Simple Harmonic Motion and Waves

Sr	Questions	Answers Choice
1	Which of the following is a method of energy transfer.	A. Conduction B. Reatiation C. wave motion D. all of these
2	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 of 2<o:p></o:p> B. Remain the same<o:p></o:p> C. Be decreased by a factor of 2<o:p></o:p> D. Be decreased by factor of 4<o:p></o:p>
3	The instrument used to study the properties of waves is called:	A. Ripple tank B. Stroboscope C. Pendulum D. None of these
4	It mass of bob o a simple pendulum is doubled, its time period.	A. is doubled B. become four times C. remains same D. none of the above
5	During S.H.M acceleration of the body is maximum at:	A. Mean position B. Extreme positions C. Between mean & Extereme D. None of these
6	First voice signal was transmitted in the form of electrical signal in:	A. 1870<o:p></o:p> B. 1875<o:p></o:p> C. 1876<o:p></o:p> D. 1880<o:p></o:p>
7	The S.I unit of Spring constant is:	A. Nm B. N C. Nm-1 D. Ns
8	If the length of a simple pendulum is halved its time period will become:	A. T/2 B. T = T/√2 C. √2T D. 2T
9	Which of the following is an example of simple harmonic motion:	A. Motion of a simple pendulum<o:p></o:p> B. The motion of ceiling fan<o:p></o:p> C. The spinning of the earth on its axis<o:p></o:p> D. A bouncing ball on a floor<o:p></o:p>
10	The time required to complete one round trip (vibration) abut mena position is called:	A. Time period B. Freqency C. Amplitude D. None of these
11	Waves transfer:	A. Energy<o:p></o:p> B. Wavelength<o:p></o:p> C. Velocity<o:p></o:p> D. frequency

		D. frequency
12	Which of the following characteristics of a wave is independent of the others:	A. speed B. frequency C. amplitude D. wavelength
13	Which of the following is a method of energy transfer:	A. Conduction<o:p></o:p> B. Radiation<o:p></o:p> C. Wave motion<o:p></o:p> D. All of these<o:p></o:p>
14	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:	A. 54 cms⁻¹ B. 60 cms⁻¹ C. 750 cms⁻¹ D. 1500 cms⁻¹
15	The force applied on the mass attached with a spring is represented by:	A. F_a B. F_c C. F_{ext} D. F_s
16	At mean position of pendulum, the potential energy of the pendulum is:	A. Maximum B. Minimum C. Much more D. Both a and c
17	Which of the following devices can be used to produce both a transverse and longitudinal waves:	A. A string<o:p></o:p> B. A ripple tank<o:p></o:p> C. A helical spring (slinky)<o:p></o:p> D. A tuning fork<o:p></o:p>
18	The oscillations of a system in the presence of _____ force are called amp oscillations:	A. Resistive force B. Attractive force C. Both of these D. None of these
19	The time period of mass attached with a spring can be calculated by:	A. T = 2π√L/g B. T = 1/T C. T =2π√g/L D. T = 2π√m/k
20	waves whose speed is equal to speed of light are:	A. X-rays B. sound rays C. electromagnetic waves D. shock waves