

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

[AHS 0321]

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

Sub. Code: 2743

B.OPTOM

SECOND YEAR (Regulation 2018-2019)

PAPER III – OPTOMETRIC INSTRUMENTS AND OPTOMETRIC OPTICS I

Q.P. Code : 802743

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(3 x 10 = 30)

1. Define Binocular vision. Give its prerequisite, advantages and test to assess it.
2. What is the principle of visual acuity testing? Describe the Snellen chart and Bailey – Iovine chart.
3. Describe the different illumination techniques used in a slitlamp examination.

II. Write notes on:

(8 x 5 = 40)

1. Trial box and its contents.
2. Brightness acuity Tester, instrumentation and its uses.
3. Goldman applanation tonometer.
4. Differences between Direct and indirect Ophthalmoscope.
5. Toric transposition : -1.00DS /-2.00DCX90 BC : +6.00D.
6. Explain the parts of a frame with a neat labelled diagram.
7. Difference between spherical and cylindrical lenses.
8. Explain the steps of lens glazing.

III. Short answers on:

(10 x 3 = 30)

1. Draw diagram of different forms of convex lens.
2. Interpret : 52 □ 14/145.
3. List three faults seen during the surfacing.
4. Calculate the prismatic effect for the RE -3.00 DS with a decentration of 3 mm inwards.
5. Give the RI for the following lens material : crown glass, polycarbonate and CR 39.
6. What is Arden's ratio? What is its normal value.
7. Give three uses of keratometry.
8. Define fixation loss and false negative.
9. List three non-optical devices.
10. Differentiate between anopia and anomaly. Name any one test that screens for congenital colour defect.
