

Physics ECAT Pre Engineering Chapter 7 Oscillations

Sr	Questions	Answers Choice
1	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 gms C. 40 gms D. None of these
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	Amplitude in SHM is equivalent to _____ in circular motion:	A. Diameter B. Radius C. Circumference D. None of these
4	Which of the following forces is responsible for SHM	A. Applied force B. Restoring force C. Fractional force D. Elastic force
5	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
6	Second's pendulum is the pendulum whose time period is:	A. 1 second B. 2 second C. 3 second D. None of these
7	Velocity of particle executing SHM will be maximum at	A. Extreme position B. Mean position C. b/w mean and extreme D. None
8	An oscillating body oscillates due to:	A. Applied force B. Restoring force C. Frictional force D. None of these
9	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
10	The maximum distance of body from mean position when body is executing SHM is called	A. Time period B. Displacement C. Amplitude D. Frequency
11	The restoring force is always directed towards:	A. Rest position B. Equilibrium position C. Mean position D. All of them
12	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
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	To and from motion of a body about its mean position is known as:	A. Translatory motion B. Vibratory motion C. Rotatory motion D. None of these
15	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

16	The displacement of body executing SHM is	<p>A. $x \cos \omega t$ B. $x \sin \omega t$ C. $x \sin^2 \omega t$ D. Both A, B</p>
17	The unit of spring constant is:	<p>A. J-sec B. Metre C. Nm^{-1} D. None of these</p>
18	When quarter of a circle is completed, the phase of vibration is:	<p>A. 90° B. 180° C. 45° D. 360°</p>
19	Amplitude in SHM is equivalent to _____ in circular motion:	<p>A. Diameter B. Radius C. Circumference D. None of these</p>
20	When quarter of a circle is completed, phase of vibration is:	<p>A. 90° B. 180° C. 45° D. 360°</p>