



INDIRA GANDHI NATIONAL SKILL MISSION
AN AUTONOMOUS BODY, UNDER GOVT ACT – NEW DELHI
NATIONAL DEVELOPMENT ORGANISATION, PROMOTED BY GOVT OF INDIA
Regd Ministry of MSME, Govt of India
A CENTRAL BOARD OF VOCATIONAL EDUCATION



DIPLOMA IN OPTOMETRY

TWO YEARS (1st YEAR) EXAMINATION

COMMUNICATIVE ENGLISH AND COMPUTER FUNDAMENTALS

TIME: 3 Hours

Marks: 100

I. SHORT ANSWER QUESTIONS (10x2 = 20)

- 1) Define interjection?
- 2) Define definite Article?
- 3) What is meant by plural number? Example:-
- 4) Windows
- 5) Explain any five options for the format 'menu'
- 6) Enter
- 7) Computer
- 8) Decimal
- 9) Insert column and insert chart
- 10) Explain any five options for the format 'menu'

II. WRITE SHORT NOTES (5x3 = 15)

- 1) Explain few sentences using "behind, beneath"?
- 2) Write any two types of job application?
- 3) Windows 98
- 4) Explain Arithmetic logic unit
- 5) Edit

III. WRITE SHORT NOTES (5x5 = 25)

- 1) Print preview
- 2) Title bar
- 3) Substance abuse
- 4) Icons
- 5) Keyboard

IV. ESSAY QUESTIONS (4x10 = 40)

- 1) Write a letter to your father asking permission join the N.C.C?
- 2) Write a letter to a sports company ordering some sports goods?
- 3) Briefly explain storage unit
- 4) Write all Internal Commands in dos and explain it.



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DIPLOMA IN OPTOMETRY

TWO YEARS (1st YEAR) EXAMINATION

ANATOMY & PHYSIOLOGY OF EYE

TIME: 3 Hours

Marks: 100

I. SHORT ANSWER QUESTIONS (10x2 = 20)

- 1) Nerve supply of conjunctiva
- 2) Anterior & posterior attachment of vitreous
- 3) Parts of ciliary body
- 4) Types of color blindness
- 5) Loss of accommodation leads to
- 6) Lateral rectus, Medial rectus muscle..... eye ball
- 7) Lagophthalmos , ptosis is
- 8) Retina is developed from Mesoderm, Surface ectoderm, Neural ectoderm
- 9) Action of Medial Rectus muscle is Adduction, Abduction, Elevation
- 10) Choroid is part of Choroid is part of

II. WRITE SHORT NOTES (5x3 = 15)

- 1) The eye at birth
- 2) Structure of conjunctiva
- 3) Function of Cornea
- 4) Tardal Gland
- 5) Lacrimal Gland

III. WRITE SHORT NOTES (5x5 = 25)

- 1) Blood supply and nerve supply of the conjunctiva
- 2) Cornea
- 3) Accommodation
- 4) Lacrimal Drainage system
- 5) Intraocular muscles

IV. ESSAY QUESTIONS (4x10 = 40)

- 1) Nerve supply of the eye
- 2) Structure & nutrition of the corne
- 3) Lacrimal apparatus and describe about lacrimal gland
- 4) Flow of aqueous with diagram



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DIPLOMA IN OPTOMETRY

TWO YEARS (1st YEAR) EXAMINATION

BASIC MICROBIOLOGY & PHARMACOLOGY & CLINICAL PATHOLOGY

TIME: 3 Hours

Marks: 100

I. SHORT ANSWER QUESTIONS (10x2 = 20)

- 1) Intraocular injection
- 2) Amphotericin B?
- 3) DNA and RNA viruses
- 4) Toxoplasmosis
- 5) Infection
- 6) Fungi
- 7) are examples of viruses causing eye infection
- 8) are media used to grow bacteria for its identification
- 9) Paralysis of Ciliary muscle is caused by Mydriatics, Cycloplegics, Miotics
- 10) Dendritic Keratitis is typically caused by Herpes Zoster virus, Herpes simplex virus, Adenovirus

II. WRITE SHORT NOTES (5x3 = 15)

- 1) Diamox (Acetazolamide)
- 2) Different routes of administration of medicine
- 3) Factors affecting growth of bacteria
- 4) Candida
- 5) Autoclave

III. WRITE SHORT NOTES (5x5 = 25)

- 1) Methods of transmission of infection
- 2) Types of drugs
- 3) Care of medicine cabinet and drugs
- 4) Mydriatic and cycloplegic drugs
- 5) Atropine

IV. ESSAY QUESTIONS (4x10 = 40)

- 1) Explain Routes of administration
- 2) Explain Anti-viral Drugs
- 3) Topical anesthesia
- 4) Anti glaucoma drugs



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DIPLOMA IN OPTOMETRY
TWO YEARS (1st YEAR) EXAMINATION

PHYSIOLOGICAL OPTICS & PRINCIPLES OF REFRACTION

TIME: 3 Hours

Marks: 100

I. SHORT ANSWER QUESTIONS (10x2 = 20)

- 1) Prism kept base to base and apex to apex forms
- 2) If the object is at principal focus and infinity of a convex lens image will be at
- 3) Myopic astigmatism types
- 4) Two types of convergence
- 5) Uses of prisms
- 6) Iritis typically causes Ciliary congestion, Conjunctival congestion, Diffuse congestion
- 7) Proptosis is Retraction of the eyeball, Drooping of the upper eyelid Protrusion of the eyeball
- 8) Trichiasis is Rolling in of eyelid margin, Rolling out, of lid margin, Distortion of eyelashes
- 9) Keratoplasty is.....
- 10) Corneal vascularisation is called.....

