

TOPIC WISE AND PAPER WISE KLE UNIVERSITY QUESTION BANK

(2010 – 2018)

Compiled by

Dr. Sameeksha Agrawal & Dr. Ankit Agrawal

Includes topics of both MS and DO papers

** indicates No. of times topic asked in last 10 years*

Red – Long answer topics

Green – Page no. of books (K – Kanski, UGK- Comprehensive ophthalmology by AK Khurana , AK – Anatomy and Physiology of Eye by A K Khurana, RK – Theory and Practice of Optics & Refraction by Dr. A.K Khurana, ZIA- Postgraduate Ophthalmology by Zia Chaudhuri & M Vanathi, SK- Theory and Practice of Squint and Orthoptics by Dr A K Khurana, FAQ- Aravind FAQ)

Total 4 papers for MS exam and 3 papers for DO exam (100 marks each)

2 long answer questions – 20 marks each and 6 short essay question – 10 marks each

PAPER I

ANATOMY OF EYE

1. Bony Orbit – Anatomy, relations, diagram, structure passing through orbital apex ** 487 AK
2. Surgical spaces of orbit *** 495 AK
3. Cavernous sinus- anatomy, relation, thrombosis 431 AK
4. Eyelids – Anatomy, applied anatomy, development, congenital anomalies ** 364 UGK
5. Corneal Endothelium 24 AK
6. Anatomy of angle of anterior chamber – diagram, imaging methods ****53 AK
7. Lens – anatomy , development, physiology, cataractogenesis ***** 86 AK
8. Optic nerve head- blood supply with diagram 162 AK
9. Retina - microanatomy , development, photoreceptors *** 141 AK
10. Lacrimal apparatus – anatomy **372 AK
11. Extraocular muscle – anatomy, laws governing ocular motility, AV phenomena **** 286 AK
12. Visual pathway – anatomy, defects, blood supply ** 152 AK
13. Optic chiasma – lesions 155 AK
14. 6th nerve palsy 835 K
15. Anatomy of optic nerve and its congenital anomalies

PHYSIOLOGY

1. Precorneal tear film ****384 AK
2. Dry Eye ****579 UGK
3. Corneal transparency *****39 AK
4. Blood aqueous barrier 60 AK
5. Aqueous humour formation ** 62 AK
6. Pupillary light reflex ** 327 UGK
7. Macular function test 203 UGK
8. Electrophysiological studies – ERG, EOG, VEP **** 539 UGK
9. Accommodation – theories, anomalies ** 45 UGK
10. Dark adaptation 16 UGK
11. Colour vision theories 18 UGK
12. Contrast sensitivity 232 AK
13. Binocular single vision ****354 UGK

REFRACTION

1. Sturm's conoid ****42 UGK
2. Objective Refraction 591 UGK
3. Subjective refraction 597 UGK
4. Retinoscopy- principles **591 UGK
5. Jackson cross cylinder 598 UGK
6. Bagolini striated glass 81 RK
7. Astigmatism *** 42 UGK
8. Aphakia 37 UGK
9. Prisms **27 UGK
10. Progressive power lens RK 260

11. Contact lens – optics, indication 51 UGK
12. Rigid gas permeable contact lens ***
13. Disposable contact lens
14. Bandage contact lens
15. Piggback IOL
16. ICL
17. Aspheric lens

INSTRUMENT AND INVESTIGATION

1. Seidel test AAO
2. Cover uncover test 757 K
3. Forced duction test SK247
4. Diplopia charting SK 99
5. Hess chart 759 K
6. Slit lamp examination RK 351
7. Impression cytology
8. Tonometry – applanation tonometer NEMA
9. Gonioscopy 309 K
10. Ophthalmoscopy
11. Jones test 67 K
12. Keratometer
13. Schirmer test
14. Specular microscopy **
15. Ultra- biomicroscopy **
16. FFA ****
17. OCT ****
18. PCR
19. Low vision aids **
20. LASIK
21. Anterior segment imaging

DRUGS

1. Anti VEGF
2. Antiglaucoma drugs
3. Brimonidine
4. Timolol
5. Latanoprost
6. Prostaglandin analogue
7. Corticosteroid
8. Antiviral drugs
9. Antifungal drugs
10. Mitomycin C
11. Tear substitute
12. Intracameral drugs
13. NSAID

MICROBIOLOGY AND PATHOLOGY

1. Stains in ophthalmology
2. TRIC agent

3. Lab diagnosis of corneal ulcer
4. Ocular mycosis
5. Microbiology in endophthalmitis
6. Retinoblastoma – histopath, stages
7. Pathology of drusen
8. Pathology of melanoma
9. Diptheroids
10. Pathology of sympathetic ophthalmitis
11. Normal conjunctival flora
12. Lab diagnosis of infectious keratitis
13. Pathology of stromal dystrophy

