

## SYLLABUS OF III MBBS IN OPHTHALMOLOGY

### INTRODUCTION ANATOMY & PHYSIOLOGY OF THE EYE COMMON DISEASE OF EYE.

#### A) Conjunctiva.

Symptomatic conditions: - Hyperemia, Sub conjunctival Haemorrhage.

#### Diseases:

- Classification of Conjunctivitis
- :- Mucopurulent Conjunctivitis
- :- Membranous Conjunctivitis Spring Catarrh.
- :- Degenerations :- Pinguecula and Pterigium

#### B) Cornea:

- Corneal Ulcers: Bacterial, Fungal, Viral, Hypopyon.
- :- Interstitial Keratitis.
- :- Keratoconus.
- :- Pannus
- :- Corneal Opacities.
- :- Keratoplasty.

#### C) Sclera :

- :- Episcleritis.
- :- Scleritis.
- :- Staphyloma.

#### D) Uvea

- :- Classification of Uveitis
- :- Gen. Etiology, Investigation and Principles Management of Uveitis.
- :- Acute & Chronic Iridocyclitis.
- :- Panophthalmitis.
- :- End Ophthalmitis.
- :- Choroiditis.

#### E) Lens :

##### I) Cataract – Classification & surgical management of cataract.

- :- Including Preoperative Investigation.
- :- Anaesthesia.
- :- Aphakia.
- :- IOL Implant

#### F) Glaucoma :

- :- Aqueous Humor Dynamics.
- :- Tonometry.
- :- Factors controlling Normal I.O.P.
- :- Provocative Tests.
- :- Classifications of Glaucoma.
- :- Congenital Glaucoma.
- :- Angle closure Glaucoma.
- :- Open Angle Glaucoma.
- :- Secondary Glaucoma

#### G) Vitreous :

- :- Vitreous. Opacities.
- :- Vitreous. Haemorrhage.

#### H) Intraocular Tumours :

- :- Retinoblastoma.
- :- Malignant Melanoma

- I) Retina :
- :- Retinopathies : Diabetic, Hypertensive Toxaemia of Pregnancy.
  - :- Retinal Detachment.
  - :- Retinitis Pigmentosa, Retinoblastoma
- J) Optic nerve :
- :- Optic Neuritis.
  - :- Papilloedema.
  - :- Optic Atrophy.
- K) Optics :
- :- Principles : V.A. testing Retinoscopy, Ophthalmoscopy.
  - :- Ref. Errors.
  - :- Refractive Keratoplasty.
  - :- Contact lens, Spectacles
- L) Orbit :
- :- Proptosis – Aetiology, Clinical Evaluation, Investigations & Principles of Management
  - :- Endocrinal Exophthalmos.
  - :- Orbital Haemorrhage.
- M) Lids :
- :- Inflammations of Glands.
  - :- Blepharitis.
  - :- Trichiasis, Entropion.
  - :- Ectropion.
  - :- Symblepharon.
  - :- Ptosis.
- N) Lacrimal System :
- :- Wet Eye.
  - :- Dry Eye
  - :- Naso Lacrimal Duct Obstruction
  - :- Dacryocystitis
- O) Ocular Mobility :
- :- Extrinsic Muscles.
  - :- Movements of Eye Ball.
  - :- Squint : Gen. Aetiology, Diagnosis and principles of Management.
  - :- Paralytic and Non Paralytic Squint.
  - :- Heterophoria.
  - :- Diplopia.
- P) Miscellaneous :
- :- Colour Blindness.
  - :- Lasers in Ophthalmology – Principles.
- Q) Ocular Trauma : - Blunt Trauma.
- :- Perforating Trauma
  - :- Chemical Burns
  - :- Sympathetic Ophthalmitis

