

Simple Harmonic Motion and Waves

Sr	Questions	Answers Choice
1	Waves transfer:	<p>A. Energy</p> <p>B. Wavelength</p> <p>C. Velocity</p> <p>D. frequency</p>
2	The oscillations of a system in the presence of _____ force are called amp oscillations:	<p>A. Resistive force</p> <p>B. Attractive force</p> <p>C. Both of these</p> <p>D. None of these</p>
3	If the distance is x of mass 'm' attached with a spring then restoring force is:	<p>A. $F = ma$</p> <p>B. $F = kx$</p> <p>C. $F = mx$</p> <p>D. $F = m/a$</p>
4	Typographical errors in BASIC statements are:	<p>A. Runtime errors</p> <p>B. Logical Errors</p> <p>C. Syntax errors</p> <p>D. Execution errors</p>
5	The product of frequency (f) and wavelength λ is equal to:	<p>A. Time period</p> <p>B. Amplitude</p> <p>C. Wave speed</p> <p>D. Wave energy / frequency</p>
6	Which rays are used to send or receive digital information along optical fibre:	<p>A. infrared</p> <p>B. alpha rays</p> <p>C. beta rays</p> <p>D. mechanical</p>
7	The unit of frequency is:	<p>A. Hertz</p> <p>B. Vibration per second</p> <p>C. Cycle per second</p> <p>D. all a, b, c</p>
8	If the mass of the bob of a pendulum is increased by a factor of 3, the period of the pendulum's motion will:	<p>A. Be increased by a factor of 2</p> <p>B. Remain the same</p> <p>C. Be decreased by a factor of 2</p> <p>D. Be decreased by factor of 4</p>
9	At extreme position potential energy of the pendulum is	<p>A. Maximum</p> <p>B. Minimum</p> <p>C. a and b</p> <p>D. zero</p>
10	The instrument used to study the properties of waves is called:	<p>A. Ripple tank</p> <p>B. Stroboscope</p> <p>C. Pendulum</p> <p>D. None of these</p>
11	Mathematical formula of spring constant is:	<p>A. F/x</p> <p>B. X/F</p> <p>C. F/t</p> <p>D. F/m</p>
12	If the mass of the bob of a pendulum is increased by a factor of 3. The period of the pendulum's motion will:	<p>A. Be increased by a factor 2</p> <p>B. Remain the same</p> <p>C. Be decreased by a factor of 2</p> <p>D. Be decreased by a factor of 4</p>
13	Which of the following is a method of energy transfer.	<p>A. Conduction</p> <p>B. Radiation</p>

		<p>C. wave motion</p> <p>D. all of these</p>
14	The energy is transferred from one place to another:	<p>A. Through matter</p> <p>B. Thouth waves</p> <p>C. both a and b</p> <p>D. None of these</p>
15	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>
16	The waves, which are used to detect the broken bones, are called:	<p>A. Light waves</p> <p>B. x-rays</p> <p>C. Sound waves</p> <p>D. both b, c,</p>
17	The unit of spring constnat is:	<p>A. m</p> <p>B. kg</p> <p>C. Nm^2</p> <p>D. Nm^{-1}</p>
18	With broadband information can be loaded:	<p>A. $\text{In } 1 \text{ min}$</p> <p>B. $\text{In } 1 \text{ sec}$</p> <p>C. $\text{In } 1 \text{ day}$</p> <p>D. $\text{In } 2 \text{ days}$</p>
19	A large ripple tank with a vibrator working at a frequency of 30 Hz produces 25 complete wae in distance of 50 cm. The velocity of the wave is:	<p>A. 54 cms^{-1}</p> <p>B. 60 cms^{-1}</p> <p>C. 750 cms^{-1}</p> <p>D. 1500 cms^{-1}</p>
20	The time required to complete one round trip (vibration) abut mena position is called:	<p>A. Time period</p> <p>B. Freqency</p> <p>C. Amplitude</p> <p>D. None of these</p>