

Paper II: Technical Subject

Section (A) - 45 Marks

1. **Anatomy, Physiology and Developmental anomaly of:**
 - 1.1 Eyelids
 - 1.2 Orbit
 - 1.3 Eye Ball
2. **Ocular investigations in ophthalmology:**
 - 2.1 X-Ray of orbit
 - 2.2 Ocular USG
 - 2.3 Fluorescence angiography
 - 2.4 OCT, CT and MRI Scan
3. **Ocular Pathology**
 - 3.1 Ocular histology
 - 3.2 Ocular microbiology
 - 3.3 Ocular immunology
4. **Optics & Refraction**
 - 4.1 Refractive errors
 - 4.2 Contact lens
 - 4.3 Low vision aids
 - 4.4 Refractive surgeries
5. **Conjunctiva**
 - 5.1 Differential diagnosis of Conjunctivitis with other red eye conditions
 - 5.2 Management of ophthalmia neonatorum
 - 5.3 Tumors
6. **Cornea**
 - 6.1 Applied Anatomy, physiology and innervations of cornea in relation to keratorefractive surgery and cataract surgery
 - 6.2 Types of keratitis
 - 6.3 Corneal ulcers
 - 6.4 Dystrophies & Degenerations
 - 6.5 Keratoplasty
7. **Sclera**
 - 7.1 Applied anatomy of sclera in relation to Squint and retinal detachment surgeries
 - 7.2 Episcleritis
 - 7.3 Scleritis
 - 7.4 Sclerokeratitis
8. **Strabismus**
 - 8.1 Binocular single vision & anomalies
 - 8.2 Extraocular muscles and ocular motility
 - 8.3 Strabismus: Definition, Classification and management.
 - 8.4 Amblyopia and its management

पाटन स्वास्थ्य विज्ञान प्रतिष्ठान सेवा आयोग
प्राज्ञिक सेवा, आँखारोग समूह, सहप्राध्यापक पद, दशौं (१०) तहको
खुला र आन्तरिक प्रतियोगितात्मक परीक्षाको पाठ्यक्रम

9. **Lids and ocular adnexa, orbit & lacrimal system**
- 9.1 Applied anatomy and physiology in relation to surgeries of lids and ocular adnexa, lacrimal system (NLD) and orbit
 - 9.2 Proptosis
 - 9.3 Ptosis
 - 9.4 Common orbital tumours and its surgical management
 - 9.5 Common eye lids tumors
 - 9.6 Recent advances in management of nasolacrimal duct (NLD) block in various age groups

Section (B) - 55 Marks

10. **Crystalline lens**
- 10.1 Applied Anatomy and physiology of lens
 - 10.2 Cataract: type and causes of cataract
 - 10.3 Management of cataract
 - 10.4 Recent advances in cataract surgeries
 - 10.5 Challenges in management of complicated cataract
11. **Glaucoma**
- 11.1 Anatomy of angle structures and its clinical implications
 - 11.2 Glaucoma: classification of glaucoma and diagnosis
 - 11.3 Surgical management
 - 11.4 Antiglaucoma drugs
12. **Uveal tract**
- 12.1 Anatomy and physiology of uveal tract and clinical applications
 - 12.2 Uveitis: types and aetiopathology and management of uveitis
 - 12.3 Management of uveitic cataract
13. **Retina & Vitreous**
- 13.1 Applied anatomy, physiology and blood circulations of retina and vitreous
 - 13.2 Ocular complications of Systemic diseases and its managements; e.g. Diabetic and Hypertensive retinopathy, Retinopathy of prematurity, Retinal vascular occlusive disorders, thyroid related ophthalmology, pregnancy related retinopathy
 - 13.3 Retinal Detachment
 - 13.4 Age related macular degeneration and recent advances in its management.
 - 13.5 Anti VEGF
 - 13.6 Retinal tumors
 - 13.7 Vitreous surgeries
14. **Ocular emergencies and Injuries**
- 14.1 Classification of ocular trauma/injuries
 - 14.2 Diagnosis, management and prevention of ocular injuries
 - 14.3 Intraocular foreign bodies
 - 14.4 Chemical Burns of eye
15. **Parasitic and Protozoal infestations of eye**
16. **Effects of High altitude on eye**
17. **Recent advances in diagnosis and management of dry eye**
18. **LASER in ophthalmology**
19. **Ocular gene therapy**