

Physics ECAT Pre Engineering 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	Hertz is unit of:	A. Time period B. Displacement C. Amplitude D. Frequency
3	A body of mass 0.031 kg attached to one end of a spring of spring constant 0.3 N/m, then time period of spring mass system will be:	A. 1.5 sec B. 2.0 sec C. 2.3 sec D. 2.5 sec
4	When quarter of a circle is completed, phase of vibration is:	A. 90° B. 180° C. 45° D. 360°
5	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
6	The time taken to complete one vibration is called:	A. Frequency B. Amplitude C. Time D. Time period
7	Amplitude in SHM is equivalent to _____ in circular motion:	A. Diameter B. Radius C. Circumference D. None of these
8	Which of the following forces is responsible for SHM	A. Applied force B. Restoring force C. Fractional force D. Elastic force
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

10 If the waves produced in a microwave oven are of wave-length 12 cm, then their frequency will be:
A. 2500 MHz
B. 0.25 MHz
C. 2500 KHz
D. None of these

11 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

12 The time period of a simple pendulum is independent of its:
A. Length
B. Mass
C. Value of g
D. Both A and B

13 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

14 The acceleration of body executing SHM is directly proportional to
A. Applied force
B. Amplitude
C. Displacement
D. Frictional force

15 Which of the following quantity for particle executing SHM is non-zero at mean position
A. Force
B. Acceleration
C. Velocity
D. Displacement

16 The number of vibrations in two seconds can be expressed as _____ if frequency of vibration is f .
A. f
B. $2f$
C. $3f$
D. $1/2f$

17 The graph showing the variation of displacement with time is a
A. Sine curve
B. Straight line
C. Parabola
D. None of these

18 In SHM, the acceleration is _____ when velocity is _____:
A. Zero, smallest
B. Smallest, zero
C. Zero, zero
D. Zero, greatest

19 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

20 The SI unit of spring constant is identical with that of
A. Force
B. Surface tension
C. Pressure
D. Loudness