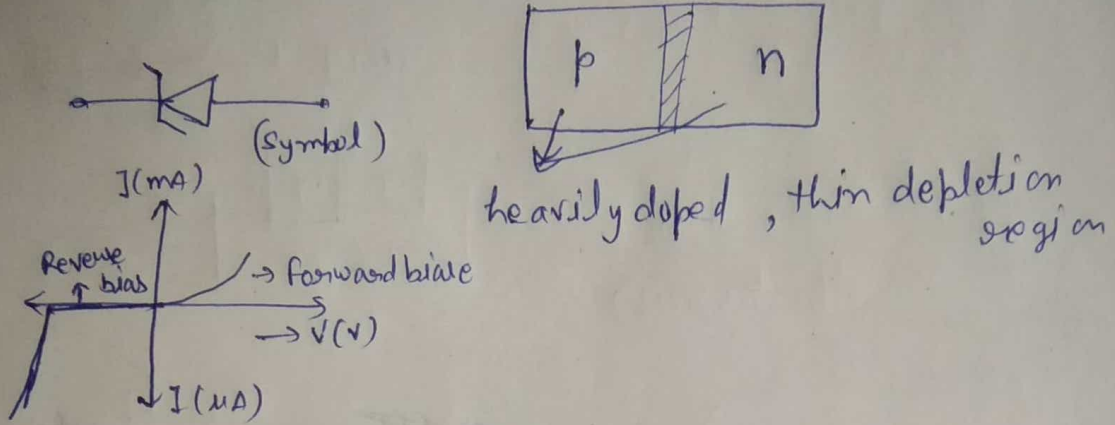


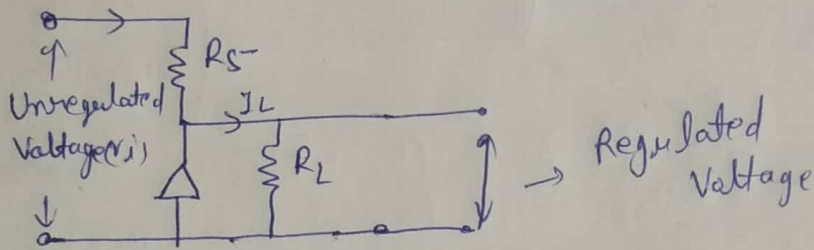
Formula sheet

① Zener diode:-

→ Work under reverse bias in the breakdown region and used as voltage regulator.



Voltage regulator:-



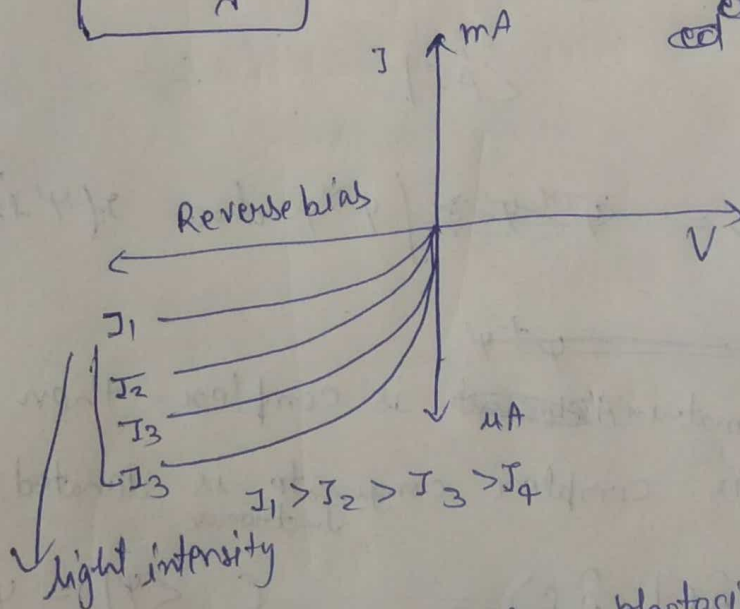
② Photodiode:-

operated under reversed bias,

$$E = \frac{hc}{\lambda}$$

when Energy ($h\nu$) incident $>$ Energy gap (E_g)

↓
electron hole pairs are generated.



(used for detecting photosignal)

③ LED:- (heavily doped p-n junction)

(Under forward bias)

(V-I characteristic of LED is similar to LED).

④ Solar cell:- (p-n junction, generates emf when solar radiation fall on it)

→ works on the principle of photoelectric effect.

I-V chara:

