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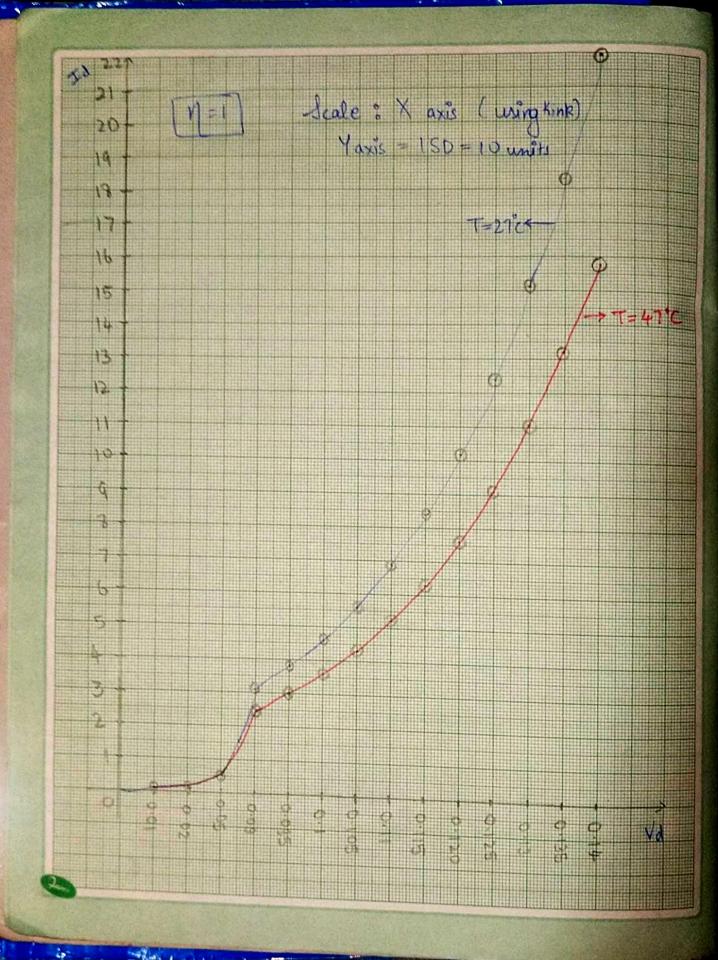
Electronics - Lab Assignment

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20000	Name: Aniket Biswas
	Roll no :- 101915211
	Group 8- K4
	Aim:
	Draw the IV-characteristics of projunction diode
	diode
	? enuberous
	To draw I-V characteristics follow the procedure
	OCTOCOL DI GIVEN BOSONS
	You need to compute current (Id) through the diade for different values of voltage (Vi) across the diade.
	the diode for different values of voltage (vi)
	across the diade!
	To find voltage (Vd) use your noll no and add 3-4
	more data pts. after the last pt with
	To find voltage (Vd) use your shoul no and add 3-4 more data pts. after the last pt with step wire 0.005 that the total no. of voltage bts be 15.
	pts be 15.
)	Compute the diode curvent Id for each value of Vd across the diode using current - voltage diode equ where ID = Is (equal to 1)
	Vd across the diade using current -voltage diade
	egn where Ip=Is(equality)
	TS=OTAH
	T=17°; T=47°
	$q = 1.6 \times 10^{-9} C$ $k = 1.38 \times 10^{-23} T/K$
	V- 1.38 x10 ⁻²³ T/K

Plot the VI characteristics of the diode in forward biased condition for both temp values on same chart.

