MS And DO Ophthalmology

Question Bank

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Compiled By

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Cornea & Conjunctiva

Long Questions

1. What are the different chemicals used to stain cornea? How does this staining help in diagnosis of corneal diseases?
2. What are the criteria for good donor cornea? Describe four common complications of PKP.
3. Discuss corneal graft failure and rejection.
4. Classify corneal dystrophy. Discuss their clinical features.
5. What are the different types of refractive corneal surgery? Write down the indications, contraindications and complications of epikeratoplasty.
6. Discuss the pathogenesis, clinical features and management of a case of herpetic keratitis.
7. Discuss the indications and technique of epikeratoplasty and methods of preservation of donor cornea.[1999]
8. Describe the risk factors, diagnosis, prevention and management of corneal graft failure.[1999]
9. Describe the aetiopathogenesis of viral conjunctivitis. Describe its signs, symptoms and management.
10. What are the treatments of pterygium?[1993]
11. Describe the management of progressive pterygium.
12. Describe the structure and formation of precorneal tear film.
13. Describe the progression and management of ocular pemphigoid.
14. What are the causes of keratoconjunctivitis sicca? Describe its signs, symptoms, special investigations and management.
15. Describe various methods of pterygium surgery with their advantages and disadvantages. How will you manage the case of recurrent pterygium?
16. Discuss the indications, varieties and complications of keratoplasty.
17. What are the different types of corneal grafting? Describe a good recipient for corneal grafting and common causes of graft failure.
18. Discuss the conditions where the donor eye is unsuitable for optical keratoplasty. Describe the post-operative complications of optical PKP.
19. Describe the aetiology of pterygium. How will you manage a case of pterygium?
20. Describe the healing of corneal wound.
21. What are the common viral affections of the eye and its adnexa?
22. What are the complications of HZO? How will you manage it?
23. What are the common pathogenic organisms found in the conjunctival sac? What is the ideal technique for taking conjunctival swab for culture? What are the different types of Staphylococcus? Name the ophthalmic lesions caused by Staphylococcus.
24. What are the common viruses affecting the cornea? Describe the pathogenesis of disciform keratitis. What are the different antiviral agents? Discuss its mechanism of action.
25. Describe the clinical features and management of fungal corneal ulcer.
26. Discuss briefly the commercially available mycotic drugs. [1998]
27. Discuss the clinical aspects of ocular Herpes simplex virus infection. How will you manage the case? [1993]
28. What are the factors taking part in keeping the cornea crystal clear? [1993]
29. How corneal transparency is maintained? How it gets hydrated? How transparency can be prolonged after death? [1999]
30. Describe the morphology and cultural characteristics of Trachoma inclusion body. Discuss the histopathological changes in eye in Trachoma infection.
31. Describe in short the viral infections of cornea and their management.
32. Discuss the indications, contraindications and complications of penetrating keratoplasty. [2003]
33. Describe the normal conjunctival flora. Discuss the abnormalities that occur in it.[2003]
34. How will you assess the cornea for keratoplasty operation? Discuss the different methods of preservation of cornea. [2005,2006]
35. What is the function of tear? Draw a diagram showing the pathway of tear flow. Name the clinical tests done for assessment of dry eye.[2003]
36. Discuss the ocular surface disorders. Describe the clinical features and management of limbal stem cell deficiency.
37. Describe the normal tear film. Discuss the causes of deficiency of tears. [2005]
38. What are stem cells? What are the clinical presentations of limbal stem cell deficiency? How will you manage the case of corneal epithelial surface disorder? [2006]
39. Describe the anatomy of limbus. Discuss its importance in maintaining normal ocular physiology. [2005]
40. Describe the steps in fitting gas permeable contact lens. Discuss contact lens related problems. [2005]
41. Describe the different types of sutures used in ocular surgery with their merits and demerits. [2003]
42. Discuss the modalities of endothelial cell grafting as a newer modality of LK. [2007]
43. Write the steps of LASIK. How do you treat myopia in a thin cornea (<300 micron)? [2007]
44. Write in brief the way of interpretation of corneal topography. [2007]
45. Discuss the blistering mucocutaneous diseases of conjunctiva and describe one of them. [2007]
46. Discuss the ocular surface disorder. [2006]
47. What are the prerequisites of successful PKP; preoperatively, peroperatively and postoperatively? [2004]
48.
Short Notes

1. Corneal preservation
2. Radial keratotomy
3. Corneal tear film abnormalities
4. Lattice dystrophy
5. Epikeratoplasty in keratoconus
6. Salzmann degeneration
7. Ophthalmia neonatorum
8. Sjogren’s syndrome
9. Pterygium
10. Conjunctival autotransplant
11. Keratoconus
12. Marginal corneal degeneration [1996]
13. Dendritic corneal ulcer
14. Keratoprosthesis
16. Steven-Johnson syndrome [1998]
17. Tarsorrhaphy
18. Schirmer’s test [1998]
19. Evaluation of donor cornea
20. Management of recurrent pterygium
21. Epithelial corneal dystrophy
22. Filamentary keratopathy [1998]
23. Normal conjunctival bacterial flora
25. Therapeutic keratoplasty [1999]
26. Transparency of cornea [2003]
27. Aphakic and pseudophakic bullous keratopathy [2003]
28. Vascularization of cornea [2004]
29. Management of post keratoplasty astigmatism [2004]
30. Limbal stem cell transplantation [2005]
31. Acanthamoeba keratitis [2005]
32. Viral keratitis

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33. Congenital abnormalities of cornea
34. Fuchs’s dystrophy
35. Graft rejection
36. Epilasik [2005]
37. KF ring [2005]
38. Amniotic membrane grafting [2006]
39. HSV keratitis
40. LASEK [2007]
41. Terrien marginal degeneration [2007]
42. Corneal endothelium [2007]
43. Antifungal drugs [2007]
44. Behcet’s disease [2003]
45. Mucin layer of tear film [2003]
46. Refractive surgery [2006]
47. Cyclosporine A [2006]
48. Stem cell grafting [2006]
49. Aminoglycosides used in ophthalmic medicine [2003]
50. Tissue adhesive [2006]
51. Lamellar keratoplasty [2005]
52. Acanthamoeba [2005]
53. Herpes simplex virus [2005]
54. TRIC agent [2005]
55. Vitamin A deficiency [2006]
56. Surface anaesthesia [2006]
57. Dry eye [2004]
58. Conductive keratoplasty [2008]
59. Sand of Sahara syndrome [2008]
60. AMT [2008]
61. Vascularization of cornea [2004]
62. Corneal wound healing [2004]
Oculoplasty

