CP-2922 | 4.4

B.Sc. DEGREE EXAMINATION, APRIL 2010

Optometry

OPHTHALMIC INSTRUMENTATION - II

(2008 Onwards)

Duration : 3 Hours | Maximum : 70 Marks

Section - A (5 × 6 = 30)

Answer any **Five** Questions

1. Pachometer

2. Explain about kinetic and static perimetry

3. Contrast sensitivity test

4. Colour vision testing and different types of charts

5. Tonometer

6. BSCAN

7. PAM

8. Argon and Yag Laser

Section -B (4 × 10 = 40)

Answer any **FOUR** Questions

9. ASCAN

10. FFA

11. Humphrey field analyser

12. Excimer laser [Lasik]

13. Interpretation of field defects

14. Explain about

    a) Nd-Yag Laser

    b) He-Ne gas Laser

    c) Application of Lasers

15. Explain about

    a) Schiotz tonometer

    b) Applanation Tonometer

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CP - 2878 **1 . 2**

B.Sc. DEGREE EXAMINATION, APRIL 2010

OPTOMETRY

PHYSIOLOGY OF THE EYE & BIOCHEMISTRY

(UPTO 2007 BATCH)

Duration : 3 Hours Maximum : 70 marks

PART - A (5 x 6 = 30)

Answer any **FIVE** Questions

1. Uevo - Scleral drainage

2. Changes in accomodation with age (Presbyopia)

3. Visual cycle

4. Retinal pigments

5. Functions of Lens

6. Dark adaptation curve

7. E R G (Electro Retinogram)

8. Metabolic activities of Lens

PAR T - B (4 x 10 = 40)

Answer any **FOUR** Questions

9. Discuss in detail about composition, physiochemical activities metabolic activities of vitreous blood - vitreous barrier

10. Types & measurement of contrast sensitivity

11. Factors affecting Intra oular pressure. Control & measure of IOP.

12. Discuss about

(a) mechanism & neurophysiology of colour vision (4)

(b) Test for colour vision (3)

(c) Colour blindness (3)

13. Tear film dynamics

14. Discuss in detail about Binocular Single Vision (BSV)

15. Discuss about

(a) Mechanics of action of Extra ocular muscle (3)

(b) Laws governing Ocular Motility (3)

(c) Ocular Movements (4)

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CP - 2879 **1 . 3**

B.Sc. DEGREE EXAMINATION, APRIL 2010

OPTOMETRY

Microbiology and Pharmacology of the Eye

(UPTO 2007 BATCH)

Duration : 3 Hours Maximum : 70 marks

PART - A (5 x 6 = 30)

Answer any **FIVE** Questions

1. Write a short note on newer drug delivery systems

2. Pharmacological actions of Opioid analgesics

3. Write short notes on artificial tears

4. Factors influencing penetration of Ocular drugs

5. Uses of local anasthetics in opthalmology

6. Write short notes on Beta - blockers

7. Write short notes on antipyretics

8. Explain Visco elastic agents

PART - B (4 x 10 = 40)

Answer any **FOUR** Questions

9. Routes of Drug administration

10. Indications and contra indications of cartico steroids in ocular diseases.

11. Antiglaucoma Durgs

12. Classification of NSAIDS, actions and uses

13. Drugs effective is convulsive disorders

14. Explain Adverse drug reaction

15. Pharmaco therapy of Insomnia

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CP - 2880 **1 . 4**

B.Sc. DEGREE EXAMINATION, APRIL 2010

OPTOMETRY

English And Communication Skills

(UPTO 2007 BATCH)

Duration : 3 Hours Maximum : 70 marks

SECTION - A (5 x 6 = 30)

Answer any **FIVE** Questions

1. "Education should bring out an overall behavioural change in the minds of the students" Discuss.

2. What are the essentials of efficient Speaking ?

3. What are the sources of difficulty experienced by the Speaker and the Listener ?

4. "Women listen better than Men " - Discuss

5. What are the skills assessed during a Group Discussion ?

6. Write briefly on your favourite sprinter.

7. What are the standard interview Questions ?

8. What are the precautions you have to make for conducting a free eye camp ?

SECTION - B (4 x 10 = 40)

Answer any **FOUR** Questions

9. "Tourism costs more money, time, energy and risk " - Discuss

10. Write a letter to the government asking permission to conduct a free eye camp at Madurai.

11. How do you present your resume for the post of a Co-ordinator in an Eye Hospital ?

12. "The minutest expressions is possible only in English Language" Discuss.

13. "After Globalization Indian tradition suffers a set back" - Discuss.

14. Write a letter to your friend about your trip to Mamallapuram, a famous place for sculptures.

15. "Mobile phones and i-pods are used for the advantage of students in Delhi Schools " - Discuss.

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CP - 2881 **1 . 5**

B.Sc. DEGREE EXAMINATION, APRIL 2010

OPTOMETRY

Geometric Optics

(UPTO 2007 BATCH)

Duration : 3 Hours Maximum : 70 marks

PART - A (5 x 6 = 30)

Answer any **FIVE** Questions

1. What is spherical aberration & chromatic aberration?

2. Describe cardinal point of optical systems.

3. Write a short note on Dispersion of prisms.

4. Define Snelts law, explain relative and absolute refractive indices.

5. Calculate lateral magnification for refraction at a special surface.

6. Define total internal reflection. What are the condition for total internal reflection?

7. What is core and cladding in Optical Fibre? Explain.

8. Describe in detail different types of lens shapes.

PART - B (4 x 10 = 40)

Answer any **FOUR** Questions

9. Explain different applications of opitcal fibres in industrial & medicine.

10. Derive the relation between U, V and R for refraction at a concave surface.

11. What is Fermat's principle and derive the laws of refraction?

12. Prove that for convex lens :

$$\frac{1}{f} = (\mu - 1)\left(\frac{1}{R_1} + \frac{1}{R_2}\right)$$

13. Explain in detail reflecting prisms.

14. Calculate the equivalent focal length & two thin coaxial lenses seperated by a finite distance.

15. Show that deviation produced by this lens is independent of the object.

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CP - 2882 **2 . 1**

B.Sc. DEGREE EXAMINATION, APRIL 2010

OPTOMETRY

PHYSICAL OPTICS

(UPTO 2007 BATCH)

Duration : 3 Hours Maximum : 70 marks

PART - A (5 x 6 = 30)

Answer any **FIVE** Questions

1. Write a short note on dual nature of light

2. What are the conditions to be satisfied to get the inference pattern? Explain.

3. Explain in detail the dispersive power.

4. Distinguish between Freshnel's and Fraunhofer diffraction.

5. What are the characteristics of Laser beam?

6. How do we analyse the plane polarised light with Nicolprism?

7. Write a short note on Color of thin films.

8. What is meant by half wave plate ? Calculate the thickness of half wave plate of quartz for a wave length of $5000\ \mathring{A}$

$\mu_0 = 1.511 \quad \mu_e = 1.566$

PART - B (4 x 10 = 40)

