

**Rajiv Gandhi University of Health Sciences, Karnataka**  
**II Year B.Sc. Optometry Degree Examination – 05-May-2026**

**Time: Three Hours**

**Max. Marks: 100 Marks**

**OPTOMETRIC OPTICS AND DISPENSING (RS-4)**

**Q.P. CODE: 3346**

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 detail about PAL include designs, markings, advantages and disadvantages
2. Detail on Faults in Spectacles – lens and frame fitting, detection and corrections

**Or**

Explain properties of crossed cylinders with examples

**SHORT ESSAYS (Question No 5 & 10 choice)**

**10 x 5 = 50 Marks**

3. Short note on aberrations
4. Detail on frame shape and face shape
5. Explain about aspheric lenses in detail

**Or**

How far will a 3.25 Δ prism appear to displace the image of an object 4 m away?

6. Explain lens material defect
7. Explain the refraction through astigmatic lenses
8. Write on sign conventions
9. Steps of torric transpositions with examples
10. Steps in lens surfacing

**Or**

Difference between boxing and datum system

11. Explain image jump in bifocals
12. Explain on special purpose lenses
  - a. Photochromic lenses
  - b. Aspheric

**SHORT ANSWER**

**10 x 3 = 30 Marks**

13. Factors influencing photochromic performance
14. Polarized lenses
15. Knapp's law
16. Effects of UV in eye
17. Splay angle
18. Pantoscopic tilt
19. Frontal angles
20. Classification of plastic material
21. Strums conoid
22. Define prism and give the unit of prism power

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