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

**OPHTHALMOLOGY MODULE III EXAMINATION – APRIL, 2017**

**ESSAY PAPER**

Date: 24<sup>th</sup> April 2017

Time: 1.30 p.m. – 3.30 p.m.

Answer all questions.

Answer each question in a separate book.

1.
  - 1.1 What is total internal reflection? Explain your answer with Ray Diagram. (30%)
  - 1.2 Explain with Ray Diagrams how this principle is used in gonioscopy. (40%)
  - 1.3 Explain with Ray Diagram why an ectatic cornea does not need gonioscopic lenses for examination of the anterior chamber angle. (15%)
  - 1.4 List the ophthalmic instruments and equipment where the principles of Total Internal Reflection is used. (15%)
2.
  - 2.1 Compare and contrast the optical principles of Indirect Ophthalmoscope and Direct Ophthalmoscope using Ray Diagrams. (70%)
  - 2.3 List the clinical advantages and disadvantages of Indirect Ophthalmoscope. (30%)
3. A 56 year old executive officer presented to you with bilateral cataract. He seeks an advice regarding an intra ocular lens which would provide best refractive outcome.
  - 3.1 What are the optical consideration of intraocular lens power calculation in this patient? (60%)
  - 3.2 How would you advice him regarding selection of intraocular lens type and design? (40%)
4. Write short notes on –
  - 4.1 Prismatic effects of spherical lens and its clinical implications. (40%)
  - 4.2 Conoid of Sturm. (30%)
  - 4.3 Effects of laser energy on ocular tissue. (30%)