eOphtha
DNB Question Bank

By
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Index

1. Anatomy, Physiology & Biochemistry
2. Pharmacology
3. Pathology
4. Microbiology
5. Diagnostics
6. Conjunctiva
7. Cornea
8. Sclera
9. Lens
10. Glaucoma
11. Uvea
12. Retina & Vitreous
13. Lacrimal System
14. Lids
15. Orbit
16. Neurophthalmology
17. Strabismus
18. Oncology
19. Trauma
20. Systemic Diseases
21. DD
22. Optics & Refraction
23. Community Ophthalmology
24. Miscellaneous
## Detailed Index

<table>
<thead>
<tr>
<th>Anatomy, Physiology &amp; Biochemistry</th>
<th>Cornea</th>
<th>Retina &amp; Vitreous</th>
<th>Oncology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Embryology</td>
<td>Immunology</td>
<td>Evaluation</td>
<td>Lid Tumors</td>
</tr>
<tr>
<td>Cornea</td>
<td>Dry Eye</td>
<td>Electrophysiology</td>
<td>Lacrimal Tumors</td>
</tr>
<tr>
<td>Uvea</td>
<td>Steven Johnson Syndrome</td>
<td>Diabetic Retinopathy</td>
<td>Uveal Tumors</td>
</tr>
<tr>
<td>Glaucoma</td>
<td>Infective Keratitis</td>
<td>Hyperensive Retinopathy</td>
<td>Orbital Tumours</td>
</tr>
<tr>
<td>Lens</td>
<td>General</td>
<td>Vascular Occlusions</td>
<td>Retinoblastoma</td>
</tr>
<tr>
<td>Retina</td>
<td>Bacterial Keratitis</td>
<td>Retinopathy of Prematurity</td>
<td>Miscellaneous</td>
</tr>
<tr>
<td>Pupil</td>
<td>Fungal Keratitis</td>
<td>Other Vascular Disorders</td>
<td>Miscellaneous</td>
</tr>
<tr>
<td>Visual Pathway</td>
<td>Viral Keratitis</td>
<td>Neovascularization</td>
<td>Trauma</td>
</tr>
<tr>
<td>EOMs</td>
<td>Herpes Zoster Ophthalmicus</td>
<td>ARMED</td>
<td>General Trauma</td>
</tr>
<tr>
<td>Binocular Single Vision</td>
<td>Acanthamoeba</td>
<td>Macular Hole</td>
<td>IOFB</td>
</tr>
<tr>
<td>Conjunctiva</td>
<td>Miscellaneous</td>
<td>Other Macular Diseases</td>
<td>Hyphema</td>
</tr>
<tr>
<td>Lacrimal System</td>
<td>Non-Infective Keratitis</td>
<td>Gystoid Macular Edema</td>
<td>Chemical Injury</td>
</tr>
<tr>
<td>Lids</td>
<td>Eclectic Diseases</td>
<td>Peripheral Retinal Lesions</td>
<td>Systemic Diseases</td>
</tr>
<tr>
<td>Circulation</td>
<td>Miscellaneous</td>
<td>Retinal Detachment</td>
<td>DD</td>
</tr>
<tr>
<td>Orbit</td>
<td>Keratoplasty</td>
<td>Vitreoretinal Surgery</td>
<td>Optics &amp; Refraction</td>
</tr>
<tr>
<td>Neuroanatomy</td>
<td>Refractive Surgery</td>
<td>Vitreous</td>
<td>Physical Optics</td>
</tr>
<tr>
<td>General Biochemistry</td>
<td>Stem Cells</td>
<td>Miscellaneous</td>
<td>Prisms</td>
</tr>
<tr>
<td>Pharmacology</td>
<td>Ocular Surface Reconstruction</td>
<td>Lacrimal System</td>
<td>Vision Assessment</td>
</tr>
<tr>
<td>General</td>
<td>Solera</td>
<td>Lids</td>
<td>Colour Vision</td>
</tr>
<tr>
<td>Anesthesia</td>
<td>Lens</td>
<td>Orbit</td>
<td>Retinoscopy</td>
</tr>
<tr>
<td>Mydriatics &amp; Cycloplegics</td>
<td>Cataract</td>
<td>Propotis</td>
<td>Myopia</td>
</tr>
<tr>
<td>Corticosteroids</td>
<td>Secondary Cataract</td>
<td>Thyroid Eye Disease</td>
<td>Hypermetropia</td>
</tr>
<tr>
<td>Immune Agents</td>
<td>Pediatric Cataract</td>
<td>Pseudotumor</td>
<td>Aphakia</td>
</tr>
<tr>
<td>Antibiotics</td>
<td>Congenital Anomalies</td>
<td>Other Non-Infective Inflammatory Diseases</td>
<td>Astigmatism</td>
</tr>
<tr>
<td>Anti-Fungals</td>
<td>Malpositioned Lens</td>
<td>Gavenous Sinus</td>
<td>Accommodation &amp; Convergence</td>
</tr>
<tr>
<td>Anti-Glaucoma Drugs</td>
<td>Surgery</td>
<td>Orbital Cellulitis</td>
<td>Spectacles</td>
</tr>
<tr>
<td>Antibiotic Agents</td>
<td>Special Situations</td>
<td>Congenital Anomalies</td>
<td>Contact Lens</td>
</tr>
<tr>
<td>Anti-Fibrotic Agents</td>
<td>Complications of Cataract</td>
<td>Orbital Anomalies</td>
<td>Instruments</td>
</tr>
<tr>
<td>Anti-VEGF</td>
<td>Surgery</td>
<td>Orbital Surgery</td>
<td>Lasers</td>
</tr>
<tr>
<td>Viscocelastics</td>
<td>IOLs</td>
<td>Implants</td>
<td>Low Vision Aids</td>
</tr>
<tr>
<td>Botulimum</td>
<td>IOL Power Calculation</td>
<td>Phacomatosis</td>
<td>Miscellaneous</td>
</tr>
<tr>
<td>Dyes</td>
<td>Glaucoma</td>
<td>Neuro-Ophthalmology</td>
<td>Trauma</td>
</tr>
<tr>
<td>Glues</td>
<td>Lid Tumors</td>
<td>Optic Nerve Ischemia</td>
<td>Miscellaneous</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>Lacrimal Tumors</td>
<td>Optic Neuritis</td>
<td>Oncology</td>
</tr>
<tr>
<td>Pathology</td>
<td>Uveal Tumors</td>
<td>Papilledema</td>
<td>Lid Tumors</td>
</tr>
<tr>
<td>Microbiology</td>
<td>Orbital Tumours</td>
<td>Visual Pathway Disorders</td>
<td>Lacrimal Tumors</td>
</tr>
<tr>
<td>Diagnostics</td>
<td>Retinoblastoma</td>
<td>Amaurosis fugax</td>
<td>Uveal Tumors</td>
</tr>
<tr>
<td>Sterilization</td>
<td>Miscellaneous</td>
<td>Cranial Nerve Disorders</td>
<td>Orbital Tumours</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>Trauma</td>
<td>Pupil</td>
<td>Retinoblastoma</td>
</tr>
<tr>
<td>Immunology</td>
<td>Miscellaneous</td>
<td>Gaze Disorders</td>
<td>Miscellaneous</td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>Strabismus</td>
<td>Amblyopia</td>
<td>Miscellaneous</td>
</tr>
<tr>
<td>Diagnostics</td>
<td>Examination &amp; Investigations</td>
<td>Myasthenia</td>
<td>Miscellaneous</td>
</tr>
<tr>
<td>Cornea</td>
<td>General</td>
<td>Miscellaneous</td>
<td>Miscellaneous</td>
</tr>
<tr>
<td>Glaucoma</td>
<td>Diplopia</td>
<td>Strabismus</td>
<td>Miscellaneous</td>
</tr>
<tr>
<td>Retina</td>
<td>Amblyopia</td>
<td>DVD</td>
<td>Trauma</td>
</tr>
<tr>
<td>Imaging</td>
<td>Myasthenia</td>
<td>Paralytic Strabismus</td>
<td>Miscellaneous</td>
</tr>
<tr>
<td>Conjunctiva</td>
<td>Miscellaneous</td>
<td>Miscellaneous</td>
<td>Miscellaneous</td>
</tr>
<tr>
<td>Conjunctivitis</td>
<td>Trauma</td>
<td>Miscellaneous</td>
<td>Miscellaneous</td>
</tr>
<tr>
<td>Allergic Disorders</td>
<td>Eye Banking</td>
<td>Miscellaneous</td>
<td>Miscellaneous</td>
</tr>
<tr>
<td>Trachoma</td>
<td>Eye Camps</td>
<td>Miscellaneous</td>
<td>Miscellaneous</td>
</tr>
<tr>
<td>Pterygium</td>
<td>Programs</td>
<td>Miscellaneous</td>
<td>Miscellaneous</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>Vit A</td>
<td>Miscellaneous</td>
<td>Miscellaneous</td>
</tr>
</tbody>
</table>

