

# **eOphtha**

# **DNB Question Bank**



**By**

**Siddarth Dixit**

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## **Anatomy, Physiology & Biochemistry**

### **Embryology**

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

### **Cornea**

Absence of Lymphatics in the eye and its effects. (2004)  
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. Maintenance 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 & accommodation pathways. Abnormalities of pupillary reflex.*

*Functions of pupils.*

*Adie's pupil*

*Wernicke's hemianopic pupil.*

*Argyll Robertson pupil.*

*Describe the accommodation 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. Localising 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 infra-geniculate lesions of the optic pathways.*



## eOphtha Question Bank for DNB examinations

*Lateral Geniculate Body - (Situation, neuronal arrangement and mode of termination of retinal fibres).  
Wernicke's area.  
Striate cortex.  
Macular sparing.  
Distiribution 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.  
Anamolous 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 apparatus-Anat.Probing.  
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 drainge 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.*



## eOphtha Question Bank for DNB examinations

*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.*

*Blinking- physiological role. Complications of absence of blinking.*

### 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)

Blood Supply of Optic Nerve Head. (2007)

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 selerae.*

### 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)

Surgical spaces of Orbit. (2003)

Discuss the anatomy of orbital spaces and its clinical importance. (2008)

Applied Anatomy of Cavernous Sinus. (2007)

*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.*



*Sorbitol pathway.*

## Pharmacology

### General

Drug delivery system in ophthalmology. (2004)

Write down factors affecting drug penetration through cornea. (2010)

Describe the barriers to drug penetration in 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)

Steroid Pulse therapy. (2003)

*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)

Use of immunosuppressive drugs in ophthalmology. (2002) (2000)

Immunosuppressive Agents. (2007)

*Cyclosporin.*

### Antibiotics

Antibiotics used in Ophthalmology. (2003)

Fluoroquinolones in Ophthalmology. (2002)

*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 kerato-conjunctivitis-Pharmacology.*

*Primary indications for the use of antiviral drugs in ophthalmology.*

*Antiviral drugs.*

*Acyclovir.*

*Idoxuridine-Pharmacology.*

*Trifluorothymidine-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 ocusert*

*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)  
Dynamics and Pharmaco-Modulation of Uveo-Scleral Outflow. (2007)  
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)  
Neuro-protectors in Ophthalmology. (2005)

### 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

Uses of Botulinum toxin in ophthalmology. (2006) (2005) (1999)

### Dyes

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

Staining of Lens capsule. (2003)

### 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)

Side Effects of a) Vitamin A b) MAO inhibitors. (2004)

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.*



## eOphtha Question Bank for DNB examinations

*Stromal Keratitis-Pathology*

*Fungal lesions of eye-Pathology.*

*Keratomycosis-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.*

**Pseudo Exfoliative Syndrome- pathology, signs, complications & management. (2007) (2004)**

*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.*

*Keratomycosis-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.*

*Pathogens 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 methods of doing it. Describe the advantages and disadvantages of each method. (2008)**



## eOphtha Question Bank for DNB examinations

Central Corneal Thickness. (2005)

Optical principles of Pachymeter. Types and uses in ophthalmic practice. (2005)

Confocal laser ophthalmoscopy. (1999)

### Retina

Discuss the role of ultrasonography in ophthalmology. (2001) (1999)

B-Scan-Indications and utility. (2002)

Ultrasonic Bio-microscopy: Principles & Uses. (2005)

Role of Doppler in Ophthalmology. (2001)

Fluorescein angiography - principle and clinical application. (2008)

Fluorescein angiography. (2000)

Fluorescein Angiography defects. (2003)

Indocyanine angiography of retina. (2003) (2001) (1999)

Comment on Indo cyanine green (ICG) angiography and its diagnostic use. (2005) (2002)

Role of OCT in ophthalmic practice. (2006) (2006)

Optical Coherence Tomography (OCT). (2005)

Principle and Application of Optical Coherence. (2007)

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.*

Inclusion Conjunctivitis. (2004)

*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



Discuss classification of trachoma and pathological changes seen in each stage. (2008)

Clinical features, investigations treatment & prevention strategies for trachoma. (2008)

*Chlamydial infections-Microbiology.*

*Life cycle of Trachoma organism.*

*Pathology of Trachoma-Pathology.*

*Cobble stone papillae.*

*Trachoma control programme.*

*Trachoma- Prophylaxis.*

### **Pterygium**

Pterygium. (2005)

Pterygium and its management. (2006) (2001)

