

[LP 1019]

OCTOBER 2019

Sub. Code: 1623

M. OPTOM EXAMS
(Candidates admitted from 2018-2019 onwards)
FIRST YEAR
PAPER III – ADVANCED CONTACT LENSES – I

Q.P. Code: 281623

Time: Three hours

Maximum: 100 Marks

I. Elaborate on: **(2 x 20 = 40)**

1. Explain customized Soft Contact lens trial fitting with example for flat, steep and optimum fit. Give examples.
2. Explain RGP Contact lens fitting for a refractive error of -3.00/ -3.00x180. Write the final prescription.

II. Write notes on: **(10 x 6 = 60)**

1. Explain the tear layer in detail with diagram and list their function.
2. List and Explain FDA grouping of Soft lens material.
3. Explain fitting of soft toric contact lens for a refractive error of -1.00/-2.50 x 170. Explain empirical fitting and trial fitting with application of LARS rule.
4. What are the steps to follow in Soft toric contact lens fitting?
5. Draw the contact lens design and explain the different parameters.
6. Explain the function of each layer of tear film.
7. What are the required instrumentation for contact lens practice? And Why?
8. What is the lens care regimen to be followed for monthly Soft contact lens use?
9. List the steps involved in assessment of Soft contact lens fitting.
10. Explain the Contact lens parameters with a diagram.

[LQ 1019]

**NOVEMBER 2020
(MAY 2020 SESSION)**

Sub. Code: 1623

**M. OPTOM EXAMS
(Candidates admitted from 2018-2019 onwards)
FIRST YEAR
PAPER III – ADVANCED CONTACT LENSES – I
Q.P. Code: 281623**

Time: Three hours

Maximum: 100 Marks

I. Elaborate on: **(2 x 20 = 40)**

1. Explain steps in pre fitting and assessment of fitting in a soft contact lens in a patient with subjective refraction -4 .00Sph (VA-6/6) in both eyes.
2. Role of tear lens in correction of astigmatism. Explain different fluorescein patterns achieved with RGP. Explain indications of spherical conventional RGP, front surface toric RGP, back surface toric RGP.

II. Write notes on: **(10 x 6 = 60)**

1. Explain in brief about ROSE k2 contact lens.
2. Explain corneal anatomy and in relation to contact lens.
3. Steps of toric lens fitting.
4. List the indications/partial indications and precautions, and contraindications of contact lens in detail.
5. Presbyopia management with contact lens.
6. Explain different manufacturing of soft lens and their advantages and disadvantages.
7. Indications and fitting of bandage contact lens.
8. List and explain FDA grouping of soft lens material.
9. Explain the fitting and assessment of mini sclera.
10. Explain advantage and disadvantage of different manufacturing techniques used in contact lens.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[AHS 0321]

**MARCH 2021
(OCTOBER 2020 EXAM SESSION)**

Sub. Code: 1623

**M.OPTOM
FIRST YEAR (From 2018-2019 onwards)
PAPER III – ADVANCED CONTACT LENSES - I
Q.P. Code : 281623**

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate notes on:

(2 x 20 = 40)

1. A 18 year old male has a refractive error of OD: -4.00/-3.00x170 (VA 6/12), OS: 0.00(VA 6/6). Keratometry values shows (OD) K1: 47.00 @170(7.18mm); K2: 50.00d @180(6.75mm).
 - a) Write down the steps how do you select the initial RGP trial lens.
 - b) Write in brief what are the steps you follow while assessing the RGP contact lens fit.
2. Contact lens solutions – Composition, necessity and advantages?

II. Write Short Notes on:

(10x6 = 60)

1. Explain fitting philosophies in keratoconus.
2. What is the relation between sagittal depth and base curve explain with diagram?
3. Bifocal and multifocal lens.
4. Explain in brief about Rose K2 contact lens.
5. Explain different stages of corneal edema due to hypoxia.
6. Explain functions of tear film and their properties. Explain different layers of tear film and their secretion.
7. What are the steps involved in toric soft lens fitting? List different types of toric lens designs.
8. Explain the parameters of materials that are directly involved with the oxygen permeability.
9. Indications and fitting of bandage contact lens.
10. Explain the rigid contact lens insertion and removal techniques.

