

PYQSide

NEET WORK, ENERGY AND POWER — CONSERVATIVE AND NON-CONSERVATIVE FORCES — PYQS

Max. Marks: 12

Questions: 3

Section A (MCQ)

- Q.1** The potential energy of a particle in a force field is $U = \frac{A}{r^2} - \frac{B}{r}$ where A and B are positive constants and r is the distance of particle from the centre of the field. For stable equilibrium, the distance of the particle is [AIPMT 2012 (Prelims)]

- (1) $\frac{B}{2A}$ (2) $\frac{2A}{B}$ (3) $\frac{A}{B}$ (4) $\frac{B}{A}$

Scan or tap for the full solution



- Q.2** The potential energy of a system increases if work is done [AIPMT 2011 (Prelims)]

- (1) upon the system by a nonconservative force
(2) by the system against a conservative force.
(3) by the system against a nonconservative force.
(4) upon the system by a conservative force.

Scan or tap for the full solution



- Q.3** A body of mass 1 kg is thrown upwards with a velocity 20 m s^{-1} . It momentarily comes to rest after attaining a height of 18 m. How much energy is lost due to air friction? ($g = 10 \text{ m s}^{-2}$) [AIPMT 2009]

- (1) 30 J (2) 40 J (3) 10 J (4) 20 J

Scan or tap for the full solution



ANSWER KEY

Ques.	1	2	3									
Ans.	2	2	4									