		Det			
		Date			
Ex	pt. No. 6 Clean Energy	Page No.			
	Apparatus Required!-				
	Solar cell (p-n junction diode) light source (100 W bulb)				
	Ammeter				
and proceedings to the same of	Voltmeter				
AND REAL PROPERTY.	Load circuit				
	Connecting wires				
	Commented Willes				
	SLO:-	Å å			
	To draw the P-V characteristics of a solar cell and to				
	find out its efficiency and fill factor.				
	The our is affecting and the facto				
	The maximum power generated: Pm	ex = Vmn Imp			
	The maximum power generated: Pmax = Vmp Imp where Vmp & Imp are the current & voltage values				
	corresponding to maximum power	7 13113			
		5 No.) = 3 A			
	FF = Vmp Imp n = Pn	nax			
	FF = Vmp Imp $\eta = Pn$ Voc Isc $A_c$	_2_			
	Ac - Area of solar cell; 12- Inci	dent intensity			
	Calculation !-				
		Vmp = 1200 mV			
and the same of th	FF = 13 × 1200 = 0.5397	Imp = 13mA			
to have the state of	1700 x 17	Pmax = 15600 mW			
		Ac = 22.75 × 10-4 m²			
Contracting to pro-	$\eta = 15600 \times 10^{-3} = 2.7319$	1/. D = 251 W/m2			
Ange desired	22.75 x 10 <sup>-4</sup> x 251				

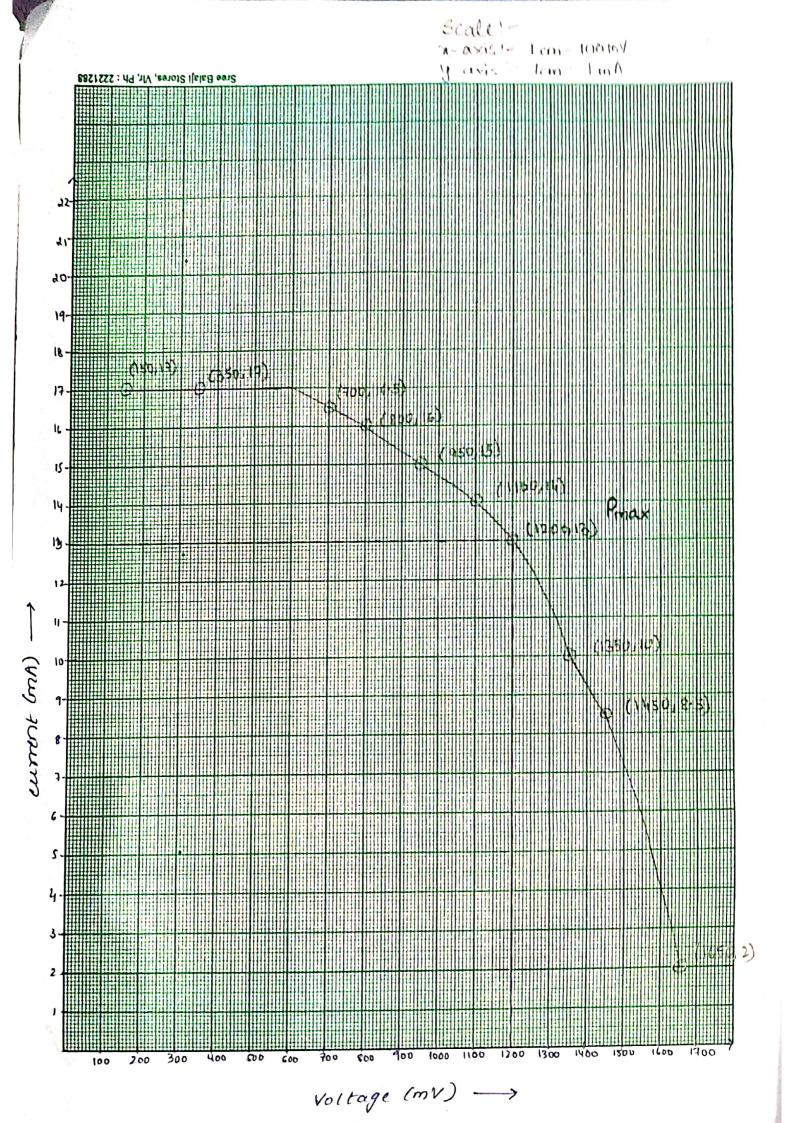
Teacher's Signature : \_\_\_\_

## Distance (x) = 5 cm

		3.35	rest recolucio	23.70013
LOAD RESISTANCE (-Q-)	INTENSITY OF LIGHT 3 CURRENT (MA)	ENTENSITY OF LIGHT & VOLTAGE (MV)	POWER (MW)	lez in.
10	17	150	2550	essayou nee
22	17-	350	5950	1717
47	16.5	700	115050	
<b>5</b> G	16	800	12800	
68	15	950	14250	
1 19820100	20140 00	1100 mar	15400	Constant.
[00]	13 20-	12000	15600	
150	10	1350	13500	
an 180.V	8.5	1450	12325	CADAN SA
1000 les	219110	1650	3300	V sinch

AC = 22.75 × 10-4 m² 251 W/m2

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	Date
pt. No	Page No.
Result	
I-V characteristic of	solar cell were studied and the
maximum power of go	nerated, FF, and efficiency were
calculated from 2 c	nerated, FF, and efficiency were lifferent sources.
Efficiency is 2.7310	17. 2 fill-factor (FF) is 0.539.7
Haximum power for	sm graph) = 15600 mW
2	
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Teacher's Signature:\_