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

**[AHS 1122]**        **NOVEMBER 2022**        **Sub. Code: 2733**

## B.OPTOM
### FIRST YEAR (Regulation 2018-2019)
### PAPER III - PHYSICAL AND GEOMETRICAL OPTICS
*Q.P NO. 802733*

**Time: Three Hours**        **Answer All questions**        **Maximum: 100 Marks**

**I. Elaborate on:**        **(3 x 10 =30)**

1. Explain the construction and working of Michelson Interferometer.
2. How the different types of polarized light can be distinguished?
3. Etiology, signs, symptoms and treatment of Myopia.

**II. Write notes on:**        **(8 X 5=40)**

1. Total internal reflection.
2. Gullstrand's schematic eye.
3. Presbyopia
4. Photo electric effect.
5. Chromatic aberrations.
6. Lloyd's single mirror.
7. Lasers in Ophthalmic applications.
8. Thomas young experiment.

**III. Short Answers on:**        **(10 X 3=30)**

1. Critical angle of Glass.
2. Vertex distance.
3. Nicol Prism.
4. Polarization of light.
5. Astigmatism.
6. Fermat's Principle.
7. Spectacle magnification.
8. Raman Effect.
9. Argon lasers and its uses.
10. Laser pumping.

*\*\*\*\*\**