

ECAT Pre General Science Physics Chapter 7 Oscillations

Sr	Questions	Answers Choice
1	The S.I unit of frequency is	A. Vibrations s ⁻² B. Ms ⁻¹ C. Hertz D. s ⁻¹
2	A body of mass 0.031 kg attached to one end of a spring of spring constant 0.3 N/m, then time period of spring mass system will be:	A. 1.5 sec B. 2.0 sec C. 2.3 sec D. 2.5 sec
3	In SHM, the acceleration is _____ when velocity is _____:	A. Zero, smallest B. Smallest, zero C. Zero, zero D. Zero, greatest
4	The string of a simple pendulum should be:	A. Heavy B. Extensible C. In-extensible D. None of these
5	If time period of a pendulum is doubled by increasing its length, then its frequency will	A. Also be doubled B. Become half C. Become one fourth D. Becomes four times
6	When a mass attached to a spring begins to move left or right from the equilibrium position, its P.E.:	A. Increases B. Decreases C. Remains constant D. None of these
7	The body oscillates due to _____ accelerates and overshoots the rest position due to _____:	A. Applied force , inertia B. Restoring force, friction C. Frictional force, inertia D. Restoring force, inertia
8	If a given spring of spring constant K is cut into two identical segments, the spring constant of each segment is:	A. K/2 B. 2 K C. 4 K D. None of these
9	The unit of spring constant is:	A. J-sec B. Metre C. Nm ⁻¹ D. None of these
10	Hertz is unit of:	A. Time period B. Displacement C. Amplitude D. Frequency
11	An angle of 180° in circular motion is equivalent to _____ in SHM.	A. Half the vibration B. One vibration C. 3/4th of a vibration D. None of these
12	Amplitude is the displacement of the vibrating body from:	A. One extreme position to the other extreme position B. Mean position any one extreme position C. Both A and B are correct D. None of these
13	Amplitude in SHM is equivalent to _____ in circular motion:	A. Diameter B. Radius C. Circumference D. None of these
14	A body with frequency would complete one vibration in:	A. f seconds B. 1/f seconds C. 1 second D. f ² second
15	SHM is type of _____ motion	A. Vibratory B. Linear C. Circular D. None of these

		D. None
16	The time taken to complete one vibration is called:	A. Frequency B. Amplitude C. Time D. Time period
17	Vibratory motion is always under	A. Applied force B. Restoring force C. Periodic force D. Gravitational force
18	If a mass of 10 gm is suspended from a spring of $k = 9.8 \text{ Nm}^{-1}$, then the extension will be:	A. 1 cm B. 1 m C. 10 mm D. None of these
19	Which of the following forces is responsible for SHM	A. Applied force B. Restoring force C. Fractional force D. Elastic force
20	The displacement of body executing SHM is	A. $x = a \cos \omega t$ B. $x = a \sin \omega t$ C. $x = a \sin^2 \omega t$ D. Both A, B