

**Rajiv Gandhi University of Health Sciences, Karnataka**  
**II Year B.Sc. Optometry Degree Examination – 29-May-2024**

**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 the specifications required while ordering a single vision, bifocals and progressive lens
2. Explain various types of frames and its parts, materials and measurements

**Or**

Give the sum of these two lenses plano – 3.25 DC x 180 and Plano – 3.25 DC x 45

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

**10 x 5 = 50 Marks**

3. Prentice rule and Fresnel prisms
  4. Datum system of measurement
  5. Write on Spherometer and Sag formula
- Or**
6. Draw a neat diagram of PAL and label its parts
  7. Write on cross-cylinders and give examples
  8. PAL measurement
  9. Write on vertex distance and its calculation method
  10. Pupillometer

**Or**

A prism made from 1.66 index material is shown to deviate light 6 degree, what is its apical angle?

11. Explain Lens material defects
12. Write a note on selecting frame for children

**SHORT ANSWER**

**10 x 3 = 30 Marks**

13. Ptosis spectacle
14. High plus lens design
15. How can you repair a broken spectacle bridge?
16. Types of bifocals
17. Geneva lens measure
18. ARC coating
19. Measurement of monocular PD
20. Frame selection for high minus lenses
21. Benefits of scratch resistant glass lenses
22. Difference between glass and plastic photochromatic lens

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