Answer any **FOUR** Questions

9. Describe in detail the theory of diffraction due to double slit.

10. Explain in detail the theory and working principle of Newton's ring experiment.

11. What is Zone plate ? Explain in detail about its construction and theory.

12. Explain with neat diagram the construction and reconstruction of Hologram.

13. How the elliptical and circularly polarized light can be analysed?

14. Describe in detail anti reflection coating and fitters.

15. Describe any one method to find the velocity of light.

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CP - 2883 | 2.2

B.Sc. DEGREE EXAMINATION, APRIL 2010

Optometry

COMPUTER USAGE

(Upto 2007 Batch)

Duration : 3 Hours | Maximum : 70 Marks

Part - A (5 x 6 = 30)

Answer any **FIVE** Questions

1. Explain about the types of Printers with the necessary diagram

2. Convert the following :

   (i) $(\text{FACE} \cdot \text{F})_{16} \rightarrow (\ )_2 \ , (\ )_8$

   (ii) $(1754 \cdot 63)_8 \rightarrow (\ )_{10} \ , (\ )_2$

   (iii) $(11011110 \cdot 110)_2 \rightarrow (\ )_8 \ , (\ )_{16}$

3. Write a detailed note on the classifications of software

4. List out any five DOS Commands and explain the functionality of each.

5. Explain the following :

   (i) Saving a document

   (ii) Cut, Copy , Paste

   (iii) Creating Header and Footer

6. Write short notes on

a) Data Types

b) Flow chart symbols

c) Variables

7. Write short notes on search engines and list out any four search engines.

8. Discuss on the impact of Internet in the Day to Day life of the user.

PART - B (4 x 10 = 40)

Answer any **FOUR** Questions

9. Draw the Block diagram of P C and explain about the functionality of CPU

10. Write in detail about

(i) Hexa Decimal Number System

(ii) Octal to Decimal conversion

(iii) Binary to octal and Hexa Decimal

11. Discuss about

(i) Windows components

(ii) Control Panel

(iii) Accessories

(iv) Icons

12. What is the use of Mail Merge and explain the working of Mail Merge with the necessary dialogue boxes?

13. How will you create a chart and explain the procedure of creating a barchart for Branchwise sales details of the 'ABC Company'?

14. Write short notes on one dimensional arrays and write a program to find the biggest of 'N' numbers using one dimensional Array.

15. Explain the Applications of Internet and discuss about sending email.

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CP - 2884 **2 . 3**

B.Sc. DEGREE EXAMINATION, APRIL 2010

OPTOMETRY

Social Marketing Counselling and Sales

(UPTO 2007 BATCH)

Duration : 3 Hours Maximum : 70 marks

PART - A (5 x 6 = 30)

Answer any **FIVE** Questions

1. What are the advantages and disadvantages of publicity ?

2. Write down the applications of Public Relations in optometry.

3. What are the various types of Advetising ?

4. Explain the importance of staff Training in Optometry.

5. What are the advantages and disadvantages of corporate optometry ?

6. What are the different types of purchasing ?

7. What type of pricing policy you will adopt for contact lens practice ?

8. Write short notes on ocular prosthesis

PART - B (4 x 10 = 40)

Answer Any **FOUR** Questions

9. Explain the significance of Advertising in Optometry.

10. Briefly explain the methods adopted to analyse patient base.

11. What are the basic marketing skills required for setting up a retail outlet ?

12. Chalk out a business plan for setting up a optometric retail outlet.

13. How will you analyse sales and promotion of a product ?

14. Write short notes on
    (a) Educating contact lens patient
    (b) Counselling

15. Write short notes on
    (a) Sports eye wear and clinic
    (b) Speciality eye wear

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CP-2885 **2 . 4**

B.Sc. DEGREE EXAMINATION, APRIL 2010

Optometry

OPHTHALMIC INSTRUMENTATION I

(Upto 2007 BATCH)

Duration : 3 Hours Maximum : 70 marks

Part - A (5 × 6 = 30)

Answer any **Five** Questions.

1. Difference between direct and Indirect opthalmoscopes.

2. Simple and compound microscope.

3. Spot retinoscope.

4. Objective Autorefractometers.

5. Fundus examination with slitlamp.

6. Charts for near vision.

7. LogMAR charts.

8. Spectrometer

Part - B (4 × 10 = 40)

Answer any **Four** Questions.

9. Streak retinoscopy-method.

10. Types of illumination in slit lamp biomicroscopy.

11. Snellen's charts.

12. Types of keratometers.

13. Trial set.

14. Types of Lensometers.

15. Indirect ophthalmoscope.

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CP - 2886 **3 . 1**

B.Sc. DEGREE EXAMINATION, APRIL 2010

OPTOMETRY

VISUAL OPTICS

(UPTO 2007 BATCH)

Duration : 3 Hours Maximum : 70 marks

PART - A (5 x 6 = 30)

Answer any **FIVE** Questions

1. Explain sturms conoid with the help of a diagram

2. Explain: (a) spherical aberration (b) chromatic aberration

3. Draw and explain: (a) Optic axis (b) Angle alpha
(c) Angle gamma

4. Write briefly on ocular changes in accommodation.

5. Define: (a) Depth of focus (b) Depth of field

6. Write short notes on tests for Contrast Sensitivity

7. a. Transpose this into another sphero cylinder
$+2.00 = -3.00 \times 40$
b. If gross value is $+2.00 = +0.50 \times 90$ what will be the net value if the examiner sits at 50 cm.

8. Write on the effect of change in the vertex distance.

PART - B (4 x 10 = 40)

Answer any **FOUR** Questions

9. Write the definition, optics, types and treatment of myopia.

10. Write in detail on streak retinoscopy.

11. Explain Purkinje Sanson images with the help of a diagram.

12. Write in detail on
    (a) Accommodation and hypermetropia
    (b) Aetiology of hypermetropia

13. Write briefly on the relationship between ocular refraction and spectacle refraction.

14. Write in detail on Presbyopia.

15. Write eleborately on Aphakia.

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CP - 2887 | 3.2

B.Sc. DEGREE EXAMINATION, APRIL 2010

Optometry

OPHTHALMIC LENS AND DISPENSING OPTICS

(Upto 2007 Batch)

Duration : 3 Hours | Maximum : 70 Marks

Section - A (5 x 6 = 30)

Answer any **FIVE** Questions

1. Define
   (a) Optic centre
   (b) Refractive index

2. Explain about
   (a) CR - 39 Lenses
   (b) Polycarbonate

3. PRISMS and its uses

4. Simply transpose
   (a) $+1.0Ds/-3.0\times60$
   (b) $+2.0Ds/-1.0\times70$

5. Explain about Surfacing, Glazing, Polishing

6. Explain about Prentice rule

7. Explain about prismatic effects in + and - lenses

8. Draw a neat labelled diagram of PAL

Section - B

(4 x 10 = 40)

