Physics ECAT Pre Engineering Chapter 8 Waves

Sr	Questions	Answers Choice
1	If the amplitude of sound is doubled and the frequency reduced to one-fourth, the intensity of sound at the same point will be	A. Increasing by a factor of 2 B. Decreasing by a factor of 2 C. Decreasing by a factor of 4 D. Unchanged
2	If the displacement of a body executing S.H.M is plotted against time, then the curve is known as	A. frequency of S.H.M B. period of S.H.M C. wave form D. none of them
3	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. 10³ B. 10⁶ C. 10⁹ D. 10¹²
4	The ratio of velocity of sound in air at 4 atm pressure and that at 1 atm pressure would be	A. 1 : 2 B. 4 : 1 C. 1 : 4 D. 2 : 1
5	At 'resonance' the transfer of energy from deriving source to the oscillator is	A. maximum B. minimum C. zero D. none of them
6	The loudness and pitch of a sound note depends on	A. Intensity and velocity B. Frequency and velocity C. Intensity and frequency D. Frequency and number of harmonic
7	The characteristic of a body executing S.H.M is that its acceleration is	A. inversely proportional to displacement B. directly proportional to displacement C. independent of displacement D. equal to zero
8	The wave motion set up in any medium depends upon:	A. Elasticity B. Inertia C. Density D. All of these
9	Which of the following is not mechanical wave?	A. Sound wave B. Light wave C. wave produced in spring D. None of them
10	Example of progressive wave is	A. transverse waves B. longitudinal waves C. both of them D. none of them
11	When half of the cycle of a body executing S.H.M is completed, then the phase of the vibration will be	A. 45° B. 90° C. 135° D. 180°
12	For transmission of both transverse and longitudinal waves, we can use:	A. Solid B. Gas C. Plasma D. None of these
13	Resonance occurs when one of the natural frequencies of vibration of the forced or driven	A. greater than the frequency of applied force B. equal to the frequency of applied

13	harmonic oscillator	force C. less than the frequency of applied force D. all of them
14	The waves which propagate out in the space due to oscillations of electric and magnetic fields are called:	A. Mechanical waves B. Electromagnetic waves C. Matter waves D. All of them
15	Smaller the damping, greater will be the	A. frequency B. wavelength C. amplitude D. none of them
16	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
17	The phase determines the	A. displacement B. amplitude C. frequency D. state of motion of vibrating body
18	The waves moving from a sitar to a listener in air are	A. Longitudinal progressive B. Longitudinal stationary C. Transverse progressive D. Transverse stationary
19	With the propagation of a longitudinal wave through a material medium, the quantities transmitted in the propagation direction are	A. Energy, momentum and mass B. Energy C. Energy and mass D. Energy and linear momentum
20	The temperature at which the speed of sound becomes double as was at 27°C is	A. 273°C B. 0°C C. 927°C D. 1027°C