	Service Thomas 2251 San - Dinonal T						
5	Compute the above set of values and plot						
	Study the above plots & enjoyers the conclusion at end of the assingement for plots pertaining to two different temp & 1						
6							
	pertaining to two different temp & 1						
- 10	My Roll no: 10/9/521) - Olton gremoving repealed digits => 10952						
	-> after removing repeated digits => 10952 -> arcending order -> 01259						
	n=1						
	5.40	Voltage point	Id (in yamp)	Id (in y amps)			
	MA ONE ICO	in volts	LT=27°C)	(T=47°C)			
	1-	0.0	0	0			
	2	0.01	0.0476	0.0436			
	3	0.02	0.116	0.106			
	4	0.05	0.590	0.512			
4	5	0.09	3.140	2.507			
	N 6	0.095	3.831	3.025			
a and	W 167	0.1.	4 669	3.645			
	8	0.105	5.685	4.389			
30 111	9	00111	6.919	5.281			
W oh	10	0.115	8 415	6.350			
	11	0.12	10230	7:631			
	12	0.125	12.432	9.166			
	13	0.13	15.104	11.006			
	14	0.135	18.345	13.212			
	15	0.14	22.277	15.856			
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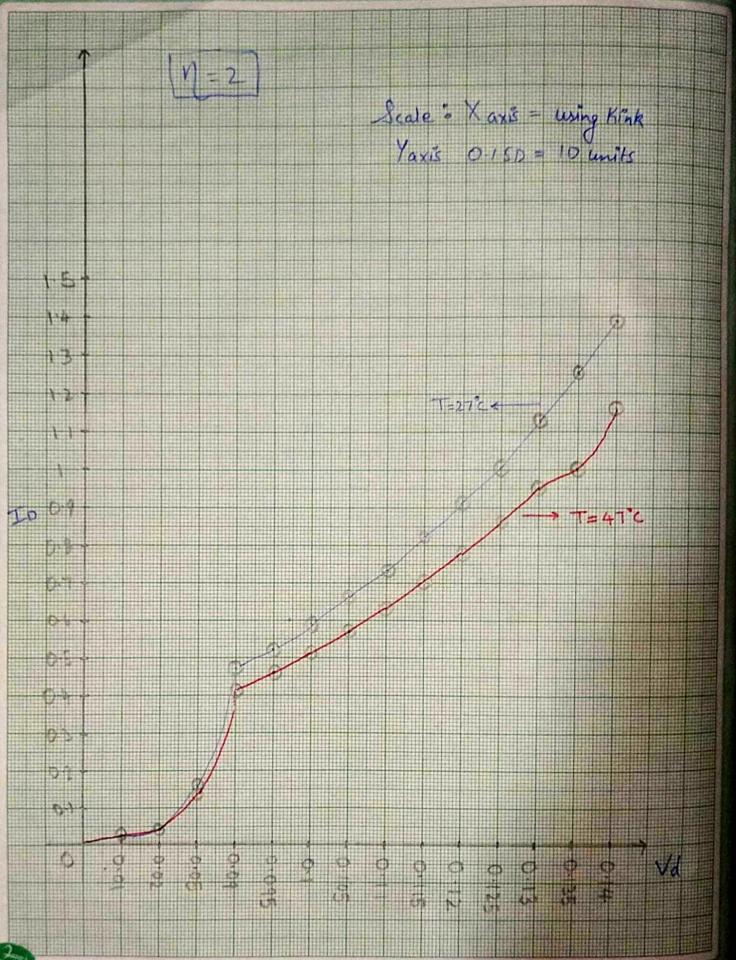


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n =2

	SINO	Voltage point	Id (in yamp)	Id (in y amps)
		eflor m	(T=27°C)	(T=41°C)
	end one	0.0	0	0 1
	2	10.01	0.021	0.019
	3	0.02	0.047	0.043
Y	4	0.05	0.162	0.147
	5	0.09	0.469	0.410
	6	0.095	0.526	0.459
	maid wh	0.100	0.590	0.512
	8	0.105	0.660	0.570
	9	0.11	0.737	0.633
	10	0.115	0.822	0.703
	11	0.12	0.916	0.779
	12	0.125	1.019	0.862
	13	0.13	1-133	0.953
	14	0.135	1.258	1.053
	15	0.14	1.395	1.163



	^						
	Conclusions-						
	74.0						
->	As from above graphs as temperature increases from 300K to 320K diode aurount decreases						
biasing decreases-							
-2	As from above graphs as temperature increase						
	from 300K to 320K d'ode auverent decreases.						
-	- As diode ideality factor increases current in for						
	As diode ideality factor increases current in forward biasing decreases - As from above graphs as ideality factor increases from 1 to 2 diode current decreases						
	As from	above graphs	as ideality fac	hon			
	increases 1	nom 1 to 2 dic	ode current d	ecruases			
	1	414.5					
	PER SEA MONEY						
			31600				
		ALCER ST					
	and the second						
	A Separation	(a)	226.4				
		6/6					