Answer any **FOUR** Questions

9. Discuss about Decenttration

10. Discuss about lens materials

11. Discuss about Frame materials

12. Discuss about Bifocals and multifocals

13. Discuss about toric transposition with an example

14. Discuss about absorptive lenses

15. Explain about
    a) Prentice rule
    b) Distorsions
    c) IPD
    d) DBOC

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CP - 2888 **3 . 3**

B.Sc. DEGREE EXAMINATION, APRIL 2010

Optometry

OPTHALMIC EASTHUMENTATION II

(Upto 2007 Batch)

Duration : 3 Hours Maximum : 70 marks

Part - A (5 × 6 = 30)

Answer Any **Five** Questions

1. Glare testing

2. Basic of perimetry

3. A - Scan principles and its application

4. Potential aminity meter

5. Explain population Inversion.

6. Pachometer

7. Nd - Yag Laser

8. Devices for colour vision testing

Part - B (4 × 10 = 40)

Answer any **Four** Questions

9. Explain different types of tonometers.

10. F. F. A.

11. Explain Humphrey visual field analyser.

12. Explain the principle of B-Scan its application.

13. Write short notes on Visual field defects in Glaucoma.

14. Discuss different types of LASER.

15. Explain the different types of constrast sensitivity chart.

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CP - 2889 **3 . 4**

B.SC. DEGREE EXAMINATION, APRIL 2010

OPTOMETRY

Clinical Refraction I

(Upto 2007 BATCH)

Duration : 3 Hours Maximum : 70 marks

Section - A (5 × 6 = 30)

Answer Any **Five** Questions.

1. Mention 3 causes of sudden loss of vision (a) with pain (b) without pain

2. Explain any two methods of dynamic retinoscopy.

3. Write on pin hole and stenopaeic slit.

4. What is TIB (Turville Infinity Balance)

5. Explain different near vision charts.

6. Discuss 'Optometer Priniciple' in automated refraction

7. Discuss fogging techiniques

8. Explain subjective autorefractor.

SECTION - B (4 x 10 = 40)

Answer any **FOUR** Questions

9. Explain Snellens Visual acuity charts and compare it with Bailey Lovie Charts.

10. Write in detail on Jacksons cross cylinder.

11. Write the Principle of retinoscopy. Explain the various techiniques used in determining the cylindrical axis.

12. Write short notes on (a) clok dial (b) Fan and block test (c) Duochrome test.

13. Write in detail on amplitude of accommodation and its measurement.

14. Discuss Presbyopic correction based on age, NRA-PRA and occupation.

15. Write in detail on binocular balancing.

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CP - 2890 **3 . 5**

B.Sc. DEGREE EXAMINATION, APRIL 2010

OPTOMETRY

Oculor Diseases I

(UPTO 2007 BATCH)

Duration : 3 Hours Maximum : 70 marks

PART - A (5 x 6 = 30)

Answer any **FIVE** Questions

1. Fuch's Endothelial Dystrophy.

2. Explain Chalazion and stye.

3. Explain traumatic cataract.

4. Classify primary congenital glaucoma and give details on Buphthalmos.

5. Give the anatomical classification of uveitis.

6. Classify Ectropion.

7. Explain Episcleritis.

8. Write about Schirmers test and Tear Break Up Time.

PART - B (4 x 10 = 40)

Answer any **FOUR** Questions

9. Degenerative changes in conjunctiva.

10. Explain the clinical features of herpes simplex keratitis.

11. Classify ptosis and give the measurement required for ptosis evaluation.

12. Anomalies of lens shape.

13. Explain normal tension glaucoma.

14. Give the clinical features of anterior uvieitis.

15. Explain Keratoconus.

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CP - 2891 **4 . 1**

B.Sc. DEGREE EXAMINATION, APRIL 2010

OPTOMETRY

Ocular Diseases - II

(UPTO 2007 BATCH)

Duration : 3 Hours Maximum : 70 marks

PART - A (5 x 6 = 30)

Answer any **FIVE** Questions

1. Microvascular occlusion in diabetic retinopathy.

2. Clinical features of preproliferative diabetic retinopathy.

3. Branch retinal artery occlusion.

4. Leber's military aneurysm.

5. Etiology and Clinical features of nystagmus.

6. Signs of blow out fracture.

7. Rhegmatogenous retinal detachment.

8. Pathophysiology of chemical injuries.

PART - B (4 x 10 = 40)

Answer any **FOUR** Questions

9. Write about retinal and choroidal changes in hypertensive retinopathy.

10. Staging and screening of retinopathy of prematurity.

11. Write in detail about papilloedema.

12. Examination techniques in retinal detachment.

13. Write in detail about vitreous hemorrhage.

14. Signs of rhegmatogenous retinal detachment in different stages.

15. Write in detail about light and near reflexes.

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CP-2892 **42**

B.Sc. DEGREE EXAMINATION, APRIL 2010

Optometry

CLINICAL REFRACTION - II
(PAEDIATRIC AND GERIATRIC)

(Upto 2007 Batch)

Duration : 3 Hours Maximum : 70 Marks

Part - A (5 × 6 = 30)

Answer any **Five** questions.

1. Explain about subjective Verifications.

2. Features of intermittent XT.

3. Optical and nonoptical devices of LVA.

4. Prescribing aspects of Hyperopia in paediatrics.

5. How to refract cataractous patient ?

6. Explain about convergence insufficiency and its management.

7. Explain about Accommodation.

8. Explain about Amplitude of Accommodation and Range of Accommodation.

Part - B (4 × 10 = 40)

Answer any **Four** questions.

9. Assessment and Management of Low vision Patient.

10. Discuss Anisometropia and its management.

11. Low vision Rehabilitations.

12. Management of Esotropia.

13. Discuss Cover test.

14. Discuss Amblyopia.

15. Explain about Monocular and Binocular subjective refraction.

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CP-2893 **4.3**

B.Sc. DEGREE EXAMINATION, APRIL 2010

Optometry

CONTACT LENSES

(Upto 2007 Batch)

Duration : 3 Hours Maximum : 70 Marks

Part - A (5 × 6 = 30)

Answer any **Five** questions.

1. Optics of contact lenses.

2. Slit lamp examination technique.

3. Pre-screening tests for contact lens fitting.

4. Explain about spherical RGP lenses and toric RGP lenses.

5. Prosthetic contact lenses.

6. Cosmetic contact lenses.

7. Explain about oxygen permeability and lens thickness.

8. Tear lens system.

Part - B

(4 × 10 = 40)

Answer any **four** questions

9. RGP lens fitting.

10. RGP lens fitting in keratoconus.

11. Soft contct lens fitting.

12. Contact lens complications.

13. Explain about front toric and back toric contact lenses.

14. Explain about the relation between corneal astigmatism and lenticular astigmatism.

15. Therapeutic contact lenses.

***

CP-2894 **4.4**

B.Sc. DEGREE EXAMINATION, APRIL 2010

Optometry

BINOCULAR VISION, VISUAL FIELD AND OCULAR MOTILITY

(Upto 2007 Batch)

Duration : 3 Hours Maximum : 70 Marks

Part - A (5 × 6 = 30)

Answer any **Five** questions.

