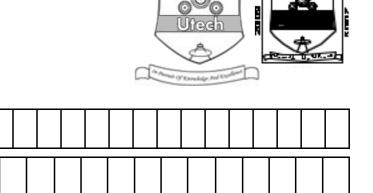
OPHTHALMIC LENS & DISPENSING OPTICS (SEMESTER - 4)

CS/B.OPTM/SEM-4/BO-405/09

Roll No. of the Candidate

Signature of Invigilator

Signature of the Officer-in-Charge



CS/B.OPTM/SEM-4/BO-405/09

ENGINEERING & MANAGEMENT EXAMINATIONS, JUNE - 2009

OPHTHALMIC LENS & DISPENSING OPTICS (SEMESTER - 4)

Time: 3 Hours 1 [Full Marks: 70

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.
- In **Group A**, Questions are of Multiple Choice type. You have to write the correct choice in the box provided against each question.
 - 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.

Reg. No.

- 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

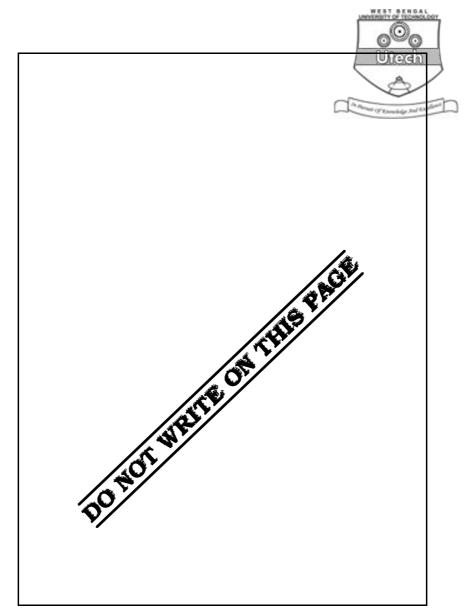
FOR OFFICE USE / EVALUATION ONLY

Marks Obtained

		GIU	up	- A			GIO	up –	D	GIU	up -	- C			
Question Number													Total Marks	Examiner's Signature	Ī
Marks Obtained															

Head-Examiner/Co-Ordinator/Scrutineer





1.



ENGINEERING & MANAGEMENT EXAMINATIONS, JUNE - 2009

OPHTHALMIC LENS & DISPENSING OPTICS

SEMESTER - 4

Time: 3 H	Hours]	[Full Marks : 70

GROUP - A

(Multiple Choice Type Questions)

Cho	Choose the correct alternatives for any ten of the following: $10 \times 1 = 10$					
i)	Whi	ich system measures the PD usi	ng a co	orneal reflex ?		
	a)	Essilor Pupilometer	b)	Topcon PD meter		
	c)	PD rule	d)	All of these.		
ii)	The	new bifocal wearer must				
	a)	keep the head erect and drop	the eye	es to see the floor		
	b)	drop the eyes to read a book				
	c)	drop the chin and head to				
	d)	both (a) and (b) are correct.				
iii)	Tint	ting of lenses decreases the				
	a)	transmittance	b)	reflection		
	c)	scratch resistance	d)	all of these.		
iv)	Whi	ich of the following should be av	oided v	when fitting the high minus	wearer?	
	a)	Squared off corners	b)	High lite lens		
	c)	Thick rim	d)	An antireflective coating.		

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CO	/D.OFINI	/ OFM-4	/DU-400/	/ U



v)	Whe	en the wearer's PD is less than t		ne PD,			
	a)	positive face form is required		Utech			
	b)	negative face form is required		A Parago (5' Kanadalgo Jad Explored			
	c)	pantoscopic tilt is required					
	d)	retroscopic tilt is required.					
vi)	Tou	ghest ophthalmic lens for indus	trial us	ee is			
	a)	CR-39	b)	crown glass			
	c)	polycarbonate	d)	transition.			
vii)	In case of squint, the best way to measure IPD is						
	a)	pupil centre to pupil centre					
	b)	pupil margin to pupil margin					
	c)	medial canthus of one eye to l	he later	al canthus of other eye			
	d)	limbus to limbus.					
viii)	Datı	um Centre refers to the mid-poir	nt of th	e			
	a)	datum length	b)	datum line			
	c)	mid-datum depth	d)	all of these.			
ix)	Poly	methylmethacrylate (PMMA) is	used	to make			
	a)	polycarbonate	b)	CR-39			
	c)	crown glass	d)	none of these.			

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x)	The bridge of a frame projects behind the frame pla	ane so that the area of contact
	with nose lies behind the lens plane is called	000

5

a) Regular bridge

b) Inset bridge

c) Saddle bridge

d) None of these.

xi) The vertex distance required for fitting of bifocals is

a) 14 mm

b) 13 mm

c) 20 mm

d) 23 mm.

xii) To find the CVF value of plastic lens material, the reference material taken is

a) Crown glass

b) CR-39

c) High index plastic

d) None of these.

GROUP - B

(Short Answer Type Questions)

Answer any three of the following.

 $3 \times 5 = 15$

- 2. Write a short note on curve variation factor.
- 3. What are lenticular lenses? Describe the different types, with diagrams.
- 4. Write a short note on importance of nose pads.
- 5. Write a short note on impact resistance lenses.
- 6. Write a short note on D-Bifocals.

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6 **GROUP – C**

(Long Answer Type Questions)

Answer any three of the following.



 $3 \times 15 = 45$

- 7. What do you mean by progressive addition lens (PAL)? Draw a diagram of a PAL and label it. Describe the following :
 - a) large upper circle
 - b) smaller lower circle
 - c) central fitting cross
 - d) addition

e) logo. 15

8. Describe different type of frames available in the market. What are the different criteria to select a frame? Write a short note on Standard Alignment of a frame.

3 + 6 + 6

9. A patient having headache with new glasses comes to you. How will manage the case ? What factors should be considered before selecting frames for the children ?

$$7\frac{1}{2} + 7\frac{1}{2}$$

10. The degree of hardness and softness of PAL depends on four basic design elements. Discuss hard and soft design with reference to the above statement. $7\frac{1}{2} + 7\frac{1}{2}$

END

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