Long Questions

1. Discuss the management of unilateral congenital ptosis. Indicate your operation of choice with reason. [1986]
2. How will you classify ptosis? Indicate the investigation which you will perform before surgery in a case of simple ptosis. [1986]
3. Describe chronic dacryocystitis and its management in detail with special emphasis on recent advances. [1993]
4. Discuss the management in a case of failed DCR [1994]
5. How will you investigate a case of epiphora? Give outline of the management of epiphora due to obstruction at the different levels of lacrimal drainage system. [1996]
6. Discuss the pathology and features of ophthalmic Grave’s disease. [1986]
7. What are the causes of pseudo proptosis? How will you manage a case of pseudoproptosis? [1986]
8. What do you mean by superior orbital fissure syndrome? Give an account of the clinical features. [1994]
9. Discuss the clinical features, pathogenesis and management of dysthyroid ophthalmopathy. [1996]
10. Management of a case unilateral axial proptosis. [1997]
11. What are the pathogenesis and ocular changes in thyroid orbitopathy? [1998]
12. Give an account of the orbital decompression in dysthyroid ophthalmopathy.
13. How will you investigate a case of congenital ptosis in a 5 years old child? How will you manage such a case? [1993]
14. What are the tributaries of cavernous sinus? Describe sign, symptoms and management of cavernous sinus thrombosis.
15. Describe the various diagnostic techniques used for orbital SOL.
16. What are the causes of ptosis? How will you manage a case of bilateral congenital ptosis in a child? [1991,2006]
17. What are the different orbitotomies you know? Write down their advantages and disadvantages. Describe in short the procedure of lateral orbitotomy.
18. How will you examine a case of congenital ptosis? Describe the outline of various ptosis surgeries for congenital ptosis. [1998,2005]
21. Discuss the pathology of ocular changes in thyroid orbitopathy. [2006]
22. Describe the mechanism of drainage of tears. How it can be affected? [2000]
23. Describe the management uniocular proptosis in a child of 4 years. [2000]
24. Discuss the management of congenital ptosis. [2003,2005]
25. Describe clinical features and management of orbital blow-out fracture. [2005]
26. What are the different types of malignant tumours of eye lid? Discuss their clinical features and management.

27. How will you manage a case of sever pain in eye and orbit? Give a short outline of management of each condition. [2007]

28. Describe in brief with diagram the surgical spaces of orbit. [2007]

29. Describe the indications and different steps of dacryocystorhinostomy operation. Describe the different complications of the surgery. [2003]

30. Describe investigation and management of a case of pituitary adenoma. [2005]

31. Describe different chiasmal lesions and their management. [2005]

32. Discuss the role of steroid in ocular therapy. [2005]

33. Discuss the indications of DCR. Describe different steps of the operation and its intra- and postoperative complications.

34. Discuss the tumours of eye lid.

35. Discuss the features of ophthalmic Grave’s disease. [1986]

36. Describe the ultrasonic and CT scan features of thyroid eye disease [1993]

37. Write the clinical features of pseudotumour of the orbit. Write a note on its pathological aspect. [1994]

38. Describe the different ophthalmological manifestations of a case of dysthyroidism. [1994]

39. 

Short Notes

1. Cryotherapy in lid tumours.
2. Orbital apex syndrome [1997]
3. Unilateral exophthalmos [1997]
4. Pulsating exophthalmos [1999]
5. Pseudoglioma [1999]
6. Painful ophthalmoplegia
7. Cavernous sinus thrombosis
8. Unilateral axial proptosis
9. Contracted socket [1999]
10. Orbital pseudotumour [1990]
11. Sclerosing keratitis
12. Sjogren’s syndrome
13. Ectropion
14. Management of unilateral congenital ptosis
15. Thyrotrrophic exophthalmos
16. Basal cell carcinoma [2000]
17. Lacrimal insufficiency [2000]
19. Spastic Ectropion [1999]
21. Management of a child with unilateral axial proptosis
22. Ocular myopathy [2004]
23. Role of CT scan in orbital SOL [2005]
24. Pseudopropptosis
25. UBM [2007]
27. Reiger’s anomaly [2007]
28. Superior orbital fissure [2007]
29. Ciliary body melanoma [2003]
30. Behcet’s disease [2003]
31. Surgical procedure of congenital ptosis [2006]
32. Marfan’s syndrome [2006]
33. Sturge Weber syndrome [2003]
34. Goldenher syndrome [2003]
35. Endocrine exophthalmos [2003]
36. Complications of DCR surgery [2003]
37. Ophthalmoplegic migraine [2005]
38. Botulinum toxin [2006]
40. Histopathogenesis of chalazion [2005]
41. Pseudoglioma [1999]
42. Endoscopic DCR [2008]
43. Lateral orbitotomy [2008]
44. Contracted socket [2008]
45. Rhabdomyosarcoma [2002]
46. Histopathology of squamous cell carcinoma [2004]
47. Ocular myopathy [2004]
48. Courzen syndrome [2000]
49.
Uveitis

Long questions

1. Discuss the immunosuppressives used in ophthalmology. [1986]
2. Discuss the clinical features, treatment of ocular infection of *Toxoplasma gondii*. [1996]
3. Discuss the ophthalmic manifestations of AIDS. [1997]
4. Discuss the ocular manifestations of leprosy. How to treat it?
5. What is the difference between endophthalmitis and panophthalmitis? How do you manage a case of postoperative endophthalmitis?
6. Discuss the modern concept of the aetiopathogenesis of uveitis, its investigations and treatment.
7. Discuss the ocular manifestations of various forms of nutritional disorders.
8. Discuss the prognosis and management of various forms of ocular pemphigoid.
9. What are the ocular complications of Toxoplasmosis? Give an outline of its management. [2003]
10. Describe various granulomatous uveitis and their management. [2003]
11. Describe various forms of degenerative changes in choroid and their management.[2003]
12. Prevention and management of postoperative acute bacterial endophthalmitis. [2003]
13. Describe postoperative endophthalmitis and its management. [2006]
14.
Short notes