1. Explain positions of gafe and Fick's axes.

2. Write short notes on Panum's Fusional area.

3. Explain the measurement of
   a) Negative relative accomodation
   b) Positive relative accomodation.

4. Write short notes on monocular cues.

5. Define physiological diplopia.

6. Write briefly on AC/A ratio and how do you measure it clinically.

7. Write short noes on Rivalry.

8. Short notes on prismatic effects in spectacle lens.

Part - B

(4 × 10 = 40)

Answer any **Four** questions

9. What is aniseikonia ? How will you measure aniseikonia clinically ? Explain the Instruments used to measure aniseikonia.

10. Explain supra nuclear control of Eye movements.

11. What is conversence Insufficiency ? Explain the stereogram card in improving conversence.

12. Explain the optokinetic Nystagmus and its saccadic and Pursuit pathway.

13. Explain briefly on Versence and its classifications.

14. What is heterophoria ? Explain its types, symptoms and management.

15. How do you measure fusion cinically and how do you record the values ?

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CP-2895 **5.1**

B.Sc. DEGREE EXAMINATION, APRIL 2010

Optometry

SYSTEMIC DISEASES AFFECTING THE EYE

(Upto 2007 Batch)

Duration : 3 Hours Maximum : 70 Marks

Section - A (5 × 6 = 30)

Answer any **Five** questions

1. Proliferative diabetic retinopathy.

2. Systemic diseases causing cataract.

3. Rheumatoid arthritis.

4. Mayasthenia gravis.

5. Retinitis pigmentosa.

6. Neuro fibromatosis.

7. Leprosy

8. Toxic optic neuropathy.

Section - B

(4 × 10 = 40)

Answer any **four** questions

9. Write in detail about optic neuritis.

10. Ocular manifestation of AIDS. (Acquired Immuno Difficiency Syndrome)

11. Discuss in detail about eye and connective tissue disorders.

12. Write in detail about thyroid eye disease.

13. Lesions at various levels of Visual pathway.

14. Write elaborately on Hypertensive retinopathy.

15. Discuss in detail about choroidal melanoma of eye.

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CP - 2896 **5.2**

B.Sc. DEGREE EXAMINATION, APRIL 2010

OPTOMETRY

Applied Optometry and Orthoptics

(UPTO 2007 BATCH)

Duration : 3 Hours Maximum : 70 marks

PART - A (5 x 6 = 30)

Answer any **FIVE** Questions

1. Motor signs in squint

2. (a) Prism bar test
   (b) Bielschowsky's head tilt test

3. (a) Maddox rod
   (b) Krimsky test

4. Suppression

5. ARC

6. Synoptophore test

7. Esotropia

8. Hypertropia

PART - B (4 x 10 = 40)

Answer any **FOUR** Questions

9. Write in detail on definition, classification, clinical features and treatment of amblyopia

10. Write in detail on Convergence Insufficiency

11. Write a elaborately on 3 grades of Binocular vision

12. Write in detail on paralytic squint

13. Write elaborately on Phorias

14. Write short notes on
    (a) Hess Screen charts
    (b) Diplopia testing

15. Write in detail on all the cover tests.

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CP-2897 **5.3**

B.Sc. DEGREE EXAMINATION, APRIL 2010

Optometry

LOW VISION AIDS

(Upto 2007 Batch)

Duration : 3 Hours Maximum : 70 Marks

Part - A (5 × 6 = 30)

Answer any **Five** questions

1. Define Low Vision, grades of low vision.

2. Tabulate the relationship between disease, impairment, disability and handicap for Ocular Pathology.

3. Write a note on multi disciplinary approach in low vision care with example.

4. What is the role of the optometrist in low vision care ?

5. How to express the difference in prevalence of blindness in world wide situation.

6. Optics of Galilian and Kaplarian telescopes.

7. What are the various near vision aids for chemianopia ?

8. What are the sensory substitution available for LVA patients.

Part - B (4 × 10 = 40)

Answer any **Four** questions.

9. Write a note on contact lens and IOL telescopes.

10. Explain low vision and retinal diseases.

11. Write a note on multidisciplinary approach and how do you go about evaluating low vision patient.

12. Write about relative distance and relative fire magnification.

13. Visual performance as related to disability codes.

14. Reading devices for low vision patients.

15. Explain hand, stand magnifier and aspheric glass magnifiers.

***

CP-2898 **5.4**

B.Sc. DEGREE EXAMINATION, APRIL 2010

Optometry

OPHTHALMIC DIAGNOSTICS

(upto 2007 Batch)

Duration : 3 Hours Maximum : 70 Marks

Section - A (5 × 6 = 30)

Answer any **Five** questions.

1. ERG

2. EOG

3. Noncontact tonometer

4. Syringing and Lacrimal Function

5. Pachometry

6. Applanation tonometry

7. Pjerrum's Screen

8. Contrast Sensitivity

Section - B

(4 × 10 = 40)

Answer any **four** questions

9. FFA

10. OCT

11. Contrast Sensitivity

12. Ascan Biometry

13. Humphrey Field Analyser

14. UBM

15. Laser Therapy

***

CP - 2899 **5. 5**

B.Sc. DEGREE EXAMINATION, APRIL 2010

OPTOMETRY

Community Ophthalmology and Eye Donation

(UPTO 2007 BATCH)

Duration : 3 Hours Maximum : 70 marks

PART - A (5 x 6 = 30)

Answer any **FIVE** Questions

1. What are the factors that affect quality of donor cornea ?

2. What are the objectives of vision 2020 ?

3. What is an eye bank and what are its functions ?

4. What are the proceedings after eye donation ?

5. Explain the role of rehabilitation in primary eye care.

6. What are the preventive methods in primary Eye Care.

7. What are the precautions to be taken before removing eye ?

8. What is the vision of vision 2020 ?

PART - B (4 x 10 = 40)

Answer any **FOUR** Questions

9. Write about the epidemiology of blindness.

10. What are the components of eye health at primary care level?

11. What are the different methods of preserving enucleated eye?

12. How do you perform eye screening?

13. Explain survey methodology.

14. Explain the process of enulceation.

15. Explain about the target diseases of vision 2020.

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CP-2900 **6.1**

B.Sc. DEGREE EXAMINATION, APRIL 2010

Optometry

HOSPITAL PROCEDURES

(Upto 2007 Batch)

Duration : 3 Hours Maximum : 70 Marks

Section - A (5 × 6 = 30)

Answer any **Five** questions.

1. How will you check visual acuity in clinicals ?

2. How will you explain/counsel the patient before dilatation.

3. What are all the pretests to be done before cataract surgery ?

4. Explain about filing in Medical records department.

5. Explain about coding in Medical Records Department.

6. Explain about cleanliness in Hospitals.

7. What are all the places should take care of the patients and why ?

8. Explain about the importance of Housekeeping department in the hospital.

Section - B

(4 × 10 = 40)

Answer any **four** questions.

