

## ECAT Physics Chapter 7 Oscillations

Sr	Questions	Answers Choice
1	If a force of 0.05 N produces an elongation of 20 mm in a string, then its spring constant will be:	A. $250 \text{ N m}^{-1}$ B. $25 \text{ N m}^{-1}$ C. $2.5 \text{ N m}^{-1}$ D. None of these
2	A particle moving uniformly along circle its projection along diameter performs	A. Linear motion B. Projectile motion C. SHM D. Rotatory motion
3	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
4	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
5	A body with frequency of would complete one vibration in:	A. f seconds B. $1/f$ seconds C. 1 second D. $f^2$ second
6	If the waves produced in a microwave oven are of wave-length 12 cm, then their frequency will be:	A. 2500 MHz B. 0.25 MHz C. 2500 KHz D. None of these
7	Acceleration of body executing SHM is always directed towards	A. Extreme position B. Mean position C. Along the direction of motion D. None
8	The displacement of body executing SHM is	A. $x \cos \omega t$ B. $x \sin \omega t$ C. $x \sin^2 \omega t$ D. Both A, B
9	In vibrational motion(SHM)	A. P.E remains conserved B. Average K.E remain constant C. Neither P.E nor K.E remains constant D. Total energy remains constant
10	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
11	Which of the following quantity for particle executing SHM is non-zero at mean position	A. Force B. Acceleration C. Velocity D. Displacement
12	If a force of 0.05 N produces an elongation of 20 mm in string, then its spring constant will be:	A. $250 \text{ N m}^{-1}$ B. $25 \text{ N m}^{-1}$ C. $2.5 \text{ N m}^{-1}$ D. None of these
13	A particle is moving along a circular path with uniform speed. Its projection will execute _____ along the _____ of the circle:	A. Circular motion, circumference B. Vibratory, chord C. SHM, diameter D. SHM, circumference
14	The string of a simple pendulum should be:	A. Heavy B. Extensible C. In-extensible D. None of these
15	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

		D. None of these
16	The body oscillates due to _____ accelerates and overshoots the rest position due to _____:	A. Applied force, inertial B. Restoring force, friction C. Frictional force, inertial D. Restoring force, inertial
17	Which of the following is an example of SHM(in ideal situations)	A. Motion of simple pendulum B. Motion of horizontal spring man system C. Motion of violin string D. All of these
18	The restoring force is _____ amd 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
19	In SHM, the acceleration is _____ when velocity is _____:	A. Zero, smallest B. Smallest, zero C. Zero, zero D. Zero, greatest
20	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