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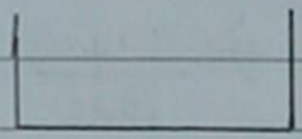
Module 05

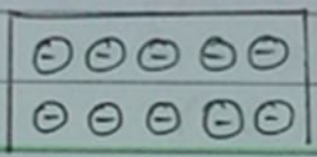
Photo Resistor

* As the light increases, the Resistance decreases.
* It is closely to Intrinsic semiconductor.

1)



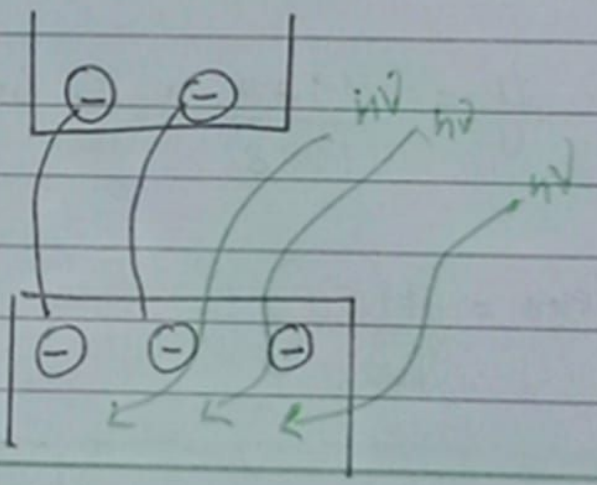
Conduction Band



Valance Band

[Higher Resistance]

2)



[Lower Resistance]

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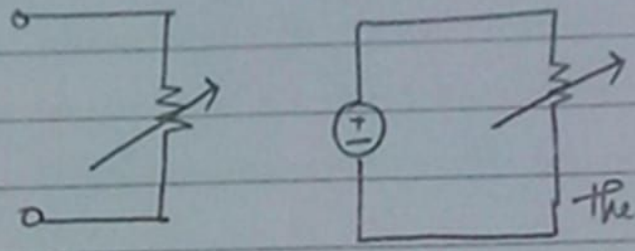
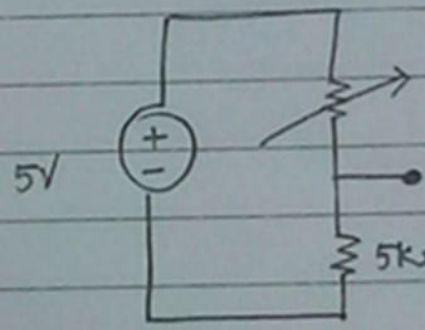
* The photoresistor will have Variable Resistance



* Only the the Resistance can be Measured.



* Here we have another fixed Resistor connected to to sensor because to measure the current Value

$$I = \frac{5}{R_s + 5K}$$

L↑ I↑ R↓
L↓ I↓ R↑

$$V = \left(\frac{5}{Rs + 5k}\right) \cdot 5K$$