ECAT Pre General Science Physics Chapter 7 Oscillations

Sr	Questions	Answers Choice
1	An angle of 180° in circular motion is equivalent to _____ in SHM.	A. Half the vibration B. One vibration C. 3/4th of a vibration D. None of these
2	The S.I unit of frequency is	A. Vibrations s⁻² B. Ms⁻¹ C. Hertz D. s⁻¹
3	Second's pendulum is the pendulum whose time period is:	A. 1 second B. 2 second C. 3 second D. None of these
4	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
5	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
6	A particle executes SHM with frequency. The frequency with which its K.E oscillates is	A. f/2 B. 2f C. f D. 4f
7	The graph showing the variation of displacement with time is a:	A. Sine curve B. Straight line C. Parabola D. None of these
8	The unit of spring constant is:	A. J-sec B. Metre C. Nm⁻¹ D. None of these
9	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
10	The number of vibrations in two seconds can be expressed as_____if frequency of vibration is f.	A. f B. 2 f C. 3 f D. 1/2 f
11	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
12	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
13	The SI unit of spring constant is identical with that of	A. Force B. Surface tension C. Pressure D. Loudness
14	The restoring force is always directed towards:	A. Rest position B. Equilibrium position C. Mean position D. All of them
15	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. Vibrator, chord C. SHM, diameter D. SHM, circumference

16	Acceleration of body executing SHM is always directed towards	A. Extreme position B. Mean position C. Along the direction of motion D. None
17	Velocity of particle executing SHM will be maximum at	A. Extreme position B. Mean position C. b/w mean and extreme D. None
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	When quarter of a circle is completed, phase of vibration is:	A. 90<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">° B. 180<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">° C. 45<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">° D. 360<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">°
20	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