2. Ophthalmic manifestations of collagen disorders. [1986]
3. Ocular toxoplasmosis [1988]
4. Use of cyclosporine in uveitis. [1993]
5. Management of toxoplasmosis. [1993]
7. Masquerade syndrome [2004]
8. Koepppe’s nodule
9. Heterochromia
10. Essential atrophy of iris
11. Granulomatous uveitis [1998]
12. Sarcomiosis [2005]
13. Detachment of choroid [2003]
14. Fuch’s heterochromic iridocyclitis
15. Pathophysiology of hypopyon
17. Malignant melanoma [2003]
18. VKH syndrome [2005]
19. Histopathogenesis of nodular Scleritis [2005]
20. Hypopyon [2005]
21. TRIC agent [2005]
22. Pseudotumour [2006]
23. Ocular manifestations of AIDS [2003]
24. Marfan’s syndrome [2006]
27. Histopathology of retinoblastoma [2006]
28. Coat’s disease [2006]
29. Neurofibromatosis [2007]
Lens

Long questions

1. What are IOLs? Outline briefly the modern trends in IOLs. What investigations would you undertake while intending to go for PCIOL implantation in a patient of 50 years with bilateral immature senile cataract? What postoperative complications may follow? [1988]
2. What are the complications of PCIOL implantation surgery? [1992]
3. Discuss the special situations and their management likely to be faced during and after IOL implantation in paediatric age group. [1994]
4. Discuss the management of paediatric cataract. [1996, 2003]
5. Discuss the complications of IOL surgery and their management. [1993, 1998]
6. Discuss the aetiopathogenesis of different types of presenile cataracts.
7. Discuss the evolution of small incision cataract surgery. [1999]
8. Describe the aetiology and management of unilateral cataract in a young patient.
9. What is lens induced glaucoma? Describe the principles of their management. [1992]
10. What are the advantages of phacoemulsification procedure? Discuss the main steps and major complications.
11. Describe the management of complications associated with ECCE with PCIOL implantation. [2000]
12. Describe the different modalities of management of total bilateral developmental cataract in a child below 2 years of age. [2003]
13. Discuss small incision cataract surgery. [2003]
14. Discuss the different types of sutures in ophthalmic surgery with emphasis on their merits and demerits. [2003]
15. Discuss the causes of a case of postoperative shallow anterior chamber with its management. [2003]
16. Discuss the advances in cataract surgery in last decade. [2004]
17. Discuss the secondary ACIOL implantation versus contact lens implantation in a unilateral Aphakic patient. [2005]
19. Discuss the aetiology, classification, clinical features and management of congenital cataract. [2005]
20. How will you manage a case of dislocated IOL? [2007]
21. Discuss the differential diagnosis of leukokoria. How will you manage a case of congenital cataract? [2006]
22. Describe the pathology and microbiology of postoperative endophthalmitis. What therapeutic regimen is followed in a patient developing immediate postoperative endophthalmitis after intraocular injection? [2002]
23. Describe in detail the modern trends in cataract surgery with merits and demerits of each of them. [2003]

24. Write the steps of SICS with their merits and demerits. [2004]

25. Discuss the causes and management of posterior capsular rupture. [2002]

26. Describe various chopping techniques. Discuss in brief the complications specific to Phaco. [2008]

27. Early detection of endophthalmitis and its management. [2008]

28. Describe the management of complications associated with ECCE plus PCIOL. [2000]

29.

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**Short notes**

1. Phaco fragmentation [1985]
2. Marfan’s syndrome
3. Complicated cataract
4. Causes of presenile cataract [1993]
5. Management of posteriorly dislocated IOL [1997]
6. Merits and demerits of sutures used in cataract surgery. [1999]
7. Posterior capsulotomy. [1999]
8. Management of Rubella cataract [1993]
9. IOL power calculation [1997] DOS Oct. 03
10. Management of Subluxated lens
11. Phacoemulsification [2000]
13. Capsulorrhesis [1998]
15. Phacoemulsification principles [2005]
16. Management of dislocated lens inside the eye. [2004]
17. Optics of +90 D lens [2005]
18. Viscoelastics in ophthalmology

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19. Aphakic and pseudophakic bullous keratopathy
20. Ectopia lentis
21. Advantages of PCIOL over Aphakic glasses
22. Approach to the management of endophthalmitis
23. Multifocal IOL [2006]
24. Bimanual Phaco [2006]
25. Complications of YAG capsulotomy [2005]
26. Developments in IOL design [2006]
27. YAG capsulotomy [2006]
28. Pathophysiology of pseudophakic bullous keratopathy [2005]
29. Phakomatosis
30. Surface anaesthesia [2006]
31. Basic principles of phacoit [2007]
32. Newer anaesthetics and anaesthesia in eye surgery. [2007]
33. TASS [2007]
34. Phakic IOL [2008]
35. Accommodative IOL [2008]
36. Causative factors of postoperative endophthalmitis [2004]
37.