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[AHS 0921]

**SEPTEMBER 2021
(MAY 2021 EXAM SESSION)**

Sub. Code: 1623

**M.OPTOM
FIRST YEAR (From 2018-2019 onwards)
PAPER III – ADVANCED CONTACT LENSES - I
*Q.P. Code : 281623***

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate notes on:

(2 x 20 = 40)

1. Explain in brief on static and dynamic fitting for RGP.
2. Explain in detail indication and contraindication of different contact lenses.

II. Write Short Notes on:

(10x6 = 60)

1. Define “tear lens”. Write about the role of tear film and tear lens in soft and rigid contact lens fitting.
2. Explain FDA classification of soft contact lens material.
3. What is a contact lens care system? Write about the various ingredients and their actions.
4. Explain the fitting and assessment of mini sclera.
5. Explain and short notes on a) CLPC, b) CLARE, c) CLPU, d) SEAL.
6. Explain the rigid contact lens insertion and removal techniques.
7. Silicone hydrogel contact lenses – properties, advantages and disadvantages.
8. Define the parameters sagittal depth, total diameter and base curve. Explain the relationship between them with diagrams.
9. Explain slit lamp examination methods for contact lens practice.
10. Presbyopia management with contact lens.

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[AHS 0222]

**FEBRUARY 2022
(OCTOBER 2021 EXAM SESSION)**

Sub. Code: 1623

M.OPTOM

FIRST YEAR (Candidates admitted from 2018-2019 & 2020-2021 onwards)

PAPER III – ADVANCED CONTACT LENSES - I

Q.P. Code : 281623

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate notes on:

(2 x 20 = 40)

1. What are the various methods to manufacture rigid gas permeable lenses and soft contact lenses?
2. What are the various (five) modifications possible with rigid gas permeable lenses and how do you go about doing each of the modifications.

II. Write Short Notes on:

(10x6 = 60)

1. From the early contributions in the 16th century to the recent developments in silicon elastomers, write the major events in the development of contact lens materials.
2. What are the various methods to assess the fit of rigid gas permeable lenses.
3. What are the various investigations and tools used prior to fitting contact lenses.
4. Discuss the types of fit on a toric cornea, with a spheric and toric lens.
5. Name three important material properties of contact lenses and their significance.
6. Name any three components of a lens care system, their functions with examples.
7. Name few instances where contact lenses are indicated and why?
8. What is the importance of a keratometer, topographer and slit lamp in contact lenses fitting.
9. What is the step by step procedure that you will instruct your patient on wearing and removal of rigid gas permeable contact lens.
10. What are the various parameters that you need to calculate to finalize on the best suitable contact lens for the patient.

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[AHS 1022]

OCTOBER 2022

Sub. Code: 1623

**M.OPTOM
FIRST YEAR**

**(Candidates admitted from 2018-2019 & 2020-2021 onwards)
PAPER III – ADVANCED CONTACT LENSES – I**

Q.P. Code : 281623

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate notes on: (2 x 20 = 40)

1. Write in detail about the procedure and assessment for RGP contact lens fittings.
2. Write in detail about contact lens verification and discuss about what are the parameters need to verified.

II. Write Short Notes on: (10x6 = 60)

1. Write about tight fit characteristics of RGP lens.
2. Explain about Contact lens materials.
3. What is DK\t and its significance in Contact lens?
4. Recent advancement in Contact lens.
5. How to calculate vertex power for -2.00/-3.00@180, write down the steps involved in calculations.
6. Write about Anterior Segment OCT.
7. What is vertex distance and calculate the effectivity of lens with example.
8. Scleral Contact lens fitting.
9. Therapeutic Contact lens.
10. Write the Care and maintenance of Soft contact lens.
