

## MDCAT Physics Chapter 5 Oscillations Online Test

Sr	Questions	Answers Choice
1	Second pendulum is the pendulum whose time period is:	A. 1 second B. 2 seconds C. 3 seconds D. None of these
2	Pendulums having same lengths will vibrate with:	A. Same frequency B. Different periods C. Different frequencies D. None of these
3	The time period of a simple pendulum is independent of its:	A. Length B. Mass C. Value of g D. Both A and B
4	if ratio of time periods of two pendulum is 1:2 then the ratio of their length will be:	A. 4 : 1 B. 1 : 2 C. 1 : 4 D. None of these
5	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
6	While determining the time period of simple pendulum, we keep the amplitude:	A. Large B. Small C. Zero D. None of these
7	Which of the following is responsible for the motion of the bob of the simple pendulum:	A. $mg \sin \theta$ B. Tension T C. $mg \cos \theta$ D. mg
8	In SHM there is always a constant ratio between displacement of a body and its:	A. Velocity B. Period C. Mass D. Acceleration
9	In SHM, the acceleration is _____ when velocity is _____.	A. Zero, smallest B. Smallest, zero C. Zero, Zero D. Zero, greatest
10	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
11	The change in length of the spring in a spring -mass system is directly proportional to:	A. Frequency B. Applied force C. Velocity D. None of these
12	Half wavelength corresponds to:	A. $0^\circ$ B. $90^\circ$ C. $180^\circ$ D. $360^\circ$
13	The unit of spring constant is:	A. J-Sec B. Metre C. $\text{Nm}^{-1}$ D. None of these
14	An object in SHM will have maximum speed when its displacement from equilibrium position is :	A. Infinity B. Maximum C. Zero D. Minimum
15	The string of a simple pendulum should be	A. Heavy B. Extensible C. Inextensible D. None of these

16	The time period of a simple pendulum is 1 second. If $g = 9.8 \text{ m/sec}^2$ , then length of the simple pendulum will be:	<ul style="list-style-type: none"> <li>A. 380 m</li> <li>B. 0.25 m</li> <li>C. 2.5 m</li> <li>D. None of these</li> </ul>
17	To and fro motion of a body about its mean position is known as:	<ul style="list-style-type: none"> <li>A. Translatory motion</li> <li>B. Vibratory motion</li> <li>C. Rotatry motion</li> <li>D. None of these</li> </ul>
18	When quarter of a cycle is completed , the phase of vibration is:	<ul style="list-style-type: none"> <li>A. <math>90^\circ</math></li> <li>B. <math>180^\circ</math></li> <li>C. <math>45^\circ</math></li> <li>D. <math>360^\circ</math></li> </ul>
19	Hertz is unit of :	<ul style="list-style-type: none"> <li>A. Time period</li> <li>B. Displacement</li> <li>C. amplitude</li> <li>D. Frequency</li> </ul>
20	In case of spring-mass system, the ratio of the applied force to the displacement is called:	<ul style="list-style-type: none"> <li>A. Planck's constant</li> <li>B. Decay constant</li> <li>C. Spring constant</li> <li>D. 4 Acceleration</li> </ul>