KMCT COLLEGE OF ALLIED HEALTH SCIENCES
MUKKOM, KOZHIKKODE, KERALA
DEPARTMENT OF OPTOMETRY
OCULAR PHYSIOLOGY- QUESTION BANK

ESSAY :

1. Describe visual pathway. Add anote on effect of lesion of visual pathway at Optic chiasma, Left optic nerve right optic tract
2. List the theories of colour vision and describe any one theory in detail. Add a note on colour blindness.
3. Describe the changes taking place during accommodation reflex. Explain the pathway for accommodation reflex.
4. Explain the errors of refraction and their optical correction.
5. Describe the production, composition drainage and functions of aqueous humor. Add a note on glaucoma
6. Write about the function of extraocular muscles. Write in detail about the las governing ocular motility
7. Describe the steps in phototransduction. Add a note on the importance of vitamin A in vision
8. Describe the photochemistry of vision. Add a note on colour blindness
9. Describe the structure and functions of retina. What is blind spot.
10. Draw a cross section of the retina and mark the layers.
11. Describe the mechanism of colour vision by the brain

SHORT ESSAYS :

1. Dark adaptation
2. Laws of ocular motility
3. Mechanism of formation of aqueous humor
4. Convergence and its anomalies
5. Intraocular muscles

6. Field of vision
7. Binocular vision
8. Describe the structure and functions of the tear film. Add a note on dry eye.
9. Functions of extraocular muscles supplied by oculomotor nerve
10. Pathway of pupillary light reflex
11. Mechanism of accommodation
12. Depth perception
13. Theories of colour vision
14. Factors affecting corneal transperancy
15. Visual acuity
16. Visual cortex
17. Describe the features and functions of human crystalline lens

SHORT ANSWERS :

1. Glaucoma
2. Ocular dominance
3. Amblyopia
4. Presbyopia
5. Protanopia and Protanomaly
6. Purkinje images
7. Snellen's chart
8. Applanation tonometry
9. Layers of retina
10. Compare rods and cones
11. Diagrammatically represent visual cycle
12. Name two supranuclear eye movements of eye
13. Fovea centralis
14. Primary and complimentary colours
15. Argyll Robertson Pupil
16. Factors causing changes in IOP
17. Physical changes that occur in ageing lens

18. Nystagmus
19. Hemianopia
20. Rhodopsin
21. Name the components of tear film
22. Stereopsis
23. Two advantages of binocular vision
24. Bitemporal hemianopia
25. Optical system of the huma eye
26. Functions of eyelid
27. List the functions of lacrimal gland
28. Perimetry
29. Receptive field
30. Electroretinogram
31. Measurement of intraocular pressure
32. Innervation of ocular muscles
33. Bllod retinal barrier
34. Schirmer's test
35. Saccades

ONE WORD ANSWERS :

1. Visual acuity is greatest in ……
2. Occlusion therapy is used to treat …….
3. Orientation coloumns are seen in ……. .
4. Inheritance pattern of colour blindness is …….
5. Aqueous humor is secreted by ……. .
6. Saccades are regulated by…….
7. Macular sparing is seen in …… lesions
8. Muller's cells are seen in …… membrane
9. Double vision is called ……
10. ……. Of the eye is avascular
11. Normal refractive power of eye is ……

12. Astigmatism is corrected by …….
13. …… has the highest visual acuity
14. Night blindness is due to the deficiency of ……
15. Primary colours are …….
16. Primary visual area is ……. .
17. Muscle that help in accommodation of eye is …….
18. Field of vision is measured using …….
19. One diagnostic test for colour vision
20. Normal IOP is …….
21. The clinical condition in which IOP increases
22. Biconcave lens is used to correct ……. .
23. Approximate number of cones present in each eye is …….
24. Pathological blind spot is known as …….
25. The jerky movements of the eye is called as…….
26. Weakness of green colour is known as …….
27. The refractive index of human lens is about ……. .
28. The pigment present in rods
29. Visible range of wavelength of human eye is ……. .
30. Neural centre for pupillary light reflex is situated at ……. .
31. Refractive index of cornea
32. Muscle which help in the convergence of eyeballs ……. .
33. Minimum amount of light that can be produce sensation of light is called ……
34. …… layer of tear fil is secreted by meibomian gland
35. The structure with greatest RI in the eye is ……. .
36. Main lacrimal gland is present in the …… and …… part of roof of the orbit
37. Aperture present in the centre of iris …….
38. Vision in dim light is called …….
39. All retinal layers except nerve fibre terminate at …….
40. Primary visual cortex is located in the ……. .
41. ……. . muscle causing pupillary constriction is supplied by the 3rd cranial nerve
42. Power of biconvex lens of human eye

43. As gaze shift from one object to another, sudden jerky movements of eyeball are called …….

44. Refracive error where eyeball is short and light rays focused behind the retina is ……

45. Lesion in the optic chiasma results in visual field defect called ……. .

Prepared by :

ASLY P
LECTURER, DEPARTMENT OF OPTOMETRY
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