Retina

Long questions

1. Describe the stages and management of retinopathy of prematurity. [1993]
2. What are the different types of peripheral retinal degenerations in an aged person? Discuss the role of prophylactic management of these conditions. [1993]
3. Discuss the laser application in diabetic retinopathy. [1993]
4. Describe the electrical impulses which flow from retina to occipital cortex on exposure to light. [1999]
5. Describe the clinical appearance, pathology and principles of the treatment of the diabetic retinopathy. [1990]
6. Give the differential diagnosis of amaurotic cat’s eye reflex in a child. What investigations have to be done for the diagnosis? [1990]
7. Discuss the predisposing factors, clinical features and management of branch retinal vein occlusion. [1995]
8. Discuss the aetiology, clinical features and management and progression of central retinal artery occlusion.
9. Discuss the role of viscoelastics in various ophthalmic surgeries.
10. Describe the recent advances in surgical treatment of rhegmatogenous retinal detachment.
11. Describe the aetiology, differential diagnosis and management of a case of retinoblastoma
12. Discuss the principles of prophylactic treatment of rhegmatogenous retinal detachment.
13. What are the types of vitrectomy operations you know of? Discuss in short the pars plana vitrectomy with its relative advantages and disadvantages.
14. Discuss Laser in ophthalmology.
15. Discuss the aetiopathogenesis of central serous retinopathy. [1991]
16. Discuss the pathogenesis of diabetic retinopathy. Describe the ophthalmoscopic picture of borderline diabetic retinopathy.
17. What are the causes of amaurotic cat’s eye reflex in a child? Describe the management of a case of retinoblastoma.
18. Describe the aetiopathogenesis, clinical features and management of diabetic retinopathy. [1998]
19. Describe the aetiopathogenesis, clinical features and management of an ischemic central retinal vein occlusion. [1998]
20. What are the causes of vitreous hemorrhage? How are you going to manage a case of vitreous hemorrhage?
22. Discuss the physiological principles and procedure of fluorescein angiography. Discuss in short its role in ophthalmology. [1993]
23. Discuss the management of diabetic retinopathy enumerating different guidelines. [2000]
24. What is retinopathy of prematurity? Describe its clinical manifestations. Describe how you can reduce blindness from due to retinopathy of prematurity. [2000]
25. What are the causes of macular oedema? Discuss central serous retinopathy. What is its relation with inverse smoke stack pattern on fluorescein angiography? [1997]
26. Discuss the types, heredity, chromosomal abnormalities and histological patterns of retinoblastoma. How they are differentiated from others tumours having almost identical histological appearance? [1999]
27. Discuss the causes of sudden visual loss in different age groups with their investigations and management in short.
28. Discuss the recent advances in the management of rhegmatogenous retinal detachment. [1999]
29. Discuss the retinopathy of blood disorders. [2003]
30. Discuss the pathogenesis of nonproliferative diabetic retinopathy. [2003]
31. Write an essay on evolution of retinal detachment surgery. [2004]
32. Classify retinal detachment. Describe basic steps in RD surgery. How to detect the break in a case of retinal detachment?
33. Describe the causes of subretinal Neovascular membrane.
34. Describe various treatments for wet age related macular degeneration.
35. Discuss the retinal microvascular abnormalities in diabetes [2005]
36. Describe aetiopathogenesis and management of age related macular degeneration.
37. What is proliferative vitreoretinopathy? Discuss the pathogenesis and management of different stages.
38. Discuss the ocular features, pathogenesis and management of a case of methyl alcohol poisoning. [1996]
39. Discuss the prophylaxis of retinal detachment. [1996]
40. Discuss the pathogenesis of diabetic retinopathy and its management. [1996]
41. What is diabetic retinopathy? Discuss different types of diabetic retinopathy and their management. [1997]
42. Compare the sickle cell retinopathy with the retinopathy of Eale’s disease. Discuss the immunology in Eale’s disease. [1997]
43. Describe the photochemical changes when light falls on the retina. [2007]
44. Discuss aetiology, pathology, clinical feature, differential diagnosis and management of papillitis. [2003]
45. Discuss in short various types of toxic optic neuropathies and their management. [2003]
46. Describe in nutshell various types of degeneration in choroid and their management. [2003]
47. Discuss the histopathological changes which may occur in case of retained metallic intraocular foreign body. [2003]
48. Discuss some important clinical conditions where subretinal Neovascular membrane can form. Discuss briefly various modalities of treatment of exudative type of age related macular degeneration. [2006]
49. Describe the clinical features, investigations and management of a case of pituitary adenoma. [2005]
50. What is blood retinal barrier? Discuss the microvascular abnormalities in diabetes mellitus. [2005]
51. How would you manage a case of proliferative diabetic retinopathy? [2003]
52. Describe different chiasmal lesions and their ocular manifestations. [2005]
53. Describe the symptoms, signs, complications and management of retinitis pigmentosa. [1988]
54. Write a short essay on vitrectomy. [1985]
55. What is the basic principle of OCT? Write in brief the pattern of OCT in macular hole and diabetic macular oedema. [2004]
56. Discuss the aetiology, pathology, clinical features, differential diagnoses and management of papilloedema. [2004]
57. Discuss the peripheral retinal degenerations and their complications. [2002]
58. Define ARMD and discuss its management. What are the newer medical and surgical modalities of treating subfoveal SRNVM? [2008]
59. Describe vitrectomy surgery with special reference to 23 and 25G vitrectomies. Also discuss various vitreous substitutes and exapansile gases. [2008]
60. Describe aetiopathogenesis, clinical features and management of ROP. [2008]
61. What is the basic principle of OCT? Write in brief the pattern of OCT in macular hole and diabetic macular oedema. [2008]
62. What is retinopathy of prematurity? Describe its clinical manifestations. Describe how will you reduce the blindness due to ROP? [2000]
63.

Short notes

1. Cystoid macular oedema
2. Heavy liquids used in vitreoretinal surgery. [1996]
3. Immunology of Eale’s disease [1996]
4. Diabetic retinopathy [1997]
5. Soft exudates in fundus [1998]
7. Retinoschisis [2000]
8. Genetics of retinoblastoma [1997]
10. Surgical management of macular hole [1998]

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11. Age related macular degeneration [1999]
12. Background diabetic retinopathy [1999]
13. Clinical evaluation of macular function [2003]
14. Prophylaxis of retinal detachment [2003]
15. Management of a case of bilateral retinoblastoma in a child [2003]
16. Management of a case of clinically significant macular oedema [2003]
17. Detachment of choroid [2003]
18. Electroretinogram [2003]
19. Pneumatic retinopexy [2003]
20. Management of vitreous hemorrhage [2004]
22. Sickle cell retinopathy [2005]
23. Coat’s disease [2005]
25. VIP
26. TAP
27. Intravitreal injections- indications, compositions and techniques [2006]
28. Giant retinal tear [2005]
29. Principles and indications of sclera buckling surgery [2005]
30. Retinal dialysis [2005]
31. TTT [2006]
32. Ocular complications of hypertension [2006]
33. Vitreous hemorrhage [2006]
34. Pathogenesis of Berlin’s oedema [2005]
35. Silicone oil in posterior segment surgery [2005]
36. Choroidal hemangioma
37. Liquid PFCL in ophthalmology [1994]
38. Drusen
39. Angioid streaks
40. Age related macular degeneration
41. Borderline diabetic retinopathy
42. Retinopathy of toxemia of pregnancy [2003]
43. Solid state laser [2005]
44. ICG toxicity [2005]
45. Histopathogenesis of primary optic atrophy [2005]
46. Berlin’s oedema [2005]
47. Papilloedema [2005]
48. ETDRS Chart [2006]
49. AMPPPE [2007]
50. Ocular manifestations of AIDS [2003]
51. AION [2004]
52. Role of ICG angiography [2004]
53. New angiogenic factors other than VEGF [2008]
54. PDT [2008]
55. OCT [2008]
56. Angiogenesis of retina [2008]
57. Management of vitreous hemorrhage [2004]
58.

