

Reg. No.

**MANIPAL ACADEMY OF HIGHER EDUCATION**  
**MS (OPHTHALMOLOGY) DEGREE EXAMINATION – JUNE 2020**  
**SUBJECT: PAPER I: BASIC SCIENCES RELATED TO OPHTHALMOLOGY**

Wednesday, June 03, 2020

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions and draw diagrams wherever required.**

✍ **Essay Questions.**

1. Describe in detail the visual pathway. Add a note on its blood supply  
(15 marks)

2. Write on embryology of human eye and discuss anatomy of ciliary body.  
(15 marks)

3. Write **short answers for the following:**

3A. Orbscan and its uses

3B. Sturm's conoid. Add a note on its clinical significance in management of astigmatism.

3C. What is binocular vision? What are the grades of binocular vision? Mention few tests to detect binocular vision.

3D. Discuss the components of tear film. Add a note on diagnostic tests for dry eyes.

3E. Discuss use of prisms in ophthalmology

3F. Write about rigid contact lenses

3G. Discuss formation and drainage of aqueous humor.

3H. Write briefly on electrophysiological tests in ophthalmology

3I. Cycloplegic refraction and drugs used for it

3J. Dark adaptation

(7 marks × 10 = 70 marks)



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**MS (OPHTHALMOLOGY) DEGREE EXAMINATION – JUNE 2020**  
**SUBJECT: PAPER II: CLINICAL OPHTHALMOLOGY**

Thursday, June 04, 2020

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Essay Questions:**

1. Discuss the aetiology and clinical features of bacterial keratitis. Outline the method of investigation and management.

(15 marks)

2. Discuss the medical management of open angle glaucoma

(15 marks)

3. Write **short answers for the following:**

3A. Band shaped keratopathy

3B. Steroid responsiveness

3C. Pseudo exfoliation syndrome

3D. Clinical features of irido corneal endothelial syndrome

3E. Role of periocular steroids in the management of anterior uveitis

3F. Classification and differential diagnosis of diabetic retinopathy.

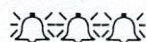
3G. Detection, management and follow up of retinopathy of prematurity

3H. Annular scleritis

3I. Double elevator palsy

3J. Orbital pseudotumour

(7 marks × 10 = 70 marks)





**MANIPAL ACADEMY OF HIGHER EDUCATION****MS (OPHTHALMOLOGY) DEGREE EXAMINATION – JUNE 2020**

SUBJECT: PAPER III: PRINCIPLES AND PRACTICE OF SURGERY OF EYE AND RELATED TOPICS

Friday, June 05, 2020

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ Answer ALL the questions and draw diagrams if required.

✍ Draw a neat labeled diagrams wherever necessary

✍ Long Essay:

1. Discuss the surgical management of entropion.

(15 marks)

2. Discuss the surgical management of thyroid exophthalmos.

(15 marks)

3. Write short answer for the following:

3A. Pneumoretinopexy

3B. Non penetrating glaucoma surgery

3C. Selective laser trabeculoplasty

3D. Multifocal intraocular lenses

3E. Orbital implants

3F. Surgical management of macular hole

3G. Surgical management of ptosis

3H. Management of recurrent pterygium

3I. Antimetabolites in glaucoma surgery

3J. Intra operative management of small pupil in cataract surgery

(7 marks × 10 = 70 marks)





**MANIPAL ACADEMY OF HIGHER EDUCATION**  
**MS (OPHTHALMOLOGY) DEGREE EXAMINATION – JUNE 2020**  
**SUBJECT: PAPER IV: RECENT ADVANCES IN OPTHALMOLOGY**

Saturday, June 06, 2020

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ Answer ALL the questions.

✍ Essay Questions:

1. Discuss Multifocal IOLs. What is the advantage over conventional ones?  
(15 marks)
2. What are Glaucoma drainage implants. Discuss the pros and cons. Add a note on Tube versus Trabeculectomy Study.  
(15 marks)

3. **Short answer:**

- 3A. What are the advances in early diagnosis of glaucoma?
- 3B. Classify viscoelastic substaces. What are the indications?
- 3C. What are the methods of estimation of IOL power after Lasik procedure?
- 3D. What are newer drugs used in recalcitrant uveitis and their side effects
- 3E. What are electrophysiological tests used in ophthalmology and their principles
- 3F. **Write briefly on:**
  - i) Pulse Diode laser
  - ii) DSAEK
- 3G. **Write briefly on:**
  - i) Transpupillary Thermoheraphy
  - ii) Perfluro Carbons
- 3H. What are the indications for Amniotic membrane transplant?
- 3I. What are recent advances in ocular microsurgery?
- 3J. How do you treat a premacular subhyaloid haemorrhage?

(7 marks × 10 = 70 marks)

