

QUES 05:-

A metre scale is moving with uniform velocity. This implies

- (a) the force acting on the scale is zero, but a torque about the centre of mass can act on the scale.
- (b) the force acting on the scale is zero and the torque acting about centre of mass of the scale is also zero.
- (c) the total force acting on it need not be zero but the torque on it is zero.
- (d) neither the force nor the torque need to be zero.

ANS:- Catch the words given in the statement like here it is given that metre scale moves with **uniform velocity**. This implies that velocity remains same throughout the motion. So if the velocity is constant and not changing magnitude or direction wise, it implies $F=0$ and hence if force is zero the acting torque ($R \times F$) about centre of mass would also be zero (**answer=option b**) (Be careful there are cases where net force might be zero but torque about some point may or may not be zero), you will study about it in rotational motion.