ECAT Pre General Science Physics Chapter 7 Oscillations

Sr	Questions	Answers Choice
1	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
2	The graph showing the variation of displacement with time is a	A. Sine curve B. Straight line C. Parabola D. None of these
3	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
4	Amplitude in SHM is equivalent to _____ in circular motion	A. Diameter B. Radius C. Circumference D. None of these
5	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
6	The restoring force is _____ and opposite tot he applied force within _____	A. Equal, Elastic limit B. Different, The walls of the laboratory C. Different, Elastic limit D. None of these
7	Vibratory motion is always under	A. Applied force B. Restoring force C. Periodic force D. Gravitational force
8	The unit of spring constant is:	A. J-sec B. Metre C. Nm^{-1} D. None of these
9	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
10	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
11	When quarter of a cycle is completed, the phase of vibration is:	A. 90° B. 180° C. 45°

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D. 360°

#	Question	Options
12	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
13	The body oscillates due to _____ accelerates and overshoots the rest position due to _____:	A. Applied force , inertia B. Restoring force, friction C. Frictional force, inertia D. Restoring force, inertia
14	If a given spring of spring constant K is cut into two identical segments, the spring constant of each segment is:	A. K/2 B. 2 K C. 4 K D. None of these
15	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
16	The maximum distance of body from mean position when body is executing SHM is called	A. Time period B. Displacement C. Amplitude D. Frequency
17	Amplitude in SHM is equivalent to _____ in circular motion:	A. Diameter B. Radius C. Circumference D. None of these
18	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
19	A spring of constant k = 0.4 N m^{-1} is to be extended thorugh 10 cm at a place where g = 10 m sec^{-2}. The mass to be suspended should be:	A. 4 gms B. 0.4 gms C. 40 gms D. None of these
20	The S.I unit of frequency is	A. Vibrations s^{-2} B. Ms^{-1} C. Hertz D. s^{-1}