MISCELLANEOUS (Asked in paper I)

1. Rhabdomyosarcoma
2. Aponeurotic ptosis
3. Ocular cysticercosis
4. Management of bilateral congenital ptosis
5. Drug induced cataract

PAPER II

ORBIT

1. Blow out fracture of orbit ** 873 K, 440 UGK
2. Orbital cellulitis 87 K
3. Idiopathic orbital inflammatory disease ** 89 K
4. Proptosis – uniocular, childhood, etiology, clinical features, management *** 420 UGK
5. Exophthalmos 84 K
6. Rhabdomyosarcoma **
7. Thyroid Eye Disease *****
8. Investigate uniocular proptosis **
9. Myasthenia Gravis

LIDS

1. Ectropion 374 UGK
2. Entropion –etiology, surgery **
3. Capillary hemangioma of lids 12 K
4. Rodent ulcer 15 K
5. Sebaceous carcinoma of lid 19 K
6. Blepharitis ** 380 UGK
7. Frontalis sling surgery **
8. Horner syndrome
9. Trichiasis
10. Meibomian gland carcinoma

CONJUNCTIVA

1. Pterygium –recurrent, recent advances 89 UGK
2. Pigmented lesions of conjunctiva 94 UGK
3. Vernal keratoconjunctivitis ***** 80 UGK
4. Follicles 68 UGK

5. Trachoma ** 67 UGK
6. Giant papillary conjunctivitis
7. Steven Johnson syndrome
8. Dry Eye – Etio, c/f, mx ****

SCLERA

1. Staphyloma 149 UGK
2. Scleritis – evaluation, management ** 147 UGK
3. Necrotizing scleritis ** 147 UGK
4. Episcleritis 146 UGK
5. Posterior scleritis 148 UGK
6. Scleromalacia perforans 148 UGK

CORNEA

1. Iridocorneal dysgenesis 388 K
2. Non healing corneal ulcer ** 108 UGK
3. Infectious keratitis 102 UGK
4. Stromal keratitis 112 UGK
5. Fungal corneal ulcer ** 109 UGK
6. Acanthamoeba keratitis ** 116 UGK
7. Herpes Simplex keratitis 110 UGK
8. Moorens ulcer 120 UGK
9. Marginal corneal ulcer 109 UGK
10. Hypopyon corneal ulcer 105 UGK
11. Fascicular ulcer 85 UGK
12. Interstitial keratitis ** 124 UGK
13. Corneal dystrophy *** 128 UGK
14. Stromal dystrophy **
15. Limbal stem cell deficiency *** 479 ZIA
16. Keratoconus *** 135 UGK
17. Keratoprosthesis
18. Keratoplasty – types, indication
19. DLEK
20. Graft failure and graft rejection
21. Xerophthalmia
22. Kaposi sarcoma
23. Disciform keratitis

LENS

1. Lenticonus 308 K
2. Ectopia Lentis ** 222 UGK
3. Congenital cataract **** 188 UGK
4. Management of pediatric cataract
5. Rosette cataract ** 448 UGK
6. Phacomatosis ** ZIA 1510
7. Microspherophakia
8. Multifocal IOL
9. Accomodative IOL **
10. Subnormal vision after uneventful cataract surgery over a span of 1 year
11. Anterior capsular phimosis

UVEA

1. Iris nodules FAQ179
2. Koeppe nodules FAQ179
3. Bussaca nodule
4. Acute anterior uveitis **** 155 UGK
5. Posterior uveitis * 167 UGK
6. Fuchs heterochromic iridocyclitis 174 UGK
7. Sympathetic ophthalmitis 455 UGK
8. Glaucomatocyclitic crisis 175 UGK
9. Malignant melanoma of iris
10. Colobomata of uvea
11. Immunosuppressives in uveitis
12. Iridocorneal endothelial syndrome
13. Pseudoexfoliation ***

RETINA

1. ARMD *** 305 UGK, 598 K
2. CME 303 UGK, 630 K
3. RETINAL DETACHMENT ****298 UGK
4. CMV RETINITIS ***166 UGK
5. ROP *****292 UGK
6. Chloroquine retinopathy 854 K
7. Leucocoria 317 UGK
8. Vitreous haemorrhage ** ZIA 1193
9. Fundus changes in toxæmia of pregnancy
10. CRVO ***538K, 279 UGK
11. Endophthalmitis – Etio, inv, treatment, post op endophthalmitis ****

GLAUCOMA

1. Lens induced glaucoma **
2. POAG 349 K
3. Angle closure glaucoma *** 360 K
4. Pigmentary glaucoma 365 K
5. Phacolytic glaucoma
6. Neovascular glaucoma ****
7. Normal tension glaucoma
8. Pre perimetric glaucoma
9. Congenital and infantile glaucoma *****
10. Non penetrating glaucoma surgery
11. Aqueous shunt implant
12. Buphthalmos
13. Automated perimetry, Perimetry in glaucoma **