Optics

Long questions

1. Write down the optics of ophthalmic loupe with diagram [1993]
2. What are the optical difficulties in aphakia? [1997]
3. Write down the different advantages and disadvantages of rigid and soft contact lenses in short.
4. What is accommodation? How will you measure it? Write down the accommodative reflex pathology with diagram. Why the accommodative reflex is spared in Argyll Robertson’s pupil?
5. Describe the protective mechanism of eye.
6. What do you mean by binocular vision? Describe the physiological basis of its formation and functioning.
7. Describe with diagram the optical basis of retinoscopy.
8. Describe the optical principles of astigmatism correction. [1992]
9. Describe the mechanism of accommodation and discuss about its different abnormalities. What is its relation with convergence? [1998]
10. What is the principle of Applanation Tonometry? What is the clinical importance of Applanation Tonometry? [1993]
11. Write down the optics of indirect ophthalmoscope with diagram. [1993]
12. Describe the principles of indirect ophthalmoscopy. Discuss its advantages and disadvantages over direct ophthalmoscopy. [1997]
13. Describe the clinical types, diagnosis and management of astigmatism. [2000]
14. Discuss the use of prisms in ophthalmology. [2005]
15. Describe the investigations and management of a case of asthenopia in a school going child. [2005]
16. Describe soft contact lenses. [2005]
17. Describe the steps of fitting a gas permeable contact lens. What are the contact lens related ocular problems? [2005]
18. What are the different types of contact lenses? Mention the indications of their use. Discuss their advantages and disadvantages. [1985]
19. Narrate with optical diagram: [1986]
   (i) Donder’s reduced eye
   (ii) Aphakia
   (iii) Galilean telescopic lens.
20. Discuss the relative merits and demerits of extended wear contact lenses and intraocular lens implantation in the management of unilateral cataract in a 20 years old patient.
21. Describe with diagram the Donder’s reduced eye. What are the concepts involved in the formation of Donder’s reduced eye?
22. Write down the optics of contact lenses. What are the different types of contact lenses used in aphakia and pseudophakia patients with relative advantages and disadvantages? When contact lens trial should be given after cataract surgery?
23. Describe the optical principles involved in indirect ophthalmoscopy. Write down the advantages and its applications. [1994]
24. Write down the optics of contact lenses. Write down the relative advantages and disadvantages and specific indications of hard, rigid gas permeable and soft contact lenses in short. [1997]
25. Discuss the principles of retinoscopy through reflected light. What are the different ways of refraction? [2002]
26. What are the principles of retinoscopy? Write in detail the practice of retinoscopy? What are the difficulties in retinoscopy? [2004]
27. How do you classify myopia? Write in detail the signs, symptoms and management of myopia. [2006]
Short notes

1. Distant direct ophthalmoscopy
2. Degenerative myopia
3. Optics of contact lens
5. Maddox rod and wing
6. Presbiopia
7. Optical principles of astigmatism correction [1992]
8. 90 Dioptr lens [1999, 2003]
9. Principles of indirect ophthalmoscopy
10. Optical aberrations [1998]
11. Optical principles of telescopic spectacles
12. Anisometropia
13. Spectacle correction of aphakia
15. Optics of indirect ophthalmoscope [2003]
16. Colour vision tests [1998]
17. Optical center [1999]
19. Low vision aids
20. Stum’s conoid
22. Complications of pathological myopia
23. Contrast sensitivity [2005]
24. Extended wear contact lens [1988]
26. Prism diopter
27. Management of postoperative astigmatism
28. Refractive surgery [2006]
29. Excimer laser [2005]
30. Pathological myopia [2005]
31. Stile Crawford effect [2005]
32. Higher order aberrations [2008]


**Squin**

**Long questions**

1. Describe surgical management of VI th nerve palsy. [1993]
2. What are the diagnostic tests for strabismus? How would you diagnose and manage a case of amblyopia?
3. Name the extraocular muscles. Give the nerve supply and actions. Narrate the sign, symptoms and management of lateral rectus palsy right eye.
4. Outline the investigations of a case of paralytic squint. What is the usual position in a case of right superior oblique paralysis?
5. Narrate in detail the management of concomitant convergent squint of 28 degree in a child of three years. [1998]
6. Describe different types of nystagmus. Discuss their management. [2000]
7. Discuss the management of paralytic squint. [2006]
8. What is diplopia? Describe the investigations and intervention done in a case of diplopia. [2005]
9. Give brief account of the methods of measurement of angle of deviation in a case of squint. [2007]
10. Describe a case of lateral rectus palsy. Discuss its management. [2002]
11. Discuss in short the clinical features of a case of squint. [2002]
12.
Short notes

1. Faden operation [1993]
2. Botulinum toxin in ophthalmic surgery. [1993]
3. Fusion exercise
4. Amblyopia ex anopsia [1998]
5. Cover test [2003]
6. Infantile esotropia
7. Levodopa in amblyopia [2005]
8. Micropsia [2005]
9. Phoria
10. Treatment of amblyopia
11. Pannum’s area [2006]
12. Horizontal rectus muscle surgeries [2005]
13. Laws governing the movement of eye ball [2007]
14. Duane’s retraction syndrome [2007]
15. V phenomenon [2008]
16. Beilschowsky head tilt test [2008]
17. Young boy of 5 years having esotropia of 20 degree [2004]
18. Monofixation syndrome [2002]