9. Importance of patient care department in the hospital.

10. Explain about reception services.

11. Explain about HR Department.

12. Explain about Medical Records department.

13. Explain about BioEngineering Department.

14. Explain about the activities of optometry.

15. Explain about Eye bank.

***

CP - 2901 **6. 2**

B.Sc. DEGREE EXAMINATION, APRIL 2010

OPTOMETRY

Nutrition

(UPTO 2007 BATCH)

Duration : 3 Hours Maximum : 70 marks

PART - A (5 x 6 = 30)

Answer any **FIVE** Questions

1. Determination of BMR ?

2. Units of energy

3. Bomb calorimeter ?

4. Nitrogen Balance ?

5. Significance of atherosclerosis ?

6. Role of proteins in diet ?

7. Functions of Minerals related to ophthalmic function ?

8. Importance of Vitamins in diet ?

PART - B (4 x 10 = 40)

Answer any **FOUR** Questions

9. Protein Energy Malnutrition (PEM)

10. Fat soluble and water soluble Vitamins ?

11. Functions and deficiencies of Iron, Calcium and Iodine ?

12. Functions of fatty acids ? Explain about Hyperlipidemia ?

13. Metabolic changes and types of Obesity ?

14. BMR (5) ? and RDA (5) ?

15. Nutritional requirements during pregnancy and Lactation.

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CP-2902 **6.3**

B.Sc. DEGREE EXAMINATION, APRIL 2010

Optometry

BIOSTATISTICS

(Upto 2007 Batch)

Duration : 3 Hours Maximum : 70 Marks

Section - A (5 × 6 = 30)

Answer any **Five** questions.

1. Explain (i) Primary Data, (ii) Secondary Data (iii) Census Method and (iv) Sample Method.

2. From the following table draw a histogram

Wages in Rs.	0–10	10–20	20–30	30–40	40–50	50–60	60–70
No.of Workers	5	8	10	14	11	6	3

3. Draw a pie diagram to represent the following data

Item	Expenditure (Rs.)
Food	2000
Clothing	1000
Recreation	1000

4. Calculate the Harmonic Mean of the following data : 80, 70, 10, 75, 50.

5. Find the quartiles for the given series : 2, 22, 4, 6, 8, 10, 12, 14, 16, 18, 20.

6. Find the Regression Coefficient of x on y when the Correlation Coefficient is +0.8, Standard Deviation of 'x' is 3.5 and Standard Deviation of 'y' is 2.5.

7. What is the probability that a leap year, selected at random, will have 53 Sundays ?

8. The mean of a binomial distribution is 20 and standard deviation is 4. Find 'n', 'p', 'q'.

Section - B

(4 × 10 = 40)

Answer any **Four** questions.

9. The following are the marks obtained by 40 students.

41 17 33 63 54 92 60 58 60 06 33 44 57 49 34 74 54 63 36 52

60 33 09 79 28 30 42 93 43 80 57 67 24 64 63 11 35 82 10 23

Construct a Frequency Table which class interval 10 and calculate the arithmetic mean.

10. Compute Co-efficient of Variance from the following data.

Class	31-35	36-40	41-45	46-50	51-55	56-60	61-65	66-70
Frequency	2	3	8	12	16	5	2	2

11. For 5 Patients, temperature and pulse are given. Find the Correlation Coefficient.

Temperature	102	101	100	99	98
Pulse	100	90	80	70	60

12. Three groups of children contain 3 girls and 1 boy, 2 girls and 2 boys, and 1 girl and 3 boys respectively. One child is selected at random from each group. Find the probability that the three chindren selected include 1 girl and 2 boys.

13. Calculate the Regression Equation of x on y and y on x from the following data by taking deviation form actual mean of x and y.

x :	10	12	13	12	16	15
y :	40	38	43	45	37	43

14. The scores made by candidate in a certain test are normally distributed with mean 500 and deviation 100. What percentage of candidates receive scores (i) less than 400, (ii) between 400 and 500 ? (Given $P(0 \leq Z \leq 1) = 0.34134$).

15. A certain drug was administered to 500 people out of a total of 800 included in the sample to test its efficacy against typhoid. The results are given below :

	Typhoid	No Typhoid	Total
Drug	200	300	500
No Drug	280	20	300
Total	480	320	800

On the basis of these data, can it be concluded that the drug is effective in preventing typhoid. (Given for 1 degrees of freedom $\chi^2_{0.05} = 3.84$)

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CP - 2903 **6. 4**

B.Sc. DEGREE EXAMINATION, APRIL 2010

OPTOMETRY

Principles of Lighting

(UPTO 2007 BATCH)

Duration : 3 Hours Maximum : 70 marks

PART - A (5 x 6 = 30)

Answer any **FIVE** Questions

1. Explain direct and indirect glare.

2. What are the Applications of Mercury Vapour lamp ?

3. What is the importance of contrast ?

4. Define and explain cosine law.

5. What is Equivalent sphere Illuminance.

6. Explain Light fixtures.

7. What is the recommended room reflectance levels.

8. Explain different units of lighting

PART - B (4 x 10 = 40)

Answer any **FOUR** Questions

9. Types and methods of Lighting

10. Describe a photocell photometer. How will you use it to prove the inverse square law.

11. Explain how to compare the illuminating powers of two light sources by flicker photometer.

12. Explain Sodium Vapour Lamps

13. Effects of glare and how to prevent it.

14. Explain V - lambda curves for photopic and scotopic vision

15. Define and explain the inverse square law.

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CP- 2904 **1.1**

B. Sc DEGREE EXAMINATION, APRIL 2010

OPTOMETRY

GENERAL ANATOMY AND PHYSIOLOGY

(2008 ONWARDS)

Duration : 3 Hours Maximum : 70 marks

Part - A (5 x 6 = 30)

Answer ANY FIVE Questions

1. Describe the contents of Bile and its functions.

2. Draw a diagram to explain the structure of right and left side of the heart.

3. Draw a skull and name the parts.

4. Write short notes on cardiac muscles.

5. Write short notes on middle and inner ear.

6. Write short notes on joints.

7. Write briefly on thyroid gland.

8. Write short notes on the microscopic structure of the skin.

Part - B (4 x 10 = 40)

Answer any FOUR Questions

9. Draw the anatomy of the Digestive system and name its parts.

10. Write an essay on blood grouping.

11. Draw and name the parts of the urinary system. Explain longitudinal section of the kidney with the help of a diagram.

