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MANIPAL ACADEMY OF HIGHER EDUCATION  
MS (OPHTHALMOLOGY) DEGREE EXAMINATION – OCTOBER 2019  
SUBJECT: PAPER I: BASIC SCIENCES RELATED TO OPHTHALMOLOGY

Tuesday, October 08, 2019

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ Answer ALL the questions.

✍ Essay Questions.

1. Describe the anatomy and congenital anomalies of the cornea. (15 marks)

2. Describe the clinical features, management and histopathology of squamous cell carcinoma of the Limbus. (15 marks)

3. Write short answers for the following:

- 3A. Write a note on cyclosporine
- 3B. Write a note on ectopia lentis
- 3C. Describe streak retinoscopy
- 3D. Write a short note on amblyopia
- 3E. Write a note on vitreous metabolism
- 3F. Histopathology of malignant melanoma
- 3G. Human Immunodeficiency Virus
- 3H. Relations of cavernous sinus
- 3I. Electro oculo gram
- 3J. Duochrome test

(7 marks × 10 = 70 marks)



**MANIPAL ACADEMY OF HIGHER EDUCATION**  
**MS (OPHTHALMOLOGY) DEGREE EXAMINATION – OCTOBER 2019**  
**SUBJECT: PAPER II: CLINICAL OPHTHALMOLOGY**

Wednesday, October 09, 2019

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

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✍ **Answer ALL the questions.**

✍ **Essay Questions:**

1. Describe the aetiology, risk factors, management and complications of branch retinal vein occlusion.

(15 marks)

2. Classify esotropia. Discuss management of essential infantile esotropia.

(15 marks)

3. **Short answer questions:**

3A. Discuss Pre perimetric Glaucoma.

3B. Discuss Low Visual Aids.

3C. Discuss management of paediatric cataract.

3D. Discuss Sympathetic Ophthalmitis.

3E. Discuss Duochrome test.

3F. Discuss clinical features, pathogenesis, differential diagnosis and management of primary congenital glaucoma.

3G. Classify scleritis. Discuss clinical manifestations, investigations and management of scleritis and its complications.

3H. Discuss ophthalmic manifestation of thyrotoxicosis.

3I. Discuss the differential diagnosis and management of shallow anterior chamber in first postoperative day after trabeculectomy.

3J. Describe clinical features, investigations and management of a case of medial wall fracture of orbit.

(7 marks × 10 = 70 marks)



## MANIPAL ACADEMY OF HIGHER EDUCATION

## MS (OPHTHALMOLOGY) DEGREE EXAMINATION – OCTOBER 2019

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

Thursday, October 10, 2019

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ Answer ALL the questions.

✍ Essay Questions:

1. A patient complains of Diplopia after road traffic Accident. What are the possibilities?  
Discuss.

(15 marks)

2. How do you manage a case of corneoscleral perforation with uveal prolapse?

(15 marks)

3. Short answer:

3A. How do you assess a case of congenital ptosis? Outline the steps of levator resection.

3B. Discuss the aetiopathogenesis and signs in Brown's syndrome. How do you treat it?

3C. What is Ectropion. Classify. How do you treat a case of Paralytic Ectropion?

3D. What are the complications of late leakage of trabeculectomy bleb? How do you manage the leak?

3E. How do you evaluate a case of unilateral vitreous haemorrhage? What are the complications?

3F. How do you treat a case of recurrent pterygium?

3G. Write briefly on:

i) Foldable IOL

ii) Retinal tamponade

3H. What is the role of Botulism toxin in ophthalmic conditions?

3I. Write briefly on:

i) Ghost cell glaucoma

ii) Adies pupil

3J. How do you treat a case of periorbital capillary Haemangioma?

(7 marks × 10 = 70 marks)



**MANIPAL ACADEMY OF HIGHER EDUCATION**  
**MS (OPHTHALMOLOGY) DEGREE EXAMINATION – OCTOBER 2019**  
**SUBJECT: PAPER IV: RECENT ADVANCES IN OPHTHALMOLOGY**

Friday, October 11, 2019

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

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✍ **Answer ALL the questions.**

✍ **Essay Questions:**

1. Discuss the advances in Keratoconus management. (15 marks)

2. Explain in brief the various ophthalmological applications of the optical coherence tomography. (15 marks)

3. **Short answer questions:**

3A. Outline the surgical techniques in management of myopia.

3B. Discuss role of Botulinum toxin in Ophthalmology.

3C. Explain Vision 2020.

3D. Discuss the recent advances in Diabetic macular edema management.

3E. Discuss the innovations in vitrectomy.

3F. Describe Artificial retina.

3G. Classify intraocular lenses and give a brief description of multifocal lenses.

3H. Discuss Teleophthalmology.

3I. Discuss the role of Polymerase chain reaction in Ophthalmology.

3J. Discuss shunts in glaucoma surgery.

(7 marks × 10 = 70 marks)

