

PART 1 - PHYSICS

Topic : Laws of motion

SECTION-B : (Maximum Marks : 4)

This section contains **ONE** question.

The answer to each question is a **NON-NEGATIVE INTEGER**.

For each question, enter the correct integer corresponding to the answer 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

Space for Rough Work

JEE ADVANCED LAWS OF MOTION — FREE BODY
DIAGRAMS, CONNECTED BODIES, PULLEYS, LIFTS
AND WEDGES — PYQS

Test Pattern : JEE (Advanced)

ANSWER KEY

SECTION-B																									
Ques.	1																								
Ans.	2																								