular vision

12.Inward movement of an eye is termed as _____

13.A 15 degree deviation on hirschberg refers to _____ prism dioptres of deviation

14.Different grades of binocular vision can be assessed using -----

18.Esotropia with a V pattern increases in..... gaze.

19.LANG is a chart.

20.....is an instrument that presents two separate views to the two eyes.

21.Humans havevision.

22..... is used to detect depth perception

10.Mismatch between visual space and physical space is called as _____

11.Simultaneous perception develops by _____ age

12._____ type of amblyopia is associated with abnormal parvocellular pathway

13.Distance esodeviation is more than near is indicative of _____ NSBVA

14._____ clinical test to assess the local stereopsis

10. Parks 3 step test is used to determine _____ squint
11. Angle subtended by WFDT at 33 cm is _____
12. _____ is the stimulus for accommodation.
13. Positive angle kappa stimulate _____ deviation
10. _____ is prescribed as a relieving prism in exotropia
11. Magnocellular pathway is responsible to _____
12. _____ quantitative orthoptic test is used to assess fusional vergence
13. Base out prism is given to type of squint
10. The nerve supplies the superior oblique muscle
10. The term heterophoria refers to _____
11. Outward movement of an eye is termed as _____
12. TNO test is used as a test for _____
13. Atropine therapy given in the management of amblyopia is termed as _____
14. Nystagmus that occurs when one eye is closed is called _____

(STATE TRUE OR FALSE)

10. Jerk nystagmus has a fast component and slow component.
11. Recession is a muscle strengthening surgery.
12. Seeing two images of a single object is called confusion.
13. In a case of 3rd nerve palsy, the eye is positioned down and out.
14. Lees screen is based on haploscopic principle
10. In paralytic squint with diplopia, the two images are closest in the direction of action of the muscle.
11. Crowding phenomenon is a feature of amblyopia
12. Resection is a muscle weakening surgery.

13. Beilschowsky's test is useful in the diagnosis of superior oblique paralysis.
14. Positive angle kappa is seen in myopia
10. The positive range of convergence should be measured both unilaterally and binocularly.
11. Maddox tangent scale is used to measure heterophoria
12. In visuoscope, a grey star is projected on to the fundus and cobalt-blue filters are incorporated in beam of light.
13. Bifocals are a useful adjunct in the treatment of certain cases of accommodative convergent squint.
14. Miotics may play a useful part in the treatment of convergence insufficiency.
14. Sensory esotropia is caused due reduced visual acuity in one eye true