BLDE (DEEMED TO BE UNIVERSITY)

B.Sc. in Optometry

[Time: 3 Hours]

[Max. Marks: 80]

III SEMESTER

PAPER - I (Physical Optics)

QP CODE: 8340

Your answer should be specific to the questions asked. Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Verifications of Malus's law by using polarizer and analyzer.

Short Essays: (Any - 8)

 $5 \times 8 = 40 \text{ Marks}$

- 2. Dual nature of light
- 3. Transverse nature of oscillation
- 4. Properties of light
- 5. Birefringence
- 6. Relationship between amplitude and intensity
- 7. Explain interference
- 8. Explain diffraction
- 9. Scattering of light
- 10. Explain the spectrum

Short Answers: (Any – 10)

- 11. Weber's law
- 12. Applications of laser
- 13. Radiometry
- 14. Photoelectric effect
- 15. Visual acuity
- 16. Airy disc
- 17. Fringe width
- 18. Lambert's law
- 19. Concept of waves
- 20. Brewster angle
- 21. Suspension and colloid

BLDE (DEEMED TO BE UNIVERSITY) B.Sc. in Optometry

[Time: 3 Hours]

[Max. Marks: 80]

III SEMESTER

PAPER – II (Geometrical Optics)

QP CODE: 8341

Your answer should be specific to the questions asked. Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Discuss newton ring experiment and explain how it is used to determine the wavelength of sodium light?

Short Essays: (Any - 8)

 $5 \times 8 = 40 \text{ Marks}$

- 2. Nicol prism
- 3. Visual acuity
- 4. Electromagnetic spectrum
- 5. Glare effect
- 6. Anomalies of accommodation
- 7. Wave theory of light
- 8. Zone plate
- 9. Wedge shaped thin lenses
- 10. Raman effect

Short Answers: (Any - 10)

- 11. Double refraction
- 12. Biquartz
- 13. Back vertex power
- 14. Types of vergence
- 15. Angular magnification
- 16. Flint glass
- 17. Dispersion of light
- 18. Elliptical polarisation of light
- 19. Jack in the box phenomenon
- 20. Paraxial approximation
- 21. Vertex distance

BLDE (DEEMED TO BE UNIVERSITY) B.Sc. in Optometry

[Time: 3 Hours]

[Max. Marks: 80]

III SEMESTER PAPER – III (Visual Optics) QP CODE: 8342

Your answer should be specific to the questions asked. Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Define visual acuity discuss in detail various types of visual acuity chart and their applications.

Short Essays: (Any – 8)

 $5 \times 8 = 40 \text{ Marks}$

- 2. Cardinal points of the eyes
- 3. Techniques of retinopathy?
- 4. Pin hole test
- 5. Presbyopia
- 6. Method of testing visual acuity in children
- 7. Axis of eyes
- 8. Strum's Conoid
- 9. Snellen's chart
- 10. Uses of prism in ophthalmology.

Short Answers: (Any – 10)

- 11. Diagnosis of Aphakia.
- 12. Visual angle.
- 13. Jackson cross cylinder.
- 14. Identification of cylinder lens
- 15. Types of myopia.
- 16. Vergence.
- 17. Define Anisometropia.
- 18. Magnification
- 19. Null point
- 20. Latent hypermetropia.
- 21. Fogging

BLDE (DEEMED TO BE UNIVERSITY)

B.Sc. in Optometry

[Time: 3 Hours]

[Max. Marks: 80]

III SEMESTER PAPER – IV (Ocular Disease I) QP CODE: 8343

Your answer should be specific to the questions asked. Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Define proptosis. Explain in detail about symptoms, signs and management of thyroid eye disease?

Short Essays: (Any – 8)

 $5 \times 8 = 40 \text{ Marks}$

- 2. Enophthalmos
- 3. Blowout fracture
- 4. Management of dry eye
- 5. Pterygium
- 6. Ulcerative keratitis Vs Non-Ulcerative Keratitis
- 7. Penetrating Keratoplasty
- 8. Scleritis
- 9. Cavernous Sinus Thrombosis
- 10. Classification of dry eye

Short Answers: (Any – 10)

- 11. Band shaped keratopathy
- 12. Types of uveitis
- 13. Define ectropion, entropion, trichiasis
- 14. Acute dacryocystitis
- 15. Pingecula
- 16. Types of ptosis
- 17. Vitamin A deficiency treatment
- 18. Keratoglobus
- 19. What are cells, flare, keratic precipitates
- 20. Episcleritis Vs scleritis
- 21. Corneal Dystrophies types

BLDE (DEEMED TO BE UNIVERSITY) B.Sc. in Optometry

[Time: 3 Hours]

[Max. Marks: 80]

III SEMESTER

PAPER – V (Clinical Examination & Visual System)

QP CODE: 8344

Your answer should be specific to the questions asked. Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Various methods of recording visual acuity for distance and near

Short Essays: (Any - 8)

 $5 \times 8 = 40 \text{ Marks}$

- 2. Slit lamp biomicroscopy
- 3. Retinoscopy
- 4. Write a note on Keratometer
- 5. Tonometry
- 6. Write a note on Schirmer's test, TBUT
- 7. Stereopsis
- 8. Anterior chamber depth Assessment
- 9. Hirschberg test
- 10. Amsler grid test

Short Answers: (Any - 10)

- 11. Ishihara chart
- 12. Confrontation test
- 13. Causes for sudden painless loss of vision
- 14. Swinging flash light test
- 15. Maddox rod
- 16. Krimsky test
- 17. ROPLAS Test
- 18. Superior oblique muscle
- 19. Cover test
- 20. Test for contrast sensitivity
- 21. Fluorescein stain