ECAT Physics Chapter 8 Waves

Sr	Questions	Answers Choice
1	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
2	Through which character we can distinguish the light waves from sound waves	A. Interference B. Refraction C. Polarization D. Reflection
3	It is possible to recognize a person by hearing his voice even if he is hidden behind a solid wall. This is due to the fact that his voice	A. Has a definite pitch B. Has a definite quality C. Has a definite capacity D. Can penetrate the wall
4	When a body is performing S.H.M., its acceleration is	A. inversely proportional to the displacement B. directly proportional to the applied force C. directly proportional to the amplitude D. directly proportional to the displacement but in opposite direction
5	Which one of the following wave motions is transverse:	A. Wave motion produced in water when a piece of stone is thrown into it B. Pulling of weight hanging vertically with a spiral spring C. Both of these D. None of these
6	Transverse waves can be set up:	A. Solids B. Liquids C. Gases D. All of them
7	If a freely oscillating system is subjected to an external force, then	A. free vibrations will take place B. the body will move with its natural frequency C. forced vibrations will take place D. none of them
8	Energy is not carried by	A. Transverse progressive waves B. Longitudinal vibration C. Stationary waves D. Electromagnetic
9	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
10	The wave motion set up in any medium depends upon:	A. Elasticity B. Inertia C. Density D. All of these
11	When a mass 'm' is pulled slowly, the spring stretches by an amount x_o, then the work done will be	A. W=Kx_o B. W=1/2Kx_o C. W=1/2Kx²_o D. W=4Kx_o
12	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
13	Acceleration of the mass at any instant is given by	A. a=k/m x B. a= - m/k x C. a = - k/m x D. a=m/k x
		A. Longitudinal progressive

14	The waves moving from a sitar to a listener in air are	B. Longitudinal stationary C. Transverse progressive D. Transverse stationary
15	A swing has	A. one natural frequency B. two natural frequencies C. three natural frequencies D. four natural frequencies
16	Laplace formula is derived from	A. Isothermal change B. Adiabatic change C. Isobaric change D. None of these
17	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
18	If the mass of the simple pendulum becomes double, its time period	A. increase B. decreases C. remains constant D. none of them
19	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
20	Two sound waves of slightly different frequencies propagating in the same direction produce beats due to	A. Interference B. Diffraction C. Polarization D. Refraction