### Subtopics:
- **Cornea**
  - Immunology
  - Dry Eye
  - Steven Johnson Syndrome
  - Infective Keratitis
  - General
  - Bacterial Keratitis
  - Fungal Keratitis
  - Viral Keratitis
  - Herpes Zoster Ophthalmicus
  - Acanthamoeba
  - Miscellaneous
- **Retina & Vitreous**
  - Evaluation
  - Electrophysiology
  - Diabetic Retinopathy
  - Hyperensive Retinopathy
  - Vascular Occlusions
  - Retinopathy of Prematurity
  - Other Vascular Disorders
  - Neovascularization
  - ARMED
  - Macular Hole
  - Other Macular Diseases
  - Gystoid Macular Edema
  - Peripheral Retinal Lesions
  - Retinal Detachment
  - Vitreoretinal Surgery
  - Vitreous
  - Miscellaneous
- **Oncology**
  - Lid Tumors
  - Lacrimal Tumors
  - Uveal Tumors
  - Orbital Tumours
  - Retinoblastoma
  - Miscellaneous
- **Trauma**
  - General Trauma
  - IOFB
  - Hyphema
  - Chemical Injury
- **Systemic Diseases**
  - DD
- **Optics & Refraction**
  - Physical Optics
  - Prisms
  - Vision Assessment
  - Colour Vision
  - Retinoscopy
  - Myopia
  - Hypermetropia
  - Aphakia
  - Astigmatism
  - Accommodation & Convergence
  - Spectacles
  - Contact Lens
  - Instruments
  - Lasers
  - Low Vision Aids
  - Miscellaneous
- **Community Ophthalmology**
  - Eye Banking
  - Eye Camps
  - Programs
  - Vit A
  - Miscellaneous
  - Miscellaneous

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Anatomy, Physiology & Biochemistry

Embryology

Development of the eye ball.
Congenital disc anomalies
Ocular colobomata – congenital.
Choroid fissure.

Cornea

Factors maintaining the transparency of cornea. (2000)
Physiology of corneal transparency: Factors responsible and theories. (2008)
Discuss the deturgescence of Cornea.
Development of cornea.
Histology of cornea.
Corneal endothelium.
Describe the metabolism of cornea. What are the factors responsible for the corneal transparency?
Glucose utilisation by cornea.

Uvea

Uvea- gross & microscopic anat.
Iris.
What is pupil? Trace the Pupillary constrictor and Dilator fibres.
Functions of choroid.

Glaucoma

Describe the gross and micro-anatomy of angle of anterior chamber and development of structures framing angle of anterior chamber. (2008)
Describe anatomy of angle of anterior chamber of eye. (2009)
Anatomy of angle structure with diagram. (2009)
Angle of anterior chamber & drainage of aqueous humor.
Discuss the anatomy of the anterior chamber angle and describe the various methods of its examination.
Ultra structure of Trabecular mesh work.
Canal of Schlemm.
Aqueous humor- formation & circulation. Maintainance of IOP.
Aqueous humor- Composition & its clinical importance.
Aqueous humor dynamics.
Blood-aqueous barrier.
Optic nerve head- Anat & blood supply. Pathologic changes seen in optic nerve head.
Ciliary body.

Lens

Development of crystalline lens. (2000)
Lens plate.
Draw a slit lamp optical section diagram of the crystalline lens showing the different nuclei and
zones. Also describe the implications of embryological development of the capsule. (2011)

Lens anatomy. (2000)
Factors responsible for the transparency of the lens.
Physiology of lens, lens nutrition, electrolyte balance of lens & pathology of cataract.
Discuss the metabolism of human lens.
Cataractogenesis.
Biochemical basis of Diabetic cataract.
Metabolic basis of premature cataracts.

Retina

Draw diagram(s) depicting the anatomy of retina. (2009)
Name the layers of retina. Briefly outline the structure of retinal receptor cells. (2006)
Nerve fibre arrangement in Retina. (1999)
Pigment epithelium and its importance in retinal integrity. (2000)
Give an account of the anatomy of retina. Add notes on: (a) Its development and (b) its histological structure.
Normal fundus of eye
What is Macula Lutea? Give its special features and the representation of the macular fibres in the calcarine cortex
Ora Serrata.
Blood-retinal barrier
Bruch's membrane

Describe normal attachment of vitreous. (2009)
Discuss the anatomy and development of vitreous.
Composition of vitreous humor

Discuss physiology of visual perception. (2008)
Physiological Basis of Night Vision. (2005)
Physiology of Dark Adaptation. (2007)
Metabolism of retina
The electrical phenomena of the eye.
Amacrine cells.
Visual pigments.
Types of cones in retina

Pupil

Pupillary reflex & accomodation pathways. Abnormalities of pupillary reflex.
Functions of pupils.
Adie's pupil
Wernicke's hemianopic pupil.
Argyll Robertson pupil.
Describe the accomodation reflex giving the receptors, neurons, centre and nuclei concerned with it.
Ciliary ganglion.

Visual Pathway

Optic nerve-Anatomy. Ophthalmoscopic features of Normal optic disc.
Optic nerve.
Visual pathways & cortex Anat.Localsing signs of lesions
Give the blood supply to visual pathway.
Optic part of retina.
Receptor field of a Ganglion cell.
Edinger Westphal nucleus.
Describe the differences between the supra and irtra-geniculare lesions of the optic pathways.

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Lateral Geniculate Body - (Situation, neuronal arrangement and mode of termination of retinal fibres).
Wernicke's area.
Striate cortex.
Macular sparing.
Distribution of macular fibres in visual pathway.

**EOMs & Motility Control**

Describe the surgical anatomy of extraocular muscles. (1999)
Attachments of extraocular muscles in relation to its primary and secondary functions. (2000)
The nerve supply and actions of the recti and oblique muscles of the eyeball
Superior oblique muscle
Saccadic eye movements.
Optokinetic Nystagmus.
Superior colliculus.
Retino hypothalamic tract.

**Binocular single vision**

Binocular vision- Physiology
Role of corresponding points in visual perception
Panum’s Area
Critical fusion frequency.
Depth perception
Monocular perception of depth.
Anomalous retinal correspondence
Microtropia

**Conjunctiva**

Tenons capsule.
Normal flora of the conjunctiva.
Goblet cells.

**Lacrimal System**

Lacrimal drainage system- Anat.
Anatomy of lacrimal gland and Its nerve supply.
Lacrimal sac
Give the relations of the lacrimal sac with applied importance.
Give the relations of the nasolacrimal duct is its development.
Naso-Lacrimal Duct.
Lacrimal gland.
Nerve supply of lacrimal gland.

**Tear Film. (2000)**
Discuss the Lacrimal drainage physiology. (2005)
Mechanism of drainage of tears, applied physiology of tear film.
Precorneal tear film.
Composition of tear film.
Immunoglobulins in human tears.

**Lids**

Levator palpebrae superioris-Anat.
Describe the anatomy of the upper eyelid.
Anatomy of the lid.
Give the layers of the upper eye lid from superficial to deep in order.
Give the attachments, nerve supply and functions of the various parts of the orbicularis oculi.

Circulation
Ocular and orbital venous drainage. (2005)
Write down anterior and posterior ciliary circulation and depict it by diagram. (2010)
Describe posterior ciliary circulation. (2009)
Describe the blood supply of optic nerve and its role in pathogenesis of ischemic optic neuropathy. (2008)
Blood supply of the eyeball
Central Retinal artery
Describe the course, relations and branches of Ophthalmic Artery.
Facial artery
Write in detail about the sinus venosus slerae.

Orbit
Describe the bones of the four walls of the orbit. Specify the weak spots. (2011)
Anatomy of bony orbit.
Bony orbit. Lateral orbitotomy.
Lateral orbitotomy.
Various surgical approaches to orbit.
Enumerate orbital spaces. Write down 4 common tumors in the central space according to its frequency. (2010)
Discuss the anatomy of orbital spaces and its clinical importance. (2008)
Apex of the orbit- Anatomy.
Describe the anatomy of the superior orbital fissure and discuss the lesions involving this area.
Give the boundaries, parts and structures passing through the superior orbital fissure.
Describe the ethmoidal air sinuses with applied importance.
Describe the periosteum of the orbit.
Orbital fascia.

Neuroanatomy
Draw a labeled diagram of the vascular supply of the optic nerve and its implications for papilloedema and ischaemic optic neuropathy. (2011)
Draw a labeled diagram of the superior orbital fissure specifying the structures – intraconal and extraconal. Enumerate signs of orbital apex syndrome. (2011)
Superior orbital fissure- Anat.
Give an account of the cavernous sinus, including its connections.
Ciliary Ganglion - Situation and connection.
Pretectal Nucleus - Situation and connection.
Infra orbital nerve.
Neuronal pathways for control of eye movements.

General Biochemistry
Galactosemia.
Galactose metabolism.
Pharmacology

General

Write down factors affecting drug penetration through cornea. (2010)
Describe the barriers to drug penetration through the cornea. Define partition coefficient. Discuss the various factors affecting drug penetration through the cornea. (2011)
Drug penetration in ocular tissues. (1999)
Intraocular drug implants- principal, types, uses, disadvantages (2009)
Write down factors facilitating penetration of drugs through cornea. (2009)
Intravitreal drug administration. (1999)
Dosage and toxicity of Intravitreal drugs. (2003)
Retinal toxicity of antibiotics.
Ocular drug delivery systems.

