

ECAT Pre General Science Physics Chapter 8 Waves

Sr	Questions	Answers Choice
1	The waves which propagate through the oscillations of material particles are known as:	A. Mechanical waves B. Electromagnetic waves C. Any of them D. None of them
2	A traveling wave has a shape of:	A. Square wave B. Sine wave C. Parabola D. hyperbola
3	A physical system under going forced vibrations is known as	A. Simple harmonic oscillator B. Compound harmonic oscillator C. Physical harmonic oscillator D. driven harmonic oscillator
4	Data transmitted along glass-fiber cables is in the form of pulses of monochromatic red light each of duration 2.5 ns. Which of the following is the best estimate of the number of wavelength in each pulse?	A. 10^3 B. 10^6 C. 10^9 D. 10^{12}
5	If two waves of length 50 cm and 51 cm produced 12 beats per second, the velocity of sound is	A. 360 m/s B. 306 m/s C. 331 m/s D. 340 ms
6	Which type of wave can be set up in solids	A. longitudinal waves B. transverse waves C. both of them D. none of them
7	Fidelity refers to	A. Reproduction of original sound B. Reproduction of original image C. Reproduction of music D. Reproduction of a CD from original copy
8	In compressional wave, the layer of medium having reduced pressure is called:	A. Compression B. Elasticity C. Node D. Rarefaction
9	Associated with the motion of a driven harmonic oscillator, there is a very striking phenomenon, know as	A. waves B. beat C. interference D. resonance
10	If the length of a simple pendulum is 0.25 m its time period would be	A. 1.0 s B. 2.0 s C. 3.0 s D. 4.0 s
11	When sound waves travel from air to water which of these remains constant?	A. Velocity B. Frequency C. Wavelength D. All the above
12	The expression of Hook's law is	A. $F=ma$ B. $F=kx$ C. $F= -kx$ D. $-kx=ma$
13	A stationary sound wave has frequency 165 Hz (speed of sound in air = 330 m/s) then distance between two consecutive nodes is	A. 2 m B. 1 m C. 0.5 m D. 4 m
14	It two waves of amplitude 'a' produce a resultant wave of amplitude a, then the phase difference between them will be	A. 60° B. 90° C. 120° D. 180°

size: small; >
D. 180

15	The wave motion set up in any medium depends upon:	A. Elasticity B. Inertia C. Density D. All of these
16	The wave form of S.H.M will be	A. square wave B. sine wave C. rectified wave D. saw-tooth wave
17	When two progressive waves of nearly same frequencies superimpose and give rise to beats, then	A. Frequency of beat changes with time B. Frequency of beat changes with location of observer C. All particles of medium vibrate simple harmonically with frequency equal to the difference between frequencies of component waves D. Amplitude of vibration of particles at any point changes simple harmonically with frequency equal to difference between two component waves
18	When a mass 'm' is pulled slowly through a distance ' x_0 ', the elastic potential energy of the spring would be	A. $P.E = Kx^2$ B. $P.E = \frac{1}{2}Kx$ C. $P.E = \frac{1}{2}Kx^2$ D. $P.E = Kx^2$
19	When a mass 'm' is pulled slowly, the spring stretches by an amount x_0 , then the work done will be	A. $W = Kx$ B. $W = \frac{1}{2}Kx$ C. $W = \frac{1}{2}Kx^2$ D. $W = 4Kx$
20	To hear a clear echo, the reflecting surface must be at a minimum distance of	A. 10 m B. 16.5 m C. 33 m D. 66 m