Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Optometry Degree Examination - 23-Dec-2022

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 the spectacle lens manufacturing process.

2. Discuss on the patient selection and dispensing of progressive addition lenses.

   Or

   Use formula method to find the resultant Spherocylinder lens power when two obliquely crossed spherocylinder lenses are combined, Lens 1 : plano +2.00 DC x 60, Lens 2 : Plano –3.00 DC x 10

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

3. What are the tools used for repairing spectacles?

4. Write a note on hand neutralization.

5. What are the facial measurements required for dispensing a pair of glasses?

   Or

   Write properties of cross cylinders? With one example each.

6. Write a note on Aspherical lenses.

7. A +4.00 D spherical lens is ordered for the Right Eye. The perception also calls for 2 Δ of prism base out before the Right Eye. How should the lens be decentered to obtain the correct amount of prism?

8. What are the different tints available? Write its uses and whom to prescribed them.

9. Derive sag formula.

10. Write a note on types of bifocal lens segments.

    Or

    Steps for toric transposition? With one example.

11. What are the aberrations in ophthalmic lenses?

12. Explain Knapp's law.

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

13. Welding glasses.

14. Transpose to negative sphero – cylindrical format.
    a. -4.00DC*180 / -2.00DC*90
    b. +3.75DC*60 / -2.25DC*150

15. Types of bridges.

16. Specific gravity.

17. Hydrophobic coating.

18. Fresnel lenses.

19. Mention any four frame shapes.

20. Mention the different types of coating available.

21. Vertex distance and vertex power.

22. Trivex lens.

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