**Answer on Question #71415-Physics-Mechanics-Relativity**

8, A block of mass 1 kg is resting on a rough horizontal surface with coefficient of friction 02. If an impulse (10i 10) Ns is given to block by hammering the velocity of block just after the given impulse is Ly-axis is along verticall

10 Ns

10 Ns

u x

0.2

**(1) 10 m/s**

(2) 0 m/s

(4) 4 m/s

**Solution**

$$I = P_f - P_i$$

$$P_i = 0$$

$$P_f - P_i = mv$$

The velocity of block just after the given impulse is

$$v = \frac{I}{m} = \frac{10\ Ns}{1\ kg} = 10\frac{m}{s}.$$