

7/24

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. Explain Thomas Young's experiment to explain interference of light

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Raleigh's Criterion.
3. Properties Ultra violet spectrum
4. Demonstration of phosphorescence
5. Interference phenomena in optics
6. Emission and absorption spectra
7. Principles of laser action
8. Michelson interferometer
9. Application of Polarization
10. Wave theory of light

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Weber's law
12. Population inversion
13. Applications of photoelectricity
14. Define dispersion of light
15. Laser Pumping
16. Dual nature of light
17. Write a note on polarization of light
18. Argon laser
19. Define Visual acuity
20. The ray model
21. Tyndall Effect

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**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.

10X1 = 10 Marks

Long Questions

1. Discuss the Newton's ring experiment and explain how it is used to determine the wavelength of sodium light.

5 X 8 = 40 Marks

Short Essays: (Any - 8)

2. Nicol Prism.
3. Visual Acuity.
4. Cylindrical lens.
5. Electromagnetic Spectrum.
6. Huygens wave theory.
7. Chromatic Aberrations.
8. Ophthalmic application of LASER.
9. What is glare effect?
10. Anomalies of accommodation.

3 X 10 = 30 Marks

Short Answers: (Any - 10)

11. Use of Pinhole.
12. What is wave theory of light?
13. Uses of cross cylinder.
14. Magnification.
15. Far point of eye.
16. Refractive index of the crystalline lens.
17. Production of plane polarized light.
18. Power of Lens.
19. Infrared Spectrum.
20. Spherical Aberration.
21. Vergence.

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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 the various types of visual acuity charts and their applications.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Cardinal points of the eye
3. Techniques of retinoscopy:
4. Pinhole test
5. Presbyopia
6. Methods of testing Visual acuity in children.
7. Axis of eye.
8. Sturm's conoid
9. Snellen's Chart
10. Uses of prism in ophthalmology.

Short Answers: (Any – 10)

3 X 10 = 30 Marks

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

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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. Classification and Investigations of Ptosis.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Cavernous sinus thrombosis.
3. Chronic Dacryocystitis.
4. Keratoconus.
5. Anterior Uveitis.
6. Endophthalmitis
7. Penetrating Keratoplasty.
8. Fungal Keratitis
9. Allergic Conjunctivitis
10. Name six layers of cornea.

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Name six extraocular muscles.
12. Pannus.
13. Three indications for keratoplasty.
14. Name three types of corneal opacity.
15. Conjunctival chemosis.
16. Write six causes of watering of eye.
17. Blepharophimosis.
18. Episcleritis.
19. Write three types of keratic precipitates.
20. Corneal vascularization and types.
21. Keratoglobus.

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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. Explain Recording of visual acuity for distance and near.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Color vision Examination
3. Vision testing in children
4. Lacrimal Syringing.
5. Corneal ulcer staining.
6. Cover tests
7. Retinoscopy
8. Schiottz tonometer.
9. Pinhole test
10. Amsler test

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Lid neat diagram
12. Parts of Slitlamp
13. Fundus Examination Instruments
14. ROPLAS test
15. TBUT
16. Lid eversion
17. Tear film components
18. Parts of Lacrimal system
19. Parts of Conjunctiva
20. Anatomy of Iris
21. Name the bones orbit.