

The Tamil Nadu Dr. MGR Medical University MS Examination Question Paper

Paper I – APPLIED BASIC SCIENCES IN OPHTHALMOLOGY

Time: Three hours
Maximum: 100 marks

All questions carry equal marks.

A. ANATOMY – Answer any FOUR : (4 X 5 = 20)

1. Development of retina.
2. Blood supply of optic nerve head.
3. Relations of cavernous sinus.
4. Visual pathway.
5. Angle of anterior chamber.



B. PHYSIOLOGY – Answer any FOUR : (4 X 5 = 20)

1. Theories of color vision.
2. Electro oculogram.
3. Pupillary reflexes.
4. Dynamics of aqueous formation.
5. Binocular single vision.

C. BIOCHEMISTRY– Answer any THREE : (3 X 5 = 15)

1. Metabolism of vitreous.
2. Anaerobic glucose metabolism.
3. Walds visual cycle.
4. Biochemical changes during.

D. MICROBIOLOGY – Answer any THREE: (3 X 5 = 15)

1. Chlamydia trachomatis.
2. Human immuno deficiency virus.
3. Hypersensitivity in Eye.
4. Diphtheria bacillus.

E. PHARMACOLOGY– Answer any THREE: (3 X 5 = 15)

1. Anti fungal drugs.
2. Immuno suppressive drugs (immuno suppressive drugs).
3. Vitreous substitutes.
4. Anti metabolites.

F. PATHOLOGY– Answer any THREE: (3 X 5 = 15)

1. Histopathology of malignant melanoma.
2. Pathological features of endophthalmitis.
3. Dalen fuchs nodules.
4. Vascular changes in diabetic retinopathy.



Part II OPHTHALMOLOGY INCLUDING COMMUNITY OPHTHALMOLOGY AND REFRACTION

Time: Three hours

Maximum: 100 marks

Draw suitable diagram wherever necessary.

Answer ALL questions.

A. Essay questions: (2 X 20 = 40)

1. Discuss etiology and management of dry eye.
2. Discuss retinopathy of prematurity.



B. Write short notes on : (10 X 6 = 60)

1. Duochrome test.
2. Jackson's cross cylinder.
3. Preservation of donor cornea.
4. Vision 2020.
5. Optics of contact lens.
6. Cystoid macular edema.
7. IOL power calculation.
8. Organization of eye camps.
9. Presbyopia.
10. Maddox rod test

Branch III –OPHTHALMOLOGY INCLUDING NEUROOPHTHALMOLOGY

Time: Three hours

Maximum: 100 marks

Draw suitable diagram wherever necessary.

Answer ALL questions.

A. Essay questions: (2 X 20 = 40)

1. Discuss the clinical picture in 3rd cranial nerve paralysis at different levels of its course.
2. Discuss ocular manifestations and management of dysthyroid ophthalmopathy.

B. Write short notes on: (10 X 6 = 60)

1. Blow out fracture of orbit.
2. Ocular cysticercosis.
3. Fuch's corneal dystrophy.
4. Anterior necrotizing scleritis.
5. Lacrimal gland tumours.
6. Neovascular glaucoma.
7. Congenital anomalies of lens.
8. Management of keratoconus.
9. Anterior ischaemic optic neuropathy.
10. Acanthamoeba keratitis.



Paper IV - OPHTHALMOLOGY INCLUDING INVESTIGATIVE OPHTHALMOLOGY AND SURGERY AND RECENT ADVANCES

Time: Three hours

Maximum: 100 marks

Draw suitable diagram wherever necessary.

Answer ALL questions.

A. Essay questions: (2 X 20 = 40)

1. Discuss surgical management of pediatric cataract.
2. Discuss the various types of lasers and their application in the management of ocular diseases.

B. Write short notes on: (10 X 6 = 60)

1. Stem cell transplantation.
2. Corneal topography.
3. MRI (Magnetic Resonance Imaging).
4. Congenital dacryocystitis.
5. Photodynamic therapy.
6. Phacotrabeculectomy.
7. Intravitreal drug therapy.
8. Pneumoretinopexy.
9. Role of prostaglandins in ophthalmology.
10. Management of congenital ptosis

