Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Optometry Degree Examination - 05-Nov-2026

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

VISUAL OPTICS (RS-4)
Q.P. CODE: 3347

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. Explain in details about instrumentation theory of retinoscopy with diagram
2. Define and classify myopia with proper ray diagram. Mention the clinical features of myopia. Write the different treatment option available for myopia

   OR

   Write in detail schematic eye and reduced eye with neat diagram

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

3. Explain the various procedure to refine the astigmatic correction.
4. Write in detail about jack in a box phenomenon
5. Write the optics of prism and its application in ophthalmology

   OR

   Define retinoscopy and describe the optics of stages of retinoscopy
6. Principle of Bausch and Lomb keratometer. What is extended keratometry?
7. The cross cylinder form of a prescription is as follows + 3.00 Dcyl x 90 and + 1.50 D cyl x 180 convert the prescription to minus and plus Sphero cylinder form
8. Short notes on dynamic retinoscopy
9. Write the clinical relevance of cyeloplegic retraction
10. Write about the anomalies of accommodation

    OR

    Draw the ray diagrams of convex lenses for various position of object and mention the characteristics of image after refraction
    A. Position of object at infinity
    B. Position of object at focus F1
11. Write a note on trial set
12. What is AC/A? write about gradient method

SHORT ANSWER **10 x 3 = 30 Marks**

13. Name the optical components of eye and give their refractive index and measurements
14. Write on instrument for measuring corneal curvature
15. Write on the cycloplegic effect of homatropine
16. The far point of non accommodated hypermetropic eye is located _____ retina comment on it
17. What is the curvature of anterior and posterior surface of lens during accommodation?
18. Uses of pinhole and stenopic slit
19. Write on angle kappa
20. Depth of focus and depth of field
21. Convert 6/24 into LogMAR
22. With the rule and against the rule astigmatism

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