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MANIPAL ACADEMY OF HIGHER EDUCATION
MS (OPHTHALMOLOGY) DEGREE EXAMINATION – APRIL 2022

PAPER I

Friday, April 01, 2022

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer all the questions.**

✍ **Draw diagrams wherever necessary.**

✍ **Long Essay:**

1. Discuss the theories of colour vision.

(15 marks)

2. Discuss binocular single vision.

(15 marks)

3. **Short answers:**

3A. Anatomy of superior orbital fissure

3B. Scleral contact lenses

3C. Factors influencing corneal transparency

3D. Hess chart

3E. Genetics of retinoblastoma

3F. Gancyclovir

3G. Electroretinogram

3H. Adie's pupil

3I. Microbiology of acanthamoeba

3J. Various methods to measure AC/A ratio

(7 marks × 10 = 70 marks)



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PAPER II

Saturday, April 02, 2022

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ Answer all questions.

✍ Draw neat labelled diagrams wherever necessary.

✍ Essay questions:

1. A 50 year old woman with primary angle closure glaucoma presents with shallow anterior chamber on first post-operative day following Trabeculectomy. Describe the management of the case.

(15 marks)

2. Discuss the management of a 24 year old myopic male who presents with retinal detachment in left eye with a break at 9 clock hour.

(15 marks)

3. Write short answers for the following:

3A. Describe the staging of retinopathy of prematurity

3B. Discuss ocular features of pregnancy induced hypertension

3C. Discuss surgical options for keratoconus

3D. Discuss the management of a four year old child with congenital nasolacrimal duct obstruction, with history of failed probing and intubation.

3E. A 3 year old boy is brought with the complaints of whitish discoloration in the pupillary area. How would you evaluate the patient?

3F. Describe the management of the nucleus in phacoemulsification.

3G. Discuss in brief the evaluation and treatment options of congenital ptosis.

3H. Write short notes on Progressive outer retinal necrosis.

3I. Discuss the etiology and clinical features of 6th cranial nerve palsy

3J. Discuss proptosis associated with Neurofibromatosis type 1.

(7 marks × 10 = 70 marks)



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PAPER III

Monday, April 04, 2022

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ Answer all the questions.

✍ Draw diagrams wherever necessary.

✍ Long Essay:

1. Discuss the ocular features of sarcoidosis.

(15 marks)

2. Discuss drug induced uveitis

(15 marks)

3. Short answers:

3A. Ocular features of Behcet's syndrome

3B. Giant cell arteritis

3C. Management of diabetic macular oedema

3D. Rhinoorbital mucormycosis

3E. Neuromyelitis optica

3F. Endogenous endophthalmitis

3G. HCQ treatment follow up protocol to detect ocular toxicity

3H. Ocular manifestations of mucopolysaccharidosis

3I. Ocular manifestations of Idiopathic intracranial hypertension

3J. Ocular manifestations of Juvenile rheumatoid arthritis

(7 marks × 10 = 70 marks)



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MS (OPHTHALMOLOGY) DEGREE EXAMINATION – APRIL 2022
PAPER IV

Tuesday, April 05, 2022

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

- ✍ **Answer all questions.**
✍ **Draw neat labelled diagrams wherever necessary.**

✍ **Essay Questions:**

1. Discuss in detail multimodal imaging of the choroid.
(15 marks)

2. Describe the role of optical coherence tomography (OCT) in the evaluation of anterior segment pathologies.
(15 marks)

3. **Write short notes on the following:**

- 3A. Brucizumab
- 3B. Protocol T and protocol S
- 3C. Intravitreal chemotherapy for retinoblastoma
- 3D. Recent advances in strabismus surgery
- 3E. Newer antiglaucoma medications
- 3F. Deep anterior lamellar keratoplasty (DALK)
- 3G. Phakic intraocular lenses
- 3H. Boston keratoprosthesis
- 3I. Management of symptomatic vitreous opacities
- 3J. Use of tele ophthalmology during Covid pandemic

(7 marks × 10 = 70 marks)

