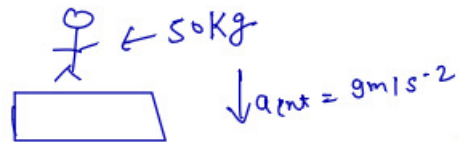# QUES 01:-

A person of mass 50 kg stands on a weighing scale on a lift. If the lift is descending with a downward acceleration of 9 m s^{-2}, what would be the reading of the weighing scale? ($g = 10$ m s^{-2})

$soln :\Rightarrow$

$\leftarrow 50kg$

$\downarrow a_{ent} = 9m/s^{-2}$

Concept of Pseudo force will be applied here.
we will analyze the motion in the frame of lift.

$\Rightarrow$ so as told in lecture a Pseudo force $= -ma$ will be act on the man when we analyze motion in frame of lift.

Force analysis :$\Rightarrow$ $\uparrow$ f$_{pseudo}$ $\uparrow$N

$\downarrow$ mg

{ Remember :$\Rightarrow$ Questions are asked in JEE on weighing machine; weighing machine will measure normal.}

Be careful.

$N = f_{pseudo} - mg$

$= m(9) - m(10)$

$= -m$

$= -50$

$\downarrow \circleddash$ implies direction opposite to what we assumed (hence normal act down word) (obviously).