

INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous) Dundigal, Hyderabad - 500 043

LABORATORY WORK SHEET

					Date: 1610.61.2022
Roll No: 🕸		tName:		PRASANNA	A
Exp No:	కుం	Experiment Nan	ne:	PHOTO DI	ode

DAY TO DAY EVALUATION:

		Algorithm	Source Code	Program Execution	-	
	Preparation	Performance in the Lab	Calculations and Graphs	Results and Error Analysis	Viva	Total
Max. Marks	4	4	4	4	4	20
Obtained	A	4	4	4	4	20

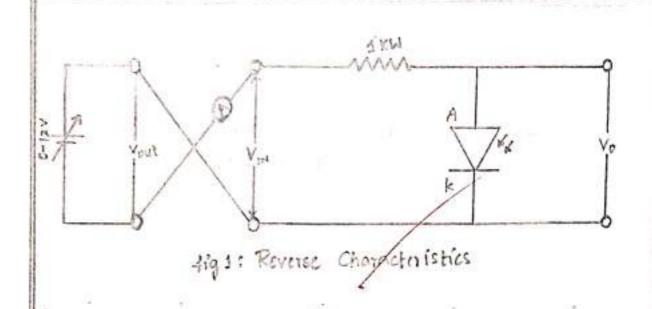
Signature

START WRITING FROM HERE:

PHOTO DIODE

AIM: To draw V-I rcharacteristics of Photo Diede for different light Intensities.

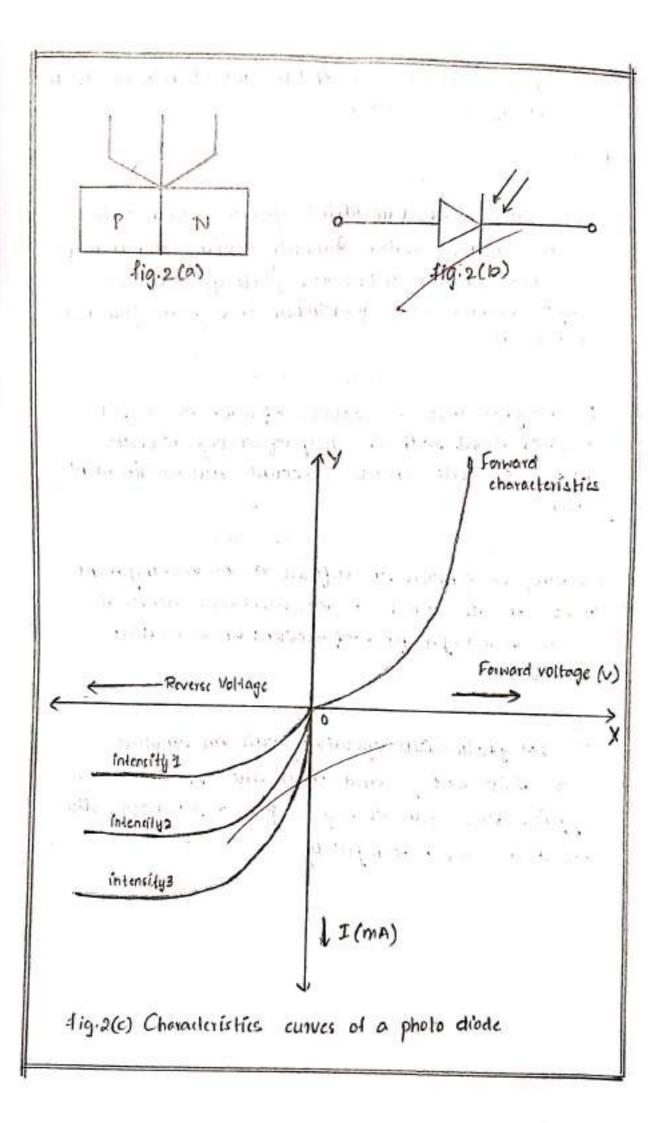
- APPARATUS: 1) Variable power source
 - 2) Ammetes
 - 3) Eductrical bulb
 - 4) Resistors
 - 5) Photo whiche
 - 6) Voltmeter



TABULAR COLUMN:

V₀ (V0[75)	IO (MA)	I. (MA)	J2 (MA)
- 0.02	-0.01	-0.07	-0.23
-0.05	-0.03	- 0-30	-0.68
-0.08	-0.08	-0.76	-0.49
- 0.11	-0.24	-1,46	- 9.76
- 0.14	-0.54	/-2·72,	-4.40
- 0-17	- [-10	- 3.92	- 6-44

P. 3901H1	PRASANNIA	(2195/A6754)		
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				Scale 6
				× 00 (3: 1 unt) = 0.02(V)
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RESULT: V-I reharacteristics of PN and Avalanche diode diode are studied.

VIVA VOCE :

- 1- What is photo diode?

 A photo diode is used ito detect eptical signals. The fractional change in the minority carrier dominated severse bias current due to the photo effect is more easily measurable than fractional change in forward bias severent.
- *) How photo diede is different from LED.

 LED and photodiode are neverse of each other. LED generates eight with the help of scharge rearriors while photodiode generates accounts due to incident photons.
- 3. What ide you mean iby biasing of idiode?

 Biasing in general, is defined as an arrangement made in the idiode for an idectrical idevice to allow a larger flow of rewrient in a recitain direction.
- 4. Explain the principle of PN and Avalanche photo diode
 The PN photo diode operators with an applied
 reverse this voltage and when the reverse trias is
 applied, the space charge region must cover the
 intrinsic region completely.