CURRENT ELECTRICITY

[1). Resistance of a uniform oencluctor of length $_{L.}$ area of cross-section A and resistivity p along its length,. $R =$

(4. Current crertstity J =

(311. Conductance $G =$

l41Drift yelociltv $V_{al} = \frac{eE}{m}\tau = neA$

(4. Current $I = neAv_d$

164Besistivityr is $p = \frac{M}{net}\frac{1}{Cr}$ where er is resistivity.

{711According to Ohm's law j = and V = iR fulobirity of Free electrons

(511 = nep. {M. Thermal resistivity of matibrital. rp =

Ili). Potential difference acrost a cell uring dinharging V = g - it = $\frac{€11.}{R+r}$

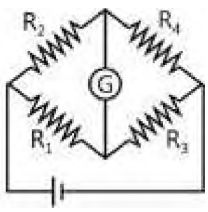
112). Potential difference acros5 a cell during charging V=c-Fir

113] For n cells in series across load R, current through load = $\frac{}{fk\ t\ It}$

(14). For n identical tells in parallel across load R, current through load t = $\frac{SIC}{rIR\ 4}$

(15). Wlienstane kiric180. network

For balanced Wheatstone bridge $R. = R_3$



(16). If unknown resistance X it In the left gap, known resistance R Fs in the right gap of meter bridge and balancing length from left end Is I then X = $\frac{}{7Q\ -}$

{17] Potentiometer

{I) Cornparlsen $emf = \frac{Fg}{g}$ internal resistance of tell $r = \frac{1}{(_2}$ R