II. WRITE SHORT NOTES (5x3 = 15)

- 1) Pathway of pupillary light reflex
- 2) Anterior chamber depth and content
- 3) Blind Spot
- 4) Velocity of Light
- 5) Trachoma

III. WRITE SHORT NOTES (5x5 = 25)

- 1) The Normal field of vision
- 2) The Normal schematic eye
- 3) Optical condition or aphakia
- 4) Mydriatics in Refraction
- 5) Light theory

IV. ESSAY QUESTIONS (4x10 = 40)

- 1) Objective Test (Retinoscopy)
- 2) Congenital Dacryocystitis
- 3) Fungal corneal ulcer
- 4) Inflammatory conditions of glands of lid margin



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DIPLOMA IN OPTOMETRY
TWO YEARS (1st YEAR) EXAMINATION

OPTOMETRIC INSTRUMENTS

TIME: 3 Hours

Marks: 100

I. SHORT ANSWER QUESTIONS (10x2 = 20)

- 1) Snellen's Principal
- 2) Gonioscope is used to find
- 3) Prisms are used in
- 4) Two types of Retinoscopy.....
- 5) Example of simple HM astigmatism and compound H.M astigmatism
- 6) Two types of Tonometer
- 7) Synoptophore is used
- 8) Cataract can occur as a complication of Conjunctivitis, Uveitis, Blepharitis
- 9) Morgagnian cataract is.....
- 10) Dislocation of lens occurs in.....

II. WRITE SHORT NOTES (5x3 = 15)

- 1) Trial Frames
- 2) Synaptophore
- 3) A-Scan
- 4) Maddox Rod
- 5) Eduncleation Scissors

III. WRITE SHORT NOTES (5x5 = 25)

- 1) B-Scan
- 2) Hess Screen
- 3) Lensometer
- 4) Perimeter
- 5) Bjerrums screen

IV. ESSAY QUESTIONS (4x10 = 40)

- 1) Explain various types of retinoscope (51, 52)
- 2) Kerato meter
- 3) Retinoscopy procedure
- 4) Construction snellens chart



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DIPLOMA IN OPTOMETRY

TWO YEARS (FINAL YEAR) EXAMINATION

CLINICAL OPHTHALMOLOGY

TIME: 3 Hours

Marks: 100

I. SHORT ANSWER QUESTIONS (10x2 = 20)

- 1) What is Photoretinitis
- 2) What is Pathogenesis of central Retinal artery occlusion
- 3) Treatment of toxemia of Pregnancy
- 4) Cataract
- 5) Exophthalmos
- 6) Retinal vasculitis
- 7) Outermost layer of Cornea is Bowman's Membrane, Decemet's Membrane, Epithelium
- 8) Choroid is part of Retina, Uvea, Sclera
- 9) KF ring is seen on.....
- 10) Iridodonesis is

II. WRITE SHORT NOTES (5x3 = 15)

- 1) Etiology and treatment of scleritis
- 2) Glaucoma
- 3) Cortical cataract
- 4) Color Vision
- 5) Acute dacryoadenitis

III. WRITE SHORT NOTES (5x5 = 25)

- 1) Retinitis
- 2) Ophthalmia neonatorum
- 3) Stye
- 4) Surgical management of Pterygium
- 5) Anaesthesia for ocular surgery

IV. ESSAY QUESTIONS (4x10 = 40)

- 1) All about Tobacco Amblyopia
- 2) Comparative study of intra and extracapsular cataract extractions
- 3) Common Topical anti-glaucoma Drugs
- 4) Squint



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DIPLOMA IN OPTOMETRY
TWO YEARS (FINAL YEAR) EXAMINATION

PRACTICE OF REFRACTION

TIME: 3 Hours

Marks: 100

I. SHORT ANSWER QUESTIONS (10x2 = 20)

- 1) Prism
- 2) Postmyriatic Test (PMT)
- 3) Objective Methods to determination of Refraction
- 4) Symptoms & Treatment of Prregular Astigmatism
- 5) Congenital (Developmental) myopia
- 6) Clear Lens extraction & PC IOL
- 7) Etiology of Bilateral amblyopia
- 8) Pupillary reactions (reflexes) direct & indirect
- 9) Principle & Method of radial keratotomy
- 10) Adantages of PRK

