

**OPHTHALMOLOGY QUESTION PAPERS**

Time: 3 hours Max. Marks: 100

**IMPORTANT INSTRUCTIONS**

- This question paper consists of 10 questions divided into Part A and Part B each part containing 5 questions.
- Answers to questions of Part 'A' and Part 'B' are to be strictly attempted in separate answer sheets and the main + supplementary answer sheets used for each part must be tagged separately.
- Answers to questions of Part 'A' attempted in answer sheets of Part 'B' or vice versa shall not be evaluated.
- Answer sheet(s) of Part 'A' and Part 'B' are not to be tagged together
- Part 'A' and Part 'B' should be mentioned only on the covering page of the respective answer sheets).
- Attempt all questions in order.
- Each question carries 10 marks.

**OPHTHALMOLOGY PAPER –I**

**PART A**

1. Enumerate the conditions associated with corneal neovascularization. Briefly discuss the mechanism and various treatment modalities with their rationale of treatment in the management of this condition 3+3+4
2. Give principle of keratometry. What are the types of keratometers and basic difference between them? Give typical keratometric features in keratoconus. 4+3+3
3. Briefly write on the development of crystalline lens. Enlist the biochemical mechanism of cataractogenesis. Briefly write about various congenial and developmental anomalies of lens. 3+3+4
4. Discuss all the possible ocular injuries with a cricket ball to the eye in 20 year old male. Give management of traumatic retinal disorders. 5+5
5. Describe AV pattern deviations. Discuss etiology, Clinical features and management of these deviations. 2+2+3+3



OPHTHALMOLOGY PAPER -I

PART B

6. What are the common tumors of optic nerve in adults? Give clinical features to differentiate them clinically and give salient pathologic features of these tumors. 3+2+5
7. What are spherical aberrations? How do the spectacle lenses induce these aberrations? What modifications are done to minimize these spectacle induced aberrations? 3+3+4
8. Discuss clinical features, classification, investigations and management of diabetic macular edema. 3+2+2+3
9. Discuss in detail the ocular manifestations of AIDS. 10
10. What is Homer's syndrome? Discuss clinical features, diagnosis and management of this syndrome. 1+ 3+3+3

OPHTHALMOLOGY PAPER –II

PART A

1. What are the factors affecting the SIA (Surgery Induced Astigmatism). How do you manage these cases having pre-operative astigmatism during the surgery for cataract 5+5
2. Give Indications of surgery for pediatric cataract. Outline complete management and specific surgical challenges in a 2 year old child with unilateral cataract 3+3+4
3. What are femtosecond LASERs ? What are the current indications of femtosecond LASER in corneal refractive surgery? What is opaque bubble LASER? 3+5+2
4. How do you diagnose severe ocular surface disease? Discuss causes and management of these entities, when existing in unilateral and bilateral manner. 3+(3+4)
5. Discuss clinical features, differential diagnosis and management of metastatic endophthalmitis in a 15 year old boy 4+3+3

OPHTHALMOLOGY PAPER –II

PART B

6. Define flow rate, vacuum, rise time, surge and duty cycle in phacoemulsification surgery. What are the basic principles in ultrasonic power modulations and advantages of these modulations? 1+1+1+1+1+3+2
7. Discuss clinical features, diagnosis and management of intraocular and extraocular cysticercosis 3+3+ 4
8. Discuss clinical features, differential diagnosis and management of lid tumor. 3+3+4
9. Write clinical features and management of retinal detachment with giant retinal tear in a 22 year Old boy with Marfan's Syndrome 3+7
10. Write about diagnostic features of glaucomatous field defect on automated perimetry (30-2). 10

OPHTHALMOLOGY PAPER – III

PART A

- 1 Describe the clinical features and management of intermittent divergent squint. 3+7
- 2 How you will diagnose diabetic macular edema? Discuss its investigation and management. 2+3+5
- 3 Describe the pathophysiology of vernal keratoconjunctivitis (VKC) correlating with clinical picture and rationale of treatment. 4+3+3
- 4 What are the clinical features of blow out fracture? Discuss its investigation and management. 2+2+6
- 5 What are the causes of posterior capsular rupture and how you will manage it in a phacoemulsification surgery? 5+5

OPHTHALMOLOGY PAPER – III

PART B

- 6 Define complicated cataract. What are the various causes for it? How will you manage such cases? 2+4+4
- 7 What are the minimum criteria for Primary Open Angle Glaucoma (POAG). Give severity classification of POAG with concept of target pressure. 3+7
- 8 What are the various clinical feature and complications of acute attack of an acute uveitis? Discuss its management. 2+3+5
- 9 What is amblyopia? Explain the concept of critical period in development of vision. Outline the principles of treating strabismus amblyopia. 4+3+3
- 10 Discuss pathophysiology and management of ocular toxoplasmosis 7 + 3

OPHTHALMOLOGY PAPER – IV

PART A

- 1 What is the principle of Ocular Coherent tomography? What are its uses in corneal and retinal diseases? 2+4+4
- 2 What are the various types of anesthesia used for cataract surgery? Describe briefly merits and demerits of each. 2+4+4
- 3 Describe optics of 'Jack in the Box' phenomenon. How can you prevent it? 5+5
- 4 Describe the anatomy of cavernous sinus. Name all the structures piercing through it. 5+5
- 5 Discuss the role of genetics in Ophthalmology 10



OPHTHALMOLOGY PAPER – IV

PART B

- 6 What is Scheimpflug's principle? How is it useful in Ophthalmology? Name the appliance which uses this principle. 4+4+2
- 7 To establish an ocular microbiology lab which all medias to be needed. Name the diseases in which each of these media is useful. 6+4
- 8 What are viscoelastic? How do you classify them? Briefly give the indications of each and their side effects. 1+3+4+2
- 9 Describe the pupillary pathway of the eye. Write in brief about the lesions light near dissociations and its implications. 5+5
- 10 What is a cross cylinder? Where all is it used during refractions? How can you create a cross cylinder by using lenses from the trial set, please explain giving an example. 2+4+4