Neuroophthalmology

Long questions

1. Discuss the pathology and ocular manifestations of disseminated sclerosis.
2. Discuss the pathology and pathogenesis of Papilloedema. [1997]
3. Describe the ocular manifestations which may occur in multiple sclerosis.
4. Discuss in short various types of toxic optic neuropathies and their management. [2003]
5. Discuss the clinical features of Ophthalmoplegic migraine. [2005]
6. Write down the clinical features, investigations and management of pituitary adenoma. [2005]
7. Describe different chiasmal lesions and their ocular manifestations. [2005]
8. Describe the aetiology, pathogenesis, clinical features and management of papillitis. [2005]
9. Discuss the pathology and ocular manifestations of giant cell arteritis or pulseless disease. How will you manage a case of pulseless disease? [1985]
10. Discuss various types of visual disturbances which can occur in migraine. What is the mechanism of their production? How they may be treated?
11. Describe the aetiology and management of optic atrophy in children. [1993]
12. Discuss the different causes of headache. What is the role of ophthalmologists in management of a case of headache? [1996]
13. Write a note on different ophthalmological manifestations of pituitary tumour. [1994]
14. Describe the aetiopathogenesis, clinical features and management of temporal arteritis. [1999]
15. How would you manage a case severe pain in eye and orbit? Give a short outline of management of each condition. [2007]
16. Describe the photochemical changes when light falls on retina. [2007]
17. Discuss the different types of nystagmus. Discuss their management. [2000]
18.

Short notes

1. Empty sella syndrome [1998]
2. Homonymous hemianopia [1998]
3. Pathogenesis of acute Retrobulbar neuritis [1998]
4. Amaurosis fugax [2003]
5. Myasthenia gravis [2005]
6. Papilloedema [2005]
7. Ophthalmoplegic migraine
8. Primary optic atrophy [2005]
11. Optic disc pit [1997]
12. One and half syndrome [2007]
13. City university test [2007]

**Trauma**

**Long questions**

1. Describe the mechanism, clinical features and management of blow out fracture of orbit. [1993]
2. Discuss the various modalities of localization of intraocular foreign body [1999]
3. How do you manage a case of contusion injury of eye? What are the different complications which may follow?
4. Discuss the histopathological changes which may occur in case of intraocular foreign body. [2003]
5. Discuss the ocular manifestations of head injury. [1985]
6. Discuss the early and late ocular features of head injury. [1988]
7. 

**Short notes**

1. Traumatic hyphema [2006, 2007]
2. Berlin’s oedema [2005]

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5. Alkali burn [2007]

**Tumour**

**Long questions**

1. Enumerate the common intraocular tumours. Discuss the morbid anatomy and histopathology of a case of retinoblastoma. [1999]
2. Discuss the histopathology of malignant melanoma of eye. How will you manage such a case? [1991]
3. Describe different types of malignant cells found in malignant melanoma. What is the mother cell of the melanoma tumour cells? How do you assess the prognosis of such a tumour?
4. Discuss the histopathology of malignant melanoma of choroid. Discuss the mode of spread of such a tumour.
5. Discuss the histological classification of cell types with diagram of choroidal melanoma and their relation with the mortality. What are the routes of metastasis?
6. Discuss the tumours of eye lids. [2005]
7. Discuss the clinical features and management of pituitary adenoma.

**Short notes**

1. Rosettes in retinoblastoma.
2. Rhabdomyosarcoma
3. Von Hippel Lindau syndrome
4. Ciliary body melanoma
5. Histopathology of retinoblastoma
7. Phakomatosi [2006]
8. Role of CT scan in orbital SOL [2005]
9. Malignant melanoma [2003]
10. Choristoma [2003]
11. Pseudoglioma [1999]
12.

**Refractive surgery**

Long questions

1. Write down the different types of optical correction of high myopia. [1999]
2. Discuss the surgical management of ametropia. [1998]
3. Discuss the different types of refractive surgeries. [2003]
4. Discuss the recent advances in the field of refractive surgery. [2003]
5. Write down the indications, contraindications and complications of penetrating keratoplasty.
6. Discuss the indications and technique of endothelial cell grafting as a newer modality of LK. [2007]
7. Write the steps of LASIK. How do you treat myopia in a thin cornea (<300 micron)? [2007]

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Short notes

1. Excimer laser [2005]
2. Lasik [2003, 2007]
3. Use of Lasik in ophthalmology [2006]
4. Epilasik [2005]
5. Solid state laser [2005]
6. Refractive surgery [2005]
7. Lamellar keratoplasty [2005]
8. Nasal corneal hinges versus superior hinges in Lasik- which is preferable and why? [2007]
9. LASEK [2007]
10. Stem cell grafting [2006]
11. Therapeutic keratoplasty [2005]
12. Graft rejection [2006]
13. Corneal tear film abnormalities

