



**IMPORTANT QUESTIONS FOR SECTION C**

**IX PHYSICS**

1. What is Kinematics? Derive the relation  $2aS = v_f^2 - v_i^2$
2. Derive the relation for Tension in string and acceleration of the bodies when two bodies of different masses are attached with the string which passes over a frictionless pulley such that both the bodies are moving vertically.
3. State Law of Universal Gravitation. Determine the mass of Earth using Law of Gravitation.
4. Write down the principle, construction, working and use of the hydraulic lift.
5. Define coefficient of Linear expansion and Show that  $\alpha = \frac{1}{3} \beta$
6. Derive the relation  $S = v_i t + \frac{1}{2} a t^2$