

ECAT Physics Chapter 7 Oscillations

Sr	Questions	Answers Choice
1	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
2	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
3	A spring of constant $k = 0.4 \text{ N m}^{-1}$ is to be extended through 10 cm at a place where $g = 10 \text{ m sec}^{-2}$. The mass to be suspended should be:	A. 4 gms B. 0.4 gm C. 40 gms D. None of these
4	Velocity of particle executing SHM will be maximum at	A. Extreme position B. Mean position C. b/w mean and extreme D. None
5	If a given spring of spring constant k is cut into two indentical segments, the spring constant of each segment is:	A. k/2 B. 2 k C. 4 k D. None of these
6	Distance covered during one vibration of an oscillating body in terms of amplitude A is:	A. A B. 2 A C. 3 A D. 4 A
7	In SHM, the acceleration is when velocity is:	A. Zero, smallest B. Smallest, zero C. Zero, zero D. Zero, greatest
8	The graph showing the variation of displacement with time is a	A. Sine curve B. Straight line C. Parabola D. None of these
9	A body with frequency would complete one vibration in:	A. f seconds B. 1/f seconds C. 1 second D. f ² second
10	The restoring force is and opposite tot he applied force within	A. Equal, Elastic limit B. Different, The walls of the laboratory C. Different, Elastic limit D. None of these
11	The time period of a simple pendulum is independent of its:	A. Length B. Mass C. Value of g D. Both A and B
12	The restoring force is and opposite to the applied force within,:	A. Equal, elastic limit B. Different, the walls of the laboratory C. Different, elastic limit D. None of these
13	When a body is vibrating, the displacement from mean position	A. Increases with time B. Decreases with time C. Changes with time D. None of these
14	The number of vibration in two seconds can be expressed as of frequency of vibration is f:	A. f B. 2 f C. 3 f D. 1/2 f
15	Amplitude in SHM is equivalent to in circular motion:	A. Diameter B. Radius C. Circumference

		D. None of these
16	Free oscillations are always produced by:	A. An applied forceB. Gravitational forceC. Restoring force and inertiaD. Inertia only
17	The graph showing the variation of displacement with time is a:	A. Sine curve B. Straight line C. Parabola D. None of these
18	A particle moving uniformly along circle its projection along diameter performs	A. Linear motion B. Projectile motion C. SHM D. Rotatory motion
19	When a body is vibrating, the displacement from mean position:	A. Increases with time B. Decreases with time C. Changes with time D. None of these
20	SHM is type of motion	A. Vibratory B. Linear C. Circular D. None