Anatomy and physiology

Long questions

1. Write down the parts and compositions of human crystalline lens. What is Elschnig’s pearl? [1999]
2. What are the supports of eye ball?
3. Describe the orbit boundaries and its surgical importance. [1997]
4. Write down the function and composition of lens. [1997]
5. What are the fissures and foramina of orbit?
6. Describe the superior orbital fissure with diagram and structures passing through it.
7. Describe the origin, course, relation and supply of the IV th cranial nerve. What are its special peculiarities?
8. Describe the protective mechanism of eye.
9. Describe the metabolism of crystalline lens.
10. Describe the formation and circulation of aqueous humour.
11. Describe with diagram the anatomy of cavernous sinus.
12. Describe the development of lens with its vascular supply.
13. Describe the vascular supply of different parts of visual pathway.
14. Describe the anterior chamber of the eye ball. How it develops? What changes occur in it during the life time?
15. How is normal IOP maintained? Mention the pseudofacility and uveoscleral outflow. [1990]
16. Give a schematic diagram of the apex of the orbit showing different structures and describe the optic canal. [1998]
17. Describe the structure of the ciliary body. Write down in short the vascular supply of uveal tract.
18. Narrate the pupillary pathway for light reflex.
19. Describe the development of crystalline lens and mechanism of cataract formation. What are the different changes that occur at different ages? [1999]
20. Describe the development of binocular vision. How is it maintained? What factors are responsible for its complete development? [1999]
21. Describe the anatomy of the optic chiasma. Describe the arrangement of visual fibers in the chiasma and its clinical importance. [2000]
22. Describe the blood supply of the optic nerve head. How will you evaluate the vascularity of the optic nerve head? What is its significance? [1998]
23. Describe the anatomy of the ciliary body. Discuss its functions. [1999]
25. Describe the anatomy of the optic nerve. [2003]
26. What are the functions of the tear? Where does it come from? Draw a diagram showing pathway of tear flow. Name the clinical tests done for the assessment of the dry eye.
27. Discuss the anatomy of the retina with special reference to the macula. How retina gets its nutrition? During retinal reattachment surgery, one vortex vein is cut; how will you manage this case?
28. What is pupil? Discuss the anomalies of the pupil.
29. Describe the anatomy of the limbus and its surgical importance. Discuss its importance in maintaining normal ocular surface physiology.
30. Discuss the arrangement of nerve fiber layers in optic nerve. Indicate the effect on the visual function of lesions at various sites in the optic nerve.
31. Narrate the structures of the angle of anterior chamber with the help of diagram. [1986]
32. Describe with diagram the anatomy of the upper lid with special reference to the different layers. What is its nerve supply?
33. Describe the development of the angle of anterior chamber with special reference to the development of congenital glaucoma.
34. How field examination will help in localizing an intracranial lesion? [1993]
35. Describe with labeled diagram the angle of anterior chamber. Indicate its surgical importance.
36. Describe the outflow of aqueous humour and its clinical importance.
37. What is blood-retinal barrier? Describe its anatomical components. Discuss its physiological and clinical significance.
38. Describe the anatomy and development of the intrinsic muscles of the eye. Discuss their function and clinical significance.
39. Describe the anatomy of the eye lid. [2005]
40. Describe the difference between intraocular pressure and intraocular tension. What are the errors encountered in its recording? [1986]
41. Discuss the mechanism of colour vision perception. [1988]
42. What is oculocardiac crisis? What is the probable accepted nerve pathway for it? How will you manage the problem if it occurs?
43. What is electromagnetic radiation spectrum? Describe its effect on the eye. [1996]
44. Write down the function and composition of the tear. Write down the methods to perform Schirmer’s test and its interpretation. [1997]
45. Describe the normal conjunctival flora. Discuss the anomalies which can occur in it. [2003]
46. What are stem cells? What are the clinical presentations in cases with limbal stem cell deficiency? How will you manage a case of corneal epithelial surface disorder? [2006]
47. Discuss the origin, insertion and function of superior oblique muscle. Discuss its malfunctions. [2002]
48. 

**Short notes**

1. Superior orbital fissure syndrome
2. Tarsal plate
4. Optical center
5. ARP
6. Optic chiasma

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7. Development of lens
8. Uveoscleral outflow
9. Structure of vitreous body
10. LGB
11. Convergence insufficiency
12. Tenon capsule
13. Oculocardiac reflex
15. Dark adaptation curve [1998]
16. Sympathetic nerve supply to the eye [1997]
17. Oscillatory potentials [1997]
18. Foveal avascular zone [2003]
19. Hyaloid system of vessels [2003]
20. Blood ocular barrier [2003]
21. Mucin layer of tear film [2003]
22. Angle of anterior chamber [1998]
23. Precorneal tear film [1998]
25. Retinal pigment epithelium [2003]
27. Laws governing ocular movement [2003, 2005]
28. Stile Crawford effect [2003]
29. Pannum’s area [2003]
30. Transparency of lens [2004]
31. Vascular supply of iris [2004]
32. Levator palpebrae superioris muscle [2004]
33. Reiger’s anomaly [2004]
34. Ciliary zonule
35. Macula
36. Blood-retinal barrier
37. Median longitudinal fasciculus
38. Applanation tonometry
39. BSV
40. Vitreous base [2008]
41.
Ocular pharmacology

Long questions

1. Describe the mode of action, advantages and disadvantages of different antiviral drugs used in ophthalmology. [1988, 1993]
2. Describe the antimetabolites used in ophthalmology. [1993]
3. What do you mean by immunosuppressive drugs? Discuss their clinical importance with special reference to their use in ophthalmology. [1994]
4. Discuss the use of drugs affecting autonomous nervous system used in ophthalmology. [1996]
5. Discuss the antifungal drugs used in ophthalmology. [1999]
6. Discuss the mechanism of action of different antiviral drugs. Describe the management of Wessely’s ring. Name the complications of antiviral drugs. When steroid can be used as an adjunct? [1999]
7. Describe the newer anaesthetics and anaesthesia in eye surgery. [2007]
8. Discuss the role of steroid in ocular therapy. [2003, 2005]
9. What are the different anti-glaucoma medications? Describe in brief the medical management of primary open angle glaucoma. [2006]
10. Discuss the mechanism of action, complications and complications of common beta blocker drugs used in glaucoma. What are the interactions of beta blocker drugs with other antiglaucoma drugs? Name the best combination. [1999]
11. Discuss the mode of action of beta blocker in treatment of glaucoma. [1985]
12. What are the beta blocker drugs used in the management of glaucoma? Write down their merits and demerits. [1992]
13. What are the drugs used systemically to lower intraocular pressure? Discuss their modes of action and side effects. [1999]
14. Describe the mechanism of action of beta blocker drugs. What is tachyphylexis? What are the local and systemic complications of beta blockers?
15. What is peribulbar anaesthesia? What are the important relative advantages and disadvantages over retrobulbar anaesthesia?
16. Discuss the mechanism of action of various available antiviral drugs in corneal disease. [2006]
17. Classify the drugs acting on the pupil. Discuss their various diagnostic and therapeutic uses in ophthalmology. What are the signs of atropine toxicity? [2002]
18. Discuss in short the antiglaucoma medications. How is Latanoprost so unique in its mechanism of action in lowering IOP? [2002]
19. After retrobulbar injection of lignocaine pupil dilated/constricted/left in situ; state reasons. [2003]

Short notes

1. Newer anaesthetics
2. Cyclosporine A [2006]
3. Immunosuppressive drugs in uveitis [2006]
4. ICG toxicity [2006]
5. Antiviral drugs [2006]
6. Latanoprost [2006]
7. Antifungal drugs [2007]
8. Prostaglandin [2003]
9. Mitomycin-C [2003]
10. Beta blockers [2003]
11. Sympathomimetic drugs in glaucoma [2004]
12. Antimetabolites in glaucoma surgery [2003]
13. Carbonic anhydrase inhibitors [1994]
14. Aminoglycosides used in ophthalmic medicine [2003]
15. Botulinum toxin [2006]
16. Levodopa in amblyopia [2005]
17. Osmotic agents
18. Chelating agents
19. Enzymes used in eye
20. Immunoglobulins in ophthalmology
Glaucoma

