

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 maximum distance of body from mean position when body is executing SHM is called	A. Time period B. Displacement C. Amplitude D. Frequency
3	The unit of spring constant is	A. J-sec B. Metre C. Nm ⁻¹ D. None of these
4	Amplitude in SHM is equivalent to in circular motion:	A. Diameter B. Radius C. Circumference D. None of these
5	Which one of the following is an example of SHM	A. Motion in a plane B. Motion in a swing C. Motion in a car D. None of these
6	In SHM, the acceleration is when velocity is:	A. Zero, smallest B. Smallest, zero C. Zero, zero D. Zero, greatest
7	Free oscillations are always produced by:	A. An applied force B. Gravitational force C. Restoring force and inertia D. Inertia only
8	The SI unit of spring constant is identical with that of	A. Force B. Surface tension C. Pressure D. Loudness
9	The displacement of body executing SHM is	A. x _o coswt B. x _o sinwt C. x _o sin ² wt D. Both A, B
10	An oscillating body oscillates due to:	A. Applied force B. Restoring force C. Frictional force D. None of these
11	The time taken to complete one vibration is called:	A. Frequency B. Amplitude C. Time D. Time period
12	The wave form of SHM is	A. Pulsed wave B. Square wave C. Triangular waved D. Sine wave
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	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
15	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
16	A particle is moving along a circular path with uniform speed. Its projection will executealong the of the circle:	A. Circular motion, circumference B. Vibratory, chord C. SHM, diameter D. SHM, circumference
17	The string of a simple pendulum should be:	A. Heavy B. Extensible C. In-extensible D. None of these
18	The S.I unit of frequency is	A. Vibrations s ⁻² B. Ms ⁻¹ C. Hertz D. s ⁻¹
19	A spring of constant $k = 0.4 \text{ N m}^{-1}_{is to be extended thorugh 10 cm at a place where g = 10 m sec}^{-2}$. The mass to be suspended should be:	A. 4 gms B. 0.4 gms C. 40 gms D. None of these
20	If there identical strings each of constant K are hooked together the spring constant of resultant spring will be:	A. 3 K B. 2 K C. K/4 D. K/3