Anesthesia

Describe the common agents and techniques for local anaesthesia for cataract surgery and their potential complications. (2011)
Peribulbar anesthesia. (1999)
Describe the early and late complications and peri and retrobulbar infiltration anesthesia. (2002)
Peribulbar vs retrobulbar block.
Cataract surgery- use of anesthetic agents.
Local anaesthetics used in ophthalmic procedures
Lignocaine.
Preanaesthetic medication
Neuroleptic analgesia

Mydriatics & Cycloplegics

Write down indications, contraindications, pharmacology, side effects of cycloplegics commonly used in ophthalmology. (2010)
Classify the cycloplegic mydriatics in Ophthalmology, describe the modes of action.
Mydriatics
Cycloplegics
Atropine
Ophthalmic use of Atropine substitutes
Tropicamide toxicity
Autonomic agents used in ophthalmology.
Parasympatholytic drugs.

Corticosteroids

Name few intraocular steroid implants approved by FDA and mention its indications, contraindications and side effects. (2010)
Preparations, dosage, routes and indications of steroids in uveitis. (2008)
Describe side effects of steroids in the eye. (2008)
Indications, complications of intravitreal steroids. (2009)
Discuss the pharmacology, uses and side effects of Topical steroids in Ophthalmology
Steroids in Ophthalmology.

**Immune Agents**

Various immunosuppressive used in resistant cases of posterior uveitis. (2010)
What are biological immunosuppressive. Name few of them, as used in management of uveitis. (2009)
Describe indication, contraindications, mechanism of action and complication of immunomodulatory agents in ophthalmology. (2008)
Immunosuppressive Agents. (2007)
Cyclosporin.

**Antibiotics**

Ciprofloxacin.
Gentamicin.
Topical use of sulfonamides.
Cephalosporins.
Bacterial drug resistance.

**Antifungals**

Antifungal drugs-Pharmacology.
Natamycin.

**Antivirals**

Describe pharmacological properties, mechanism of action and side-effects of antiviral drugs used in ophthalmology. (2009)
Treatment of Herpes simplex keratoconjunctivitis-Pharmacology.
Primary indications for the use of antiviral drugs in ophthalmology.
Antiviral drugs.
Acyclovir.
Idoxuridine-Pharmacology.
Trifluothymidine-Pharmacology.

**Anti-Glaucoma Drugs**

Merits and demerits of various antiglaucoma drugs. (2000)
Discuss the role of Beta-blockers in glaucoma. (1999)
Timolol maleate.
Betaxolol.
Carbonic anhydrase inhibitors
Acetazolamide
Dorzolamide
Pilocarpine.
Pilocarpine oculosert
Prostaglandins in ophthalmology
Latanoprost
Aqueous substitutes
Newer drugs in the treatment of open-angle glaucoma. (2000)
Role of newer drugs in management of glaucoma, and their benefit over conventional drugs. (2003)
Discuss mechanism of action and side-effects of prostaglandins used in glaucoma, compare the various
prostaglandins currently in use for glaucoma management. (2008)
Latanoprost. (2001)
Concept of Neuroprotection in Glaucoma. (2003)

**Antifibrotic Agents**
Mitomycin-C. (2001)

**Anti-VEGF**
VEGF - Define, source in eye, their role in disease and their modulation. (2008)

**Viscoelastics**
Viscoelastics: Physical properties, classification, uses, side effects. Name some common ones used in
ophthalmic surgery. (2008)
Viscoelastics.

**Botulinum**

**Dyes**
Describe salient features of the various dyes used in ophthalmology. Give their indications and complications.
(2008)

**Glues**
Describe application of Cyano-acrylate tissue adhesive in ophthalmology. (2002)
Describe efficacy of synthetic and biologic bioadhesives in ophthalmology. (1999)

**Miscellaneous**
Role of anti-oxidants in ophthalmology. (2007)
Ocular effects of sildenafil (Viagra). (2001)
Non-steroidal anti-inflammatory agents
Flurbiprofen
Antihistamine agents useful in ophthalmology.
Sodium cromoglycate

**Pathology**
Fine needle aspiration biopsy in ophthalmology. (2001)
Histopathology and etiopathogenesis of Vernal Catarah. (2004)
Pathology of Trachoma-Pathology.
Microbiology and pathology of bacterial corneal ulcer. (2008)
Corynebacterium Xerosis-Pathology.
Fungal lesions of eye-Pathology.
Stromal Keratitis-Pathology
Fungal lesions of eye-Pathology.
Keratomyctosis-Pathology.
Histopathology of corneal button received from advance keratoconus. (2001)
Stromal corneal dystrophies-Pathology.
Calcific band keratopathy-Pathology.
Discuss the immunological aspects and pathology of corneal graft rejection-Pathology.
Bullous Keratopathy- pathology and measures to prevent it. (2007)
Describe the pathology of sympathetic ophthalmitis. Add a note on cell mediated immunity. Dalen Fuchs Nodule.
Vascular changes in the eye in diabetes-Pathology
Hypertensive retinopathy-Pathology
Classify lacrimal gland tumours and describe its histopathology.
Chalazion-Pathology.
Thyroid myopathy- Pathology
Pathology of basal cell carcinoma of eyelids
Benign tumours and tumour like lesions of the eyelid-Pathology
Merkel cell carcinoma of eyelid-Pathology
Pathology, clinical features, diagnosis and management of lacrimal gland tumors. (2008)
Pathology of choroidal melanoma. (2005)
Melanotic progonoma-Pathology
Describe the investigations, pathology and management of orbital tumours.
Dermoid tumor-Pathology
Lymphoma-Pathology.

Microbiology

Diagnostics

Conjunctival Smear. (2001)
Antinuclear factor
ELISA.
Western blot test
Polymerase chain reaction

Sterilization

Method of sterilization of (A) Linen, sharp instruments, blunt instruments, Diamond knife. (B) Disinfection of operation theatre. (2003)
Microbiology and pathology of bacterial corneal ulcer. (2008)
Adeno virus-Microbiology.
Chlamydial infections-Microbiology.
Pseudomonas aeruginosa-Microbiology.
Corynebacterium diphtheriae-Microbiology.
Culture characters of C. Diphtheriae.
Lab diagnosis of Corynebacterium diphtheria.
Ziehl Neelson stain-Microbiology.
Acid fast staining.
Morax-Axenfeld Bacillus.
Moraxella-Microbiology.
Diphtheroids-Microbiology.
Keratomyctosis-Microbiology.
Fusarium-Microbiology.
Nocardia-Microbiology.
Post-op endophthalmitis- Microbiology.

Miscellaneous
Exotoxins
Structure of bacterial cell wall
Discuss in brief the morphological features and ocular manifestations of viruses affecting the eye.
Bacteriophage
Describe the morphology, cultural characters and ocular manifestations of TRIC virus.
TRIC virus.
Discuss in detail about mycotic infections of the eye and discuss the laboratory diagnosis.
Candidiasis.
Iatogens in ophthalmology
Parasites in ophthalmology
Tapeworm infestation of the eye
Lab diagnosis of Wuchereria Bancrofti
Loa Loa.
Guinea worm
Microfilaria
Rubella syndrome

Immunology
Immunological basis of ocular surface inflammation. (2005)
Enumerate important pro-inflammatory cytokines. What roles do they play in ocular inflammation? (2011)
Anterior chamber associated immune deviation.
Discuss about immunopathology of the eye.
Discuss the Role of immuno-suppressive agents in ophthalmology.
Immunosuppressants in Ophthalmology
Pharmacological immunosuppression in corneal graft failure
Anterior chamber associated immune deviation.
Mechanism of innate immunity.
Phagocytosis
Immunoglobulin M
IgA
Type III (immune complex) reaction
Delayed hypersensitivity
Anaphylactic type of hypersensitivity
Anaphylaxis

Diagnostics
Cornea
Confocal microscopy. (2005)
Examination of Corneal endothelium.
Specular microscopy.
Corneal topography
Pachymetry.

Glaucoma
Define pachymetry? What are various may of doing it. Describe the advantages and disadvantages of each method. (2008)
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Central Corneal Thickness. (2005)
Optical principles of Pachymeter. Types and uses in ophthalmic practice. (2005)
Confocal laser ophthalmoscopy. (1999)

Retina
B-Scan-Indications and utility. (2002)
Role of Doppler in Ophthalmology. (2001)
Fluorescein angiography - principle and clinical application. (2008)
Fluorescein angiography. (2000)
Optical Coherence Tomography (OCT). (2005)
Role of OCT in retinal disease, diagnosis and management. (2010)
What is ERG? Mention various types of ERG and their uses in ophthalmology. (2010)

Imaging
Clinical uses of CT scan in ophthalmology. (2001)
Discuss the role of various imaging techniques in ophthalmic practice. (2006)
Describe the uses of Ultrasonography in Ophthalmology.
Discuss the merits and demerits of non-invasive techniques in ophthalmology (ultra sound, CT, MRI, etc.).

Conjunctiva
Conjunctivitis
Classification of conjunctivitis and its management. (2009)
Write down clinical picture and management of epidemic keratoconjunctivitis. (2009)
Epidemic kerato conjunctivitis.
Viral conjunctivitis.
Adeno virus-Microbiology.
Discuss the differential diagnosis of chronic follicular conjunctivitis. (2006)
Acute follicular conjunctivitis.
Membranous conjunctivitis.

Allergic Disorders
Histopathology and etiopathogenesis of Vernal Catarah. (2004)
IgE estimation in eye disorders. (1999)
Drugs Used in Allergic Conjunctivitis. (1999)
Discuss briefly the newer antiallergic drugs and their mechanism of action. (2006)
Discuss management of spring catarrh with newer drugs & their benefits over conventional drugs. (2002)
Vernal catarrh- Aetiology, treatment, signs, symptoms.