12. Draw the diagram of respiratory system. Explain from trachea to alveoli.

13. Explain layers of meninges with appropriate diagram. Draw the section of spinal cord and write briefly.

14. Draw and explain the female reproductive system.

15. Tabulate the names and functions of cranial nerves.

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CP-2905 **1.2**

B.Sc. DEGREE EXAMINATION, APRIL 2010

Optometry

GENERAL AND OCULAR BIOCHEMISTRY

(2008 Onwards)

Duration : 3 Hours Maximum : 70 Marks

Section - A (5 × 6 = 30)

Answer any **Five** questions

1. Give the classification of Lipids.

2. What are competitive and Non-competitive inhibitors ?

3. Biochemical functions of Cornea ?

4. Explain in detail about hyperglycemia ?

5. What is Heamoglobin ? How will you estimate it ?

6. Explain about bleeding time and clothing time ?

7. Role of Retinol in Virion ?

8. Essential and Non-essential amino acids.—Explain.

Section - B

(4 × 10 = 40)

Answer any **four** questions

9. Mechanism of enzyme action ? Derive MM equation.

10. Give the metabolic pathway of glycolysis.

11. Structural elucidation protein structure.

12. Give in detail about Aqueous humour and its functions.

13. Explain in detail about blood grouping.

14. Give the details about TC, DC and ESR.

15. Functions of Lens.

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CP-2906 **13**

B.Sc. DEGREE EXAMINATION, APRIL 2010

Optometry

GEOMETRIC OPTICS

(2008 Onwards)

Duration : 3 Hours Maximum : 70 Marks

Section - A (5 × 6 = 30)

Answer any **Five** questions

1. Briefly explain the wavelength, frequency and speed of light.

2. Explain the concept of wavefront and convergence.

3. Write a short note on lateral and axial magnification.

4. Briefly explain the cordinal points of optical systems.

5. Describe the geometrical and optical path length of rays.

6. Write short note on thin-lens shapes.

7. Describe prism dioptors.

8. What are the advantages of optical fibers used as wave guide ?

Section - B

(4 × 10 = 40)

Answer any **four** questions

9. Derive the Laws of reflection based on Fermat's principle.

10. Show that deviation produced by thin lens is independent of the object.

11. Explain how the light can travel in an optical fibre and write the different uses of optical fibre.

12. Derive the relation between U, V and R for refraction at concave surface.

13. Explain in detail the dispersion of a prism.

14. Calculate the equivalent focal length of two thin coaxial lenses separated by a distance.

15. Describe in detail the refraction at convex surface.

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CP-2907 **1.4**

B.Sc. DEGREE EXAMINATION, APRIL 2010

Optometry

ENGLISH

(2008 Onwards)

Duration : 3 Hours Maximum : 70 Marks

Section - A (5 × 6 = 30)

Answer any **Five** questions.

1. Mention any three parts of speech with an example for each.

2. Define the following types of sentences according to the clauses in each of them : (i) Simple (ii) Compound and (iii) Complex.

3. What are the central components of a good paragraph ?

4. Mention any three types of essays.

5. Give two examples for each of the following in any letter : (i) Salutation (ii) Complimentary close.

6. What is a 'Note of Invitation' ? Give an example.

7. Define (i) Imprompter (ii) Kinesics in presentation strategies.

8. Give three of the various names the group communication takes in various contexts.

Section - B (4 × 10 = 40)

Answer any **Four** questions.

9. Name the various types of sentences (Grammatical). Give their functions with illustrations.

10. Write an essay defining phrases and clauses and their functions with examples.

11. Write an essay on "Television : its uses ad abuses".

12. Draft a letter of application for the following advertisement :

"If you are a recent post graduate in science and interested in research, apply for the post of Junior Research Associate in R and D Division - to 'Manager Research, R and D Division, Wipro Industris Bangaluru 560 012".

13. Write an essay on public speaking skills.

14. Elaborate on the qualities necessary for participating in group communication.

15. Analyse the various types of communication skills and the modes of acquiring them.

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CP - 2908 **1. 5**

B.Sc. DEGREE EXAMINATION, APRIL 2010

OPTOMETRY

NUTRITION

(2008 ONWARDS)

Duration : 3 Hours Maximum : 70 marks

PART - A (5 x 6 = 30)

Answer any **FIVE** Questions

1. What is Kwashiorkor ? Explain

2. What is BMR

3. Write short notes on Units of energy

4. Role of carbohydrate in diet.

5. Discuss physiological and social functions of food

6. Types of obesity

7. Role of nutritional diet during lactation

8. What are water soluble vitamins ?

PART - B (4 x 10 = 40)

Answer any **FOUR** Questions

9. Write in detail on Protein Energy Malnutrition (PEM)

10. What is balanced diet ? Explain in detail

11. Functions and source of fat.

12. Write in detail on minerals

13. Complications due to vitamin A deficiency

14. How is RDA derived ? Discuss its uses

15. Functions and deficiency of vitamin E.

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CP-2909 **2.1**

B.Sc. DEGREE EXAMINATION, APRIL 2010

OPTOMETRY

ANATOMY OF THE EYE AND ORBIT

(2008 ONWARDS)

Duration: 3 Hours Maximum: 70 Marks

Section - A (5 x 6 = 30)

Answer any FIVE Questions

1. Light reflex

2. Draw the layers of retina.

3. Anatomy of conjunctiva.

4. Draw and name the parts of visual pathway.

5. Development of accessory structure of the eyeball.

6. Anatomy of V cranial nerve

7. Anatomy of vitreous

8. Orbicularis oculi

Section - B (4 x 10 = 40)

Answer any FOUR Questions

9. Write in detail on the layers of cornea.

10. Draw and explain the angle of anterior chamber.

11. Draw the longitudinal section of the eyeball and mark the parts.

12. Write in detail about the bones forming the base, roof, medialand lateral wall of the orbit.

13. Write on the origin, course and insertion of superior oblique muscle.

14. Draw and write on the structure of the upper eyelid.

15. Write in detail on the structure of the lens.

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CP-2910 | 2.2

B.Sc DEGREE EXAMINATION, APRIL 2010

Optometry

PHYSIOLOGY OF EYE

(2008 Onwards)

Duration : 3 Hours | Maximum : 70 Marks

Section - A (5 × 6 = 30)

Answer any **Five** Questions

1. Write short note on circulation and drainage of Aqueous Humour
2. Draw neat diagram of various layers of crystalline lens and label them.
3. Intraocular Pressure (IOP).
4. Visual cycle
5. Short note on ERG (Electro Retinogram)
6. Abnormalities of Pupil
7. Pathway for Light Reflex, Depict with diagram.
8. Pannums Fusional Areal

Section -B (4 × 10 = 40)

Answer any **FOUR** Questions

9. Mention five layers of cornea and explain factors responsible for corneal transparency.

10. Extraocular Muscles (EOM), Origin, Insertion, Actions and their Nerve supply.

11. What is Accommodation Reflex, Describe Theories of Accommodation.

12. Mention layers of Choriod, Note on Angle of Anterior Chamber.

13. Draw neat diagram of Lacrimal Apparatus and Drainage System, Lebel it, Note on Epiphora.

14. Colour Vision, Mention Theories of Colour Vision. Add note on types of Colour Defects.

15. Describe in detail onset, duration of action of Mydriatics.

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CP-2911 | 2.3

B.Sc. DEGREE EXAMINATION, APRIL 2010

Optometry

PHYSICAL OPTICS

(2008 Onwards)

Duration : 3 Hours | Maximum : 70 Marks

Section - A (5 × 6 = 30)

