

PART 1 - PHYSICS

Topic : Laws of motion

SECTION-B : (Maximum Marks : 8)

This section contains **TWO** questions.

The answer to each question is a **NUMERICAL VALUE**.

For each question, enter the correct numerical value of the answer (in decimal notation, truncated / rounded-off to the **SECOND DECIMAL PLACE**; e.g. 6.25, 7.00, -0.33, -.30, 30.27, -127.30) in the place designated to enter the answer.

Answer to each question will be evaluated according to the following marking scheme :

Full Marks : +4 If **ONLY** the correct answer is entered;

Zero Marks : 0 In all other cases.

1. A person sitting inside an elevator performs a weighing experiment with an object of mass 50 kg. Suppose that the variation of the height y (in m) of the elevator, from the ground, with time t (in s) is given by $y = 8 \left[1 + \sin \left(\frac{2\pi t}{T} \right) \right]$, where $T = 40\pi$ s. Taking acceleration due to gravity, $g = 10 \text{ m/s}^2$, the maximum variation of the object's weight (in N) as observed in the experiment is ____

[JEE Advanced 2025 Paper 1]

Scan or tap for the
full solution 

2. A projectile of mass 200 g is launched in a viscous medium at an angle 60° with the horizontal, with an initial velocity of 270 m/s. It experiences a viscous drag force $\vec{F} = -c\vec{v}$ where the drag coefficient $c = 0.1 \text{ kg/s}$ and $\vec{v}$ is the instantaneous velocity of the projectile. The projectile hits a vertical wall after 2 s. Taking $e = 2.7$, the horizontal distance of the wall from the point of projection (in m) is ____

[JEE Advanced 2025 Paper 2]

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full solution 

Space for Rough Work

JEE ADVANCED LAWS OF MOTION — PYQS

Test Pattern : JEE (Advanced)

ANSWER KEY**SECTION-B**

Ques.	1	2									
Ans.	2	167 to 171									