Recurrent Pterygium. (2003) (2000)

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

Fungal keratitis. (2003) (2001)

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)

Management of viral corneal ulcer. (2003)

*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.*





*Varicella-zoster infection- ophthalmic manifestations.*

### Acanthamoeba

Management of acanthamoeba keratitis. (2000)

Acanthamoeba keratitis. (2000) (2002) (2002)

### 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)

Causes and treatment of Interstitial keratitis. (2003)

*Deep keratitis- causes. Interstitial keratitis- stages, c/f, t/t*

Discuss etiology, clinical features and management of peripheral ulcerative keratitis. (2008)

Pathophysiology, clinical picture and management of Mooren's ulcer. (2008) (1999)

*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)

Visual rehabilitation in keratoconus. (2008)

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)

Describe 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 Keratoplasty. (1999)

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 Transplantation. (2007) (2005)

Amniotic membrane and limbal stem cell transplantation. (2004)

Amniotic Membrane in Ophthalmology. (2005)

Keratoprotheses. (2001) (1999)

### Miscellaneous

Describe latest classification of corneal dystrophies. Describe clinical features of three major corneal stromal dystrophies. How do you treat recurrent erosions by them? (2011)

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.*



## eOphtha Question Bank for DNB examinations

*Ocular surface disorder.*

*Describe clinical features and management of ocular cicatricial pemphigoid.*

*Corneal dystrophy.*

*Corneal stromal dystrophies.*

*Stromal corneal dystrophies-Pathology.*

*Reis-Bucher 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)

Scleritis. (2004) (2003) (2001)

Investigations, etiology and management of a case of necrotizing scleritis. (2009)

*Nodular scleritis.*

*Posterior scleritis.*

### **Lens**

#### **Cataract**

Describe various risk factors in age related cataracts. (1999) (1999)

Etiopathogenesis of age related cataract. (2009) (2003)

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 old child and its post-operative rehabilitation. (2010)

Management of unilateral congenital cataract in a 3 year child. (2009)

Congenital Cataract. Etiopathogenesis, types, management strategies and prognosis. (2008)

Congenital cataract. (2003)

Problems of Pediatric Cataract Management. (2005)

Management modality of congenital cataract. (2002)

Discuss management of a patient with bilateral congenital cataract. Outline the problems. (2006)

*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.*

Emerging techniques of cataract removal. (2004)

*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)

Phacoemulsification. (2003) (2002)

Methods of nucleotomy in phacoemulsification. (1999)

*Coaxial microphaco emulsification.*

Phakonit. (2004)

*Discuss the merits and demerits 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)

Management of Subluxated Crystalline Lens. (2009) (1999)

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)

Proper management of posterior capsular rent in cataract surgery. (2009) (2006)

Discuss management of dropped nucleus. (2006)

Bullous Keratopathy. (2001)

Bullous Keratopathy- pathology and measures to prevent it. (2007)

Discuss etiopathology of Pseudophakic Bullous Keratopathy. (2000)



## eOphtha Question Bank for DNB examinations

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)  
Foldable intraocular lens implants. (2003) (2005)  
IOL in Children. (2005)  
IOL in Children-Special Considerations. (2005)  
Intra-ocular lenses-Present and future. (2003)  
Recent advances in intra-ocular lenses. (2008)  
Multifocal Intraocular Lenses. (2005)  
Bifocal and multifocal intraocular lenses. (2000)  
Describe advantages & disadvantages of multi-focal intraocular lens implants. (2002)  
Accommodative intraocular lenses(2009)  
Phakic Intraocular Lenses. (2007) (2006)  
*Complications of Anterior Chamber IOLs.*

### IOL Power Calculation

Intra-ocular lens power calculation . (2002) (2001) (1999)  
Describe different formulae for biometry. (2006)  
*A scan biometry.*  
*IOL power calculation.*

### Miscellaneous

True exfoliation of the lens. (2001)

### Glaucoma

#### Clinical Diagnosis

Disc changes in glaucoma and their clinical significance. (2009) (2002)  
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*  
Principles of Goldmann applanation tonometry. (2009)  
Non-contact tonometer. (2003) (2001)  
Principle of non-contact tonometry. (2005)



Dynamic contour tonometer. (2008)

### Perimetry

*Scotoma.*

*Perimetry*

*Bjerrum Screen*

Give important points while analyzing given visual field 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)

Risk Factors for Open Angle Glaucoma. (2007)

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)