II. WRITE SHORT NOTES (5x3 = 15)

- 1) Cylindrical Lens
- 2) Presbyopia
- 3) Advantage & Disadvantages of Spectacles for treatment of Aphakia
- 4) Treatment of esophoria
- 5) Alternating divergent squint

III. WRITE SHORT NOTES (5x5 = 25)

- 1) Astigmatism
- 2) Etiology of Ametropia
- 3) Lasik
- 4) Mixed astigmatism
- 5) Cycloplegic refraction

IV. ESSAY QUESTIONS (4x10 = 40)

- 1) Principal, Types, Indications, disadvantages & complications of contact lenses
- 2) Retinoscopy
- 3) Hypermetropia – etiology, type, symptoms, signs & treatment
- 4) Sturm's conoid



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DIPLOMA IN OPTOMETRY

TWO YEARS (FINAL YEAR) EXAMINATION

OPTOMETRY WORKSHOP

TIME: 3 Hours

Marks: 100

I. SHORT ANSWER QUESTIONS (10x2 = 20)

- 1) Crown glass
- 2) Flint glass
- 3) Plastic lens
- 4) Causes of headache with new glasses
- 5) Causes and solution patient complaining of Double vision with the new spectacles
- 6) Causes and suggestions for Bifocal user complaining poor field of vision while Reading
- 7) UV rays
- 8) Refractive media of the Eyeball
- 9) Spherical lenses
- 10) Classification of lenses

II. WRITE SHORT NOTES (5x3 = 15)

- 1) Lensometer
- 2) Lenticular lens grinding
- 3) Spectacle Frame Fittings
- 4) Lens
- 5) Lens Power

III. WRITE SHORT NOTES (5x5 = 25)

- 4) Optical Centre
- 5) Hi-index Glass
- 6) Contact lens manufacturing Techniques
- 7) Front inclination
- 8) Apical curve

IV. ESSAY QUESTIONS (4x10 = 40)

- 1) Final fitting of spectacle
- 2) Explain 5 steps of lens Grinding
- 3) Photochromatic lenses and their features
- 4) Front Alignments



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COMMUNITY OPTOMETRY

TIME: 3 Hours

Marks: 100

I. SHORT ANSWER QUESTIONS (10x2 = 20)

- 1) Common causes Of blindness
- 2) Conjunctival xerosis and Bitot's spot
- 3) Sources of vitamin A
- 4) Indication for cataract extractions
- 5) Anterior capsular cataract and posterior capsular cataract
- 6) Latent squint (Heterophoria) types
- 7) Types of cataract lenses
- 8) Types of hypermetropia
- 9) Contraindications for keratoplasty
- 10) Evaluation or Donor Tissue

II. WRITE SHORT NOTES (5x3 = 15)

- 1) Preservation of Donor Eye
- 2) Objective of Eye Bank
- 3) Classification and etiology symptoms of squint
- 4) Cylindrical lenses
- 5) Prisms

III. WRITE SHORT NOTES (5x5 = 25)

- 1) Binocular single vision
- 2) Classification of blindness in India
- 3) Treatment schedule for xerophthalmia
- 4) Low vision aids
- 5) All about keratoconus

IV. ESSAY QUESTIONS (4x10 = 40)

- 1) National programme for the control of blindness (NPCB)
- 2) Enucleation and contraindications for collection of Donor Eyes
- 3) Etiology, Types, symptoms and Treatment of myopia
- 4) History and examination for Alternating concomitant squint



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OPTOMETRY NURSING

TIME: 3 Hours

Marks: 100

I. SHORT ANSWER QUESTIONS (10x2 = 20)

- 1) Grading of chemical injuries
- 2) Open globe injury
- 3) Biometry
- 4) Tono – pen
- 5) Advantage of indirect ophthalmoscope
- 6) Digital Tension & Schiottz Tonometer
- 7) Indication for cataract extraction
- 8) Principle of Automated Perimetry Static, Dynamic, Refractive
- 9) Principle of Automated Perimetry Static, Dynamic, Refractive
- 10) Retinal photocoagulation is done withLASER

II. WRITE SHORT NOTES (5x3 = 15)

- 1) Effects of blunt injury on lens, iris, ciliary body, choroids & Retina
- 2) Chalcosis
- 3) Phaco Incision
- 4) Distant Vision
- 5) Near Vision

III. WRITE SHORT NOTES (5x5 = 25)

- 1) Anterior capsulotomy
- 2) Intraocular lens implantation
- 3) Advantages & Disadvantages of contact lens
- 4) Binocular loupe & slit – lamp examination
- 5) Eye donation

IV. ESSAY QUESTIONS (4x10 = 40)

- 1) Technique of intracapsular cataract extraction (ICCE), Extracapsular cataract extraction (ECCE) & Phacoemulsification
- 2) Central Field (Campimetry)
- 3) Preoperative Preparation for cataract surgery
- 4) Preoperative Investigation for cataract surgery