

## ECAT Pre General Science Physics Chapter 7 Oscillations

Sr	Questions	Answers Choice
1	The number of vibration in two seconds can be expressed as _____ of frequency of vibration is $f$ :	A. $f$ B. $2f$ C. $3f$ D. $1/2f$
2	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
3	Acceleration of body executing SHM is always directed towards	A. Extreme position B. Mean position C. Along the direction of motion D. None
4	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
5	To and from motion of a body about its mean position is known as:	A. Translatory motion B. Vibratory motion C. Rotatory motion D. None of these
6	Which of the following quantity for particle executing SHM is non-zero at mean position	A. Force B. Acceleration C. Velocity D. Displacement
7	Hertz is unit of:	A. Time period B. Displacement C. Amplitude D. Frequency
8	The graph showing the variation of displacement with time is a:	A. Sine curve B. Straight line C. Parabola D. None of these
9	In SHM, the acceleration is _____ when velocity is _____:	A. Zero, smallest B. Smallest, zero C. Zero, zero D. Zero, greatest
10	An object in SHM will have maximum speed when its displacement from equilibrium position is:	A. Infinity B. Maximum C. Zero D. Minimum
11	The number of vibrations in two seconds can be expressed as _____ if frequency of vibration is $f$ .	A. $f$ B. $2f$ C. $3f$ D. $1/2f$
12	The SI unit of spring constant is identical with that of	A. Force B. Surface tension C. Pressure D. Loudness
13	The wave form of SHM is	A. Pulsed wave B. Square wave C. Triangular wave D. Sine wave
14	If a force of $0.05\text{ N}$ produces an elongation of $20\text{ mm}$ in a string, then its spring constant will be:	A. $250\text{ N m}^{-1}$ B. $25\text{ N m}^{-1}$ C. $2.5\text{ N m}^{-1}$ D. None of these
15	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

D. None of these

16 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

17 Free oscillations are always produced by:

- A. An applied force
- B. Gravitational force
- C. **Restoring force and inertia**
- D. Inertia only

18 An angle of  $180^\circ$  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 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

20 Which of the following forces is responsible for SHM

- A. Applied force
- B. **Restoring force**
- C. Fractional force
- D. Elastic force