



[AHS 0321]

MARCH 2021

Sub. Code: 2733

(AUGUST 2020 EXAM SESSION)

B.OPTOM

FIRST YEAR (Regulation 2018-2019)

PAPER III – PHYSICAL AND GEOMETRICAL OPTICS

Q.P. Code : 802733

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(3 x 10 = 30)

1. Explain the application of LASER in ophthalmology and medicine.
2. Describe the Newton's rings experiment and how it is used to determine the refractive index of a liquid.
3. Classification of myopia and its correction.

II. Write notes on:

(8 x 5 = 40)

1. Aphakia
2. Types of lenses according to shape.
3. Raman effect
4. Total internal reflection
5. Double refraction
6. Population inversion
7. Properties of cylindrical lenses
8. Glare effect.

III. Short answers on:

(10 x 3 = 30)

1. Dual natures of light.
2. Emmetropia.
3. Photoelectric effect.
4. Field of view.
5. Laws of refraction.
6. Presbyopia.
7. Polarization of light.
8. Laser pumping.
9. Vergence
10. Dispersion of light.

