

# Numericals

Practice. Learn. Succeed

Sub : Science

Grade: IX

Date: .....

Name: .....

ID No.....

1. A stone is dropped from the roof of a five-storey building. The height of each storey is 4 m. Taking  $g = 10 \text{ ms}^{-2}$ , calculate the velocity with which the stone will hit the ground.

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2. A coin is dropped from a tower. It moves through a distance of 24.5 m in the last second before hitting the ground. Find the height of the tower.

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3. An apple is dropped from the top of a multi-storey building. At the same instant, an arrow is shot vertically upwards from the ground with a velocity 11 m/s. The arrow hits the apple after 2 s. Calculate the height of the building.

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4. Calculate the acceleration due to gravity on the surface of a neutral satellite of mass  $7.4 \times 10^{22} \text{ kg}$  and radius  $1.74 \times 10^6 \text{ m}$ ,  $G = 6.7 \times 10^{-11} \text{ Nm}^2\text{kg}^{-2}$

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