*Glaucomflecken.*

### Secondary Glaucoma

Lens induced glaucoma-types, diagnosis and principles of management. (2006) (2003)

*Phakolytic glaucoma*



## eOphtha Question Bank for DNB examinations

Pseudo Exfoliative Syndrome- pathology, signs, complications & management. (2007) (2004)  
Pseudoexfoliation glaucoma. (2004)  
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)  
Posner-Schlossmann Syndrome (Glaucomato-cyclitic crisis). (2005)

### Pediatric Glaucoma

Bilateral Corneal Haze in Infancy. (2007)  
Buphthalmos - Clinical features, differential diagnosis, management. Outline steps of surgical modality to treat the same. (2008)  
Write down the clinical picture and management of congenital glaucoma. (2009) (2002) (2000)  
Management modality of congenital glaucoma. (2001)  
*Iridocorneal endothelial syndrome.*

### 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.*  
Anti-glaucoma Implants. (2007) (2005) (2004) (2003) (1999)  
Indications and limitations of anti-glaucoma implants. (2006)  
Ahmed glaucoma valve. (2009)  
Selective laser trabeculoplasty: mechanism of action, technique, indications and effects. Briefly compare with argon laser trabeculoplasty. (2008)  
*Laser Trabeculoplasty.*  
*What are the applications of Lasers in the treatment of glaucoma?*  
NPGS in glaucoma- steps of surgery, indications and limitations. (2008)  
*Visco canalostomy.*  
*Uses of cryo.*

### Uvea

### Congenital Anomalies

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

### Uveitis General



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)

Etiology , clinical features and management of Fuchs' heterochromic uveitis. (2009) (2008)

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)

Pars planitis. (2005) (2000) (1999)

### Post Uveitis

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

*Toxoplasma gondi.*

Fundus picture of Eales disease. (2000)

*Eale's dis*

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

Describe retinal necrosis syndrome. (2003)

Management of CMV Retinitis. (2005)

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)





## eOphtha Question Bank for DNB examinations

Clinical features and management of intraocular cysticercosis. (2008)

Cysticercosis and the eye. (2001)

Cysticercosis. (2005) (2003)

### **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)

Investigations and diagnosis of endophthalmitis. (2004)

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)

Diagnosis of infectious post operative endophthalmitis. (2000) (1999)

Surgical of Post Surgical Endophthalmitis. (2005)

Intravitreal injection in Endophthalmitis. (2001)

Clinical features, differential diagnosis and management of acute post-operative endophthalmitis. (2008)

*Prevention of post-op infection.*

*Post-op endophthalmitis- Microbiology.*

*Fungal endophthalmitis.*

*Suppurative endophthalmitis.*

### **Management**

Current concepts in management of uveitis. (1999)

Investigations of uveitis. (2003) (2003)

*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)

Ocular ischemic syndrome. Describe clinical features, etiology, differential diagnosis & management. (2008)

### **Retina & Vitreous**

#### **Evaluation**

Discuss recent advances in assessment of retinal functions. (2003)

Describe the assessment of macular functions in case of opaque media. (2002)





### Electrophysiology

Describe electroretinography. (2009)  
Uses of electroretinogram in Ophthalmology. (2003)  
Write short note on Visual Evoked Potential. (2006) (2002)  
Electronystagmography. (1999)

### Diabetic Retinopathy

Diabetic Retinopathy. (2002)  
Pathogenesis of Diabetic retinopathy. (1999)  
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)  
Classify diabetic retinopathy. How would you manage diabetic retinopathy patient. (2003)  
Management of proliferative diabetic retinopathy. (2000)  
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)  
Write on diabetic maculopathy. (2003)  
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)  
*Vascular 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

CRVO- Changing trends in management. (2005)  
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)  
Management Of BRVO. (2009) (2005)  
Types of retinal artery obstructions and its causes and management. (2011)



Clinical picture, DD of diagnosis of CRAO. (2004)

### **Retinopathy of Prematurity**

Retinopathy of prematurity. (2006) (2000) (1999)

How is retinopathy of prematurity classified indicating the indications & principles for therapy? (2011)

“Plus disease” in retinopathy of prematurity. (2000)

Management of retinopathy of prematurity. (2009) (2005)

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)

Rubeosis Iridis. (2004)

*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)

Age related Macular degeneration. (2003) (2001)

Clinical presentation and management of age related macular degeneration. (1999)

S.R.N.V. (2002)

Describe MARINA & FOCUS Trails in the management of Wet ARMD. (2009)

*Photodynamic therapy.*

### **Macular Hole**

Macular Hole. (2001)

