

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**MD (OPHTHALMOLOGY) OPTICS & REFRACTION EXAMINATION**  
**APRIL 2023**

**Date :-** 27<sup>th</sup> April, 2023

**Time:-** 1.30 p.m. – 3.30 p.m.

**ESSAY PAPER**

Answer **all four (04)** questions.  
Answer each question in a separate book.

1.
  - 1.1. Draw a ray diagram to illustrate how the image is formed by the slit lamp. (40%)
  - 1.2. What are the advantages of slit lamp bio-microscopy in ophthalmic examination? (40%)
  - 1.3. Briefly discuss the methods of illumination used in slit lamp examination. (20%)

2. A 21-year-old female university student presents to you with the following refraction.

Right eye	-7.50 DS -2.00 DC x 180	6/9
Left eye	- 0.50 DS	6/6

Anterior segment examination is unremarkable. Posterior segment shows myopic fundus in the right eye.

She wishes to be spectacle free.

- 2.1. Briefly describe the options you would discuss with this patient. (40%)
- 2.2. What advice would you give for a first-time contact lens user? (30%)
- 2.3. List the complications of contact lens use. (30%)

Contd..../2-

3. A 45-year-old patient comes to you for cataract surgery.
    - 3.1. What are the variables used in the calculation of intra ocular lens (IOL) power. (30%)
    - 3.2. Discuss the formulae available for IOL power calculation. (40%)
    - 3.3. Briefly discuss the problems in IOL power calculation after Radial Keratotomy and how do you overcome them. (30%)
  
  4. Write short notes on:
    - 4.1. Laser tissue interactions. (40%)
    - 4.2. Dysphotopsias. (30%)
    - 4.3. Multifocal intraocular lenses. (30%)
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