Trachoma

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Discuss classification of trachoma and pathological changes seen in each stage. (2008)
Chlamydial infections-Microbiology.
Life cycle of Trachoma organism.
Pathology of Trachoma-Pathology.
Cobble stone papillae.
Trachoma control programme.
Trachoma- Prophylaxis.

Pterygium
Pterygium. (2005)
Describe indications and methods of pterygium surgery. How to prevent recurrence?(2009)

Miscellaneous
Differential diagnosis of watering eye in the first week of life. List three common causes of ophthalmia neonatorum indicating the time of onset and two characteristics of each. Name the prophylactic agent. (2011)
Ophthalmia neonatorum.
Gonococcal infection of the eye.
Symblepharon.
Actinic Keratosis of conjunctiva.
Dermolipoma of conjunctiva.
Pannus.

Cornea

Dry Eye
Describe signs, symptoms and investigations in dry eye. (1999)
Describe the aetiology and management of Dry Eye.
Discuss diagnostic tests of dry eye.
Schirmer's test.
Pharmaco-therapeutics of Dry Eye. (2005)
Tear Substitutes.
Wetting agents and tear substitutes.
Management of dry eyes. (2001)

Steven Johnson Syndrome
Give management of severe dry eye in a case of Steven Johnson syndrome. (2010)
Steven Johnson Syndrome. (2007)
Etiology and management of Steven Johnson's Syndrome. (2000)

Infective Keratitis
Describe the normal conjunctival flora. Discuss the factors predisposing to corneal infection. (1999)
Management of corneal ulcer. (2009)
Different clinical features of corneal ulcer due to bacterial, fungal or viral in a tabular fashion.
Name two pathogens. (2011)
## Bacterial Keratitis

**Microbiology and pathology of bacterial corneal ulcer.** (2008)

- *Bacterial keratitis- diagnosis, management.*
- *Gonococcus- cultural characteristics, morphology, staining properties, ocular lesions.*
- *Diplococci.*
- *Pseudomonas aeruginosa-Microbiology.*
- *Drugs effective in pseudomonas infection.*
- *Pneumococci.*
- *Corynebacterium diphtheriae-Microbiology.*
- *Culture characters of C. Diphtheriae.*
- *Lab diagnosis of Corynebacterium diphtheria.*
- *Corynebacterium Xerosis-Pathology.*
- *Acid fast bacilli in eye diseases.*
- *Ziehl Neelson stain-Microbiology.*
- *Acid fast staining.*
- *Morax-Axenfeld Bacillus.*
- *Moraxella-Microbiology.*
- *Diphtheroids-Microbiology.*

## Fungal Keratitis


- Give clinical picture, complications and management of fungal CU. (2009)
- *Diagnosis and Management of Fungal Keratitis.** (2007)
- *Etiology and management of fungal corneal ulcers.** (1999)
- *Management of fungal corneal ulcer.** (2002)
- *Surgical intervention in Keratomycosis.** (2005)
- *Etiopathogenesis and current trends in management of fungal keratitis.** (2007)

- *Fungal lesions of eye-Pathology.*
- *Keratomycosis-Microbiology.*
- *Keratomycosis-Pathology.*
- *Fusarium-Microbiology.*
- *Fusarium-Microbiology.*

## Viral Keratitis

**Viral infections of eye.** (2000)

- *Herpes Simplex.** (2001)
- *Dendritic Corneal ulcer.** (2002)
- *Discuss the diagnosis, management and complications of Viral Keratitis.** (2006)
- *Etiology and management of viral corneal ulcers.** (1999)
- *Recent advances in the management of viral keratitis.** (2008)

- *Metaherpetic keratitis.*
- *Stromal Keratitis-Pathology.*
- *Describe the ocular manifestations, clinical diagnosis, complications and management of Herpes Simplex Keratitis.*
- *Herpetic keratitis-Pathology.*
- *HSV I-Microbiology.*

## Herpes Zoster Ophthalmicus

**Herpes Zoster Ophthalmicus.** (2004)

- *Corneal involvement and management of Herpes Zoster Ophthalmicus.** (2005)

- *Describe the clinical features and management of herpes zoster ophthalmicus.*

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Varicella-zoster infection- ophthalmic manifestations.

Acanthamoeba

Management of acanthamoeba keratitis. (2000)

Miscellaneous

What are the causes for non healing of the corneal ulcer. Describe the management of non healing corneal ulcer.
Laboratory diagnosis of keratitis.
Microbial stains used in ophthalmology.
Nocardia-Microbiology.
Superficial keratitis-Pathology.

Non-Infective Keratitis

Discuss the differential diagnosis of non ulcerative keratitis. (1999)
Deep keratitis- causes. Interstitial keratitis- stages, c/f, t/t
Discuss etiology, clinical features and management of peripheral ulcerative keratitis. (2008)
Rosacea keratitis.
Neuroparalytic keratitis.
Exposure Keratitis.
Atheromatous ulcer.

Ectatic Diseases

Enumerate methods to prevent and treat keratoconus, giving indications of each method. (2010)
Discuss keratoconus and its management. (2003)
Histopathology of corneal button received from advance keratoconus. (2001)
Management of keratoconus. (2009)
Describe the recent methods for the treatment of keratoconus. (2009)
Management of Irregular Astigmatism in Keratoconus. (2005)
Contact lenses in keratoconus. (2001)

Keratoplasty

Discuss indications, usefulness and complications of large corneal grafts. (2002)
Indications, usefulness and complications of small corneal grafts. (2003)
Graft rejection. (1999)
Outline the recent advances in keratoplasty technique. (2006)
Discuss the different types of lamellar keratoplasty procedures and two indications of each. (2011)
Lamellar Keratoplasty-types, indications and techniques. (2006)
What are the indications of DALK and enumerate various methods to do it. (2010)
Deep lamellar endothelial keratoplasty- indications and steps of surgery. (2008)
Therapeutic keratoplasty.
Discuss the immunological aspects and pathology of corneal graft rejection-Pathology.
Describe Corneal allograft rejection and its management.
Corneal graft failure and graft rejection.
Regraft (Corneal).
Discuss Refractive Keratoplasty.

Refractive Surgery

Corneal surgery for refractory errors. (2000)
Surgical correction of Myopia. (1999)
Corneal surgery in management of myopia. (2001)

Enlist the refractive corneal surgeries currently in practice. Describe advantages and disadvantages of each method.
Non-laser refractive surgeries.
Discuss laser refractive corneal surgeries. (2000)
LASIK. (2004)

Enumerate the complications of LASIK surgery in a myope of -8 D spherical in both eyes. (2009)
Discuss pre-operative evaluation required for LASIK refractive surgery. (2006)
Discuss merits and demerits of LASIK versus PRK in management of myopia. (1999)
Indications, contraindications & complications of phakic IOL in the management of high myopia. (2009)

What are Intacs and the potential complications of Intacs. Also name refractive surgery procedures for hyperopia. (2011)
Radial keratotomy.
Phototherapeutic keratectomy.
Epikeratophakia.

Stem Cells

Role of stem cell in ophthalmology. (2009)
Discuss limbal stem cells. (2002)
Limbal cell deficiency - Clinical entities, symptomatology and treatment. Briefly enumerate stem of Stem cell transplantation. (1999)
Limbal cell transplantation. (2008)

Ocular Surface Reconstruction

Role of amniotic membrane in ophthalmic surgery. Describe one such surgery in detail. What are the side effects of this technique? (2008)
Amniotic Membrane in Ophthalmology. (2005)

Miscellaneous

Give the differential diagnosis of nodule at limbus and how to manage it. (2005)
Write management of ocular surface disorders. (2003)
Management of persistent epithelial defect. (2005)
Corneal edema-causes and treatment. (2005)
Inherited disorders of Cornea.
B/L corneal opacities in infant- investigations.
Corneal Vascularisation.
Keratoconus.
Clinical features of keratoconus.
Keratoprosthesis.
Ocular surface disorder.
Describe clinical features and management of ocular cicatricial pemphigoid.
Corneal dystrophy.
Corneal stromal dystrophies.
Stromal corneal dystrophies-Pathology.
Reis-Bucker dystrophy.
Corneal degeneration.
Recurrent pterygium.
Bullous Keratopathy.
Calcific band keratopathy-Pathology.
Tolosa-Hunt syndrome.

Sclera
Classification and brief clinicopathological profile of scleritis. (2011)
Scleritis and its management. (2006)
Investigations, etiology and management of a case of necrotizing scleritis. (2009)
Nodular scleritis.
Posterior scleritis.

Lens
Cataract
Metabolic activities in crystalline lens and their role in causation of senile cataract. (2008)
How will you grade the nucleus before phaco surgery? (2006)
Changes in Ocular Lens with aging.

Secondary Cataract
Complicated cataract. (2000)
Sunflower cataract.
Concussion cat.
Radiation changes In eye.

Pediatric Cataract
Management of unilateral congenital cataract in a 3 year child. (2009)
Problems of Pediatric Cataract Management. (2005)
Management modality of congenital cataract. (2002)
Lensectomy.
White reflex in a child- management of congenital cataract.

Congenital Anomalies
Describe the congenital anomalies of crystalline lens & their management. (2003)
**Malpositioned Lens**

Name various systemic conditions associated with ectopia lentis. How will you manage a case of subluxated lens? (2011)
Discuss causes of ectopic lentis. (2002)
Causes and management of subluxated lens in a child. (2008)
Ectopia lentis- etiology, c/f, management.
Marfan's syndrome.

