

Simple Harmonic Motion and Waves

Sr	Questions	Answers Choice
1	A device which has two ways of communication is:	A. television B. radio C. hard disk D. mobile phone
2	Time period is reciprocal of:	A. Frequency B. Cycle C. Wavelength D. Amplitude
3	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. Be increased by a factor 2 B. Remain the same C. Be decreased by a factor of 2 D. Be decreased by a factor of 4
4	Shock absorbers in automobiles are one practical application of:	A. SHM B. Random motion C. Damped motion D. None of these
5	Typographical errors in BASIC statements are:	A. Runtime errors B. Logical Errors C. Syntax errors D. Execution errors
6	Waves transfer:	A. Energy B. Wavelength C. Velocity D. frequency
7	If the mass of a spring mass system is doubled, its time period becomes:	A. $\sqrt{2} T$ B. $T/2$ C. $\sqrt{T/2}$ D. $T/\sqrt{2}$
8	BASIC is a:	A. High level language B. Low level language C. Assembly language D. Machine Language
9	waves whose speed is equal to speed of light are:	A. X-rays B. sound rays C. electromagnetic waves D. shock waves
10	The instrument used to study the properties of waves is called:	A. Ripple tank B. Stroboscope C. Pendulum D. None of these
11	At mean position of pendulum, the potential energy of the pendulum is:	A. Maximum B. Minimum C. Much more D. Both a and c
12	Which of the following characteristics of a wave is independent of the others:	A. speed B. frequency C. amplitude D. wavelength
13	The speed of waves can be calculated by:	A. Vt B. $d \times t$ C. $f \lambda$ D. Tf
14	A large ripple tank with a vibrator working at a frequency of 30 Hz produces 25 complete waves in distance of 50 cm. The velocity of the wave is:	A. 54 cms B. 60 cms C. 750 cms D. 1500 cms

15	The time period of simple pendulum can be calculated by:	A. $T = 2\pi\sqrt{L/g}$ B. $T = 2\pi\sqrt{m/k}$ C. $T = 2\pi\sqrt{g/L}$ D. $T = 2\pi\sqrt{k/m}$
16	If the length of a simple pendulum is halved its time period will become:	A. $T/2$ B. $T = T/\sqrt{2}$ C. $\sqrt{2}T$ D. $2T$
17	Wave equation is defined as:	A. $f = T\lambda$ B. $f = v\lambda$ C. $v = 2f\lambda$ D. $v = f\lambda$
18	Which of the following is a method of energy transfer:	A. <p>Conduction</p> B. <p>Radiation</p> C. <p>Wave motion</p> D. <p>All of these</p>
19	The S.I unit of Spring constant is:	A. Nm B. N C. Nm^{-1} D. Ns
20	The maximum displacement from mean position is called:	A. Maximum height B. Time period C. Amplitude D. Interval