Macular Hole-classifications, stages, etiopathogenesis. 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)

Management of Macular Hole. (2002) (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)  
*CSR & LASER*

### **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**

R.D. Surgery. (2002)  
Pars plana vitrectomy. (2002) (1999)  
Factors influencing sclerotomy, 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)  
Discuss the role of liquid perfluorocarbons in vitreoretinal surgery. (2004) (2003) (1999)  
Pneumatic retinopexy-indications, Contraindications, steps of procedure & Complications. (2003)  
Pneumoretionpexy. (2005)  
Principles of RD buckling surgery. (2009)  
Transpupillary thermo therapy. (2003)  
Macular Translocation. (2004)



### Vitreous

Write short note on Asteroid hyalosis. (2006)

Asteroid hyalitis. (2000)

Discuss the differential diagnosis of vitreous haemorrhage. Also discuss investigations and management. (2008) (2002)

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*

### Lacrimal System

Management of chronic dacryocystitis. (2000)

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)

Clinical picture and management of congenital epiphora. Indication for surgical intervention. (2009)

Land marks and complications of DCR surgery. (2003)

Complications of DCR Surgery. (2005)

*Aetiology and management of congenital Dacryocystitis.*

*Congenital dacryocystitis*

*Dacryoceles.*

*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)

Involvement 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.*

Principles of ptosis Surgery. (1999)

*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 unocular 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**

Define & classify pseudotumor of the orbit. Enumerate the clinical features, differential diagnosis of the condition. Make a flow chart on management of a 55 year old presenting with pseudotumor of right orbit. (2008)

Pseudotumor (IOID). (2004) (2000)

#### **Other Non-Infective Inflammatory Diseases**



*Tolosa Hunt Syndrome*

### **Cavernous Sinus**

Cavernous sinus thrombosis-etiology, diagnosis and management. (2006) (1999)  
Etiopathogenesis of cavernous sinus thrombosis. (2005)  
Clinical Features of Carotico-cavernous fistula. (2004)

### **Orbital Cellulitis**

Orbital Cellulitis. (1999)  
*Orbital mucormycosis.*  
*LoaLoa.*  
*Rhinosporodiosis.*  
*Ocular myiasis.*

### **Congenital Anomalies**

Cryptophthalmos. (2000)

### **Orbital Surgery**

Name different types of surgical approaches for orbitotomy and give the indications and contraindications. (2006)  
Indications, procedures and complications of lateral orbitotomy. (2009) (2002) (2002)  
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**

Von-Hippel-Lindau Syndrome. (2007) (2005)  
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.*

## **Neuro-Ophthalmology**

### **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)

### **Papilledema**

Papilledema. (2001)



Causes & recent advances in management of papilledema. (2008)  
Pathology of papilledema. (2003)  
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. in it?*

Visual field defects in pituitary tumors. (2008)

*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

Acute onset 3rd nerve Palsy. Etiopathogenesis, management, differential diagnosis and prognosis. (2008)

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)

Abnormal Pupillary reactions. (2003)

Unilateral dilatation of pupil. (2001)

### Gaze Disorders

Discuss supra-nuclear control of eye movements. (2008)

Describe various etiological causes of horizontal gaze abnormalities. (1999)

Differential diagnosis of vertical gaze abnormality. (1999)

Internuclear Ophthalmoplegia. (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- its types and management. (2006) (2000)

Amblyopia management. (2001)

Meridional amblyopia . (2002)

Strabismic amblyopia principles of management. (2005)





CAM VISION Stimulator . (2000)

### Myasthenia

Investigations for myasthenia gravis. (2003)

Myasthenia gravis . (2005)

### Miscellaneous

Localizing signs of Intra-Cranial tumors. (2003)

Clinical features, investigations & treatment in a case of neuromyelitis optical ( Devic's disease). (2003)

### 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)

Management of Eccentric fixation. (2003)

*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*

*Unilateral 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)*





## eOphtha Question Bank for DNB examinations

How will you investigate a case of Convergent Squint with Nystagmus. (2006)

*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)

A-V phenomenon in squint. (2003)

Principles of management of A-V pattern strabismus. (2008)

Discuss etiology, clinical features, investigations and management (including surgical) of V-exotropia. (2002) (1999)

V-exotropia. (2000) (1999)

A-exotropia, etiopathogenesis, clinical features and management. (2002) (2001)

### DVD

Dissociated vertical deviation -its. etiology , differential diagnosis, clinical picture & management. (2002)