LACRIMAL APPARATUS

1. Acute and chronic dacryocystitis ** 393 UGK
2. Congenital NLD obstruction **** 392 UGK
3. Lacrimal fistula
4. Failed DCR 1397 ZIA
5. Conjunctival dacryocystitis
6. Lacrimal outflow system

NEURO-OPHTHALMOLOGY

1. Papilledema **** 793 K, 323 UGK
2. Optic neuritis 1642 ZIA, 781 K, 323 UGK
3. Anterior ischemic optic neuropathy **** 321 UGK

SQUINT

1. Congenital esotropia
2. Esotropia – classify, accommodative esotropia – inv, mx
3. Heterophoria
4. Concomitant convergent squint
5. Paralytic squint
6. Duane retraction syndrome **
7. Double elevator palsy

TRAUMA

1. Chemical burns 881 K
2. Concussion injury to eye **869 K

SYSTEMIC

1. Vitamin A deficiency **
2. Xerophthalmia **
3. Thyroid Eye disease ***
4. Myasthenia gravis
5. VKH syndrome
6. Marfan syndrome

MISCELLANEOUS

1. Albinism
2. Pachymetry
3. Rodent ulcer
4. Eye banking **
5. OCT
6. LASEK
7. Viscoelastics
8. WHO classification of Trachoma **
9. Newer IOL
10. Colour vision test
11. Amniotic membrane transplantation
12. Contracted socket
13. Rhabdomyosarcoma
14. Meibomian gland carcinoma **
15. Lagophthalmos
16. Pathological myopia

PAPER III

REFRACTION

1. Prisms in ophthalmology ***
2. Methods to calculate IOL power

3. Multifocal IOL **
4. Accomodative IOL **
5. Piggyback IOL
6. ICL

ORBIT

1. **Proptosis** ***
2. Exophthalmos
3. Pseudotumor of orbit
4. **Thyroid eye disease** *****
5. Rhabdomyosarcoma
6. Orbitotomies
7. Orbital apex syndrome
8. Orbital rhabdomyosarcoma

1. **DRY EYE** ****

- 2 Recent advances in Pterygium Surgery

CORNEA

1. Varicella zoster keratitis
2. Keratoprosthesis ***
3. Blood staining of cornea
4. Complications of refractive sx
5. DLEK
6. **Eye bank media**

RETINA

1. **ARM**D ***598 K
2. CSME 526 K
3. **Diabetic retinopathy** *** 520 K
4. **Diabetic maculopathy** **526 K
5. Hypertensive retinopathy 281 UGK
6. **CRVO** *** 538 K
7. BRVO 538 K
8. RD **682 K
9. Exudative RD **712 K
10. Macular hole 618 K
11. **CMV retinitis** **** 172 UGK
12. Progressive outer retinal necrosis
13. Posterior vitreous detachment
14. Eales disease ** 1204 ZIA, 569 K
15. ROP *****1874 ZIA, 283 UGK
16. Retinoblastoma ****314 UGK
17. Choroidal hemangioma 492 K
18. Optic atrophy 338 UGK
19. Lebers optic atrophy
20. Gunns dots
21. White dot syndrome 457 K
22. **Vitreous haemorrhage** ** ZIA 1193, 267 UGK
23. Elschnig spots

24. PC Rent
25. Proliferative vitreo retinopathy
26. Coloboma of optic disc
27. Small guage vitrectomy
28. Chemovitrectomy
29. Radiation retinopathy
30. Optic disc pit
31. Cherry red spot at macula
32. Degenerative myopia
33. Pseudophakic CME
34. Metastatic tumors of choroid
35. Malignant melanoma – patho, c/f, mx
36. Post op endophthalmitis

LENS

1. Congenital cataract ****
2. Phacomatosis ***
3. MICS
4. Recent advances in cataract sx
5. Capsular phimosis

GLAUCOMA

1. Congenital glaucoma *****
2. Target IOP
3. Bleb related complications
4. Glaucoma drainage device
5. Lasers in glaucoma
6. Recent advances in investigation of glaucoma

LACRIMAL

1. Congenital NLD obstruction ****
2. Endoscopic DCR
3. Epiphora

NEURO-OPHTHALMOLOGY

1. Double elevator palsy
2. 3rd nerve
3. 6th nerve palsy
4. Horner's syndrome
5. Causes of disc edema **
6. Papilledema ****
7. Retrobulbar neuritis
8. Hemianopia
9. Homonymous hemianopia
10. AION ****
11. Toxic optic neuropathy
12. Optic atrophy
13. Coloboma of optic disc

