

PART 1 - PHYSICS**Topic : Laws of motion****SECTION-1 : (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-1																											
Ques.	1																										
Ans.	2																										