**Surgery**

Describe the evolution of cataract surgery from earlier times to the present. (2003)
Cat surg- various modalities with special reference to phacoemulsification.
ICCE- immediate & delayed complications, management.
Describe in detail steps of extracapsular cataract extraction and add a note on post operative complications.
Merits and demerits of small incision Cataract Surgery and IOL. (2002)
Discuss the principles and techniques of small incision, sutureless cataract surgery.
ECCE vs manual-nonphaco-sutureless SICS with PCIOL. Steps to prevent complications in SICS.
What are the advantages & disadvantages of Phaco-emulsification compared to SICS and MICS? Who invented Phaco-emulsification and couching? (2011)
Methods of nucleotomy in phacoemulsification. (1999)
Coaxial microphaco emulsification.
Discuss the merits and dements of ECCE IOL versus Phacoemulsification.
Discuss details of management of astigmatism at the time of cataract surgery by phacoemulsification. (2006)
Describe the principles of achieving emmetropia in modern day cataract surgery. (2003)
Secondary lens implantation. (2001)
Discuss secondary intraocular lens implantation with a special reference to indications, techniques and complications. (2000)
Adjuvants & newer materials in modern cataract surgery.
Corneal endothelial protection in cat surgery.
Capsular tension ring.
Fluidics.

**Special Situations**

Safe Cataract Surgery in Diabetes. (2005)
How will you manage Dislocated lens? (2002)
Enumerate special precaution you will take while performing phacoemulsification in a patient with age related cataract who has got poor endothelial count. (2009)

**Complications of Cataract Surgery**

Do and don’ts in management of posterior dislocation of nucleus in phaco surgery. (2010)
Discuss management of dropped nucleus. (2006)
Bullous Keratopathy. (2001)
Bullous Keratopathy- pathlogy and measures to prevent it. (2007)
Discuss etiopathology of Pseudophakic Bullous Keratopathy. (2000)
Write down the methods of prevention and management of pseudophakic bullous keratopathy (2009)
Posterior capsular opacification. (2001)
Describe intraoperative and postoperative methods to reduce posterior capsule opacifications. (2009)
IOL related complications in cat surgery.
Post-op rise in IOP in cat surgery.

IOLs

Foldable intraocular lenses. (2000)
Ideal intraocular Lens. (2005)
Hydrophobic v/s Hydrophilic IOLs. (2005)
IOL in Children. (2005)
IOL in Children-Special Considerations. (2005)
Recent advances in intra-ocular lenses. (2008)
Multifocal Intraocular Lenses. (2005)
Bifocal and multifocal intraocular lenses. (2000)
Accomodative intraocular lenses(2009)
Complications of Anterior Chamber IOLs.

IOL Power Calculation

Describe different formulae for biometry. (2006)
A scan biometry.
IOL power calculation.

Miscellaneous

True exfoliation of the lens. (2001)

Glaucma

Clinical Diagnosis

Evaluation of disc & peripapillary region in primary open angle glaucoma. (2008)
Cup-disc ratio.

Gonioscopy

Principles & types of gonioscopes. (2008)
Types of Goniolens. What role it has in diagnosis and Management of type of glaucoma. (2005)
Draw a labeled diagram of the angle structures. Specify the grading by Spaeth’s method and RP centre method for gonioscopy. (2011)

Tonometry

Tonometry- principles, various kinds of tonometers, adv & disadv of each
Principle of non-contact tonometry. (2005)
Dynamic contour tonometer. (2008)

Perimetry

Scotoma.
Perimetry
Bjerrum Screen
Give important points while analyzing given visual filed for glaucoma and its limitations. (2010)
Field changes in open angle glaucoma. (2000)
Automated perimetry in glaucoma- types and their comparisons. (2006)
Pre-perimetric glaucoma diagnosis. (2005)
Describe the technique, interpretations and recent advances in Automated perimetry. (2001)

Other Diagnostic Tests

Recent advances in diagnosis and management of Glaucoma.
Baseline Evaluation of open angle glaucoma
Glaucoma screening.
Describe the various investigative procedures for Primary open angle glaucomas?
POAG- diagnosis of an early case.
Tonography
Oculography.
Ophthalmodynamometry

POAG

Describe modern methods for the diagnosis and management of primary open angle glaucoma. (2009)
Pathology of GOA. (2004)
Target pressure in management of glaucoma. (2001)
POAG factors that help decide target intra ocular changes. (2005)
Medical vs surgical management of open angle glaucoma. (2002)
POAG- investigation of an early case, management

NTG

Discuss etiology, investigations and management of low tension glaucoma. (1999)
Low tension glaucoma. (1999)
Ocular hypertension.

PACG

AIGS classification and the management strategy for primary angle closure glaucoma in a systemic manner. (2011)
Pathophysiology of primary angle closure glaucoma. (2009)
Describe the Aetiology and management of Acute Congestive Glaucoma.
Angle closure glaucoma- diagnosis, stages, management.
Management of acute attack of angle closure glaucoma. (2009)
Medical management of acute angle closure glaucoma. (1999)
Glaucomelecken.

Secondary Glaucoma

Phakolytic glaucoma

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Pigmentary glaucoma. (2005)
Define malignant glaucoma. How will you diagnose and manage it? (2006)
Neovascular glaucoma: causes and management. (2000)
Management of neovascular glaucoma. (2010)
Pseudophakic glaucoma. (2001)
Glaucoma in aphakia. (2002)
Discuss post-traumatic glaucoma. (2002)

Pediatric Glaucoma

Bilateral Corneal Haze in Infancy. (2007)
Buphthalmos - Clinical features, differential diagnosis, management. Outline steps of surgical modality to treat the same. (2008)
Management modality of congenital glaucoma. (2001)

Glaucoma Surgery

Critically evaluate the external fistulization operations of glaucoma.
What are the factors related to success or failure of glaucoma filtering surgery. Also give indications of anti-metabolites. (2011)
Modifications on Trabeculectomy. (2005)
Role of Releasable Sutures. (2007)
Write down the common post-operative complication of trabeculectomy and how to manage it. (2010)
Discuss the complications of filtration surgery. Enumerate factors responsible for failed filtration and how do you revive the failed bleb?

Pharmacological modulation of glaucoma surgery.
Antimetabolites in ophthalmology.
Mitomycin C in glaucoma filtering surgery.
Indications and limitations of anti-glaucoma implants. (2006)
Ahmed glaucoma valve. (2009)

Laser Trabeculoplasty.
What are the applications of Lasers in the treatment of glaucoma?
NPGS in glaucoma: steps of surgery, indications and limitations. (2008)

Uvea

Congenital Anomalies

Essential Iris atrophy. (2001)
Write briefly about Aniridia. (2006)

Uveitis General

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Immuno-pathological profile of non-granulomatous uveitis. (2010)

*Uveitis- classification, C/F, complications, management.*

Name the common syndromes that masquerade as anterior and posterior uveitis and their diagnostic tests. (2011)

Nodules of the iris. (2005)

*Keratic precipitates.*

*Granulomatous uveitis.*

*Tuberculos iritis.*

*Uveitis in leprosy.*

*Hypopyon uveitis.*

*Pseudohypopyon.*

**Anterior Uveitis**

Acute anterior uveitis. (1999)

Discuss diagnosis and management of acute iridocyclitis. (2000)

Management of acute anterior uveitis. (2009)


Heterochromic iridocyclitis. (2000)

Clinical presentation and management of nephritic conditions causing uveitis. (2008)

*HLA-typing in ant uveitis.*

*JRA.*

*Masquerade syndrome.*

**Intermediate Uveitis**

Describe signs and symptoms, management of pars planitis. (2010)

Management of intermediate Uveitis. (1999)


**Post Uveitis**

Etiology, clinical features and treatment of ocular toxoplasmosis. (2008)

*Toxoplasma gondii.*

Fundus picture of Eales disease. (2000)

*Eale’s dis*

Clinical signs and treatment of acute retinal necrosis. (2008)

Describe retinal necrosis syndrome. (2003)


Cytomegalovirus Retinitis - clinical features, management, prognosis. (2008)

*Coats Disease.* (2005)

Sympathetic Ophthalmitis(2000)

Immunological Considerations in Sympathetic Ophthalmitis. (2007)

*Describe the pathology of sympathetic ophthalmitis. Add a note on cell mediated immunity.*

*Dalen Fuchs Nodule.*

*Macular choroiditis.*

**VKH**

Vogt Koyanagi Harada’s Syndrome. (2001)

VKH Syndrome. (2005)

**Cysticercosis**

Write down modern management of posterior segment intraocular cysticercosis. (2010)
Clinical features and management of intraocular cysticercosis. (2008)
Cysticercosis and the eye. (2001)

Panuveitis
Give the systemic associations of pan uveitis. (2003)

Endophthalmitis
Define endophthalmitis. How will you diagnose and treat a case.
What are the common organisms causing endophthalmitis after cataract? Describe the principles of treatment. (2011)
Discuss management of endophthalmitis. (2002)
Discuss in detail how to collect vitreous sample for microbiological studies in endophthalmitis. (2009)
Management of bacterial endophthalmitis. (2009)
What are the diagnostic features of post operative infectious endophthalmitis. Outline the principles of management. (2006)
Surgical of Post Surgical Endophthalmitis. (2005)
Intravitreal injection in Endophthalmitis. (2001)
Prevention of post-op infection.
Post-op endophthalmitis- Microbiology.
Fungal endophthalmitis.
Suppurative endophthalmitis.

