

PPSC Physics Chapter 1 MECHANICS

Sr	Questions	Answers Choice
1	Simple harmonic motion may be assumed as a projectio of uniform circular motion along a	A. Diagonal B. hypotenuse C. Diameter D. Radius
2	Restoring force in SHM is.	A. Centripetal B. Frictional C. Conservative D. Non conservative
3	The Circular motion of a particle with constant speed is.	A. Periodic and SHM B. Periodic but not SHM C. linear and SHM D. Neither periodic nor SHM
4	The total energy of body executing SHM is directly proportional to.	A. Amplitude B. Square of amplitude C. Square root of amplitude D. Reciprocal of amplitude
5	The angular frequency time period and frequency of a simple pendulum depends only on the.	A. Mass and amplitude B. Mass and gravitational acceleration C. Amplitude and frequency D. Length and gravitational acceleration.
6	The angular frequency time period and frequency in SHM not depend upon.	A. Mass B. Force constant C. Amplitude D. Restoring force
7	In simple harmonic motion we have the conservation of.	A. K.E. B. P.E C. Total energy D. Electrical energy
8	When damping is small amplitude of vibrational resonance will be	A. small B. Large C. Infinite D. Un changed
9	A simple pendulum suspended from the ceiling of a lift has a time period T when the lift falls freely the time period of the pendulum will become	A. Zero B. T/9.8 C. 9.8 T D. Infinity
10	A spring of force constant k is cut into three equal parts. The force constant of each part will be.	A. k B. 3 k C. k/3 D. k/2
11	Restoring force in the SHM is	A. Centripetal B. Frictional C. Conservative D. Non conservative
12	The curve between the acceleration and velocity of a body in SHM is a	A. Circle B. Ellipse C. Square D. Parabola
13	The graph between restoring force and time in SHM is a	A. Straight line B. Parabola C. Sine wave D. Circle
14	What is the number of degree of freedom of an oscillating simple gravity pendulum	A. 1 B. 2 C. 3 D. 4
15	Which of the following quantities associated with SHM does not vary periodically.	A. velocity B. Displacement C. Acceleration D. Phase

D. Total energy

16 The SI unit of spring constant is identical with that of.

- A. Force
- B. Pressure
- C. Surface tension
- D. Loudness

17 Frequency of second pendulum is.

- A. 0.5 Hz
- B. 1.0 Hz
- C. 1.5 Hz
- D. 2.0 Hz

18 If mass attached to a spring increases then its time period.

- A. Increases
- B. Decreases
- C. Remains constant
- D. Decreases slightly

19 The time period of a simple pendulum is independent of its.

- A. Length
- B. Mass
- C. Acceleration due to gravity
- D. Restoring force

20 If length of second pendulum becomes four times than its time period will become

- A. Two times
- B. Four times
- C. Six times
- D. Eight times