Answer any **Five** Questions

1. Write a note on antireflection coating.

2. Distinguish between Fresnel and Fraunhoffer types of diffraction.

3. Explain walloston prism with a neat sketch.

4. What are the characteristics of a laser beam ?

5. Explain the method of obtaining interference pattern by the double mirror method.

6. What are the various methods of producing polarized light ? Explain one of them.

7. Explain the dual nature of light

8. Explain double reflection.

Section -B (4 × 10 = 40)

Answer any **FOUR** Questions

9. Describe application of thin film interference.

10. Describe how a hologram is generated and the image reconstructed.

11. Describe a method of determining the velocity of light.

12. Explain the theory of a plane transmission grating.

13. Using a polarizer and a quarter wave plate how will you analyze the different types of Polarized light.

14. What is Huygens' Principle ? Explain reflection of a plane wavefront of a plane surface.

15. Explain the diffraction pattern formed by a circular aperture.

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CP-2912	2.4

B.Sc. DEGREE EXAMINATION, APRIL 2010

Optometry

COMPUTERS

(2008 Onwards)

Duration : 3 Hours Maximum : 70 Marks

Section - A (5 × 6 = 30)

Answer any **Five** Questions

1. With a neat diagram, explain the functions of a mouse.

2. Convert the following decimal numbers to binary, octal and hexadecimal.

   i) 11 ii) 14

3. Describe the format of a Window and its elements.

4. Name the icons found on a desktop and Explain their functions. How will you create a shortcut on desktop for a file created by you.

5. Explain the purpose of programs in Accessories Menu.

6. Explain the transactions in using Cut, Copy and Paste commands.

7. What are header and footer ? Illustrate

8. Name any six charts in Excel and Explain their use.

Section -B $(4 \times 10 = 40)$

Answer any **FOUR** Questions

9. Draw the block diagram of a computer and identify the components of a modern PC. Write the purpose of each component.

10. Explain the functions of various keys in keyboard.

11. Perform the following in 1's and 2's compliment form

    i) 1111 - 0001 ii) 1000 - 0011

12. Classify software.

13. Describe Mail Merge Process in Word.

14. Write steps to draw a pie chart showing different visual defects of patients over last five years. Assume your own sample data.

15. Write an essay on internet and E-mail handling.

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CP-2913 | 2.5

B.Sc., DEGREE EXAMINATION, APRIL 2010

Optometry

MICROBIOLOGY AND PATHOLOGY

(2008 Onwards)

Duration : 3 Hours | Maximum : 70 Marks

Section - A (5 × 6 = 30)

Answer any **Five** Questions

1. Define Microbiology with their classification ?

2. Give a note on Haemophilus and Movaxella ?

3. Write a short note on Adenovirus ?

4. Write a brief note on Rubella Virus ?

5. Write the difference between Sterilization and Disinfection ?

6. Give the clinical picture of internal hordeolum ?

7. Write a short note on Keratoconus?

8. Write on chemical agents used for sterilization ?

Section -B (4 × 10 = 40)

Answer any **FOUR** Questions

9. Give a note on mycobacterium tuberculosis with its diagnosis, mode of infection, clinical manifestation and prophylaxis and treatment ?

10. Write briefly on Enterobacteria ?

11. Write briefly on Toxoceira with its diagnosis, mode of injection, clinical manifestation prophylaxsis and treatment?

12. Write briefly on Retinoblastoma ?

13. Explain briefly on Pusarium, Mucor, Candida and Histoplasma with its clinical manifestation ?

14. Explain briefly Inflammatory reactions and hypersensitivity reactions?

15. Note on Retinoblastoma ?

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CP - 2914 **3. 1**

B.Sc. DEGREE EXAMINATION, APRIL 2010

OPTOMETRY

VISUAL OPTICS

(2008 ONWARDS)

Duration : 3 Hours Maximum : 70 marks

PART - A (5 x 6 = 30)

Answer any **FIVE** Questions

1. APHAGIA

2. HYPEROPIA

3. ABBERATIONS

4. ACCOMODATION

5. VISUAL FIELDS

6. PRESBYOPIA

7. CONTRAST SENSITIVITY

8. JCC

PART - B (4 x 10 = 40)

Answer any **FOUR** Questions

9. Explain Subjective refraction.

10. Principles of Geratometry

11. Principles of Retinoscopy

12. Discuss Myopia

13. Discuss Astigmatism

14. Optical Constant

15. Methods of Vision Assessment

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CP - 2915 **3. 2**

B.Sc. DEGREE EXAMINATION, APRIL 2010

OPTOMETRY

Clinical Refraction I

(2008 ONWARDS)

Duration : 3 Hours Maximum : 70 marks

PART - A (5 x 6 = 30)

Answer any **FIVE** Questions

1. Discuss the differences between Snellens and Log MAR.

2. What are the different near vision charts available

3. Explain fan and block test.

4. What is cycloplegic refraction

5. Write short notes on the significance of IPD

6. Discuss high and low neutral in dynamic retinoscopy

7. Explain fogging techiniques

8. Explain binocular refraction

PART - B (4 x 10 = 40)

Answer any **FOUR** Questions

9. Explain Snellens visual acuity in detail

10. Write in detail on the principle and usage of JCC

11. What are the different methods of measuring amplitude of accommodation.

12. What is dynamic retinoscopy ? Write the differences between static and dynamic retinoscopy.

13. Explain in detail on streak retinoscopy

14. Write on the different factors to be considered while prescribing for presbyopia.

15. Write in detail on Auto refractors

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CP-2916 **3.3**

B.Sc. DEGREE EXAMINATION, APRIL 2010

Optometry

OCULAR DISEASES-I

(2008 Onwards)

Duration : 3 Hours Maximum : 70 Marks

Section - A (5 × 6 = 30)

Answer any **Five** Questions

1. Evisceration

2. VKH Syndrome

3. Keratoconus

4. Buphthalmus

5. Acute Dacryocystitis

6. DCR

7. Traumatic Cataract

8. YAG PI

Section -B (4 × 10 = 40)

Answer any **FOUR** Questions

9. Causes signs and symptoms of iridocyclitis

10. Explain the pathway of aqueous formation and drainage.

11. Corneal Ulcers

12. Causes, Signs and Symptoms and Treatment of entropion and ectropion

13. ECCE

14. Write briefly on Congenital Cataract

15. Write briefly on Viral Keratitis

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CP-2917 | 3.4

B.Sc. DEGREE EXAMINATION, APRIL 2010

Optometry

OPHTHALMIC INSTRUMENTATION-I

(2008 Onwards)

Duration : 3 Hours | Maximum : 70 Marks

Section - A (5 × 6 = 30)

Answer any **Five** Questions

1. Differences between Snellen and Bailey Lovie charts.

2. Write about optokinetic nystagmus?

3. Explain optics of Bausch and Lomb keratometer ?

4. Write about Streak Retinoscopy.

5. Explain Jackson Cross cylinder.

6. Objective Autorefractometers.

7. Write about full and reduced aperture lenses ?

8. Optics of direct ophthalmoscope.

Section -B (4 × 10 = 40)

