



1. Length of a simple pendulum executing simple harmonic motion is increased by 21%. The percentage increase in the time period of the pendulum of increased length is
- A) 10%
 - B) 1%
 - C) 21%
 - D) 42%
2. If a simple harmonic oscillator has got a displacement of 0.02 meter and acceleration equal to 2 m/s^2 at any time, the angular frequency of the oscillator is equal to
- a) 10 rad/s
 - b) 1 rad/s
 - c) 100 rad/s
 - d) 0.1 rad/s
3. If a hole is bored along the diameter of the earth and a stone is dropped into the hole, then
- a) The stone reaches the centre of the earth and stops there.
 - b) The stone reaches the other side of the earth and stops there.
 - c) The stone executes simple harmonic motion about the centre of the earth.
 - d) The stone reaches the other side of the earth and escapes into space.
4. Energy is not carried by:
- mm) Longitudinal progressive waves
 - nn) Electromagnetic waves
 - oo) Transverse progressive waves
 - pp) Stationary waves
5. The equation of wave traveling along string is $y = 3\cos\pi(100t - x)$ in C.G.S. unit. The wavelength is
- a) 1 m
 - b) 2 cm
 - c) 2m
 - d) 5 cm
6. The standing waves can be produced
- a) on a string clamped at both the ends
 - vv) on a string clamped at one end and free at the other end.
 - b) when the incident wave gets reflected from a wall.
 - c) when two identical waves with a phase difference of K are moving in the same direction.