- 2) Principles of Management of Major Ophthalmic Emergencies :
  - :- Acute Congestive Glaucoma.
  - :- C. Ulcer.
  - :- Intraocular Trauma.
  - :- Chemical Burns.
  - :- Sudden Loss of vision
  - :- Acute Iridocyclitis.
  - :- Secondary Glaucomas
- 3) Main Systemic Diseases Affecting the Eye :
  - :- Tuberculosis.
  - :- Syphilis.
  - :- Leprosy.
  - :- Aids.
  - :- Diabetes.
  - :- Hypertension
- 4) Drugs :
  - :- Antibiotics
  - :- Steroids.
  - :- Glaucoma Drugs.
  - :- Mydriatics.
  - :- Visco elastics.
  - :- Fluoresceine.
- 5) Community Ophthalmology :
  - :- Blindness : Definition Causes & Magnitude
  - N.P.C.B. – Integration of N.P.C.B. with other health
  - :- Preventable Blindness.
  - :- Eye care.
  - :- Role of PHC's in Eye Camps.
  - :- Eye Banking.
- 6) Nutritional :- Vit. A. Deficiency.

## Clinical Ophthalmology cases To Be Covered

### MBBS

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History taking & Eye examination

Assessment of visual function.

Conjunctiva

- :- Pterigium.
- :- Pinguecula
- :- Conjunctivitis.
- :- Sub Conj. Haemorrhage.

Cornea

- :- Corneal Opacity .
- :- Corneal Ulcer.
- :- Corneal Abscess.
- :- Corneal Transplant

- Sclera            :- Scleritis, Epi Scleritis.  
                      :- Staphyloma.
- Uvea             :- Iridocyclitis.
- Lens             :- Cataract.  
                      :- Aphakia  
                      :- IOLs  
                      :- Complications

Glaucoma – Types, Signs, Symptoms & Management

Squint

- Lids              :- Entropion  
                      :- Ectropion  
                      :- Ptosis.

## **OPHTHALMOLOGY - MBBS**

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TUTORIALS	TOPICS	(Total 30 Hours)
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### **SURGICAL TECHNIQUES**

- Cataract        :- ECCE
- :- ICCE
- :- IOL Implantation
- :- Phaco-emulsification.
- Pterigium
- Chalazion
- Glaucoma
- Foreign Body Removal
- Enucleation
- Keratoplasty
- Basic of squint, L 10

Instruments

- OPD
- Operative
- Basic Examination and Diagnostic instruments  
 Tonometer, Sac Syringing, Slip Lamp.

- Optics
- Lenses – Spheres, Cylinders, Prisms, Pinhole, Slit, Maddox Rod & Maddox wing, Red & Green Glasses.
  - IOLs
  - Ophthalmoscopy
  - Retinoscopy
  - Contact Lenses
  - Colour Vision

- Drugs
- |            |               |                      |
|------------|---------------|----------------------|
| Miotics    | Antibiotics   | Antiglaucoma         |
| Mydriatics | Steroids      | Anti virals          |
|            | NSAIDS        | Anti Fungal          |
|            | Viscoflastics | Pre-Op. & Post – Op. |

Lecture held each term for VII and VIII term : Topics	Under graduate Theory Lectures: (No.of)
1. Anatomy & Physiology	4
2. Optics	6
3. Conjunctiva	4
4. Cornea	6
5. Sclera	1
6. Uvea	4
7. Cataract	6
8. Glaucoma	6
9. Optic Nerve	4
10. Retina	1
11. Vitreous	4
12. Squint	4
13. Community Ophthalmology	2
14. Lids	4
15. Orbit	2
16. Lacrimal Appartus and Dry Eye	4
17. Miscellaneous & Others	2
<b>Total Lectures</b>	<b>70</b>
Tutorials	30
	100

## FINAL MBBS EXAMINATION IN OPHTHALMOLOGY

### Evaluation

#### **Internal assessment: 20 ( Theory 10 +Practical 10)**

Plan of Internal assessment in Ophthalmology

- Marks of Internal Assessment should be sent to University before the commencement of Theory examination.
- Passing in internal assessment is essential for passing, as Internal assessment is separate head of passing. in examination.
- It will also be considered for grace marks as per existing rules
- Combined theory and practical of internal assessment will be considered for passing in internal assessment.
- Student will be allowed to appear for both theory and practical exam independent of marks obtained in internal assessment but he if fails in that head even after including the grace marks he will be declared “Fail in that Subject”

#### ***Internal assessment in Theory -***

1. Examinations during semesters : This will be carried out by conducting two theory examinations during 4th and 6th semesters ( 50 marks each).  
Total of 100 marks to be converted into 5 marks.( A/5)
2. Prelim examination : This shall be carried out during 9th semester.  
One theory papers of 40 marks as per university examination.  
Total of 40 marks to be converted into 5 marks. ( B/5)

Total marks of Internal assessment- Theory will be addition of A and B.

