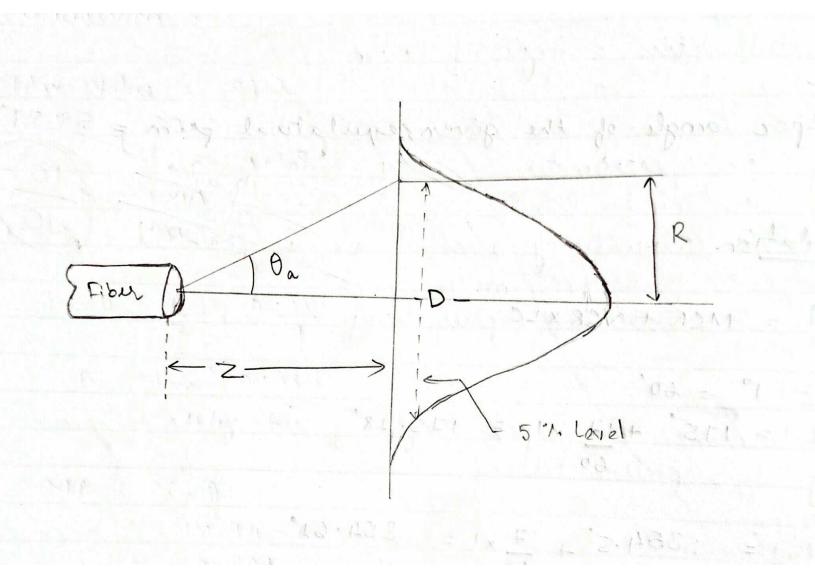
Expt. No4	Page No
	i anoitheast
Optical Fiber Characterization	
	E-13 = enter men
Apparatus available:	511, 12 87.13
- Diode laser	2.7.7
- Optical fiber	18.12 C
- Lason - Fiber coupler	786.6 F F F F F F F F F F F F F F F F F F
- Optical nail	£
- Pinhale photo detector	1386.0 = 3 = 6 mp.
- Power supply for laser and	detector output measure -
- ment unit	22810 Fann 30
THE TANK OF SERVICE THE SECOND SERVICES	75.44
Aim!	
To determine numerical apestus	re of a given multimode
optical fiber.	2795-144 Wig =
	Harrie 10F-0 =
Theory:	
A multi mode optical fiber us	ill only propagate light
that enters the fibre within	n a restain cone,
lenown as the acceptance	e come of the fiber.
The half-angle of this con	ne is called the
acceptance angle, O.	
Acreptance angle 8	$a = tan^{-1}(R z)$
where, D is the diameter	of far field intensity
at 5% intensity level of	the maninum attainal
intensity and z is the	distance between
where, D is the diameter at 5%, intensity level of intensity and Z is the detector and the fiber out	i end.
	7
	Teacher's Signature:



	per the state of the		
7	Micrometer Reading (mm)	Detector of p	<b>D</b>
Imm			
The state of the s	11.5	0	
	12.3	0	
	12.8	0	1.97 mm
	13.55	1.5	
	18.69	5.1	
	13.79	11.5	E MADE TO THE STATE OF THE STAT
	13.85	16.5	
	13.90	22.7	To the second
	14.02	42	De la company
The state of the s	14.05	48.9	
	14.13	Describer	made problem six
Park Target Control	14.20	71	V
	14.25	80	The Park Service Control
ANTON LOCK	14.5	81.3	The state of the s
	14.6	17	The three seasons
	14.65	70.4	
	14.7	66	
V	14.85	60	
	14.9	520	
	15.0	42.5	
	15.2	36	1 by 57 by
	15. 5	15.4	TOSCE
Result :-	15.85	JA) of the optic	10. 10. 701 Al hiber 0. 701

Teacher's Signature: .....

Expt. No.....

Calculations '

$$D = 1.97$$
 $R = \frac{D}{2} = 0.985$ 

NA = Sim B

nothing restor RIA.

11-0/1

Total styled place Dier Rich levit with a return a rection cons