Answer any **FOUR** Questions

9. Explain determination of lens power using lensometer.

10. Principle and procedure of Bausch and lomb keratometer

11. Explain Radius measuring devices.

12. Write about different illuminations used in Slit lamp biomicroscope.

13. Advantages and disadvantages of a phoropter

14. Difference between direct & indirect ophtalmoscopes.

15. Write in detail about the types of microscopes.

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CP-2918	3.5

B.Sc. DEGREE EXAMINATION, APRIL 2010

Optometry

GENERAL AND OCULAR PHARMACOLOGY

(2008 Onwards)

Duration : 3 Hours Maximum : 70 Marks

Section - A (5 × 6 = 30)

Answer any **Five** Questions

1. Define bioavailability and add a note on factors affecting bioavailability of drugs and its significance ?

2. Add a note on factors influencing drug action and drug metabolism?

3. What you mean by adverse drug reaction ? Classify them with at least 1 example ?

4. Add a note on treatment of acute drug poisoning ? List out the antidotes used in the treatment of acute drug poisoning of following drugs

   a) methanol

   b) morphine

5. Add a note on local anesthetics ?

6. Define the following terms

   a) Sedative

   b) Hypnotics

   c) Insomnia

   d) Pre-anesthetic medication

   e) Pharmacokinetics

7. Explain the materials and process involved in the preparation and packaging of ophthalmic drugs ?

8. Define adrenergic and adrenergic blocking drugs and explain its therapeutic use ?

Section -B $(4 \times 10 = 40)$

Answer any **FOUR** Questions

9. What are the novel methods of drug delivery system available ? Classify and explain them individually with their significances ?

10. What you mean by pharmacodynamic ? Explain the mode of drug action with special concern about the drug-receptors ?

11. Classify the drugs used in pain management ? classify and explain them with their pharmacological action and side effects ?

12. Explain the following categories of ophthalmic drugs

    a) antibiotics

    b) corticosteroids

    c) antiglaucomic drugs

13. Describe various methods administering drugs in ocular pharmacology.

14. Classify anti-fungal agents. Write briefly on them

15. Write short notes on mydiatrics and Cyclopegics

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CP-2919 | 4.1

B.Sc. DEGREE EXAMINATION, APRIL 2010

Optometry

DISPENSING OPTICS

(2008 Onwards)

Duration : 3 Hours | Maximum : 70 Marks

Section - A (5 × 6 = 30)

Answer any **Five** Questions

1. Neutralization

2. Bifocal Lenses

3. Color Coating

4. Lens Tints

5. Plastic Lenses

6. Thinlite Lenses

7. Aspheric Lenses

8. Lens surfacing

Section -B (4 × 10 = 40)

Answer any **FOUR** Questions

9. Discuss Refractive Index

10. CR – 3g

11. Multifocal Lenses

12. Discuss Frames

13. Measurement of Pupil Diameter

14. How to approach client problems

15. Discuss Eye Protection

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CP - 2920 **4. 2**

B.Sc. DEGREE EXAMINATION, APRIL 2010

OPTOMETRY

Ocular Diseases II

(2008 ONWARDS)

Duration : 3 Hours Maximum : 70 marks

PART - A (5 x 6 = 30)

Answer any **FIVE** Questions

1. Signs of blow out fracture

2. Types of nystagmus

3. Write short notes on Lattice degeneration

4. Write briefly on Neurofibromatosis

5. Define. a. Amaurosis
   b. Night blindness
   c. Day blindness

6. Write briefly on Myaesthenia Gravis

7. Write short notes on VI N palsy.

8. Pathophysiology of chemical injuries

PART - B (4 x 10 = 40)

Answer any **FOUR** Questions

9. Evaluation of optic nerve disease

10. Write short notes on the aetiology Clinical features and classifi cation of Nystagmus.

11. Write in detail on posterior vitreous detachment

12. Write in detail on diabetic maculopathy.

13. Anterior segment complications in blunt trauma

14. Explain optic neuritis.

15. **Choose the right answer**

i. Normally retinal fibres are
   a. Medullated
   b. Non - Medullated
   c. Medulated in childhood only
   d. Medullated only in old age

ii. All are true of central retinal artery occlusion except
   a. Marked Narrowing of retinal arterioles
   b. Cherry red spot
   c. Retinal oedema
   d. Multiple superficial

iii. Rsik factors for Diabetic Retinopathy include

a. Duration of Diabetes

b. Heredity

c. Pregnancy

d. All the 3

iv. Following are the ocular associations of RP except

a. Myopia

b. 1° Open Angle Glaucoma

c. Microphthalmos

d. Conical cornea

v. Photoretinitis results from

a. I R Rays

b. U V Rays

c. Both

d. None

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CP - 2921 **4 . 3**

B.Sc. DEGREE EXAMINATION, APRIL 2010

OPTOMETRY

Clinical Refraction II

(2008 ONWARDS)

Duration : 3 Hours Maximum : 70 marks

PART - A (5 x 6 = 30)

Answer any **FIVE** Questions

1. How is pediatric history taking different from routine history.

2. Write short notes on
   a. Dermatochalasis
   b. Xanthelesma

3. Treatment and problems encountered in the treatment of anisometropia.

4. List out various optical and non optical low vision aids

5. Explain the construction and usage of RAF ruler

6. Intermittent exotropia. Explain

7. Binocular balance . Explain

8. Visually evoked response. Explain

PART - B (4 x 10 = 40)

Answer any **FOUR** Questions

9. Explain vision checking methods based on evoking & arresting Optokinetic Nystagmus.

10. Explain refractive changes in the elderly.

11. Discuss the optics and procedure of JCC

12. Elaborate on the tests to evaluate ocular motility.

13. List the types of amblyopia and management

14. Write in detail on anomalies of accommodation

15. How to go about doing refraction in
    a. Aphakia
    b. Pseudophakia

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CP - 2877 **1 . 1**

B.Sc. DEGREE EXAMINATION, APRIL 2010

OPTOMETRY

Anatomy of Eye & Orbit

(UPTO 2007 BATCH)

Duration : 3 Hours Maximum : 70 marks

PART - A (5 x 6 = 30)

Answer any **FIVE** Questions

1. Give the embryological development of corneal layers

2. Explain the parts of lacrimal apparatus with diagram

3. Explain the blood and nerve supply of sclera

4. Explain accessory lacrimal glands

5. Explain visual pathway with diagram

6. Anatomy of Angle structures

7. Diagram of pupillary pathway

8. Blood supply of uvea

PART - B (4 x 10 = 40)

Answer any **FOUR** Questions

9. Embryological Development of Retina

10. Anatomy of cornea

11. Write the anatomy of sphincter and dilator muscle

12. Development of Lens

13. Nerve supply and functions of extra ocular muscles

14. Write in detail about bones of orbit

15. Anatomy of trochlea and abducent nerves

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