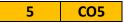
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				MID-1			
S.No	Name of the student	Semeste	Hall ticket No	Q1(10M)	Q2(10M)	Q3(5M)	Q4(5M)
				L1	L2	L4	L6
				CO1	CO2	CO1	CO1
1		III	236026865001	9		4	
2		III	236026865002		9	4	3
3		III	236026865003	8		4	
4		III	236026865004		7	4	
5		III	236026867002	9		3	
6		III	236026867003		8		4
7		III	236026867007	9			4

CO1. Explain about the different aberrations in lenses and discuss the methods of minimi CO2. Understand the phenomenon of interference of light and its formation in (i) Lloyd's CO3. Distinguish between Fresnel's diffraction and Fraunhoffer diffraction and observe th CO4. Explain the various methods of production of plane, circularly and polarized light an CO5. Comprehend the basic principle of laser, the working of He-Ne laser and Ruby lasers

		CO
		Attainm
CO percentage >50%- Attainment Level-1		ents
CO percentage 30%-50%- Attainment Level-2		
		COs
CO percentage <30%- Attainment Level-3	S.No	number
	1	<b>CO1</b>
	2	CO2
	3	CO3
	4	CO4



CO-PO MATRIX						
	PO1	PO2	PO3			
<b>CO1</b>	2	1	3			
CO2	3	3	3			
CO3	3	1	2			
CO4	2	3	1			
CO5	3	1	2			
PO PO						
Attainment	2.22	2.05	2.21			

Aver<mark>age PO Attainm</mark>ent

2.18

## IMENT DEGREE COLLEGE, PORUMAMILLA

## **DEPARTMENT OF PHYSICS** ACADEMIC YEAR 2023-24 **CO-PO MAPPING**

## COURSE 2 OPTICS

		-	MID-2					
Q5(5M)	Q6(5M)	Total marks (20M)	Q1(10M)	Q2(10M)	Q3(5M)	Q4(5M)	Total marks (15M)	Seminar (5M)
L3	L5							
CO2	CO2		CO3	CO4	CO5	CO5		
4		17	9		3		12	
		16		9	4		13	
4		16	9		5		14	4
4		15	8		4		12	
3		15		9		3	12	
		12		8		4	12	4
4		17	8			5	13	

zing them

single mirror due to division of wave front and (ii) Thin films, Newton's rings and Michelsc ne diffraction patterns in the case of single slit and the diffraction grating and to describe t d their detection and the concept of optical activity.

s and their applications in different fields. To understand the basic principles of fibre optic

		PO Attainm			
СО					
Attainm					
ents	Level	contributio	on		
2.28	1	Relevant a	nd sma	II significa	nce
1.86	2	medium			
2	3	strong			
1.86					

3	
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PO4
1
2
3
2
3
2.25

## Program Outcomes (POs):

Graduates of the B.Sc. Physics program will be able to PO1: Demonstrate a deep understanding of physical c PO2: Use scientific methods to design, conduct, analya PO3: Apply critical thinking and analytical reasoning to PO4: Communicate effectively and present scientific io

Assignment (5M)	Extra curricular activites (5M)	Total marks (15M)	Grand total marks(50 M)					
				CO1(15M)	_	Attaninment CO1	CO2(15M)	Percentag e% of CO2
5	4	13	42	13	86	3	4	27
4	5	14	43	7	46	2	9	60
4	4	12	42	12	80	3	4	27
5	5	14	41	4	27	1	11	73
3	4	12	39	12	80	3	3	20
4	3	11	35	4	27	1	8	53
4	4	14	44	13	86	3	4	27
					Average	2.28		Average

In interferometer due to division of amplitude.

:he construction and working of zone plate and make the comparison of zone plate with conv

communication and explore the field of Holography and Nonlinear optics and their applicatio

oncepts, theories, and applications. 2e, and interpret experiments. 5 solve scientific problems. deas clearly.

:

Attaninme		Percentag e% of	Attaninm		Percentag e% of	Attaninm		Percentag e% of
nt CO2	CO3(10M)	CO3	ent CO3	CO4(10M)	CO4	ent CO4	CO5(5M)	CO5
1	9	90	3	0	0	1	3	60
3	0	0	1	9	90	3	4	80
1	9	90	3	0	0	1	5	100
3	8	80	3	0	0	1	4	80
1	0	0	1	9	90	3	3	60
3	0	0	1	8	80	3	4	80
1	8	80	3	0	0	1	5	100
1.86		Average	2		Average	1.86		Average

'ex lens

ns.

Attaninment CO5	
	3
	3
	3
	3
	3
	3
	3
3	