

Simple Harmonic Motion and Waves

Sr	Questions	Answers Choice
1	The waves, which are used to detect the broken bones, are called:	A. Light waves B. x-rays C. Sound waves D. both b,c,
2	If mass of bob of a simple pendulum is doubled, its time period.	A. is doubled B. become four times C. remains same D. none of the above
3	Shock absorbers in automobiles are one practical application of:	A. SHM B. Random motion C. Damped motion D. None of these
4	The time period of frequency and time period is equal to:	A. v B. 1 C. 0 D. λ
5	If the mass of the bob of a pendulum is increased by a factor of 3, the period of the pendulum's motion will:	A. T increased by a factor of 2 B. Remain the same C. T decreased by a factor of 2 D. T decreased by factor of 4
6	The part of waves at which particles of the medium are below the normal position are called:	A. Extreme position B. Crest C. Trough D. None of these
7	The speed of waves can be calculated by:	A. $v = \lambda f$ B. $d = vt$ C. $f = \lambda v$ D. $T = f$
8	To get a design on the computer screen by moving a pointer with the help of mouse is called:	A. word processing B. graphic designing C. data managing D. telecommunication
9	The ratio of external force applied on the spring to displacement is called:	A. Hook's law B. Constant C. Spring constant
10	The maximum displacement from mean position is called:	A. Maximum height B. Time period C. Amplitude D. Interval
11	Program up gradation refers to:	A. Program enhancement B. Program identification C. Program development D. Program implementation
12	The formula of time period of simple pendulum is:	A. $T = 2\pi \sqrt{L/g}$ B. $T = 2\pi (L/g)$ C. $T = 2\pi \sqrt{1/g}$ D. $T = 1/2\pi \sqrt{L/g}$
13	Which of the following characteristics of a wave is independent of the others:	A. speed B. frequency C. amplitude D. wavelength
14	The number of wavelength of waves passing through a point in one second is called:	A. Time period B. Cycle C. Frequency D. Wavelength

		D. None of these
15	First voice signal was transmitted in the form of electrical signal in:	<p>A. 1870</p> <p>B. 1875</p> <p>C. 1876</p> <p>D. 1880</p>
16	If a wave moves in a slinky spring with frequency of 4Hz and wave length of 0.4m, the speed of the wave will be:	<p>A. 1.0 ms⁻¹</p> <p>B. 1.2 ms⁻¹</p> <p>C. 1.4 ms⁻¹</p> <p>D. 1.6 ms⁻¹</p>
17	A large ripple tank with a vibrator working at a frequency of 30 Hz produces 25 complete waves in a distance of 50 cm. The velocity of the wave is:	<p>A. 53 cms⁻¹</p> <p>B. 60 cms⁻¹</p> <p>C. 750 cms⁻¹</p> <p>D. 1500 cms⁻¹</p>
18	The energy is transferred from one place to another:	<p>A. Through matter</p> <p>B. Through waves</p> <p>C. both a and b</p> <p>D. None of these</p>
19	In simple Harmonic motion, the acceleration of the body is _____ proportional to the displacement.	<p>A. Inversely</p> <p>B. Directly</p> <p>C. Equally</p> <p>D. None of these</p>
20	Which of the following is an example of simple harmonic motion ?	<p>A. Motion of the simple pendulum</p> <p>B. The motion of ceiling fan</p> <p>C. The spinning of the Earth on its axis</p> <p>D. A bouncing ball on a floor</p>