

MBBS Final Part-I

Curriculum for Ophthalmology

I. Anatomy of the eye

a) Must know:

Development of the eye

Coats of the eye

Visual pathway

Extraocular muscles: Origin, Insertion, Actions

b) Desirable to know:

Dimensions of ocular structures (Newborn; Childhood; Adults)

II. Physiology

a) Must know:

Aqueous humour formation

Tear film

Color Vision

b) Desirable to know:

Dark Adaptation

Visual Cycle

III. Pharmacology

a) Must know:

Ophthalmic preparations, Modes of administration

Antibiotics, antivirals, antifungals, antiglaucoma drugs, mydriatics, cycloplegics

b) Desirable to know:

Ocular toxicity of systemic and ocular medications

IV. Elementary Optics:

a) Must know:

Strums' conoid, Donders eye

Retinoscopy

Ophthalmoscopy

V. Conjunctiva

a) Must know

Acute Conjunctivitis

Trachoma

Allergic conjunctivitis

Ophthalmia Neonatorum

Pinguecula, Pterygium

Xerosis/Bitot spots

b) Desirable to know

Chronic conjunctivitis

Membranous conjunctivitis; Inclusion conjunctivitis

Pseudomembranous conjunctivitis

VI. Cornea

a) Must know

Corneal inflammations: Corneal Ulcers – Bacterial, Fungal, Viral

Vitamin A Deficiency and keratomalacia

Exposure keratitis, Neuroparalytic keratitis

Pannus

Corneal blindness

Eye banking, eye donation, keratoplasty

Arcus senilis

b) Desirable to know

Deep/Interstitial keratitis

Degenerations and dystrophies

Overview of Keratorefractive surgeries

VII. Sclera

a) Must know

Scleritis, episcleritis.

b) Desirable to know:

Scleromalacia perforans, Blue sclera.

VIII. Uveal Tract

a) Must know:

Iridocyclitis, Panophthalmitis, Endophthalmitis

b) Desirable to know:

Systemic associations of uveitis, Choroiditis, Coloboma iris

IX. Lens

a) Must know:

Age related cataract and its management

Congenital Cataract and its management

Amblyopia and its management

Diabetic Cataract

Cataract Surgery: ECCE/SICS/Phacoemulsification

Lenses: Types

Complications of Cataract Surgery

b) Desirable to know:

Other forms of cataract: complicated cataract, Metabolic, traumatic, toxic,

Posterior capsular Opacification; Laser Capsulotomy

Preoperative investigations; Anaesthesia

X. Vitreous

a) Must know:

Vitreous hemorrhage – Causes

b) Desirable to know:

Synchysis syntillans, Asteroid hyalosis

XI. Glaucomas

a) Must know:

Definition; Risk factors; Pathogenesis

Tonometry

Primary Angle Closure glaucoma and its management

Primary Open angle glaucoma and its management

Steroid induced glaucoma

b) Desirable to know:

Secondary glaucomas

Congenital glaucoma and its management

XII. Retina

a) Must know:

Fundus changes in Diabetes, Hypertension, Pregnancy induced hypertension, Hematological disorders, Myopia.

Photocoagulation: PRP

Retinal Vascular diseases: Central retinal artery occlusion, Central retinal vein occlusion

Retinal detachment: Types; Management

Retinoblastoma

b) Desirable to know:

Retinopathy of prematurity

Retinitis pigmentosa

Choroidal melanoma

XIII. OPTIC NERVE

a) Must know:

Papilledema

Optic neuritis: Types; Management

Optic atrophy

b) Desirable to know:

Papillitis

Benign Intracranial hypertension

Toxic Amblyopia

XIV. Squint and Ocular mobility

a) Must know:

Binocular Single vision

Amblyopia: Types; Management

Types of squint (Paralytic, Non paralytic)

b) Desirable to know:

Squint Surgeries

Diplopia

XV. Orbit

a) Must know:

Common causes of proptosis

Orbital cellulitis

Cavernous sinus thrombosis

b) Desirable to know:

Spaces

Preseptal cellulitis

Endocrinal exophthalmos

XVI. Lacrimal System

a) Must know:

Dacryocystitis – Congenital, Acute, Chronic.

Dry eye

b) Desirable to know:

Lacrimal pump

XVII. Lids

a) Must know:

Inflammations: Stye, Chalazion

Ectropion and entropion: Types; management

Trichiasis

Ptosis, lagophthalmos

Symblepharon

b) Desirable to know:

Squamous cell carcinoma, basal cell carcinoma

XVIII. Refractive Errors

a) Must know:

Myopia, hypermetropia, Astigmatism, Presbyopia, aphakia/pseuophakia,

Anisometropia

b) Desirable to know:

Anisometropia, Anisokonia, Anomalies of Accommodation & Convergence.

XIX. Injuries:

a) Must know:

Chemical injuries and first aid treatment,

Open globe injuries

Closed globe injuries

b) Desirable to know:

Siderosis bulbi, Chalcosis, Sympathetic Ophthalmitis, Medico legal aspects

XX. Ophthalmic Surgery

a) Must observe:

Cataract surgery: ECCE and Phacoemulsification

Enucleation, Trabeculectomy, Pterygium surgery

b) Desirable to watch:

Keratoplasty; Scleral buckling

XXI. Community Ophthalmology

a) Must Know

Definition and types of blindness.

Causes of blindness

Promotion of eye donation

NPCB, Vision 2020

Eye camps

XXII. Miscellaneous

a) Must Know

Symptomatic disturbances of vision: Hemianopia, Amblyopia, Amaurosis, Night blindness, Colour blindness, Word- blindness, Malingering.

Overview of Recent Advances in Ophthalmology

Dark Room Instruments

Surgical Instruments

b) Desirable to know:

Lasers in Ophthalmology

Dyes in Ophthalmology