#### ***Internal assessment in Practical***

Examinations at end of Clinical postings:

1. There will be practical examination at the end of each clinical posting of Ophthalmology.,4<sup>th</sup> and 6th semester. Each examination will be of 50 marks. Total of 2 examinations – 100 marks , will be converted to 5 marks.( C/5)

#### 2. Prelim examination:

This will be conducted for 40 marks as per university pattern and marks will be converted to 5 (D/5).

Total marks of Internal of-of Practical will be addition of C and D.

**Evaluation Methods - Theory, Practical and Viva**  
Pattern of theory examination including distribution of marks, questions and time

Pattern of theory examination including distribution of marks

1. There shall be one theory papers , carrying 40 marks
2. The paper will have two sections, A and B
3. The paper will be of 2.5 hours duration.
4. Section A will be MCQ in each paper. Section B will have to be written in separate answer sheets.

**THEORY** : 40 marks    Duration Two and half hours    (2.5) hours

*MCQ section A will be given to candidates at the beginning of the examination.*

*After 30 minutes Section A will be collected. Section B of paper will then be handed over to candidates.*

Section A :30 min. duration

Twenty eight single MCQs- 1/2 mark each :    14 marks

Separate paper

Single based response

MCQ will cover whole syllabus

Section B : 2 hours duration

Two long questions (LAQ) of 7 marks each :    14 marks

(will contain some preclinical/paraclinical aspects)

Three /five (SAQ)short notes -4 marks each :    12 marks

**PRACTICAL** :    40 marks

Clinical : One long case :30 marks :30 min. for taking case and 10 minutes for assessment

Oral (viva voce) :10 marks:10 min. duration

1.Dark Room    5 marks

2.Instruments    5 marks

**Marks of VIVA will be added to Theory marks**

**It is compulsory to obtain 50% marks in theory.**

**It is mandatory to obtain 50% marks in theory+viva/oral.**

## Course distribution and Teaching Programme

This is suggested programme and can vary at institute  
 Total 70 hours of teaching has to be done in ENT including Tutorials  
 Details of syllabus is given separately below after distribution as per semester

Theory lectures will be taken once a week and their distribution will be as below:

1. 4th term :16(nose and Paranasal sinuses/throat)	
a. NOSE AND P.N.S. :	10
b. THROAT AND NECK:	6
2. 6th term :16 (Remaining topics of throat, head and neck and / ear)	
a. THROAT AND NECK:	8
b. EAR :	8
3. 7 th term :	16 lectures
a. RECENT ADVANCES AND OTHERS :	4
b. EAR	12
Total Theory lectures	48

Tutorials 7<sup>th</sup> Term 22 hours teaching

**THEORY LECTURES:** 4th, 6th, 7th term (one hour per week)

Topics	No.of lectures
<u>Throat</u>	
•Anatomy/physiology	1
•Diseases of buccal cavity	1
•Diseases of pharynx	2
•Tonsils and adenoids	2
•Pharyngeal tumours and related Topics (trismus, Plummer.Vinson Syndrome etc.)	1
•Anatomy /physiology/examination Methods/symptomatology of larynx	2
•Stridor /tracheostomy	2
•Laryngitis /laryngeal trauma/ Laryngeal paralysis/ foreign body larynx/ Bronchus, etc.	2
• Laryngeal tumours	1
 Nose and paranasal sinuses	
•Anatomy /physiology/ exam.	
•Methods /symptomatology	2
•Diseases of ext. nose/cong. Conditions	1
•Trauma to nose/p.n.s/Foreign Body. / Rhinolith	1
•Epistaxis	1
•Diseases of nasal septum	1
•Rhinitis	1
•Nasal polyps/nasal allergy	1