ECAT Physics Chapter 7 Oscillations

Sr	Questions	Answers Choice
1	The string of a simple pendulum should be:	A. Heavy B. Extensible C. In-extensible D. None of these
2	Second's pendulum is the pendulum whose time period is:	A. 1 second B. 2 second C. 3 second D. None of these
3	An object in SHM will have maximum speed when its displacement from equilibrium position is:	A. Infinity B. Maximum C. Zero D. Minimum
4	Acceleration of body executing SHM is always directed towards	A. Extreme position B. Mean position C. Along the direction of motion D. None
5	The graph showing the variation of displacement with time is a	A. Sine curve B. Straight line C. Parabola D. None of these
6	The restoring force is always directed towards:	A. Rest position B. Equilibrium position C. Mean position D. All of them
7	The S.I unit of frequency is	A. Vibrations s⁻² B. Ms⁻¹ C. Hertz D. s⁻¹
8	Velocity of particle executing SHM will be maximum at	A. Extreme position B. Mean position C. b/w mean and extreme D. None
9	When a mass attached to a spring begins to move left or right from the equilibrium position, its P.E.:	A. Increases B. Decreases C. Remains constant D. None of these
10	Free oscillations are always produced by:	A. An applied force B. Gravitational force C. Restoring force and inertia D. Inertia only
11	The SI unit of spring constant is identical with that of:	A. Force B. Surface tension C. Pressure D. Loudness
12	The graph showing the variation of displacement with time is a:	A. Sine curve B. Straight line C. Parabola D. None of these
13	The acceleration of body executing SHM is directly proportional to	A. Applied force B. Amplitude C. Displacement D. Frictional force
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	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
16	The unit of spring constant is:	A. J-sec B. Metre C. Nm⁻¹ D. None of these
17	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
18	If a force of 0.05 N produces an elongation of 20 mm in a 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
19	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
20	Amplitude in SHM is equivalent to _____ in circular motion	A. Diameter B. Radius C. Circumference D. None of these