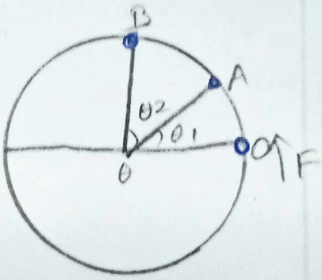
21/9/23

EP

UNIT - I

MECHANICS :



i) Angular displacement (θ)

$\theta_1 - \theta_2 = \theta$ (radian)

ii) Angular Velocity (ω)

$$\omega = \frac{d\theta}{dt}$$

SI unit = rad / s = rad s^{-1}

iii) Angular Acceleration

$$= \frac{d\omega}{dt} = \frac{\text{rad}\cdot s^{-1}}{s} = \text{rad}\, s^{-2}$$

* Momentum $p = mv$
* Newton's 2nd Law $F = ma$

iv) Angular momentum

$$L = I\omega$$

* MULTI PARTICLE SYSTEM :

In a multi particle system having a diff mass with respect to point mass independent or neglegible of mass, shape, size.

System of Particles