Management
Current concepts in management of uveitis. (1999)
Uveitis- usefulness of lab investigations.
How will you investigate a case of uveitis?
Describe the investigations in case of chronic uveitis. Describe the complications of chronic uveitis.
Enumerate the etiological factors of Uveitis in paediatric age group. Discuss the office approach to diagnosis.

Miscellaneous
Immunology of uveitis.
Masquerade Syndrome. (2005)
Describe ocular onchocerciasis. (2002)
Endogenous uveitis. (2002)

Retina & Vitreous
Evaluation
Discuss recent advances in assessment of retinal functions. (2003)
Describe the assessment of macular functions in case of opaque media. (2002)
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**Electrophysiology**

Describe electroretinography. (2009)
Electronystagmography. (1999)

**Diabetic Retinopathy**

Diabetic Retinopathy. (2002)
Classify diabetic retinopathy giving features of each category and outline of management. (2011)
Describe the pathogenesis, classification, clinical picture and treatment of diabetic retinopathy. (2000)
Role of glycosylated Hb, blood pressure and blood cholesterol in prevention and management of diabetic retinopathy (2009)
Medical Management of Diabetic Retinopathy. (2001)
Discuss the management of a diabetic patient with evidence of proliferative diabetic retinopathy and advanced cataract. (2006)
Discuss the Indications of Vitrectomy in a Patient with Longstanding Diabetes Mellitus. How will you deal with concurrent cataract? (2007)
Relevance of various clinical trials in diabetes and eye-their contribution in current management of diabetes complications in the eye. (2008)
Indications and contraindications of Intravitreal Avastin in PDR. (2010)
Classify diabetic macular edema and methods to classify it and its clinical relevance. What is magnification achieved by indirect ophthalmoscopy and 90 D biomicroscopic examination and discuss advantages and indications of both the procedures. (2010)
Define clinically significant macular edema in diabetic retinopathy. Discuss its pathophysiology and management. (2008)
Management of diffuse diabetic macular edema with visual acuity less than 6/60 in both eyes. (2009)

*Rascular changes in the eye in diabetes*—Pathology

**Hypertensive Retinopathy**

Hypertensive retinopathy. (2002)
Describe features of Hypertensive Retinopathy. (2009)
Classification of hypertensive retinopathy. (2000)
Pregnancy induced hypertension-ocular Changes. (2005)
Ocular changes in pregnancy induced hypertension. (2005)

*Hypertensive retinopathy*—Pathology

**Vascular Occlusions**

Discuss the management of central retinal vein occlusion (CRVO). (1999)
Write down management and complications of ischemic central retinal vein occlusion. (2009)
Clinical signs and management of branch vein occlusions. (2010)
Types of retinal artery obstructions and its causes and management. (2011)

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**Retinopathy of Prematurity**

How is retinopathy of prematurity classified indicating the indications & principles for therapy? (2011)
What are the screening guidelines and methodology of examination of retinopathy of prematurity? (2006)
Screening of a case of retinopathy of prematurity. (2009)

**Other Vascular Disorders**

*Roth's spots*
*Sickle cell retinopathy*

**Neovascularization**

Etiopathogenesis of neovascularization of retina, its impact and management. (2002)
Etiopathogenesis of neovascularization of iris, its impact and management. (2001)
Neovascularisation- ocular conditions in which it occurs, its significance, management

**ARMD**

Causes, pathogenesis and principles of management of choroidal neovascular membrane (CNVM). (2011)
Discuss etiology, diagnosis and management options in Age Related Macular degeneration. (2002)
Clinical presentation and management of age related macular degeneration. (1999)
Describe MARINA & FOCUS Trails in the management of Wet ARMD. (2009)
Photodynamic therapy.

**Macular Hole**

Macular Hole. (2001)
Macular Hole-classifications, stages, etiopathologenesis. Briefly enumerate the various investigations to confirm and prognosticate macular hole (2008)
Macular Hole-causes, diagnosis and management. (2006)
Diagnosis and management of idiopathic macular hole. (1999)

**Other Macular Diseases**

Recent advances in management of macular diseases. (2002)
Clinical presentation, diagnosis and management of central serous retinopathy. (2000)
Clinical Picture of heredomacular degeneration and its mode of inheritance. (2009)
Inherited macular disorders. (2002)
Abiotrophy of Retina. (2007)
Ocular side effects of systemically administered rugs used for malaria. (2000)
Chloroquine Retinopathy. (2005)
Angiod streaks.
Epiretinal membranes.
Cellophane maculopathy.
Cystoid Macular Edema
What are the causes of cystoid macular edema? How will you diagnose and manage a case? (2006)
Cystoid macular edema: pathophysiology, diagnosis and treatment. (2008)
Management of cystoid macular edema. (2005)

Peripheral Retinal Lesions
Name the peripheral retinal degenerations and illustrate with diagrams. (2006)
Describe the predisposing peripheral retinal degenerations for retinal detachment and give indications and methods of prophylaxis. (2011)
Discuss types and management of giant retinal tear. (2008)
Surgical management of giant retinal tears. (1999)

Retinal Detachment
Advantages and disadvantages of sclera buckling surgery versus pars plana vitrectomy for RD. (2011)
Write down the advantages and disadvantages of various methods of retinopexy like laser and cryopexy. Write down how you are going to do. (2010)
Retinal Detachment. (2002)
RD- etiopathogenesis, principles of management
RD- surgical procedures
Proliferative vitreoretinopathy.
Classification of PVR. (2004)
Briefly describe the surgical anatomy of vitreous & its role in pathogenesis of retinal detachment. (2006)
Anatomical and functional prognostic factors in management of rhegmatogenous retinal detachment. (2009)
Describe the technique and instrumentation for Vitreous surgery. Mention the recent advances in vitreous surgery.
Pneumatic Retinopexy.
SRF drainage.
Vitreous Replacement substances. Role of oils and gas in retinal detachment management. Silicon oil.
Retinal dialysis.
Pseudophakic retinal detachment- management
Exudative Retinal Detachment.

Vitreoretinal Surgery
Factors influencing sclerotony, sites for vitrectomy. (2009)
Chemical adjuvants, internal tamponading agents & sustained drug delivery device in vitreo-retinal surgery. (2008)
Intraocular tamponade used in vitreoretinal surgery. (2009)
Use of intravitreal gases in retinal detachment surgery. (2000)
Complications of Silicon Oil and their management. (2007)
Name various vitreous substitutes. Write about PFCLS (perfluorocarbon liquids). (2006)
Pneumoretionpexy. (2005)
Transpupillary thermo therapy. (2003)
Vitreous

Write short note on Asteroid hyalosis. (2006)
Asteroid hyalitis. (2000)
Management of vitreous Haemorrhage. (2005)
Vitreous detachments.

Miscellaneous

Investigations and management of an elevated mass at the posterior pole of fundus.
Sudden loss of vn in adults.
Cherry red spot
Photopsia
Sub-hyaloid hemorrhage

Lacrimial System

Causes of failure of dacryo-cysto-rhinostomy. Discuss the management of failed DCR. (2008)
Management of failed DCR. (2000)
What are the common causes of acquired nasolacrimal duct obstruction? Describe modalities of treatment. (2006)
Describe endonasal dacryocystectomy- advantages and limitations. (1999)
Complications of DCR Surgery. (2005)
Aetiology and management of congenital Dacyrocystitis.
Congenital dacryocystitis
Dacryocelle.
Dacryolith
Classify lacrimal gland tumours and describe its histopathology.
Implants in lac sac surg
Dacryocystorhinostomy- principle
Endonasal DCR

Lids

Ectropion.
Aetiology of ectropion and its correction.
Entropion- causes, management.
Management of ectropion lower lid. (2005)
Involution Entropion-Pathophysiology and Management. (2006)
Surg correction of spastic entropion.
Rhinosporidiosis. (2000)
Indications and procedure of paramedian tarsorrhaphy. (2003)
Distichiasis.
Telecanthus.
Chalazion-Pathology.
Ptosis

Classification of ptosis. Discuss the surgical management of ptosis.
Congenital ptosis
Surgical management of congenital ptosis. (2000)
Minimal ptosis procedures-indications, techniques and complications. (2006)
Clinical features and management of complicated congenital ptosis. (2008)
Mention the complications associated with ptosis surgery. How to prevent them? (2006)
Indications and methods for frontalis sling surgery in ptosis. (2011)
Unilateral ptosis- causes, investigations, treatment
Marcus-Gunn jaw winking phenomenon
Lid colobomata. (1999)
Outline the principles of repair of lid colobomata. Illustrate with diagram. (2006)

Discuss the various surgical procedures for the management of defects in the eye lids.
Describe the principles of ophthalmic plastic surgery and describe the procedure of correction or lid burn injury due to Acid.

