

ECAT Physics Chapter 8 Waves

Sr	Questions	Answers Choice
1	Decibel is unit of	A. Intensity of light B. x-ray radiation capacity C. sound loudness D. Energy of radiation
2	If the external driving force is periodic with a period comparable to the natural period of the oscillator, then we get	A. diffraction B. beat C. interference D. resonance
3	The distance covered by the wave during one period is called its:	A. Wave number B. Frequency C. Wavelength D. Time period
4	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
5	The waves produced in a microwave oven have wavelength.	A. 12 mm B. 12 cm C. 12 m D. 12 mm
6	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
7	The instantaneous velocity of a body moving along a circle is directed	A. along the radius B. along the tangent C. away from the circle D. none of them
8	Which of the following changes at an antinode in a stationary wave?	A. Density only B. Pressure only C. Both pressure and density D. Neither pressure nor density
9	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}
10	The number of vibrating body at any instant from its equilibrium position is called	A. displacement B. frequency C. amplitude D. time period
11	Of the following, the option _____ reminds of longitudinal waves.	A. Sound waves B. Heat waves C. Electromagnetic waves D. Light waves
12	If 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°

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D. 180

13	The waves in which the particles of the medium are displaced in a direction perpendicular to the direction of propagation of waves are known as	A. longitudinal waves B. transverse waves C. non-mechanical waves D. none of them
14	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. $P.E = Kx^2$
15	A wave, which transfer energy by moving away from the source of disturbance is called a	A. progressive wave B. travelling wave C. both of them D. none of them
16	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
17	At 'resonance' the transfer of energy from deriving source to the oscillator is	A. maximum B. minimum C. zero D. none of them
18	The distance covered by the wave in one second is:	A. Wave number B. Wave length C. Frequency D. Wave speed
19	A body is executing free vibrations when it oscilates	A. with the interference of an external force B. without the interference of an external force C. with the interference of an internal force D. none of them
20	In compressional wave,the layer of medium having reduced pressure is called:	A. Compression B. Elasticity C. Node D. Rarefaction