



BRAINWARE UNIVERSITY

Term End Examination 2023-2024

Programme – B.Optomtry-2021/B.Optomtry-2022

Course Name – Optometric Instrumentation

Course Code - BOPTOC302

(Semester III)

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) Which part of the eye is responsible for producing the highest echo spikes on an A-scan waveform?
 - a) Cornea
 - b) Lens
 - c) Retina
 - d) Sclera
- (ii) A-scan biometry is useful for calculating the power of an intraocular lens because it provides information about:
 - a) The color of the iris
 - b) The shape of the pupil
 - c) The density of the vitreous humor
 - d) The axial length of the eye
- (iii) What is the primary function of a keratometer?
 - a) Measuring intraocular pressure
 - b) Assessing corneal curvature
 - c) Evaluating retinal health
 - d) Examining the lens power
- (iv) Which unit of measurement is commonly used for corneal curvature in keratometry?
 - a) Diopters (D)
 - b) Millimeters (mm)
 - c) Pascals (Pa)
 - d) Newtons (N)
- (v) Which part of the eye does a keratometer primarily focus on for measurement?
 - a) Lens
 - b) Sclera
 - c) Cornea
 - d) Retina
- (vi) In static retinoscopy, a "with" movement indicates:
 - a) Overcorrection
 - b) Undercorrection
 - c) Emmetropia
 - d) Astigmatism
- (vii) Which type of retinoscopy is primarily used to assess the accommodative system?
 - a) Static retinoscopy
 - b) Dynamic retinoscopy
 - c) Near retinoscopy
 - d) Cycloplegic retinoscopy
- (viii) Which condition can be detected or monitored using keratometry?
 - a) Glaucoma
 - b) Cataracts
 - c) Corneal astigmatism
 - d) Macular degeneration

12. Explain the purpose of the Early Treatment Diabetic Retinopathy Study (ETDRS) chart in ophthalmology. What is the specific significance of using this chart in the evaluation of visual acuity? (5)

OR

- Describe the design and layout of the ETDRS chart, including the principles of letter size, letter spacing, and chart illumination. How does it differ from standard Snellen charts? (5)
