

MANIPAL ACADEMY OF HIGHER EDUCATION**SECOND YEAR MASTER OF OPTOMETRY DEGREE EXAMINATION – MAY/JUNE 2018****SUBJECT: PAPER – VII: ADVANCED OPHTHALMIC DIAGNOSTICS****(2014 BATCH)**

Friday, June 01, 2018

Time: 10:00 – 11:30 Hrs.

Maximum Marks: 40

- ✍ **Attempt ALL questions as instructed.**
- ✍ **Draw diagrams and flowcharts wherever necessary.**

1. Compare the diagnostic features between FFA and ICG.
(5 marks)

2. **Write short notes on:**
 - 2A. Use of Pentacam in diagnosing corneal ectasia.
 - 2B. Clinical applications of corneal aberrometry.
(5+5 = 10 marks)

3. Name the parameters that are most widely used to measure glaucoma progression in OCT and why?
(5 marks)

4. Write the specific applications of UBM and ASOCT.
(5+5 = 10 marks)

5. What is the relationship between f-number, focal length, depth of field and aperture?
(5 marks)

6. Corneal hysteresis and corneal resistance factor in glaucoma.
(5 marks)



MANIPAL ACADEMY OF HIGHER EDUCATION**SECOND YEAR MASTER OF OPTOMETRY DEGREE EXAMINATION – MAY/JUNE 2018****SUBJECT: PAPER – V: ADVANCED CONTACT LENS STUDIES
(2014 BATCH)**

Monday, May 28, 2018

Time: 10:00 – 13:00 Hrs.

Maximum Marks: 80

✍ **Attempt questions as instructed. Draw diagrams and flowcharts wherever necessary.**

✍ **Answer the following questions:**

1. How orthokeratology works on myopia? Describe the lens design. Mention about patient selection. Explain different topography patterns due to post orthokeratology. Describe the adverse responses related to orthokeratology.

(3+3+3+7+4 = 20 marks)

2. What are the indications for post refractive surgery contact lens fitting? Write about post penetrating keratoplasty contact lens fitting?

(4+6 = 10 marks)

3. Describe about a commercially available mini scleral contact lens design with example. Describe vault and mention its significance. Comment about care maintenance and risk of complication in scleral contact lens practice.

(3+2+5 = 10 marks)

4. A 2 years old baby with bilateral congenital cataract underwent bilateral cataract extraction without IOL about 3 months back. The child was further referred to you for contact lens.

4A. Discuss the merit and demerit of IOL in such condition.

4B. Describe your assessment and treatment plan for the above case and outline special consideration if any.

(3+7 = 10 marks)

5. **Write notes on:**

5A. Various contact lens deposits and management plan.

5B. Overview of an aspheric multifocal contact lens and mention about its fitting strategy.

(5+5 = 10 marks)

6. Classify and write different types of colour vision defects. Write about newly developed procedures for colour vision assessment. Write a note on chromagen contact lens and compare its performance with X-chrome contact lens.

(3+2+5 = 10 marks)

7. Write in detail about USAN classifications for contact lens materials. Describe different details of "Etafilcon A IV 1" based on above classification. Describe Gaylord and Tanaka's work in development of contact lens materials.

(3+3+4 = 10 marks)



MANIPAL ACADEMY OF HIGHER EDUCATION**SECOND YEAR MASTER OF OPTOMETRY DEGREE EXAMINATION – MAY/JUNE 2018****SUBJECT: PAPER – VI: OCULAR DISEASES AND THERAPEUTICS
(2014 BATCH)**

Wednesday, May 30, 2018

Time: 10:00 – 13:00 Hrs.

Maximum Marks: 80

- ✍ **Answer ALL questions.**
✍ **Attempt questions as instructed.**
✍ **Draw diagrams and flowchart wherever necessary.**

1. Explain what is visual field index (VFI) and it is suitable to detect progression for which stage of glaucomatous VF loss and why?
(5 marks)
2. Out of deformation of ONH surface/lamina cribrosa surface (HRT) or the loss of the RNFL (OCT) or loss of visual function (HVF), which one appears first? Write your answer with respect to an evidence from a recent study.
(5 marks)
3. You have the ocular investigation reports of a group of young highly myopic patients with tilted optic disc, peripapillary atrophy and corresponding visual field defects. They are under treatment/no treatment for glaucoma. How is myopia related to glaucomatous VF defect? What do you infer about the nature of the VF defect from the reports? What do you think how likely it is that the visual fields or the optic disc damage will progress further?
(2½+2½+5 = 10 marks)
4. What are the common causes of subluxation of lenses and how will you plan your optical correction for these patients.
(5+5 = 10 marks)
5. A 43-year-old woman presents with gritty irritable eyes and associated photophobia and dryness. She is otherwise fit and well with no significant past medical or ocular history. Slit-lamp examination reveals injected conjunctiva with rose bengal staining over the inferior aspect of the cornea. How would you go about evaluating this patient further? Give your detailed short and long term management option/(s) based on your clinical test findings and justify why.
(5+2½+2½ = 10 marks)
6. Define visual field, explain the types and testing strategies used in Humphrey visual Field.
(10 marks)

7. A 28-year-old man visited your clinic to get your opinion regarding refractive surgery for his myopia. He had his myopia since 5th standard and the power is stable since past 10 years. On examination, his VA is OU 6/6, N6 with -6.00DS. Slit lamp normal, clear media. His CCT was 525 and 515 microns in the right and left eye respectively. However, he has primary open angle glaucoma in both eyes since 5 years and his HVF shows superior arcuate defect and nasal step in the RE and LE with mean deviation values of -11db and -8db respectively, which is stable since the past 3 years. The optic nerve heads also had corresponding defects. He is not under anti-glaucoma medications and have underwent peripheral iridotomy (patent) in both eyes (1 year back). His IOPs are normal at 10 and 12 mm Hg in the RE and LE respectively, gonioscopy angles open till scleral spur in both eyes.

- i) Is this person eligible for LASIK surgery? Give reasons to your answer.
- ii) What all you are going to consider before deciding.

(1+4+5 = 10 marks)

8. Name the types of ptosis, their etiology and tests involved in the evaluation of ptosis.

(5+5+10 = 20 marks)

