

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Optometry Degree Examination - 23-Nov-2023

Time: Three Hours

Max. Marks: 100 Marks

OPTOMETRIC OPTICS & DISPENSING (RS-4)

Q.P. CODE: 3346

(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. Explain lens surfacing.
2. What are Ophthalmic prisms? Mention its types, advantages, limitations and uses with appropriate examples.

Or

Using formula method. Describe how to find the resultant. Spherocylinder lens power when these two obliquely crossed cylinders are combined, Lens 1 : plano -2.00 DC x 180,
Lens 2 : -2.00 DS +2.00DC x 135

SHORT ESSAYS (Question No 5 & 10 choice)

10 x 5 = 50 Marks

3. What are the possible faults in lenses?
4. Write a note on Vertex power and vertex distance.
5. Explain antireflection coating.

Or

Draw a neat diagram of progressive addition lenses and label permanent and temporary marketing?

6. Write a note on Fresnel prism.
7. Describe oblique astigmatism and distortion.
8. Mention briefly about transmission, reflection and shadowing lens quality inspection techniques.
9. Explain magnification in high plus lenses.
10. Write a note on Fused Bifocals and its manufacturing?

Or

What is the center thickness for a lens with the following dimensions, lens power +3.00 D, Refractive index =1.53, lens form is plano convex, Edge thickness is zero, lens diameter is 50mm

11. What are Anisekonic lenses?
12. What is inter-pupillary distance? How to measure it and what are the implications of them?

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SHORT ANSWER

10 x 3 = 30 Marks

13. Best form lenses.
14. Base curve.
15. Polycarbonate lens.
16. Properties of cross cylinders.
17. Abbe – value.
18. Types of progressive Addition Lenses.
19. Sag height and sag depth.
20. Advantages of glass lenses.
21. Facial wrap.
22. Executive bifocals.
