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MANIPAL ACADEMY OF HIGHER EDUCATION MS (OPHTHALMOLOGY) DEGREE EXAMINATION – MAY 2021 PAPER I

Monday, May 03, 2021

Time: 14:00 - 17:00 Hrs.

Max. Marks: 100

- 1. Discuss the anatomy of the angle of the anterior chamber including its development. Add a note on anomalies of its development.

(15 marks)

2. Explain astigmatism including its optics and correction, with a note on sturms conoid.

(15 marks)

3. Write short answers for the following:

- 3A. Describe the anatomy of the cornea and explain the factors responsible for maintaining its transparency.
- 3B. Draw a neat labelled diagram of the cut section of the upper eye lid. Explain the blood supply to the eyelids in detail.
- 3C. Discuss the techniques of identifying Mycobaterium tuberculosis in patients with ocular tuberculosis.
- 3D. Explain the visual pathway and its blood supply.
- 3E. Describe the generation and transmission of electrical signals in the retinal photoreceptors.
- 3F. Describe the gross and histopathological features of malignant melanoma.
- 3G. Explain the anatomy of the vitreous humour. Discuss the age related changes seen in the vitreous humor.
- 3H. Discuss in brief the anti fungal drugs used in ophthalmology.
- 3I. Describe the anatomy of the lacrimal sac. Add a note on the lacrimal pump.
- 3J. Discuss Low vision aids.

 $(7 \text{ marks} \times 10 = 70 \text{ marks})$

Reg. No.

MANIPAL ACADEMY OF HIGHER EDUCATION MS (OPHTHALMOLOGY) DEGREE EXAMINATION – MAY 2021 PAPER II

Tuesday, May 04, 2021

Time: 14:00 - 17:00 Hrs.

Max. Marks: 100

- ✓ Draw neat, labeled diagrams wherever necessary.
- 1. Discuss open angle glaucoma and its management.

(15 marks)

2. Discuss keratoconus and its management.

(15 marks)

- 3 Write short answers for the following:
- 3A. Discuss Buphthalmos.
- 3B. Discuss the causes of dry eye syndrome
- 3C. Discuss provocative tests for angle closure glaucoma.
- 3D. Discuss age related macular degeneration.
- 3E. Discuss clinical features and management of optic neuritis.
- 3F. Discuss clinical features of rhegmatogenous retinal detachment.
- 3G. Discuss causes of post operative shallow anterior chamber.
- 3H. Mention clinical features and management of central serous retinopathy.
- 31. Discuss causes and management of lag ophthalmos.
- 3J. Discuss causes and clinical features of central retinal artery occlusion.

(7 marks > 10 = 70 marks)

MANIPAL ACADEMY OF HIGHER EDUCATION MS (OPHTHALMOLOGY) DEGREE EXAMINATION – MAY 2021 PAPER III

Wednesday, May 05, 2021

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

- ✓ Draw neat, labeled diagrams wherever necessary.
- 1. Discuss clinical features and management of a patient with tractional retinal detachment.

(15 marks)

2. Describe in detail steps of trabeculectomy. Add a note on measures to prevent its failure.

(15 marks)

- 3. Write short answers for the following:
- 3A Contracted Socket.
- 3B. Complications in LASIK (laser assisted in situ keratomileusis).
- 3C. Surgical methods of correcting Hyperopia.
- 3D. Management of a 5 year old child with Congenital Right fourth nerve palsy.
- 3E. Management of irregular astigmatism in keratoconus
- 3F. Post traumatic endophthalmitis.
- 3G. Management of vitreous loss during cataract surgery and a note on the machine parameters during vitrectomy.
- 3H. Argon laser and its uses.
- 31. Indications for DALK (Deep Anterior Lamellar Keratoplasty)
- 3J. Botulinum toxin in Ophthalmology.

 $(7 \text{ marks} \times 10 = 70 \text{ marks})$

Reg. No.

MANIPAL ACADEMY OF HIGHER EDUCATION MS (OPHTHALMOLOGY) DEGREE EXAMINATION – MAY 2021 PAPER IV

Thursday, May 06, 2021

Time: 14:00 - 17:00 Hrs.

Max. Marks: 100

- ∠ Answer all questions.
- ∠ Draw neat, labeled diagrams wherever necessary.
- 1. Discuss various aberrations of the eye. Add a note on wavefront guided refractive surgery.

(15 marks)

2. Discuss the principles and various types of multi-focal Intra Ocular Lenses (IOLs). Add a note on their advantages and disadvantages.

(15 marks)

- 3. Write short answers for the following:
- 3A. Adaptive Optics Scanning Laser Ophthalmoscopy.
- 3B. Role of Femto-second lasers in Ophthalmology.
- 3C. Myocilin and glaucoma.
- 3D. Scanning laser polarimetry.
- 3E. Discuss briefly the pathophysiology of angiogenesis.
- 3F. Biologics in Ophthalmology.
- 3G. Endothelial keratoplasty.
- 3H. Role of Optical coherence tomography (OCT) in retinal disease.
- 31. Artificial drainage devices for the management of glaucoma.
- 3J. Newer concepts in the management of dry eye.

 $(7 \text{ marks} \times 10 = 70 \text{ marks})$