

RAJASTHAN PUBLIC SERVICE COMMISSION, AJMER

SYLLABUS OF COMPETITIVE EXAMINATION FOR THE POST OF ASSISTANT PROFESSOR (Broad Speciality) OPHTHALMOLOGY MEDICAL EDUCATION DEPARTMENT

1. Basic Anatomy of Eye.

2. Physiology of Eye.

3. Optics and Refraction of Eye.

4. Eyelids- Benign nodules and cysts, benign epidermal tumors, benign pigmented lesions, benign adnexal tumors, miscellaneous benign tumors, malignant tumors, disorders of lashes, allergic disorders, bacterial infections, viral infections, blepharitis, ptosis, ectropion, entropion, miscellaneous acquired disorders, cosmetic eyelid and periocular surgery, congenital malformations.

5. Lacrimal Drainage System- Physiology, causes of a watering eye, evaluation, acquired obstruction, congenital obstruction, lacrimal surgery, chronic dacryocystitis, dacryocystitis.

6. Orbit- Thyroid eye disease, infections, non-infective inflammatory disease, vascular malformations, carotico-cavernous fistula, cystic lesions, tumors, the anophthalmic socket, craniosynostoses.

7. Dry Eye Disorders- Definitions, physiology, classification, sjogren syndrome, clinical features, special investigations, treatment.

8. Conjunctiva- Bacterial conjunctivitis, viral conjunctivitis, allergic conjunctivitis, conjunctivitis in blistering mucocutaneous disease, miscellaneous conjunctivitis, degenerations.

9. Episclera and Sclera- Episcleritis, immune-mediated scleritis, infectious scleritis, scleral discoloration, blue sclera, miscellaneous conditions.

10. Lens- Acquired cataract, management of age-related cataract, newer techniques of cataract surgeries, congenital cataract, ectopia lentis, abnormalities of shape, latest development of IOL designs.

11. Glaucoma- Tonometry, gonioscopy, evaluation of the optic nerve, imaging in glaucoma, perimetry, ocular hypertension, primary open-angle glaucoma, normal-pressure glaucoma, primary angle-closure glaucoma,

classification of secondary glaucoma, pseudoexfoliation, pigment dispersion, neovascular glaucoma, inflammatory glaucoma, lens related glaucoma, traumatic glaucoma, iridocorneal endothelial syndrome, glaucoma in intraocular tumors, glaucoma in epithelial growth, glaucoma in iridoschisis, primary congenital glaucoma, iridocorneal dysgenesis, glaucoma in phacomatoses, glaucoma medications, newer antiglaucoma drugs, laser therapy, trabeculectomy, non-penetrating surgery, antimetabolites in filtration surgery, drainage shunts.

12. Cornea- The cornea: basic structure and function, limbal stem cell and its clinical application, ocular surface rehabilitation, examination and evaluation techniques of cornea, corneal blindness, epidemiology, infectious diseases of cornea, immunologic diseases of cornea, metabolic and congenital diseases of cornea, conjunctival corneal dysplasia and malignancy, corneal dystrophies and degeneration, corneal surgeries including emerging innovation, modern eye banking : Advances and challenges.

13. Retina- Retinal imaging and diagnosis, basic sciences related to retina, genetics in relation to retina, hereditary retinal and choroidal disease, macular dystrophies, retinal vascular diseases, age related macular disease, inflammatory and infective diseases of retina and choroid, retinal detachment including newer treatment modalities, surgeries of vitreous and retina, tumors of retina and choroid, endophthalmitis, artificial vision.

14. Uveal Tissue- Classification of uveitis, immune mechanism in eyes, clinical features, special investigations, principles of treatment, role of immunosuppressants in uveitis, intermediate uveitis, uveitis in spondyloarthropathies, uveitis in juvenile arthritis, uveitis in bowel disease, uveitis in renal disease, sarcoidosis, behcet syndrome, toxoplasmosis, toxocariasis, miscellaneous parasitic uveitis, uveitis in immunodeficiency syndrome, miscellaneous viral uveitis, fungal uveitis, bacterial uveitis, white dot syndromes, primary stromal choroiditis, miscellaneous anterior uveitis, miscellaneous posterior uveitis.

15. Ocular Tumors - Benign epibulbar tumors, malignant and premalignant epibulbar tumors, iris tumors, iris cysts, ciliary body tumors, tumors of the

choroid, neural retinal tumors, vascular retinal tumors, primary intraocular lymphoma, tumors of the retinal pigment epithelium, paraneoplastic syndromes.

- 16. Strabismus-** Amblyopia, clinical evaluation, heterophoria, vergence abnormalities, esotropia, exotropia, special syndromes, alphabet patterns, surgery.
- 17. Neuro-Ophthalmology-** Neuroimaging, optic nerve, pupillary reactions, chiasma, retrochiasmal pathways, ocular motor nerves, supranuclear disorders of ocular motility, nystagmus, carotid stenosis, intracranial aneurysms, ocular myopathies, neurofibromatosis, migraine, facial spasm.
- 18. Ocular Pharmacology.**
- 19. Trauma-** Eyelid trauma, orbital fractures, trauma to the globe, chemical injuries.
- 20. Causes and Prevention of Blindness including NPCB & Vision 2020.**
- 21. Ocular manifestations of Systemic diseases e.g.** Diabetes Mellitus, Hypertension, AIDS, Renal Disorders, Thyroid, Diseases and others.
- 22. Clinical methods and recent advances in Ophthalmology.**

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Pattern of Question Papers:

- 1. Objective Type Paper**
- 2. Maximum Marks: 150**
- 3. Number of Questions: 150**
- 4. Duration of Paper: 2.30 Hours**
- 5. All Questions carry equal marks**
- 6. There will be Negative Marking**
(For every wrong answer one-third of the marks prescribed for that Particular question shall be deducted.)