Orbit

Proptosis

Unilateral Proptosis in a 3 year old Child. (2005)
Proptosis in a Two-years-old child. (1999)
Evaluation of uniocular proptosis in a child. (2001)
Discuss differential diagnosis and management of proptosis in a seven year old child. (2008)
Painful Proptosis. (2002)
Discuss the causes of Proptosis due to intra cranial lesions? How a field examination is useful to locate the site of lesion in such cases.
Proptosis- investigation in a case

Thyroid Eye Disease

Clinical features and management of thyroid ophthalmopathy. (2009)
Thyroid related ophthalmopathy – clinical presentation and diagnosis. (2006)
Ocular manifestations of thyroid dysfunctions. (2003)
Grading and management of thyroid related ophthalmology. What is the role of surgery in management? (2011)
Discuss mechanism and management of lid retraction in thyroid eye disease. (2008)

Exophthalmos
Management of exophthalmos
Eye signs in thyroid dis
Dysthyroid orbitopathy
Thyroid myopathy- Pathology

Pseudotumor


Other Non- Infective Inflammatory Diseases

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Cavernous Sinus

Tolosa Hunt Syndrome

Etiopathogenesis of cavernous sinus thrombosis. (2005)

Orbital Cellulitis

Orbital Cellulitis. (1999)
Orbital mucormycosis.
LoaLoa.
Rhinosporidiosis.
Ocular myasis.

Orbital Surgery

Name different types of surgical approaches for orbitotomy and give the indications and contraindications. (2006)
Indications and method of Trans-frontal Orbitotomy. (2001)

Implants

Development of different types of orbital implants. (2005)
Classification and management of contracted socket. (2007)

Phacomatosis

Ocular Features of neurofibromatosis. (2005)
Name different oculo-muco-cutaneous disorder. (2006)

Define Phacomatosis. Enumerate the conditions included in this group and discuss their clinical presentations.
Describe Ocular Manifestations and management of Neurofibromatosis.
What is phacomatosis? Describe in detail the ocular lesions caused by them.
Phacomatosis.
Lisch nodules.
Sturge Weber Syndrome.

Papilledema

Papilledema. (2001)

Optic Nerve Ischemia

Diagnosis and treatment of temporal arteritis. (1999)
Etiology, clinical picture and management of NAION. (2009)

Optic Neuritis

Optic neuritis. (1999)
Signs, symptoms and diagnosis of papillitis. (2000)
Investigative profile in papillitis. (2002)

Neuro-Ophthalmology

Optic Neuritis

Optic neuritis. (1999)
Signs, symptoms and diagnosis of papillitis. (2000)
Investigative profile in papillitis. (2002)
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Causes & recent advances in management of papilledema. (2008)
Unilateral papilledema. (2000)
Optic nerve sheath decompression. (2000)

Visual Pathway Disorders

Draw a labeled diagram of the visual pathways indicating the lesions and their causes at different levels. (2011)
Correlate the clinical features produced by lesions at different levels of visual pathway.

Optic chiasma- Anat, lesions, field defects.
Bitemporal hemianopia.
Homonymous Hemianopia.

Describe the circle of Willis and its relations. What are the ocular lesions that may be produced by lesions?

Amaurosis fugax

Transient loss of Vision. (2002)
Investigations of Amaurosis Fugax and management. (2005)

Cranial Nerve Disorders

Third Nerve Palsy. (2005)
Trigeminal Neuralgia. (2000)

Describe pathological sequelae of right lateral rectus muscle paralysis. (2009)

Diagnosis and management of superior oblique palsy. (2003)

Pupil

Causes, differential diagnosis and clinical implications of anisocoria. (2011)
Unilateral dilatation of pupil. (2001)

Gaze Disorders

Discuss supra-nuclear control of eye movements. (2008)
Describe various etiological causes of horizontal gaze abnormalities. (1999)
Internuclear Ophthalomoplegia. (2001)
Classify ophthalmoplegia. Discuss internuclear ophthalmoplegia. (2006)

Discuss nystagmus and its treatment. (2002)

Management of Congenital Nystagmus with Squint. (2007)

Amblyopia

Definition, causes, pathogenesis and classification of amblyopia. (2011)
Amblyopia - classification, etiopathology and management. Define its role in blindness in our country. (2008)
Amblyopia management. (2001)
Meridional amblyopia . (2002)
Strabismic amblyopia principles of management. (2005)
Myasthenia

Myasthenia gravis. (2005)

Miscellaneous


Strabismus

Examination & Investigations

Cover test.
Hess screen.
Importance of Hess chart in diagnosing ocular palsy.
AC/A Ratio.
Binocular vision tests.
Bagolini's striated glass.
Maddox wing.
Maddox rod.

General

Orthophoria. (2005)
Strabismus- investigation & management of a case
Phorias- types
Alternate squint- investigation & management in a 5 yr old child
Heterophoria
Eccentric fixation.

Diplopia

Diplopia. (2005)
A 50-year old man comes with sudden onset Diplopia. How do you investigate the case and arrive at the aetiology and diagnosis.
Diplopia- investigation & management of a case
Uniocular diplopia

Esotropia

Esotropia- classification, detailed management
Esotropia in 2 a years old-Principles and Management. (2005)
Discuss management of congenital esotropia. (2002)
Convergent squint in a three years old child. (2001)
Management of accommodative esotropia. (2009)
Discuss the signs, symptoms, investigation and management of accommodative esotropia.
What are the features and differential diagnosis of infantile esotropia? When it should be operated and its prognosis for binocular single vision (BSV)? (2011)
Concomitant esotropia- investigation & management of a case
Concomitant squint- investigation of a case
Intermittent esotropia

Exotropia

Give classification, clinical work up and management of primary exodeviation. (2010)
Classification and management of primary divergent squint. (2009)
Management of Exotropia. (2005)
Alternate divergent squint
Exophoria

A-V Strabismus

How do you define A and V pattern in strabismus? How you will diagnose it and what is its clinical significance? (2010)

DVD


Paralytic Strabismus

Diagnosis of paralytic squint. (2000)
Surgical management of paralytic squint. (2000)
Ocular investigations of paralytic squint.
Duane’s retraction syndrome. Classification, etiopathogenesis and management. (2008)
Superior oblique sheath syndrome.

Miscellaneous

Investigations of a case of Abnormal Head Posture. (2005)
Faden procedure (Posterior Fixation Suture). (2005)
Penalisation
Red filter occlusion therapy in squint.
Botulism toxin in the treatment of squint
Adjustable sutures in squint.

Oncology

Lid Tumors

Clinical features, pathological features and treatment of meibomian gland carcinoma. (2011)
Basal cell carcinoma of eye lid
Pathology of basal cell carcinoma of eyelids
Benign tumours and tumour like lesions of the eyelid-Pathology
Merkel cell carcinoma of eyelid-Pathology

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Classify lid tumors and describe the management of meibomian adenocarcinoma of the upper lid. Meibomian gland carcinoma

Lacrimal Tumors
Pathology, clinical features, diagnosis and management of lacrimal gland tumors. (2008)

Uveal Tumors
Iris Cysts. (2001)
Management of malignant melanoma of choroid. (1999)
Pathology of choroidal melanoma. (2005)
Uveal melanomas
Melanotic progonoma-Pathology

Orbital Tumours
Describe the investigations, pathology and management of orbital tumours.
Orbital tumours in childhood- etiology, classification, management.
Dermoid tumor-Pathology
Cavernous haemangioma of orbit
Phakomatous choristoma

Retinoblastoma
Discuss the differential diagnosis of leukocoria in an eight months old child. Describe in brief various modalities for treatment of retinoblastoma. (2003)
Write down prevalence of various forms of retinoblastoma. How will you counsel a parent with one child having a retinoblastoma? (2010)
Describe the common causes of leukocoria. What is retinoblastoma gene and inheritance? (2011)
Genetic transmission and counseling in Retinoblastoma. (2005)
Radiological findings in Retinoblastoma. (1999)
Rosettes
Pseudoglioma
Recent trends in the treatment of retinoblastoma

Miscellaneous
Ophthalmic childhood tumors.
Differential diagnosis of nodule at limbus.
Lymphoma-Pathology.
Tumours of the optic nerve.
Rhabdomyosarcoma of extra ocular muscle.
Meningioma.

Trauma

General Trauma
Classify ocular injuries. Outline the factors responsible for onset of sympathetic ophthalmitis. (2006)
Classify globe injuries and describe the injuries in the anterior segment after a closed globe injury. (2011)
Closed Globe Injury-Classification and Management. (2006)
Choroidal injuries in blunt ocular trauma. (2001)
Basic techniques of managing corneoscleral injury with vitreous prolapse. (2009)
Perforating injury-Principles and Management. (2005)

IOFB
Localization, management & complications of retained intraocular copper foreign body. (2008)
Diagnostic challenges of retained intraocular foreign body. (2005)
Siderosis Bulbi - Clinical picture management of retained intraocular metallic foreign body. Surgical steps of retained retinal foreign body removal. (2008)
Siderosis Bulbi. (2006)

Hyphema
What is the treatment algorithm for hyphema indicating the role of hospitalization, medical treatment and surgery? (2011)
Medical management of traumatic hyphema. Mention the indications of surgical intervention?(2009)
Blood staining of the cornea. (2001)

Chemical Injury
Ocular chemical burns. (2000)
Management of Chemical Burns of Eye. (2007)
Surgical management of chemical burns of eye. (2001)
Write down acute management of alkali burns. (2009)
Discuss the recent trends in management of chemical burns. (2006)

Systemic Diseases
AIDS/HIV
Ophthalmic manifestations of AIDS and their management. (2006)

TB
Ocular manifestations of TB. (2004)

Miscellaneous
Ocular involvement in Mucopolysaccharidosis. (2005)
Ocular manifestations of sarcoidosis. (2009)
Describe clinical picture, management and sequelae of sarcoid uveitis. (2009)
Pseudotumor Cerebri. (2005)
Benign intracranial tension. (2001)
Multiple Sclerosis - Clinical features in ophthalmology. Also enumerate associated systemic features. Discuss management and prognosis of the disease. (2008)
Crouzon’s Disease. (2005)
Ocular manifestations of High attitude. (2005)
Ocular manifestations of leukemia. Highlight the differential diagnosis of each sign. (2008)
Alcoholism and Eye. (2007)
Connective tissue disorders and the eye
Collagen vascular diseases- ocular manifestations
Reiter Syndrome.
Reiter's Disease.
Describe the systemic and ocular manifestations of methyl alcohol toxicity and management.

