Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. Optometry Degree Examination - 22-Nov-2024

Time: Three Hours **Max. Marks: 100 Marks**

OCULAR L.ANATOMY, OCULAR PHYSIOLOGY AND OCULAR BIOCHEMISTRY
(REVISED SCHEME – 4)
Q.P. CODE: 3343
(QP contains two pages)

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (Second Question Choice) **2 x 10 = 20 Marks**

1. Describe the gross anatomy of bony orbit, its relation with surrounding structure, draw and label the structures passing through orbital apex.

2. Define glycolysis. Write the pathway for aerobic glycolysis. Add a note on energetics.

   Or

   Describe the anatomy/course, distribution, clinically applied aspect and lesions of oculomotor nerve.

SHORT ESSAYS (Question No 5 & 10 choice) **10 x 5 = 50 Marks**

3. Write short note on protein content of tear film.

4. Describe the anatomy of optic chiasma.

5. Short note on visual cycle with diagrammatic representation.

   Or

   Factor effecting corneal hydration.

6. Draw a diagram to show the components of the precorneal tear film.

7. Write down the physiological functions of aqueous humour.

8. Describe the aqueous houmer dynamics.

9. Explain the glucose metabolic pathways in cornea.

10. Describe the anatomy of superior, inferior oblique muscle.

    Or

    Describe the concept of trichromacy and colour vision defect.

11. Discuss the causes and mechanism of cataract formation.

12. Describe the structure, composition and functions of vitreous.

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SHORT ANSWER (Question No 15 & 20 choice) **10 x 3 = 30 Marks**

13. Sympathetic innervation of eye.

14. Schirmer's test.

15. List the metabolic changes seen in aging lens.

Or

Blood- retinal barrier.

16. Hene's nerve fiber layer of retina.

17. Tear film and composition of tears.

18. Optic tract.

19. Composition of sclera.

20. Corneal endothelium.

Or

Optic chiasma.

21. Visually evoked potentials.

22. Mention the antioxidants in Retina and RPE.

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