GRAVITATION

Newton's universal law of gravitation F = Gre' n .

In vector form, F — $\frac{Gm_{rri}}{r^2}$ 07)

{2 According to Motor's $\frac{\overline{dA}}{dt} = \frac{\bar{L}}{2rn}$

(3). According to Keol'errs law $T^2 = \frac{}{GM} R^3$

Where, T Tme period of revolution. and R e Semi-major axis of the elliptical orbit

Newt n' uniiierSal law of grawitation F = $\frac{mn}{r^2}$

fill. Acceleration due to gravity "e is g = $\frac{GM}{R^2}$

Variation of g at altitude ihr is $gh = g\left(\frac{R_T}{R, + h}\right)^2$

If h IA then, $g_h =$ $\frac{2h}{}$

10. Variation of g at tOth '11 s $R_1 = g\left(1 - \frac{1}{R_e}\right)$

1711. Gravitational potential .aherg.iy U = $W_{AB} = -GMrri\left[\frac{1}{ri} - \frac{1}{ri}\right.$

If, $r_1 =$ $r_2 = r$ = kJ = $\frac{}{rn}$