Congenital Diseases

Write briefly about Aniridia. (2006)

DD

Causes of glare and how to manage it. (2006)
Discuss the differential diagnosis of painful ophthalmoplegia in a 40 year old woman.
Discuss the Differential diagnosis of sudden loss of vision.
U/L sudden visual loss- causes, investigations, treatment.
Sudden blindness.

Optics & Refraction

Physical Optics

Optics and uses of pinhole and stenopeic slit. (2002)
Draw the strum’s conoid indicating the cross sections at different intervals, and the interval of Strum giving its clinical applications. (2011)
Strum’s conoid- illustrate with diagram. (2005)
Optical defects of normal eye.
Chromatic aberration.
Refractive index.
Schematic eye.
Donders schematic eye.
Donder's reduced eye.
Colour constancy.
Hue discrimination.
Purkinje Sanson image.
Purkinje shift.
Retinal image.

Prisms

Therapeutic uses of Prisms. (2001)
Fresnel’s Prisms. (2007)
Refraction through prisms.
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Uses of prisms in ophthalmology.
Prism in Ophthalmology.
Notation of prism.

Vision Assessment
Define Visual acuity. What are the factors affecting visual acuity?
Snellen’s chart
Macular function tests. (2009)
Tests for malingering.

Colour Vision
Write a short note on color vision indicating the cone pigments, the primary colors, the attributes of color and anomalies of color vision. (2011)
Colour vision. (2000)
Describe theories of color vision and genetics of color blindness. (2008)
Theories of colour vision. (2003)
Acquired colour deficiency. (2001)

Retinoscopy
Retinoscopy. (2000)
Describe with the help of a diagram the theory, principles of retinoscopy and describe how the glasses are prescribed after the test?
Subjective tests of refraction. Principles of presbyopic correction.
Astigmatic fan
Jackson’s cross cylinder
Duochrome test

Myopia
Write various methods of correction of myopia and their advantages and disadvantages. (2010)
Discuss treatment options in myopia. (2002)
Myopic Fundus. (2002)
Discuss Myopia with regard to types, functions, changes and management.
Pathological myopia- fundus changes.
Pseudomyopia.

Hypermetropia
Symptoms, effects, diagnosis and management of Hypermetropia. (2003)
Correction of hypermetropia and presbyopia. (2008)
Discuss the various type of Hypermetropia and their correction.
Latent hypermetropia.

Aphakia
Disadvantages of Aphakic glasses. (2000)
**Astigmatism**
Symptoms, effects, diagnosis and management of Astigmatism. (2002)
*Acquired astigmatism*

**Accommodation & Convergence**
Describe the principles of management of accommodation anomalies by surgery. (2011)
Define accommodation and convergences(2009)
Accommodation-convergence. (2000)
Define Accommodative Convergence: Accommodation (AC : A) Ratio. What is the normal. Value and name the methods to measure it?(2007)
*Accomodation & its anomalies*
Discuss factors involved in development of Presbyopia.
Presbyopia
Surgical correction of presbyopia
Progressive lenses
Tests for accomodation.

**Spectacles**
*Centring & decentring of lenses*
*Insufficiency of spectacles*
*Verification of spectacles*
*Back vertex distance*

**Contact Lens**
Discuss the various types of contact lenses and their merits and demerits.
*Contact lens- optics, materials.*
*Contact lense- cosmetic.*
*Contact lenses- Rigid gas permeable.*
*Contact lenses- soft.*
*Contact lenses- Disposable.*
*Extended wear contact lenses.*
Contact lens fittings in (a) Aphakia (b) Keratoconus. (2003)
*Contact lenses in astigmatism *
Therapeutic Contact lens. (2005)
Give indications and fitting philosophies of therapeutic contact lenses. (2006)
*Contact lenses- complications.*
*Orthokeratology contact lens.*

**Instruments**
Enumerate various methods of slit lamp examination and describe indications and procedures for specular reflection. (2010)
Principles of direct Ophthalmoscope(2009)
Direct ophthalmoscope. (2001)
Classify diabetic macular edema and methods to classify it and its clinical relevance. What is magnification achieved by indirect ophthalmoscopy and 90 D biomicroscopic examination and discuss advantages and indications of both the procedures. (2010)
Draw optics of +90D biomicroscopy. How will you calculate the magnifications? (2009)
What are the pitfalls in auto-refraction and how to correct them. (2009)
Optics and clinical utility of keratometer. (2002)
Keratometer / Keratometery.
Describe with diagrams the optics of operating microscope. (2003)

Lenses

Lasers
Basic principles of LASER. (2003)
Coagulative lasers in ophthalmology. (2000)
Photoablation. (2000)
Nd:YAG Laser capsulotomy- complications
Describe diode laser cyclophotocoagulation. (2009)
Diode laser.
Excimer laser.

Low Vision Aids
Optical and non - optical Aids in correction of low vision. (2008)
How do you prescribe low vision aids?(2002)
Visual Rehabilitation of Blind. (2005)
Visual Rehabilitation in Macular Pathology Patients. (2005)

Miscellaneous
What is computer vision syndrome? Describe its causes and management. (2010)
Malingering in relation to eye. (2001)
Discuss hysterical blindness and its management. (2008)
Eye strain. (2002)
Describe optics of a pseudophakic eye. (2008)

Hygiene of vision

Community Ophthalmology

Eye Banking
Eye Banking. (2005)

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Organizations and running of eye bank. (2000)
Eye donations and its importance. (2002)
Discuss the organization of an eye bank and its role in management of corneal blindness.
Hospital cornea retrieval.
Eye donation.
Corneal preservation media. (1999)
Corneal blindness- causes & management. Pre-requisites for arranging an eye bank.

Eye Camps
Briefly mention the causes of blindness in India. Discuss how to organise an eye-camp for performing cataract surgery. Discuss in detail how will you organise a eye camp and in particular prevention and management of post operative endophthalmitis.
Inreach vs outreach programmes in blindness control- merits & demerits.
Eye camps.
Objectives of eye camps.

Programs
Vision 2020
What is Vision 2020 and right to sight? Discuss the action plan in India to control blindness.

NPCB
Write down constitution and functions of district eye relief society as mentioned in National Program for Control of Blindness. (2010)
District blindness control society-composition and role. (1999)
District blindness control society.
Primary eye care services

General
Blindness- Defn. Strategies to combat blindness in India.
Cataract blindness in India & its control.
Enumerate the causes of preventable blindness in India. Outline the methods of prevention of blindness in rural India.
Role of community health centres in blindness control.
Discuss about prevention of corneal blindness.
NGOs & their role in blindness prevention.
Prevalence of blindness in India.
Childhood ocular disorders- Strategies for prevention.
Communicable conjunctival dis. Preventive measures.
Corneal blindness- prevention strategies.
Industrial blindness.
Legal blindness.
Ophthalmic ethics.
Preventable blindness.
WHO classification of blindness.
Vit A
Write short note on role of vitamin A in retinal function. (2006)
Xerophthalmia – Etiopathogenesis, classification, management. Write measures to prevent the disease from occurring in the siblings of the patient. (2008)
Vitamin A deficiency : ocular manifestations. (2000)
Vit-A prophylaxis programme. (2001)
Management of 9 months old child with grade IV PEM with bilateral Xerophthalmia. (2009)

Miscellaneous
Visual impairment classification by WHO. Briefly discuss common causes of visual impairment in India and remedial steps. (2008)
Discuss causes and problems in management of childhood blindness. (2002)

Miscellaneous
Describe three most ophthalmic emergencies requiring immediate management. (2009)
Transillumination - types and clinical application in ophthalmology. (2008)
Transillumination of iris in eye diseases. (2005)
Ocular Headache. (2001)
Development of Electronic Eye. What are the limitations. (2005)
Atrophic Bulbi. (2006)
Causes and management of ocular hypotony. (2001)
Radiation Hazards in the eye. (2001)
Sutures used in ophthalmology. (2001)
Discuss about ophthalmic emergencies.
Symptomatic disturbances of vision
Ocular neurosis
Ageing changes in the eye
Various ageing changes in eye
Discuss the protective mechanisms of the eye.
Attic's syndrome.
Hassall-Henle bodies
Chloroma.
Eosinophilic cystadenoma
Ephelia.
Splendore Hoepli Phenomenon
Paracentesis.

Genetics
HLA antigens and eye.
Describe the ocular manifestations of hereditary and degenerative diseases.
Genetic counselling in Hereditary Ophthalmic diseases
Mitochondrial inheritance.
Role of counselling in genetic and hereditary ophthalmic diseases.
Ocular changes in chromosomal disorders.