Long questions

1. What are the causes of Neovascular glaucoma? Describe its management. [1993]
2. What abnormalities of the different parts of the anterior chamber angle produce aqueous outflow obstruction?
3. Enumerate the causes of secondary glaucoma. Describe the provocative tests for chronic simple glaucoma. [1990]
4. Describe the maximal medical management for a case of POAG and indications to undergo surgery. [1996]
5. Classify the operations for primary glaucoma. Describe the principle steps of trabeculectomy. [1999]
6. How are you going to manage surgically a case of repeated failed glaucoma surgery? Write down the steps of such an operation in short. [1997]
7. Name the drugs used in the treatment of acute congestive glaucoma. [1991]
8. Discuss different antiglaucoma operations. [2000]
9. Discuss the role of trabecular extracellular matrix in pathogenesis of glaucoma. [1997]
11. Discuss the mechanism of action, complications and complications of common beta blocker drugs used in glaucoma. What are the interactions of beta blocker drugs with other antiglaucoma drugs? Name the best combination. [1999]
12. Describe the pathogenesis of optic nerve head changes in primary open angle glaucoma. How these changes influence the modality of treatment?
13. Discuss the rationale of lowering the intraocular pressure in treatment of glaucoma. [2003]
14. Discuss the aetiopathogenesis of open angle glaucoma. [2003]
15. Newer modalities for early detection of open angle glaucoma. Management of established case of open angle glaucoma. Define target pressure and perfusion pressure. [2006]
16. Describe clinical features and treatment of glaucoma. [2005]
17. Describe the pathogenesis of glaucomatous field loss. Principles of interpretation of a single field analysis printout done in HFA. [2005]
18. Early surgery in open angle glaucoma. [1986]
19. What are the causes of glaucoma associated with cataract? Describe the outline of management of such a case with special reference to surgery. [1987]
20. What is buphthalmos? Describe the aetiology, clinical features and management of congenital glaucoma. [1987]
21. What are the types of lens induced glaucoma? [1992]
22. Describe with diagram the different types of field defects and their pathogenesis in a case of moderately advance open angle glaucoma? [1994]
23. Write in brief the management of shallow anterior chamber following filtration surgery. [2003, 2007]
24. What is target pressure? Discuss various methods to measure IOP and the newer surgical methods for management of refractory glaucoma. [2008]

Short notes

4. Rubeosis irides
5. Neovascular glaucoma [1998]
8. Pathology of optic disc cupping in POAG [1998]
9. Pathological changes in long standing POAG [1998]
11. Panretinal photocoagulation [2000]
13. Peter’s anomaly [1997]
14. Laser in glaucoma therapy [2004]
15. Gonioscopy [2003]
17. Newer drugs used in glaucoma [2004]
18. GHT [2004]
19. OCT [2005]
20. Aqueous humour
21. Nonpenetrating glaucoma surgeries [2006]
22. Pigmentary glaucoma [2005]
23. Angle recession syndrome [2006]
24. Glaucomato cyclic crisis [2006]
25. Newer methods of imaging in glaucoma [2006]
26. Surgical treatment of congenital glaucoma [2005]
27. Junctional scotoma [1985]
28. Argon laser peripheral iridectomy [1993]
29. Nonpenetrating glaucoma surgery [2006]
30. Neuroprotection in glaucoma [2008]
31. SWAP [2008]
32. Argon laser trabeculoplasty [2002]
33. Pathology of cupping in POAG [2004]
34. Antimetabolites in glaucoma [2004]
35. Static perimetry [2000]
36.
Miscellaneous

Long questions

1. What do you mean by the term community ophthalmology? Describe the magnitude of blindness in India. Describe a scheme for the control of blindness in five years. [1999]
2. Describe the causes of sudden vision loss in different age groups with their investigations and management in short.
3. Discuss the use of foreign materials (solid, liquid and gas) in ophthalmology. [2000]
4. Describe the sterilization of ophthalmic instruments. [2000]
5. Discuss the role of viscoelastics in different types of ophthalmic surgery. [1999]
6. Discuss the ocular complications of leprosy. [1986]
7. Describe the ocular sexually transmitted diseases. [1986]
8. Discuss the senile changes which occur in different structures of eye. [1988]
9. Role of paramedical ophthalmic assistants in prevention of blindness. [1993]
10. Give an account of mucocutaneous syndromes affecting the eye. [1997]
11. What is your concept of paediatric ophthalmology? [1997]
12. Discuss the ocular manifestations of vitamin A deficiency. [1999]
14. A mother has come to eye OPD with 2 months old baby complaining of photophobia in noncongested eye. What are the differential diagnoses? Discuss the management in detail. [2004]
15.

Short notes

1. Cryoapplication in ophthalmology
2. Peribulbar anaesthesia
3. Peritomy
4. *Streptococci* and *Staphylococci* in ophthalmology [1998]
5. Releasing stitches in ophthalmology [1993]
6. X-linked eye diseases [2000]
7. Pulsating exophthalmos [1999]
8. Vision 2020 [2003]
9. Temporal arteritis [2003]
10. Low vision aids [2003]
11. Visual evoked potential [2005]
12. Intraocular implants [1985]
13. Renal-retinal syndrome [1993]
15. Beta radiation [1997]
17. ETDRS chart [2007]
18. Rehabilitation of blind [2007]
19. One and half syndrome [2007]
20. Second sight [2003]
21. Amaurosis fugax [2003]
22. Tissue adhesive [2006]
23. KF ring [2005]
24. Blindness [2006]
25. Helical CT dacryocystography [2008]
26. Osteo-odontoid keratoprosthesis [2008]
27. Brachytherapy [2008]
28. Orbital cellulitis in children [2008]
29. Streptococci and Staphylococci in ocular disorders
30. Intraocular protozoal infection [2004]
31. Siderosis bulbi [2002]
32. X-linked eye disease [2000]