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3. A mass of 10kg when suspended from a spring causes a static deflection of 0.01 m. Find the natural frequency of the system.
4. A body of mass 400kg is supported on springs such that its static deflection is 2mm. what should be the value of damping coefficient of a viscous damper to be added to the system in parallel with the springs so that the system is critically damped?
5. Describe the working of the Vibrometer with the help of neat sketch.
6. Derive the frequency equation for longitudinal vibration of a rectangular bar of length l having both ends free.

SECTION-C

7. Differentiate between dynamic vibration absorber and centrifugal pendulum vibration absorbers.
8. Find the fundamental frequency of the system shown in Figure 1.
9. Explain and differentiate between
(a) Coulomb Damping (b) Viscous Damping and (c) Interfacial Damping

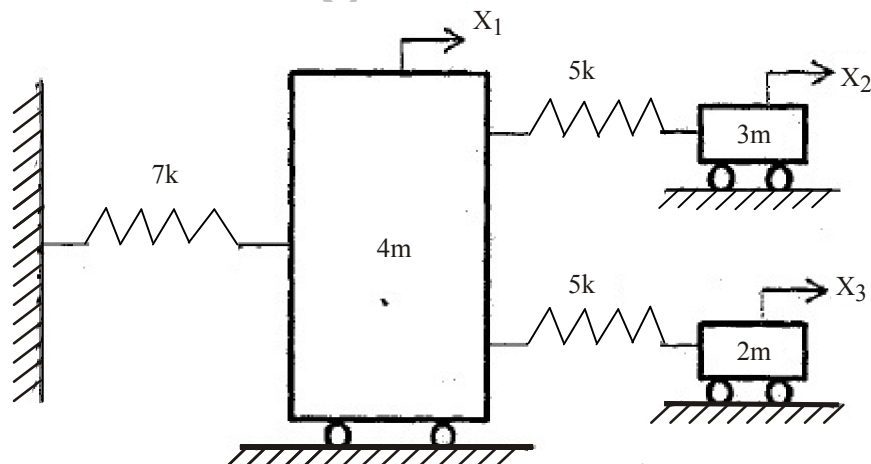


Fig. 1