

THE APOLLO UNIVERSITY
Saketa, Chittoor, AP
AHS- V Semester End Examination, June-2024
Paper-III- OPTT 3503 –CONTACT LENS I

Time: 3 hours

Max. Marks: 60

Section –A (10x2=20 marks)

Answer all Questions

1. Provide a concise definition of contact lenses, highlighting their primary purpose.
2. Define the term diffusion coefficient in context of contact lens.
3. Define the term "optical zone" concerning contact lens.
4. Define "binocular vision" in the context of contact lenses
5. Write the role of prescription parameters in the customization of RGP lenses.
6. Write the significance of the axis and cylinder power in a Toric lens prescription.
7. What is "RGP" and what is its key advantage?
8. How does the knowledge of corneal curvature influence the base curve of a soft contact lens?
9. Write the significance of proper lens hygiene in the context of RGP contact lenses.
10. What is prism ballast, and how does it contribute to stabilization in Toric contact lenses?

Section –B (5X8=40 marks)

Answer all Questions either A or B in 400 words each

11. A) Elaborate the factors of affecting hydration of Cornea and link how it maintains the transparency of cornea.

OR

B) Define contact lenses and provide an in-depth exploration of their functions and applications and discuss how contact lenses differ from traditional eyeglasses in correcting vision.

12. A) Explore the fundamental optical principles underlying the design and functionality of contact lenses.

OR

B) Compare and contrast the corrective mechanisms of contact lenses for myopia and hyperopia.

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13. A) Compare and contrast the properties of traditional hydrogel materials with newer silicone hydrogel materials.

OR

B) Explain the basic principles and steps involved behind the Spin casting and cast moulding manufacturing process of soft contact lenses.

14. A) Evaluate the long-term effects and complications associated with prolonged use of RGP and soft contact lenses.

OR

B) Discuss the specific tests and assessments optometrists perform to gather crucial information about a patient's ocular health and visual status before contact lens fitting.

15. A) Compare and contrast the insertion and removal techniques for RGP contact lenses with those of soft contact lenses.

OR

B) Discuss the primary types of stabilization methods used to ensure proper lens alignment on the eye.
