

**DETAILED SYLLABUS FOR THE POST OF  
OPTOMETRIST GR II ( MEDICAL EDUCATION)**

(Cat.No. : 592/2022)

**(Total Marks- 100)**

**1. ANATOMY OF THE EYEBALL**

- Coats of the eye & section of the eyeball
- Anatomy of conjunctiva, sclera & cornea
- Anatomy of uveal tract. lens, retina
- Ocular muscles and orbital walls
- Anatomy of eyelids
- Anatomy of lacrimal apparatus
- Names of cranial nerves with more stress to II,III,IV,V,VI&VII cranial nerves and their specific role in vision, ocular and lid movement

**2. MICROBIOLOGY**

- Various organisms responsible for ocular diseases - bacteria , viruses fungi & parasites.
- Common microbiological investigations ( culture, smears & staining )

**3. PHYSIOLOGY OF VISION**

- Visual acuity and color vision
- Aqueous humour formation and circulation
- Intraocular pressure maintenance
- Physiology of ocular movements
- Physiology of binocular single vision
- Physiology of accommodation & convergence

**4. VISION TESTING**

- Principles of vision testing using Snellen's chart
- Vision testing in adults, illiterates, infants and children
- Colour vision testing
- Near vision testing

**5. REFRACTION & RETINOSCOPY**

- Retinoscopy principles and optics
- Practical retinoscopy and calculation
- Difficulties in retinoscopy
- Cycloplegic refraction & Post mydriatic test
- Prescription writing

- Streak retinoscopy
- Autorefractometer

## **6. OPTICAL SYSTEM OF NORMAL & ABNORMAL EYE**

- Optics of normal eye, Refractive errors & its optics (Myopia, Hyperopia, Astigmatism, Presbyopia & Aphakia)
- Contact lens
- Accommodation & Convergence
- Anomalies of accommodation and convergence

## **7. SPECTACLES AND INTRAOCULAR LENSES**

- IPD measurement , Fitting / adjustment of spectacles , Transposition
- Intraocular lens , Intraocular power calculation
- Bifocals, multifocals and progressive glasses
- High index aphakic glasses

## **8. OPHTHALMIC EQUIPMENTS & INSTRUMENTS**

- Trial set , Retinoscope , Jackson's cross cylinder, Autorefractometer
- Keratometer , Placido's disc , RAF rule
- A scan , Humphrey field charting , Tonometer
- Fundus camera
- Maddox rod , Synoptophore , Hess screen

## **9. PHYSICS OF OPTICS**

- Law of reflection & refraction
- Spherical and cylindrical lenses
- Prisms

## **10. OCULAR PHARMACOLOGY**

- Common antibiotics, antifungals & antivirals used in Ophthalmology
- Antiglaucoma drugs , Cycloplegic drugs , Lubricating drugs
- NSAIDs & Steroids

## **11. COMMON DISEASES OF**

- Orbit
- Eyelid
- Lacrimal apparatus
- Conjunctiva
- Cornea
- Uveal tract
- Lens
- Optic nerve
- Retina

## **12. GLAUCOMA**

- Early detection
- Types of glaucoma
- Intraocular pressure measurement
- Visual field charting
- Treatment of glaucoma

## **13. COMMUNITY OPHTHALMOLOGY**

- Organization of camps in rural areas
- Early detection of refractive errors and squint in school children

### **1. EYE BANKING AND REHABILITATION OF BLIND**

### **2. OPERATION THEATRE STERILISATION**

- Care of surgical instruments
- Making eye pads ,eye swabs .Eye dressing/banding in Operation theatre

### **3. BASICS OF SQUINT**

- Binocular Single Vision , Phorias , Tropias , refraction in squint
- Amblyopia
- Measurement of squint

### **4. OCULAR TRAUMA**

- Different types of ocular trauma
- Chemical injuries to the eye and its management
- Mechanical injuries to the eye
- Radiation injuries to the eye

***NOTE: - It may be noted that apart from the topics detailed above, questions from other topics prescribed for the educational qualification of the post may also appear in the question paper. There is no undertaking that all the topics above may be covered in the question paper***