SQUINT

1. Classify esotropia
2. Accomodative esotropia
3. Nystagmus
4. Amblyopia
5. Near reflex

Buphthalmos

TRAUMA

1. Comotio retinae
2. IOFB
3. Chalcosis
4. KF ring

SYSTEMIC

1. Ocular manifestation of HIV ****UGK 490
2. Ocular manifestation of leprosy **** UGK 487
3. Vitamin A deficiency **
4. Xerophthalmia
5. Von hippel lindau syndrome
6. Tolosa hunt syndrome
7. Steven Johnson syndrome
8. Lawrence moon biedl bardet syndrome
9. Congenital rubella syndrome
10. Vogt koyanagi harada syndrome
11. Ocular manifestation in leukemia
12. Horner syndrome
13. Chloroquin toxicity

COMMUNITY

1. Vision 2020 *****
2. DBCS
3. NPCB **
4. School health program for blindness control
5. Prevalence and trend of refractive error in school going children
6. National blindness control society

DRUGS, INVESTIGATIONS

1. Corneal topography
2. Anti VEGF ****
3. Anti glaucoma drugs ***
4. Antiviral drugs ***
5. Botulinum toxin in ophthalmology
6. Vitreous substitutes
7. Specular microscopy ***
8. Confocal scanning laser ophthalmoscope
9. FFA ****
10. Newer investigations in ophthalmology
11. Aqueous drainage devices **

12. Lasers in treatment of glaucoma
13. OCT ****
14. IOL master
15. MRI in ophthal and neuro-ophthal
16. Eye banking and preservatives of donor cornea
17. Photodynamic therapy
18. Optic nerve function tests
19. Amniotic membrane transplant ***
20. Femtolaser ***
21. Pentacam
22. Gene therapy

PAPER IV

IOL

1. Phakic IOL
2. Multifocal IOL
3. Accomodative IOL
4. Piggyback IOL
5. Toric contact lens

ORBIT

1. Orbital implants
2. Evaluate proptosis ***

LID

1. Frontalis sling surgery **

STRABISMUS

1. AV phenomena

CORNEA

1. Superior limbic keratitis
2. Herpes zoster ophthalmicus **
3. Limbal stem cell deficiency ***
4. Keratoconus - management****
5. Lamellar endothelial keratoplasties ****
6. Lamellar corneal surgery
7. Various techniques of DLEK, advantages over PK
8. Keratoprosthesis
9. Eye banking and eye donation
10. Corneal astigmatism

LENS

1. Laser capsulotomy
2. MICS **
3. Dropped nucleus
4. Posteriorly dislocated crystalline lens **
5. Refractive lens exchange

6. Recent trends in cataract surgery

RETINA

1. Diabetic maculopathy- Risk factor, etopath, classification,mx ***
2. CRVO ****
3. RD surgery principles
4. CMV retinitis
5. Endogenous endophthalmitis
6. BEAT ROP study **
7. Grid laser
8. ETDRS study
9. Pars plana vitrectomy- indication
10. Small guaze vitrectomy **
11. Endogenous endophthalmitis
12. Recent advances in retinoblastoma management

GLAUCOMA

1. Tube vs TRAB study **
2. Glaucoma drainage device
3. Genes in POAG
4. Antimetabolites in filtering sx
5. Etiology and management of intractable glaucoma
6. Non penetrating glaucoma sx **
7. Argon laser trabeculoplasty
8. Mini trabeculectomy
9. Express glaucoma shunt

LACRIMAL

1. Conjunctivodacryocystorhinostomy
2. Recent techniques of DCR

SYSTEMIC

1. Ocular manifestation of HIV ***
2. Ocular manifestation of leprosy ***
3. Vitamin A deficiency, WHO classification **
4. Ocular manifestation in leukemia
5. Neurofibromatosis

MISCELLANEOUS

1. Nanophthalmos
2. Toxic amblyopia
3. Nutritional blindness
4. Computer vision syndrome
5. How to setup ideal eyebank

COMMUNITY

1. Vision 2020 *****
2. NPCB **
3. School health program for blindness control

DRUGS, INVESTIGATIONS

1. Anti VEGF *****
2. Dexamethasone implant **
3. Newer drugs in dry eyes **
4. Neuro modulating drugs in ophthalmology
5. Short wave automated perimetry
6. Antimetabolites in filtering sx
7. Anterior segment imaging **
8. Express glaucoma shunt
9. Intra corneal ring
10. Amniotic membrane transplant ***
11. Stem cells ***
12. LASIK, wavefront lasik
13. Femto laser ***
14. Fugo knife
15. PASCAL laser
16. Laser iridotomy
17. Laser capsulotomy
18. Silicon Oil **
19. Bionic Eye
20. Lasers in ophthalmology
21. Collagen cross linking in keratoconus