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ENGINEERING & MANAGEMENT EXAMINATIONS, JUNE - 2009
OPHTHALMIC & OPTICAL INSTRUMENTATION & PROCEDURE-II
SEMESTER - 4



Time : 3 Hours]

[Full Marks : 70

GROUP - A

(Multiple Choice Type Questions)

1. Choose the correct alternatives for any *ten* of the following : 10 × 1 = 10

i) The ideal test distance for Pelli Robson Contrast sensitivity chart is

- | | |
|-------------|-------------|
| a) 6 metres | b) 3 metres |
| c) 1 metre | d) 33 cms. |

ii) Hardy Rand Rittler test is a

- | | |
|------------------------------|-----------------------------------|
| a) Contrast Sensitivity test | b) Pseudo Isochromatic Chart test |
| c) Visual Acuity test | d) PAM test. |

iii) In Humphrey Automated Perimetry, the unit of illuminance is

- | | |
|-----------|------------|
| a) dB | b) Candels |
| c) Lumens | d) Watt. |

iv) The area applanated by a Goldmann Applanation Tonometer is

- | | |
|------------------------|-------------------------|
| a) 3.06 mm in diameter | b) 3.06 mm ² |
| c) 3.06 mm in radius | d) none of these. |



v) All are the true about Schiottz Tonometer *except*

- a) Indentation Tonometry
- b) Fridenwald Nomogram is necessary to know the IOP value
- c) Topical anesthesia for cornea is necessary
- d) IOP value is more reliable than Goldmann AT.



vi) Normal Arm to Retina circulation time in FFA is

- a) 30 mins
- b) 30 - 45 sec
- c) 12 - 15 sec
- d) 1 - 2 mins.

vii) B-Scan is used to diagnose

- a) axial length
- b) retinal detachment
- c) vitreous detachment
- d) all of these
- e) none of these.

viii) Excimer laser is used in

- a) PRK
- b) capsulotomy
- c) retinal photocoagulation
- d) all of these
- e) none of these.

ix) "Hyperfluorescence" on FFA occurs in

- a) leakage from blood vessels
- b) loss of pigments
- c) fluid accumulation
- d) all of these
- e) none of these.

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- x) Blind spot signifies all, *except*
- a) Physiological scotoma
 - b) Negative scotoma
 - c) Absolute scotoma
 - d) Highest point in hill of vision.



- xi) PRK utilizes
- a) Dye laser
 - b) Excimer laser
 - c) Carbon dioxide laser
 - d) None of these.

GROUP – B

(Short Answer Type Questions)

Write short notes on any *three* of the following.

3 × 5 = 15

2. Uses of fluorescein dye in ophthalmology.
3. Piezoelectric crystal in ultrasound.
4. Excimer laser.
5. Scotoma.
6. Ocular rigidity.

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GROUP - C

(Long Answer Type Questions)

Answer any *three* of the following.



3 × 15 = 45

7. Describe the various parts of a normal HVF report and briefly explain their significance.
8. Discuss the role of 'Argon laser treatment' in ophthalmology, in treating various eye diseases.
9. Mention the differences between static and kinetic perimetry.

Draw and describe three important glaucomatous field defects you may see on a HVF report.

6 + 9

10. Explain the principle of Indentation & Application Tonometry. Discuss the relative advantages and disadvantages of Indentation & Applanation & Non-contact Tonometry.

6 + 9

END