ECAT Physics Chapter 7 Oscillations

Sr	Questions	Answers Choice
1	In SHM, the acceleration is _____ when velocity is _____:	A. Zero, smallest B. Smallest, zero C. Zero, zero D. Zero, greatest
2	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
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	To and fro motion of a body is about its mean position is known as:	A. Translatory motion B. Vibratory motion C. Rotatory motion D. None of these
5	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
6	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
7	Which of the following quantity for particle executing SHM is non-zero at mean position	A. Force B. Acceleration C. Velocity D. Displacement
8	If a force of 0.05 N produces an elongation of 20 mm in string, then its spring constant will be:	A. 250 N m⁻¹ B. 25 N m⁻¹ C. 2.5 N m⁻¹ D. None of these
9	The unit of spring constant is	A. J-sec B. Metre C. Nm⁻¹ D. None of these
10	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
11	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
12	The S.I unit of frequency is	A. Vibrations s⁻² B. Ms⁻¹ C. Hertz D. s⁻¹
13	The graph showing the variation of displacement with time is a:	A. Sine curve B. Straight line C. Parabola D. None of these
14	A spring of constant k = 0.4 N $m^{-1}$is to be extended through 10 cm at a place where g = 10 m sec^{-2}. The mass to be suspended should be:	A. 4 gms B. 0.4 gm C. 40 gms D. None of these
15	The wave form of SHM is	A. Pulsed wave B. Square wave C. Triangular waved

		D. Sine wave
16	The SI unit of spring constant is identical with that of	A. Force B. Surface tension C. Pressure D. Loudness
17	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
18	A body with frequency would complete one vibration in:	A. f seconds B. 1/f seconds C. 1 second D. f²second
19	An object undergoes SHM. Its maximum equilibrium positions:	A. Maximum B. Half of its maximum value C. Zero D. None
20	Hertz is unit of:	A. Time period B. Displacement C. Amplitude D. Frequency