### Paralytic Strabismus

Diagnosis of paralytic squint. (2000)

Discuss investigations of concomitant squint. (2003) (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

Differential diagnosis of malignant lid tumors. (2009)

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*



*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)

Genetics and inheritance of retinoblastoma. (2009) (2006)

Genetic transmission and counseling in Retinoblastoma. (2005)

Pathological features and their significance in management of retinoblastoma. (2009) (2008)

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)



Discuss blow-out-fracture of the orbit. (2002)  
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)  
Localization of intraocular foreign body. (2000) (2000) (1999)  
Give the clinical diagnosis of retained intraocular foreign body & its management. (2003)  
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)  
Management of traumatic hyphema with secondary glaucoma. (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**

Ocular manifestation of AIDS. Its differential diagnosis and treatment. (2008)  
Ophthalmic manifestations of AIDS and their management. (2006)  
Describe the ophthalmic manifestations of HIV infection. (2007) (2004) (2002) (2002)

#### **TB**

Ocular manifestations of TB. (2004)

#### **Miscellaneous**

Ocular involvement in Mucopolysaccharidosis. (2005)  
Ocular manifestations in leprosy. (2003)  
Ocular manifestations of sarcoidosis. (2009)  
Describe clinical picture, management and sequelae of sarcoid uveitis. (2009)  
Pseudotumor Cerebri. (2005)  
Benign intracranial tension. (2001)  
Ocular manifestations of Demyelinating diseases. (2004)



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 altitude. (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

Give differential diagnosis of leukocoria in children. Briefly outline the salient diagnostic features of each condition. (2006)

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 Sturm's conoid indicating the cross sections at different intervals, and the interval of Sturm giving its clinical applications. (2011)

Sturm's conoid- illustrate with diagram. (2005)

Optical Aberrations in human eye. (2004)

*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

Use of prisms in ophthalmology. (2003) (1999)

Therapeutic uses of Prisms. (2001)

Fresnel's Prisms. (2007)

*Refraction through prisms.*



*Uses of prisms in ophthalmology.*

*Prism in Ophthalmology.*

*Notation of prism.*

### **Vision Assessment**

Visual acuity in pre verbal children - its relevance and methods of evaluation. Clarify concept of critical period of visual development. (2008)

How will you assess visual acuity in infants and preschool children. (2006) (2001)

*Define Visual acuity. What are the factors affecting visual acuity?*

*Snellen's chart*

Contrast Sensitivity. (2009) (2008) (2004) (2003) (2002) (1999)

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**

Problems of aphakic patient. (2002)

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)

*Accommodation & its anomalies*

*Discuss factors involved in development of Presbyopia.*

*Presbyopia*

*Surgical correction of presbyopia*

*Progressive lenses*

*Tests for accommodation.*

### **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 lens- 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)

Prevention of HIV infection in contact lens practice. (2008)

*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)

Describe with Diagrams the optics of Indirect Ophthalmoscope. (2005) (2004)

What are the pitfalls in auto-refraction and how to correct them. (2009)

Optics and clinical utility of keratometer. (2002)



## eOphtha Question Bank for DNB examinations

*Keratometer / Keratometry.*

Retinoscopic refraction vs Auto-refractometer. (2002)

Describe with diagrams the optics of operating microscope. (2003)

*Lensometer.*

### Lasers

Basic principles of LASER. (2003)

Coagulative lasers in ophthalmology. (2000)

Discuss ophthalmic Lasers and their indications. (2003) (2003)

Photoablation. (2000)

N:D Yag laser- Mechanism of working and its application. (2001)

Utility, Indications and management by Yag Laser. (2002)

*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)

Low vision aids. (2005) (2002) (2000)

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)

Aniseikonia. (2004)

Describe optics of a pseudophakic eye. (2008)

*Hygiene of vision*

## Community Ophthalmology

### Eye Banking

Eye Banking - Define concepts. Discuss role of cornea preserving media. Describe Strategies to improve corneal donation. Comment on current status of eye banking in India. (2008)

Eye Banking. (2005)



## eOphtha Question Bank for DNB examinations

*Eye bank functions. Collection of donor eyes. Methods of preservation.*

**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 Preservation. (2004) (2003)**

*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

**Vision 2020. (2006) (2003) (2001)**

**Aims and Objective of vision 2020. (2009) (2005)**

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

#### NPCB

**National programme of control of blindness. (2003) (2002)**

**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)  
Management of painful blind eye. (2003)  
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 Hoespli 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.*

