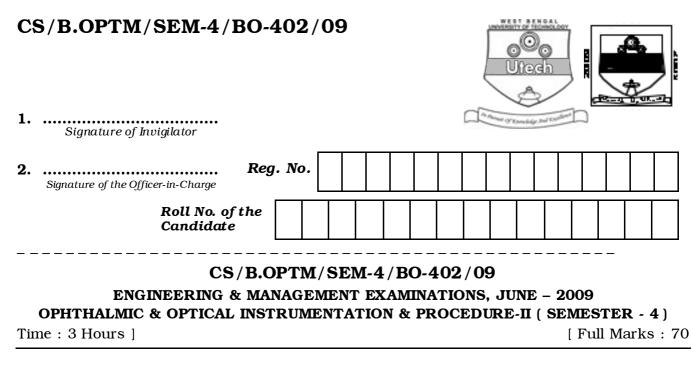
# **OPHTHALMIC & OPTICAL INSTRUMENTATION & PROCEDURE-II** (SEMESTER - 4)



#### **INSTRUCTIONS TO THE CANDIDATES :**

- This Booklet is a Question-cum-Answer Booklet. The Booklet consists of **32 pages**. The questions of this concerned subject commence from Page No. 3.
  a) In **Group A**, Questions are of Multiple Choice type. You have to write the correct choice in the box
  - a) In **Group A**, Questions are of Multiple Choice type. You have to write the correct choice in the box provided **against each question**.
    - b) For Groups B & C you have to answer the questions in the space provided marked 'Answer Sheet'. Questions of Group B are Short answer type. Questions of Group C are Long answer type. Write on both sides of the paper.
- 3. **Fill in your Roll No. in the box** provided as in your Admit Card before answering the questions.
- 4. Read the instructions given inside carefully before answering.
- 5. You should not forget to write the corresponding question numbers while answering.
- 6. Do not write your name or put any special mark in the booklet that may disclose your identity, which will render you liable to disqualification. Any candidate found copying will be subject to Disciplinary Action under the relevant rules.

#### 7. Use of Mobile Phone and Programmable Calculator is totally prohibited in the examination hall.

- 8. You should return the booklet to the invigilator at the end of the examination and should not take any page of this booklet with you outside the examination hall, **which will lead to disqualification**.
- 9. Rough work, if necessary is to be done in this booklet only and cross it through.

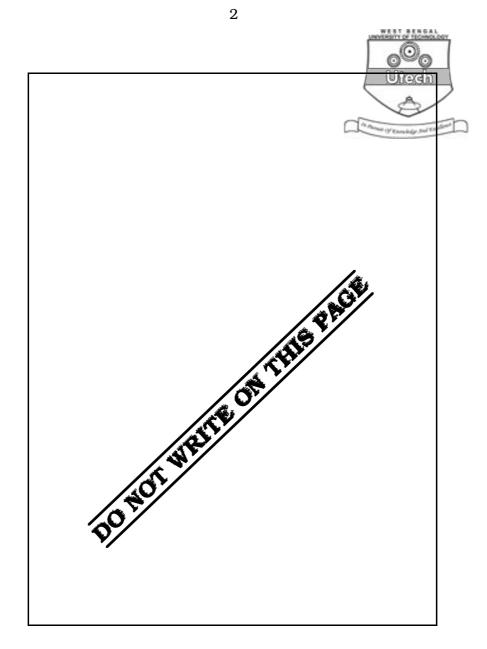
#### No additional sheets are to be used and no loose paper will be provided

FOR OFFICE USE / EVALUATION ONLY Marks Obtained																
			Group	– A					Gro	up –	в	Gro	oup –	С		
Question Number			_												Total Marks	Examiner's Signature
Marks Obtained																

# Head-Examiner/Co-Ordinator/Scrutineer

4491 ( 08/06 )





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

3

Time : 3 Hours ]

#### **GROUP – A**

Full Marks : 70

#### (Multiple Choice Type Questions)

1.	Choo	ose th	e correct alternatives for any <i>ter</i>	ι of the	following :	10 × 1 = 10						
	i)	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)	ii) Hardy Rand Rittler test is a										
		a)	Contrast Sensitivity test	b)	Pseudo Isochromatic Char	rt 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)	iv) The area applanated by a Goldmann Applanation Tonometer is										
		a)	3.06 mm in diameter	b)	$3.06 \text{ mm}^2$							
		c)	3.06  mm in radius	d)	none of these.							

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- 4
- v) All are the true about Schiotz 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.

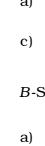
#### vii) B-Scan is used to diagnose

- 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.

## 4491(08/06)



- 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**

5

#### (Short Answer Type Questions)

- Write short notes on any *three* of the following.  $3 \times 5 = 15$
- 2. Uses of fluorescein dye in ophthalmology.
- 3. Piezoelectric crystal in ultrasound.
- 4. Excimer laser.
- 5. Scotoma.
- 6. Ocular rigidity.

## 4491 ( 08/06 )

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6 GROUP – C

(Long Answer Type Questions)

Answer any *three* of the following.

- 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.

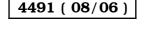
Draw and describe three important glaucomatous field defects you may see on a HVF report. 6+9

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

6 + 9

END

 $3 \times 15 = 45$ 



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