

PYQSide

NEET OSCILLATIONS — FORCE LAW FOR SHM — PYQS

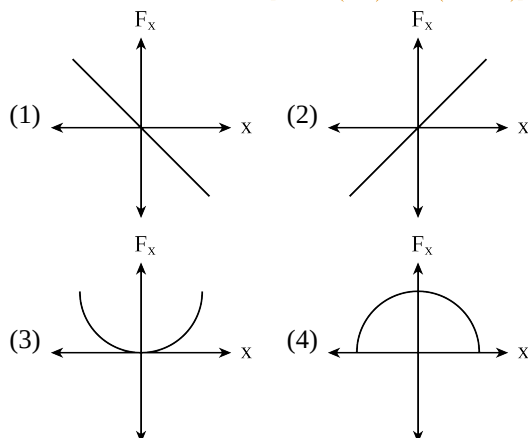
Max. Marks: 12

Questions: 3

Section A (MCQ)

- Q.1** The restoring force of a spring with a block attached to the free end of the spring is represented by

[NEET (UG) 2022 (Phase 2)]



Scan or tap for the full solution



- Q.2** Which one of the following equations of motion represents simple harmonic motion ? where k , k_0 , k_1 and a are all positive. [AIPMT 2009]

- (1) Acceleration = $-k(x + a)$
 (2) Acceleration = $k(x + a)$
 (3) Acceleration = $-\omega^2 x$
 (4) Acceleration = $-k_0 x + k_1 x^2$

Scan or tap for the full solution



- Q.3** A rectangular block of mass m and area of cross-section A floats in a liquid of density ρ . If it is given a small vertical displacement from equilibrium it undergoes oscillation with a time period T , then [AIPMT 2006]

- (1) $T \propto \frac{1}{\sqrt{m}}$ (2) $T \propto \sqrt{\rho}$
 (3) $T \propto \frac{1}{\sqrt{A}}$ (4) $T \propto \frac{1}{\rho}$

Scan or tap for the full solution



ANSWER KEY

Ques.	1	2	3												
Ans.	1	3	3												